

## METAL TIGER DELIVERS MAIDEN JORC RESOURCE IN BOTSWANA

Metal Tiger (MTR.L) announced a further milestone this week, with the announcement of a maiden JORC (copper and silver) resource on its JV project with MOD resources on the **Kalahari Copper Belt**. The definition of a resource statement within 6 months of an initial discovery on just one target area and high proportion (64%) of the total resource tonnes defined within the higher category 'Indicated' is a significant achievement. It underlines the target rich, highly prospective and elephant country nature of the JV acreage. In addition it also reflects the expertise of the JV exploration team and ability to maximise the amount of metres drilled for funds available. We look forward to further resource targets being proved up, such as those on the three other target areas and potentially new ones, and details of the scoping study being published, which may establish the economic viability of a low cost open pit mine operation. It must be remembered the licenses lie adjacent to copper/silver deposits and mine workings formerly held by Discovery Metals that attracted US\$830m acquisitive interest from a Chinese sovereign wealth fund in 2012. A stronger resource priced landscaped may re-awaken such interest.

Elsewhere in the MTR fold, following the recent signing of MTR's commercial mines JV Agreement over **Boh Yai** and **Song Toh** in Thailand, further newsflow is anticipated as the Group moves through the permitting and mine re-commissioning process. The market does not seem to have priced in the significance and potential upside of this deal, in which an 80% interest is to be acquired for a small consideration of \$6.8m (including permitting costs), along with a modest CAPEX to enter production.

Active exploration and project advancement elsewhere in the MTR project portfolio, such as the tungsten and gold prospective interests in **Spain** and near term gold tailings production opportunity in Russia add to an extensive project mix. Unlike many other junior resource companies, MTR is well financed with over £5m in cash and liquid investments. MTR's management recently outlined its corporate objective to pay dividends and/or distribute portfolio interests to shareholders, where certain investments within the portfolio can be crystallised. This should become technically possible, once the formality of a capital reduction is approved at the General Meeting next month.

Elsewhere, we look forward to new acquisition and JV projects being secured, as hinted at in the recent interim results statement (30 Sep 16'), "*The Company also has a burgeoning pipeline of new opportunities which as yet have not been made public.*"

## VALUATION RATIONALE & OPINION

The announcement of a JORC resource in Botswana has enabled us to re-evaluate some of the risk factors in our estimated valuation, such as the 'chance of discovery' risk which is now removed, and 'size of discovery' risk which is improved from 40% to 45%. With the project now advanced to the next stage in the development cycle, we have also factored in MTR's indirect project interest (3.36%) held via its 4.8% equity investment in MOD. Our valuation for Botswana is thus improved by 57% to \$57.1m (prev. \$36.3m). More potential discoveries and findings of a scoping study could enhance our valuation further.

Thailand's project value over the Boh Yai and Song Toh mines remains at the same amount in US dollar terms at \$35.3m. The valuation was boosted in our last report in early September, following the signing of the Thailand commercial mines agreement, enabling an 80% interest to be applied to our discounted risked NPV estimates, compared to a previous 10% option value.

Within the 'Asset Trading' division, the value of cash and direct investments held comes to £5.4m. With the Black-Scholes value of warrants (£1.6m) added, along with the cost value of other projects such as the Spanish and Thailand exploration permits (£1.3m) and option value of Russian project (£1.3m), we arrive at a final figure of **£79.5m**, representing a 25% valuation increase since our last note (£63.5m). This equates to a **price per share of 13.0p** (prev. 10.4p) and 12-month target share price.

MTR continues to be a well financed and well run company, holding the prospect of further near term high impact newsflow, such as potential for further discoveries elsewhere on the MOD JV licence package capable of being proved up to the JORC level, development news on the Thailand mines JV and also project or/and investment progress elsewhere in the wider Group. To this end, we continue to recommend **Metal Tiger plc** as a '**Buy**'.

## BUY#

### Target Price 13.0p\*

(prev 10.4p - 7 Sept '16)

#### Key Data

Price:	3.20p
52 Week High/Low	6.40p/0.71p
Shares in Issue:	609.9m
Market Cap:	£19.5m

Cash + Direct Investments - est.  
£5.4m (22 Aug 16')

#### Profile

Ticker:	MTR.L
Market:	AIM All Share
Sector:	Basic Resources
Broker:	SI Capital
Nomad:	Spark Advisory

#### Activities

Exploration, development and investment in global mineral project/companies.

#### Project Overview

Botswana (*Copper & Silver*)  
Thailand (*Gold, Copper, Antimony, Silver, Lead & Zinc*)  
Spain (*Gold & Tungsten*)  
Russia (*Gold*)  
Tanzania (*Gold & Uranium*)  
+Direct Investments

#### Recent Placings

Date - Amount - Placing Price + Warrants  
(issues terms & exercise price)  
Aug '16 - £1.1m @ 3.85p, 1f1 W@7.7p  
Apr '16 - £1m @ 4.5p, 1f1 W@9.0p

#### Est. Project/Asset Valuations

Botswana MOD JV	£43.9m
Thailand JVA	£27.1m
Russia JV earn in	£1.3m
Other Projects	£1.3m
Investments & Cash	£5.4m
Warrant Holdings	£1.6m

#### Board Directors

Terry Grammer (Non Ex Chairman)  
Paul Johnson (CEO)  
Jordan Luckett (Chief Tech Officer)  
Alex Borrelli (Non Ex)

#### Shareholdings (>3%)

Terry Grammer (Dir)	6.3%
Charles Hall	3.8%
South East Asia Mining	3.7%
Blackstar Gold Pty Ltd**	3.3%
Stephen Pearce	3.2%

\*\* Metal Tiger Chairman Terry Grammer is a director of Blackstar Gold Pty Ltd.

\* Metal Tiger Plc is a Reseach Client of Dowgate Capiital Stockbrokers.

## MTR Introduction & Background

MTR is organised into two main divisions, namely '**Metal Projects**', which forms the core part of the Group, that contains direct JV interests being pursued such as those in Botswana, Thailand and Spain. '**Asset Trading**' contains MTR's equity, warrant and royalty investments. The division's objective is to generate cash flow and capital gains that can be re-invested in the Group's project based activities and thus reduce the reliance on raising funds through equity placings. A newer part of the plc is 'Metal Tiger Australia', which was established in August '16 to provide technical services across Metal Tiger Group. Given the management's wide range of contacts within the mining and exploration sector, they have been keen to link up with other resource sector companies and organisations in partnerships and deals. A recent example is the signing of a 'Memorandum of Understanding' with Saudi Arabian based Al-Sharif Group to explore mining and related financing opportunities. Al-Sharif Group provides various energy and distribution services in Saudi Arabia.

The current Group and re-focused strategy began to shape in June 2014, with the appointment of **Paul Johnson** and Cameron Parry to the Board, along with the change of name from Brady Exploration plc. Initially Cameron Parry headed up the Group as CEO, with Paul Johnson later assuming the CEO role in February 2016. Cameron Parry stepped down as MTR Director in July 2016, after taking up the post of CEO at investee company Kolar Gold. Mr Johnson has been an active investor for over 20 years and co-founded investors communication service MiningMaven. A few months after Mr Johnson become a director of MTR, **Terry Grammer** joined the Board of MTR as Chairman & Chief Geologist. Mr Grammer is famed with assisting several companies in finding a number of major discoveries such as the Australian Cosmos nickel (1997) and Nova nickel and copper deposits (2012). The advancement of Nova by Sirius Resources subsequently resulted in its eventual takeover for A\$1.8bn. He also co-founded Western Areas Ltd, which discovered extensive nickel mineralisation below an underground mine at Flying Fox, which subsequently became one of the highest grade nickel mines in the world and helped propel Western Areas into an ASX top 200 company. Non executive director **Alex Borrelli**, the current Chairman of AIM listed BMR Group plc, previously sat on the Board of the old Brady Exploration plc. MTR strengthened its Board in August 2016, with the appointment of **Jordan Lockett** as Chief Technical Officer, who previously held the posts of Geology Manager at Equigold NL and Exploration Manager at Jindalee Resources Limited and Energy Metals Limited.

## DIRECT PROJECTS

### BOTSWANA (Copper, Silver) – 30% JV earn in

In partnership with ASX listed **MOD Resources Limited** (ASX:MOD), MTR has a direct 30% interest in 14 prospective licences covering 6,300 sq km of the Kalahari Copper Belt in Botswana. To secure its direct 30% interest, MTR paid an initial payment of US\$100,000. The JV licence interests were acquired from administrators of Discovery Metals Limited in late 2015. MTR has been a serial investor in MOD through fund raising and market purchases, acquiring a total 67.83m shares (4.76% of MOD) for a consideration of \$597K, whilst being issued with 29.2m warrants (ex 1c to May '18) and 1.5m options (ex 6c to April '19).

Up to 19 target areas are being drilled in a Phase 1 programme, four of which lie on the MOD/MTR JV permits (Map 1). The best results have come from **Target Area 3 (T3)**, the most notable grades achieved from drill hole M0-G-16D, in which a significant intersection of 27.5 metres @ 3.2 copper, along with silver and molybdenum mineralisation. A smaller section in the same hole returned a bonanza style grade of 45.4% copper over 0.8 metres. Recent assays announced on 2 August '16, include an intersection of 45.3 metres @ 2.0% copper (MO-G-25D hole).

On 26 September 2016, the project partners reported on a maiden JORC resource on their JV properties on T3, as shown in Table 1, that outlines the resource estimate at the 1% cut-off level. A higher tonnage (28.36m), but lower grade (1.24% copper and 15.7 g/t silver) was defined at the lower cut-off grade of 0.5% copper.

The resource estimate was completed just six months after the discovery on T3 and moreover contained a high percentage (64%) of the total resource within the 'Indicated' category and a high proportional silver content. The resource remains open down dip and to the south-west of current drilling. MOD Resources MD Julian Hanna commented on the resource definition, "The unusual geometry of the T3 deposit with wide and continuous zones of shallow dipping mineralisation provides the opportunity for potential low cost open pit mining". An open pit scoping study is expected to be finished by the end of December '16. A pre feasibility study is scheduled to begin next year.

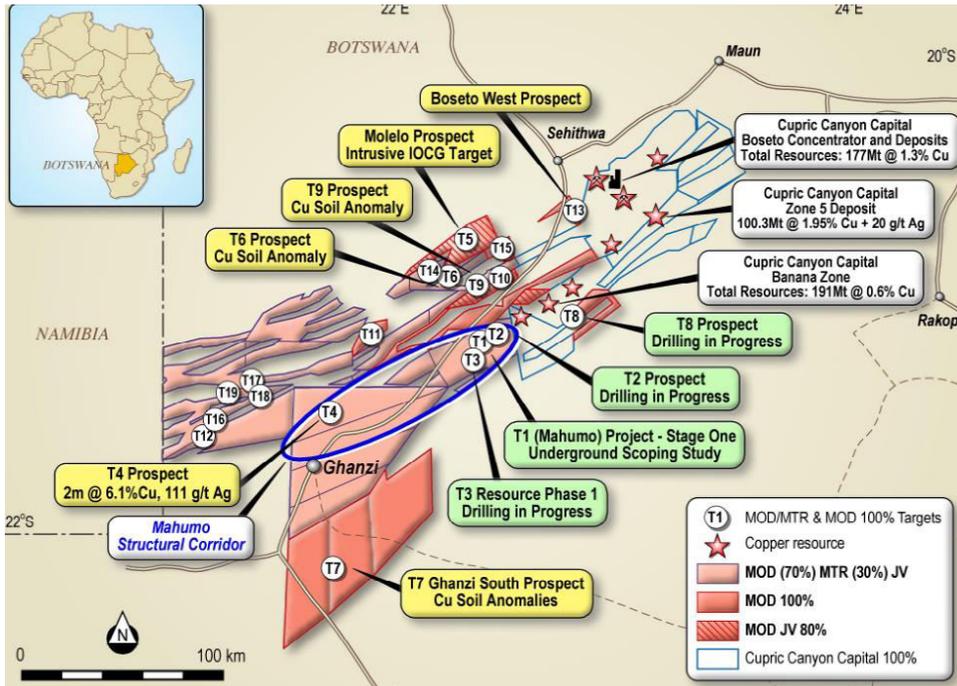
<b>T3 JORC Resource</b> <i>1.0% copper cut-off</i>	Tonnes	Copper Grade %	Silver Grade g/t	Contained Copper Tonnes	Contained Silver Ounces
<b>Category</b>					
<b>Indicated</b>	10.10m	1.84	24.2	0.186m	7.85m
<b>Inferred</b>	3.16m	1.82	26.0	0.057m	2.64m
<b>Total (Indicated &amp; Inferred)</b>	<b>13.26m</b>	<b>1.84</b>	<b>24.6</b>	<b>0.244m</b>	<b>10.49m</b>

**Table 1:** T3 JORC Resource - Source: MTR.

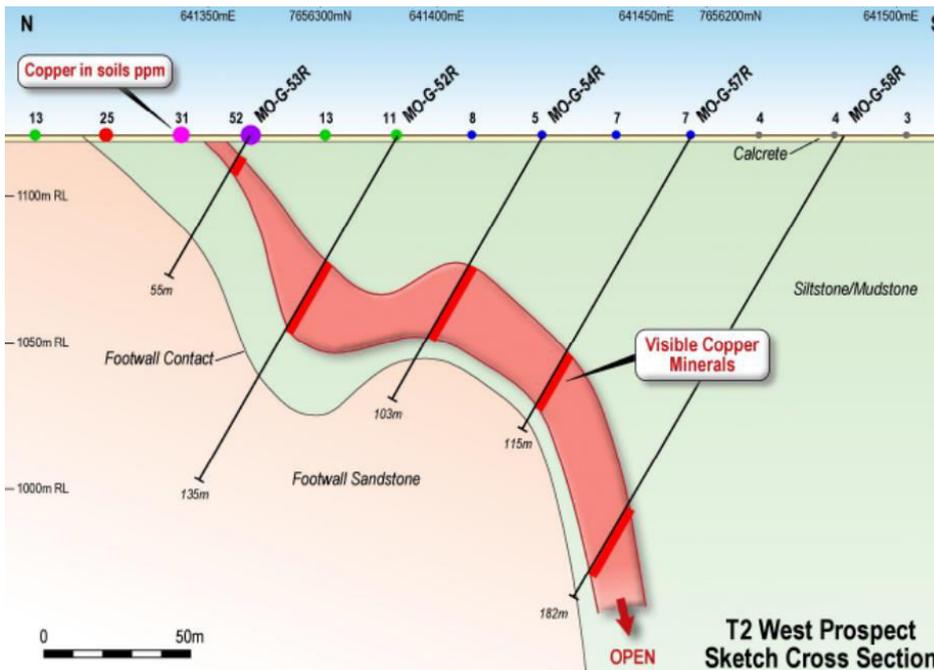
Adjacent to the JV properties, MOD Resources' most advanced project is Mahumo, where a JORC resource of 2.7m tonnes at 2.00% copper and 50 g/t silver (1% cut-off) is defined and preliminary scoping study outlined for a 40,000 tonne per month operation. It is interesting to note the JV partners reported on the discovery of new copper mineralisation within 10 kms of Mahumo, on **Target Area 2 (T2 West)** in August '16, with an intersection of 5 metres @ 2.3% copper and 42 g/t silver reported from one of the first assays returned on the target (MO-G-52R).

To the north west, on what appears the same structural trend to the MOD and JV properties lies the much larger (although lower grade than Mahumo) deposits controlled by privately owned Cupric Canyon Capital, namely the 'Banana Zone', 'Zone 5' and mining complex at 'Boseto' (map 1). In November '15, Cupric announced details of a feasibility study for underground mine development options for the 'Zone 5' deposit, which outlined the potential of a low cost operation, with cash costs of US\$1.05 to US\$1.10 per pound of copper (net of by-product credits), capital expenditure of US\$350m, based upon annual production of 50,000 tonnes of copper and 1.4m ounces of silver over a mine life of 27 years.

Before the collapse of Discovery Metals and in a higher resource price environment in October 2012, it is worth highlighting that a US\$830m takeover bid by private equity group Cathay Fortune Corporation and sovereign wealth fund China-Africa Development Fund was rejected by the management of Discovery Metals. In a stronger resources price world, such interest could be reawakened.



Map 1: Kalahari Copper belt target areas (Source: MOD Resources Ltd - 2016).



Map 2: A preliminary cross sectional sketch of Target 2 West showing drill holes containing multiple zones of visible copper mineralisation (Source: MOD Resources Ltd – 23 August '16).

**Analyst Comment:** - The definition of a JORC resource statement within 6 months of an initial discovery, with a high proportion in the 'Indicated' category is a commendable achievement. It certainly underlines that MTR/MOD are firmly in elephant country and the high probability of finding further definable resources within the JV acreage. Operating in Botswana, which is considered to be the Switzerland of Africa, given its stable democracy and relatively high GDP per head, coupled with projects holding potential to be low cost, high grade, long life operations, makes MTR's interests here immensely attractive. With these factors in mind, the Group's Botswana projects form the core element of our valuation analysis.

## THAILAND Mining and Exploration Assets

### Commercial Mines JV Agreement – 80%

After a period of extensive due diligence and negotiation, MTR signed a commercial mines JV Agreement (JVA) in late August '16, to acquire an 80% interest over the **Boh Yai** and **Song Toh** zinc-silver-lead mines. The other parties in the JVA include various local holders, such as Kanchanaburi Exploration & Mining (KEMCO). The total consideration (including permitting costs) comes to \$6.788m, with most payments to be made according to when various milestones are reached in the permitting process and mine re-commissioning, as outlined below.

Thailand Commercial Mines JVA & Permitting Costs Milestone Payment	Payment Amount (US\$)	Timings
Permitting Costs	\$1,500,000	Payable over 18 mths
Standstill Agreement (SLA)	\$130,000	paid prior to JVA being signed
Joint Venture Agreement (JVA)	\$800,000	paid
General Costs + Mine Care & Maintenance	\$108,000	\$6,000 per month for 18 mths
Granting of Mining Lease Applications	\$500,000	est. Q3/Q4 2017
Start of Construction & Mine refurbishment	\$625,000	est. Q4 2017
Start of Commercial Mining	\$625,000	est. Q4 2018
Transfer of Assets to Mine on Production	\$1,500,000	est. Q3 2017
Profit Share Guarantee on Production	\$1,000,000	Min \$0.2m p.a for first five years est. 2019 to 2023

**Table 2:** JVA Milestone Payment Timings - Source: MTR & Dowgate Capital.

Production from the **Boh Yai** and **Song Toh** zinc-silver-lead mines by Metallgesellschaft AG began in 1978 until 1991, and were then continued by KEMCO until 2002, when mining ceased due to low global metal prices. However the processing mill and flotation plant continued operation until 2008 for the processing of mine stockpiles. A total 4.46 million tonnes of ore were mined at Song Toh, with a smaller amount of 0.79 million tonnes produced from Boh Yai, which lies 14km from Song Toh.

A N1-43-101 preliminary economic assessment produced by independent consultants ACA Howe International in December 2012 over the mine, estimated an indicated 2.9m tonnes resource, grading 3.6% lead, 2.8% zinc and 73 g/t silver, along with an inferred resource of 1.96m tonnes, grading 7.7% lead equivalent. The thinking is that sizeable down dip potential lies below the 150 metres previously mined. The management believe the mines offers "profitable production over an extended period", in particular when considering the potential exploration upside over target areas such as those to the North and east of the Song Toh mine, where drill ready targets have been identified.

**Exploration Licences (various precious and base metals) – 90% JV**

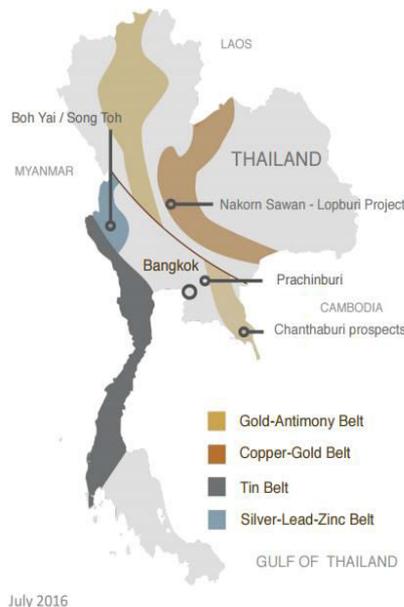
MTR holds a 90% interest over a number of exploration licences in Thailand, upon which over US\$1m has been spent to date on exploration and acquisition costs. The remaining 10% is held by a Thai based company. MTR’s interests were acquired over a two stage process from Southeast Asia Mining (a Canadian junior exploration and mining company) with whom a conditional deferred payment US\$160K + 23.8m warrants (ex 1.74p for 3 yrs from Feb 16) may be paid.

MTR’s exploration interests include;

- Eight special purpose licence applications surrounding **Boh Yai** and **Song Toh** mines, over an area of 5,660 hectares.
- Two mining lease applications overlaying historical **Kanchanaburi** area.
- **Chanthaburi** licences prospective for gold and antimony, covered by one special prospecting licence totalling 12.3 sq km.
- Two special prospecting licence applications, **Nakorn Sawan** and **Lopiburi** permits prospective for copper and gold over an area of 28.6 sq km.
- In **Prachinburi** province, three special prospecting licence applications over 48 sq km are held that are believed to be prospective for copper.

The exploration focus to date in Thailand has been on the Chanthaburi exclusive prospecting licence, which is around 300 km east of the capital Bangkok and in an area known locally as the ‘Gold-Antimony’ belt. Preliminary exploration work such as soil sampling, reconnaissance mapping, etc by MTR has identified anomalous antimony, gold and arsenic areas.

In addition, potential new lithium and tantalum exploration project opportunities in both Thailand and neighbouring Myanmar are being evaluated as part of a ‘memorandum of understanding’ with AIM listed Ariana Resources. Due diligence is also underway on a polymetallic prospect at **Mae Yom** in Phrae Province, as part of a standstill agreement with Thai Goldfields.



**Map 3: Thailand Project Areas**  
(Source: Metal Tiger PLC – July 2016).

**Analyst Comment:** *Our analyst site visit in early 2016 to the **Boh Yai** and **Song Toh** mine and processing plant underlined to us the relative technical and economic ease at which a lead/zinc mine could be placed back in production. With the commercial mines Joint Venture Agreement now reached, we look forward to further milestones being achieved during the permitting process as the project is de-risked. We believe the mine production stage could be around 24 months away, subject to successfully securing project finance and metal prices trading at today’s level or higher.*

### SPAIN (Gold, Tungsten) – 50% JV earn in –

The Logrosan Project in Spain consists of four granted exploration licences, namely **Antonio Caño**, **Zorita**, **San Cristóbal** and **María** covering a total area of 206.02 sq km (Map 4), which are being pursued as part of a JV with a private UK registered company, Mineral Exploration Network (Finland) Ltd. Another licence that could soon be added is **San Cristóbal Sur** (31.7 sq km), upon which an application was lodged in August '16. All the projects benefit from being located in a mining friendly jurisdiction that is both geologically prospective and relatively under explored. The management states the projects enjoy the "full support of the regional and local government and administration.

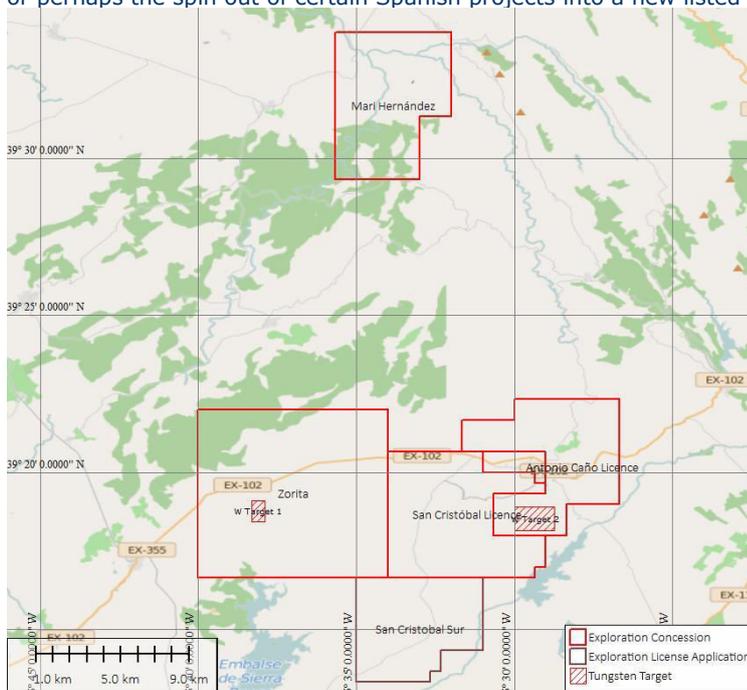
Metal Tiger earned an interest of 50%, following drilling 4,700 metres in 2015 and expenditure of €0.5m. As revealed in late May '16, a further €0.5m is earmarked for a 2016/2017 drill programme, of which at least half is to be used on drilling the Maria licence area and remainder to test for various tungsten and gold targets on the other Spanish projects.

A number of historic mines are located in the Logrosán region. In the centre of the project area, surface tin workings have been dated back to the Bronze Age through to Romano-Celtic times. In the surrounding region, two listed companies of note are advancing projects, namely AIM listed W Resources (WRES.L), with its La Parrilla tungsten deposit (43 km south-west) and TSX listed Emerita Resources Corporation at Las Morras, with a gold project (6 km south).

An intensive shallow exploration programme during 2015 focused on three target areas prospective for tungsten, gold, tin and arsenic. Two significant tungsten deposits were identified, with grades of greater than 0.63% tungsten over 2 metres (Holes MW003 and LM014). In comparison, drilling work in December '15 by W Resources on its more advanced La Parrilla project revealed "high grade intersections" of 0.32% tungsten over 40 metres. Drilling work last year on MTR's JV project also identified what is believed to be a 185 metre long hard rock gold mineralised trend. The best drilling intersection returned a grade of 3.9 g/t gold over 2 metres (Hole MG059).

Recent exploration work results in August '16, reported on the finding of a 2km long gold in soil anomaly from soil samples, that was then traced over a total 6km long strike length. The identification of this subsequently led the JV partners to apply for the San Cristóbal Sur licence to the south.

As outlined during the 'UK Investor Forums and Mining Maven Investor' Evening presentation on 22 September 2016, in addition to the continuation of exploration work by MTR and its partner on the Spanish projects, a number of options are being considered, such as offering individual projects for third party JV / earn-in or project sale or perhaps the spin out of certain Spanish projects into a new listed company.



**Map 3:** Spanish project areas (Source: Metal Tiger PLC – July and August 2016).

**Analyst Comment:** Encouraging high tungsten grades found to date. We look forward to further exploration work being conducted or/and maybe certain project options being evaluated on both the tungsten and gold target areas.

### **RUSSIA (Gold) – 33.5% JV Earn In**

As part of a project collaboration deal with AIM listed Eurasia Mining plc (EUA), MTR exercised its option with EUA in March '16 to participate in a potential gold tailings project at **Semenovsky**, in the Republic of Bashkiriya, south central Russia.

Metal Tiger plans to participate in the tailings project on equal terms with EUA, which would give MTR an interest of 33.5% and thus a share in the rewards of the project, along with the financial and operational risks. The tailings project is owned by private Russian company, OOO Zolotype Peski. MTR paid US\$50K to secure an initial and extended option and is now funding a due diligence programme costing a further \$50K. The current Head of Terms agreement between the parties involved in the potential deal runs to 15 November '16.

Semenovsky was in production from 1943 to 1998, producing ore of 2.7m tonnes at 4 to 20 g/t gold. Initial stage work by EUA and MTR indicate a potential mine life of 10 years, CAPEX of US\$5.2m, producing an average 5,600 ounces of gold and 682,000 ounce of silver per annum.

Once testwork due diligence is satisfactory completed, a plant designed and debt finance secured, the project could be in production within 12 months.

**Analyst Comment:** *Project could provide an excellent source of cash flow to fund other Group exploration activities, although investors need to be aware of the additional risks of operating in Russia. By working with a JV partner such as Eurasia Mining, which has 16+ years experience of working in Russia, some of these country risks can be minimised.*

### **TANZANIA (Gold, Uranium) – Pinewood & Morogoro 50% JV's**

Both projects in Tanzania being pursued in partnership with AIM listed Kibo Mining.

The **Pinewood** project consists of 43 licences, offers, applications and tenders, covering an area of 9,033 sq km in south-western Tanzania that are prospective for uranium. To earn a 50% stake with Kibo, MTR is required to spend US\$800K on exploration over a three year period from 2015 onwards, along with potentially up to US\$300K in licence renewal fees.

Initial work on Pinewood is focused on updating a study and report previously prepared by Mzuri Resources in August 2009 that included information on uranium targets and uranium prospectivity within Tanzania. The objective of the JV with Kibo is to "build up a low cost but highly strategic uranium portfolio" so that both MTR and Kibo are positioned for the next recovery in the uranium sector.

The JV terms with Kibo over the **Morogoro** gold prospective licences are structured in a similar way to the Pinewood JV, and MTR is required to spend US\$800K over a three year period to earn a 50% interest. Therefore, along with potential expenditure on Pinewood, MTR could spend up to US\$1.6m in total on its Tanzania JV projects over the three year earn in periods. The 18 Morogoro licences cover a total area of 1,530 sq km. Ground exploration work started in mid 2015 which is focusing on investigating gold mineralisation anomalies previously identified and also on testing samples previously taken in 2012 by Kibo, but which were not tested due to previous funding constraints. An interesting gold bearing structure identified within the Ruvu Nappe area may be one of the first drill targets.

**Analyst Comment:** *An extensive portfolio of interests, albeit relatively early stage. Metal Tiger will need to prioritise its targets to ensure exploration expenditure stays under control.*

## VALUATION ANALYSIS

To determine a value for MTR, we have considered in our analysis the most advanced project interests/investments, upon which a tangible estimate can be calculated, namely the Botswana MOD JV, Russian tailings option and Thailand mine JVA.

### Botswana MOD JV Valuation

A 'closeology probability' valuation approach is used to value MTR's Botswana JV interest with MOD. The feasibility estimates published by Cupric Canyon Capital in November '15 at 'Zone 5' provides a reference project to base our numbers. By using these as inputs to our own valuation model, such as CAPEX of US\$350m, cash costs of US\$1.05 per pound, 27 year mine life, we calculate an NPV of US\$472.2m at a 10% discount rate to take into account the time value of money. This is based upon commodity prices just under today's levels (copper US\$4,400 per tonne & silver US\$18.0 per ounce), along with a ramp up in production in the first three years to 50,000 tonne per annum. Government royalties of 3% for copper and 5% Silver are assumed. Our valuation deducts a development risk of 20% to arrive at a risked NPV of US\$377.8m (Table 3), which is used as a reference NPV against what could be achieved for a comparative MTR/MOD JV project, with certain risk factors applied.

With a maiden JORC resource now estimated on target area 3 in Botswana, our discovery risk (previously 80%) is removed, which enhances the valuation by \$75.6m. Given the speed at which a resource has been estimated by MTR/MOD from just one target area, and very high prospectivity of the Mahumo structural corridor, the presence of the Zone 5, Banana Zone and Boseto deposits within Cupric's properties, along with MOD's 100% owned Mahumo project, it is highly likely other JORC deposits can be found on the JV acreage. If it is assumed the larger resources have already been found and lie within the Cupric Canyon Capital permit area, then we prudently estimate the eventual total resource of all new defined discoveries to the south west could be less. This figure we estimate at around 45%, which is a slight improvement from our last research note of 40%. If further discoveries are made and JORC resource estimates outlined, this figure may be revised upwards. A final risked project value net to MTR of \$57.1m is derived, a considerable improvement from our previous estimate (\$36.3m). With a JORC figure defined and the project now more advanced, we have factored in MTR's equity investment in partner MOD (4.8%) into our calculations, with the net percentage in the project now at 33.36% (MTR's 30% direct interest + 4.8% of MOD's 70% interest).

MOD JV Botswana Closeology Development/Discovery Scenario	Est. US\$m Valuation – Report Dates		
	8 Aug '16	7 Sept '16	3 Oct '16
Reference Project - Cupric's 'Zone 5' Deposit (Gross) - NPV	\$615.3m	\$472.2m	\$472.2m
Copper Price / per tonne	\$4,750	\$4,400	\$4,400
Silver Price / per ounce	\$18.5	\$18.0	\$18.0
Less Development Risk (Gross)	\$492.2m (20%)	\$377.8m (20%)	\$377.8m (20%)
Est. Chance of Discovery (Gross) on MTR/MOD JV	\$393.8m (80%)	\$302.2m (80%)	\$377.8m (100% risk removed)
Est. Size of Discovery (Gross)	\$157.5m (40%)	\$120.9m (40%)	\$170.0m (45%)
Risked (Net) Direct Interest to MTR	\$47.3m (30%)	\$36.3m (30%)	\$57.1m (33.4%)
Exchange Rate	£35.8m (US\$/1.32)	£27.3m (US\$/1.33)	£43.9m (US\$/1.30)

**Table 3:** Estimated Value of a MOD JV discovery. Source: Dowgate Capital.

**VALUATION ANALYSIS CONTINUED -**
**Thailand Mines Valuation –**

Our NPV calculations are based upon the Preliminary Economic Assessment (PEA) numbers estimated by SouthEast Asia Exploration Mining (SEAM) in 2013. To this we have applied metal prices at just under today's levels and a higher discount factor of 10% (prev. 7.5%), along with certain risk factors. SEAM previously estimated a pre-tax NPV of \$88.8m, compared to our revised \$77.2m.

As MTR moves through the mine permitting and re-commissioning process over the next 2 years, the development risk factor will likely improve from the current 35%. A small country risk of 10% is applied to reflect the slight geo-political risk of Thailand and potential impact upon investor sentiment following the bombing incidents in August 16'.

MTR payments of around \$6.8m due under the terms of the commercial mines agreement (and permitting costs) are added to the estimated CAPEX of \$12.6m to give a total \$19.4m. With all these factors applied to our model, we arrive at a risked NPV estimate of \$35.3m, which is slightly higher (£27.1m) than our number a few weeks ago (£26.5m), due to continued sterling weakness. The value of MTR's other assets in Thailand, including licences already held surrounding the mine and other exploration properties in the country are valued at cost and listed separately in Table 6.

Thailand Mines JVA	Est. US\$m Valuation –		
	Report Dates		
	8 Aug '16	7 Sept '16	3 Oct '16
Capex (Gross)	(\$12.6m)	(\$19.4m)	(\$19.4m)
Mine Life	14 Years	14 Years	14 Years
Lead Price	\$1750 p/tonne	\$1800 p/tonne	\$1800 p/tonne
Zinc Price	\$2000 p/tonne	\$2100 p/tonne	\$2100 p/tonne
Silver Price	\$18.5 p/ounce	\$18.0 p/ounce	\$18.0 p/ounce
NPV (Gross)	\$78.2m	\$75.4m	\$75.4m
Development Risk – (Gross)	\$46.9m (40%)	\$49.0m (35%)	\$49.0m (35%)
Country Risk – (Gross)	\$46.9m (nil%)	\$44.1m (10%)	\$44.1m (10%)
Project Value	\$4.69m (10% est)	\$35.3m (80% JV)	\$35.3m (80% JV)
£ Value, (Exchange Rate)	£3.55m (US\$/1.32)	£26.5m (US\$/1.33)	£27.1m (US\$/1.30)

**Table 4:** Estimated Value of a Thailand mine JVA. Source: Dowgate Capital.

### Russian Tailings Option Valuation

As MTR has exercised its option to participate in the Semenovskiy tailings project, we have calculated a risked NPV for the project (Table 2), based broadly upon inputs (such as CAPEX, mine life, etc) previously outlined by Eurasia Mining and a standard 10% discount rate, along with gold and silver prices at just below spot prices for the last two months.

We have added in a small development risk factor of 15% to reflect remaining approvals and debt finance that need securing before production can start. A high country risk of 40% is estimated, to take into account the risks of operating in Russia. Given Eurasia Mining's 16 plus years of operating in the country, in reality this risk may be much smaller. Nevertheless, we do need to factor in the perception risk of working in Russia, as viewed by investors outside Russia. Therefore the risked NPV amounts to \$19.8m or \$6.7m net to MTR. With due diligence still in progress and heads of term agreement in place between Eurasia and existing owners for the exclusive right to negotiate an interest of 67% in the tailings project, we have calculated an 'option value' representing 25% of risked NPV, equating to \$1.7m (£1.3m).

Russian Tailings JV	Est. US\$m Valuation – Report Dates		
	8 Aug '16	7 Sep '16	3 Oct '16
Capex (Gross)	(\$5.2m)	(\$5.2m)	(\$5.2m)
Mine Life	10 Years	10 Years	10 Years
Gold Price	\$1,250 p/ounce	\$1,250 p/ounce	\$1,250 p/ounce
Silver Price	\$18.5 p/ounce	\$18.0 p/ounce	\$18.0 p/ounce
NPV (Gross)	\$40.8m	\$38.9m	\$38.9m
Less 15% Development Risk – (Gross)	\$34.6m	\$33.1m	\$33.1m
Less 40% Country Risk – (Gross)	\$20.8m	\$19.8m	\$19.8m
MTR Earn In Interest (Net) - 33.5%	\$7.0m	\$6.7m	\$6.7m
Option Value - 25%	\$1.7m	\$1.7m	\$1.7m
(Exchange Rate)	£1.3m (US\$/1.32)	£1.3m (US\$/1.33)	£1.3m (US\$/1.30)

**Table 5:** Estimated Value of a Russian JV Earn In Option. Source: Dowgate Capital.

**VALUATION ANALYSIS CONTINUED -**

**Other Interests** - MTR projects in Spain, Thailand (but not JVA value) and Tanzania are valued at cost, equating to an estimate of funds spent on acquiring projects and on exploration work (£1.30m).

Cash and value of direct equity investments in other AIM, ISDX and ASX listed companies held within the Group's 'Asset Trading' division are valued at £5.4m (prev. £4m), per the Group's RNS on its 'Unaudited Current Asset Update' on 22 August '16. We have chosen to value the tradable investments at 'bid' rather than 'mid' price as quoted in the RNS, as this better reflects their value if sold on the valuation date. Thus the value of investments has been reduced from £4.36m to £4.07m, based upon an estimated average 6.7% spread between mid and bid price for micro cap AIM listed mining and exploration stocks.

We have valued MTR's warrants using the Black Scholes valuation model, which takes into account various parameters such as the volatility of the underlying shares, time to expiry, exercise price, etc - to arrive at a value of £1.56m This is higher than the figure reported by MTR in August, as the Company only took into account the current profit margin of shares trading above their warrant exercise price. MTR's warrants all benefit from long exercise periods, with an average length to expiry of just over two years, a factor that enhances their value within the Black Scholes valuation model. MTR's warrant holdings are valued at less than our previous estimate in early September (£1.74m) due to the lower share price of MOD Resources, which has impacted the value of the Group's MOD warrants, which account for around 38% of the total warrant holdings estimate.

As the Botswana project now includes an in-direct interest held via MTR's MOD equity investment, we have deducted 75% (est. of market value of MOD/MTR JV properties) of the investment's value from our calculation, to avoid double counting.

Metal Tiger plc Valuation Summary	Est Values – Report Dates		
	8 Aug '16	7 Sep '16	3 Oct '16
Botswana MOD JV Value	£35.8m	£27.3m	£43.9m
Russia Tailings JV Earn-in	£1.2m	£1.3m	£1.3m
Thailand Mine JVA	£3.6m	£26.5m	£27.1m
Other Projects -Cost value - Thailand (exploration), Spain & Tanzania	£1.3m	£1.3m	£1.3m
'Asset Trading' Division (Group Cash & Direct Equity Investments)	£4.0m (Combined Cash & Investments)	£1.3m (Cash)  £4.1m (Investments)	£1.3m (Cash)  £4.1m (Investments)
'Asset Trading' Division (Warrant Holdings)	£1.5m	£1.7m	£1.6m
(deduct MOD Equity Adjustment)	n/a	n/a	(£1.1m)
<b>Total</b>	£47.4m	£63.5m	£79.5m
<b>Value Per Share</b> (SII – Shares In Issue)	8.32p (570.0m SII)	10.41p (609.4m SII)	13.03p (609.9m SII)

**Table 6:** Metal Tiger Valuation Summary. Source: Dowgate Capital.

### Glossary

**anomaly** – an observed or measured deviation from normal geological conditions that may signal the presence of a mineralised area or/and potential ore deposit.

**antimony** - a silvery white metal, typically used in lead storage batteries, pipe metal and ceramics.

**arsenic** - used for the smelting of other metals, pesticides, fungicides and pressure treated wood.

**black-scholes** – a mathematical model of a financial market containing derivative investment instruments. The variables used to calculate the formula are stock price, exercise price, time to maturity, annual risk free rate of return and annualised volatility of the stock price.

**care and maintenance** – the process and conditions of a closed minesite, where there is potential to restart mining at a later date. Production is halted during the care and maintenance phase, and the site managed to ensure it is kept in a safe and stable condition.

**Closeology** – a term used to describe the potential of new mineral deposits being discovered close to existing discoveries that exhibit similar geological characteristics.

**CAPEX** – capital expenditure, funds used to acquire or upgrade physical assets.

**credits** - additional materials or metals produced from a mining operation, that are not the core focus of the mine, but which generate a small amount of income that a smelter may pay the mine owner as a credit.

**cut-off** - materials below a certain cut-off point within an ore body are not deemed to contain sufficient value to be economically viable to process.

**elephant country** – an area believed to contain large, potentially world class mineral deposits, mainly due to the discovery of large mineral deposits in the nearby vicinity.

**Indicated** - part of the mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence.

**inferred** – part of the mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence.

**g/t** – grammes per tonne.

**JORC** – the Australasian Joint Ore Reserves Committee Code for Reporting of Exploration Results, a codified set of rules and guidelines for resource companies reporting mineral resource estimates.

**Ni-43-101** – similar to JORC, a codified set of rules and guidelines for resource companies reporting mineral resource estimates that are listed on stock exchanges within Canada.

**NPV** – Net Present Value, - present value of future cash flows from a project minus the initial investment and discounted by a certain percentage (normally 10%) to take into account the time value of money.

**tungsten** - used to increase the toughness and strength of steel and to make filaments for electric lights and electron tubes.

**DOWGATE CONTACTS**

<b>Clive Mattock (Chairman)</b>	<b>01293 517744</b>
<b>Neil Badger (CEO)</b>	<b>01293 517744</b>
<b>James Serjeant (Executive Director)</b>	<b>01293 643715</b>
<b>Jason Robertson (Analyst/Corp Broking)</b>	<b>01293 643709</b>
<b>Joe Drown (Broker/Dealer)</b>	<b>01293 643728</b>
<b>David Trigg (Dealer)</b>	<b>01293 643719/643720</b>
<b>Peter Glancy (Broker)</b>	<b>01293 643731</b>
<b>Shahood Oozeerally (Broker)</b>	<b>01293 643737</b>
<b>Jock Paterson (Relationship Manager)</b>	<b>01293 643730</b>
<b>Darron Rixson (Broker)</b>	<b>01293 643723</b>
<b>Ray Silvester (Broker)</b>	<b>01293 643727</b>
<b>Sylvia Levi (Compliance)</b>	<b>01293 643714</b>

**Dowgate Capital Stockbrokers Limited**  
**Talisman House**  
**Jubilee Walk**  
**Three Bridges, Crawley**  
**West Sussex**  
**RH10 1LQ**

**Tel: 01293 517744**  
**Fax: 01293 643729**  
**[www.dowgatecapitalstockbrokers.co.uk](http://www.dowgatecapitalstockbrokers.co.uk)**

**Registered in England No. 2474423**

**A member of the London Stock Exchange. Authorised and regulated by the  
Financial Conduct Authority**

## **Regulatory Disclaimers and Disclosures**

This document is non-independent research and a marketing communication under the FCA Conduct of Business Rules. It has not been prepared in accordance with legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of the investment research. DCS does have procedures in place to manage any conflicts which might arise in the production of investment research, including Chinese Wall procedures.

The views expressed in this note are those of DCS's analyst. They are based on information believed to be reliable but no warranty or representation, express or implied, is made about the accuracy or completeness of this information, which may be subject to change without notice. Any opinion given reflects the analyst's judgement as at the date of this document's publication. Any or all statements about the future may turn out to be incorrect.

This research note is designed for information purposes only and does not constitute a personal recommendation, offer or invitation to buy or sell any investment referred to within it. Investors should form their own conclusions and/or seek their own advice to determine whether any particular transaction is suitable for them in the light of their investment objectives, the benefits and risks associated with the transaction and all other relevant circumstances.

### **This document is not for distribution into the United States, Japan, Canada or Australia**

Neither this document nor any copy of it may be taken or transmitted into the United States of America, or distributed, directly or indirectly, in the United States of America or to any US person as defined in Regulation S under the United States Securities Act of 1933. Any failure to comply with this restriction may constitute a violation of United States securities laws.

Neither this document nor any copy of it may be taken or transmitted into or distributed in Japan or to any resident thereof for the purpose of solicitation or subscription or offer for sale of any securities. Any failure to comply with this restriction may constitute a violation of Japanese securities laws.

Neither this document nor any copy of it may be taken or transmitted into Canada or distributed in Canada or to any individual outside Canada who is a resident of Canada, except in compliance with applicable Canadian securities laws.

Neither this document nor any copy of it may be taken or transmitted into or distributed in Australia or to any resident thereof except in compliance with Australian securities laws. Any failure to comply with this restriction may constitute a violation of Australian securities laws.

### **Declaration**

Metal Tiger PLC is a Research Client of DCS. DCS private clients and institutional contacts hold shares in Metal Tiger PLC.