

# THOR MINING PLC

## QUARTERLY ACTIVITIES REPORT PERIOD ENDING 31 DECEMBER 2011

**Dated:** 9 January 2012

The Directors of Thor Mining PLC ("Thor" or the "Company") (AIM, ASX: THR) the Australian gold, tungsten and molybdenum explorer and developer, today lodged the following December 2011 quarterly report with the Australian Securities Exchange (ASX) as required by the listing rules of ASX.

### QUARTERLY REPORT OCTOBER TO DECEMBER 2011

#### Highlights

#### Outlook for March 2012 Quarter

#### TUNGSTEN & MOLYBDENUM

##### Molyhil NT

- Continued positive progress with definitive feasibility study (2"DFS");
- Improved tungsten recovery flagged by independent assessment;
- Environmental approval confirmed and;
- Drilling program assays indicate high grade extension to known deposit.
- Resource extension estimate;
- Completion of Molyhil DFS; and
- Marketing & financing activities.

#### GOLD

##### Spring Hill NT

- Completion of diamond drilling program.
- Evaluation of potential for profitable production;
- Environmental & social impact studies; and
- Preparation for drilling deep ("Callie model") and additional near surface targets.

##### Dundas WA

- Preparation of reports to support drilling applications.
- Further geochemical (calcrete) sampling; and
- Preparation for follow up air core and RC drilling.

#### **MOLYHIL TUNGSTEN-MOLYBDENUM PROJECT (NT) (100% THOR) ("MOLYHIL")**

## **Molyhil DFS**

Progress to date has resulted in the estimate by Proteus EPCM Engineers of both capital (A\$66 million) and operating costs (A\$80/tonne) of the proposed mining and processing operation at Molyhil.

Based on these estimates, the operating costs of the proposed Molyhil operation are approximately US\$130/mtu (metric tonne unit = 10Kg of WO<sub>3</sub> (oxide of tungsten)) after deduction of bi-product credits from the sale of molybdenum compared with revenue of US\$360/mtu after deduction of APT processing cost discount.

Meanwhile, Directors also advise that an independent metallurgical assessment of the proposed tungsten processing system for Molyhil has recommended an additional stage in the process to achieve an improvement on the previous 67% recovery estimate. This improvement would be achieved via adding a flotation step at the end of the gravity recovery process to extract the very fine tungsten particles which do not normally respond well to gravity separation methods. The estimated value of improved tungsten recovery would be in the order of an additional A\$900,000pa in gross revenue, per each additional 1% of tungsten recovered.

The potential for this enhanced recovery is such that, the release of the DFS has been delayed until the upgraded recovery and the capital and operating cost implications are quantified. It is expected that the results of this additional work will be known during February 2012.

During the quarter also, the Northern Territory's Department of Natural Resources, Environment, the Arts and Sport advised that the Notice of Intent for the Molyhil development proposal does not require further assessment and the environmental assessment process is complete.

The selling price of Tungsten APT is currently US\$450/mtu, while the price of Molybdenum Roasted Concentrates has remained relatively static at around US\$13.00 to US\$14.00/lb.

## **Exploration program**

### **Molyhil Drilling**

A two stage drilling program undertaken during July and August 2011 comprised six reverse circulation ("RC") holes to test for additional down plunge resource (reported in the previous quarter) and diamond drilling comprising seven holes designed to further enhance confidence in the near surface resource. Highlights of the diamond drilling include:

MHDD074 - 16.4m @ 0.84% WO<sub>3</sub> & 0.56% MoS<sub>2</sub> from 43.6m, including;

- 2.6m @ 0.94% WO<sub>3</sub> & 0.83% MoS<sub>2</sub> from 44.4m, and
- 4.0m @ 2.12% WO<sub>3</sub> & 0.33% MoS<sub>2</sub> from 56.0m.

MHDD075 - 9.0m @ 1.48% WO<sub>3</sub> & 0.10% MoS<sub>2</sub> from 48.0m including;

- 4.0m @ 2.93% WO<sub>3</sub> & 0.17% MoS<sub>2</sub> from 48.0m.

MHDD076 - Individual high grades;

- 1.0m @ 3.7% WO<sub>3</sub> & 0.36% MoS<sub>2</sub> from 19.0m, and
- 0.5m @ 24.28% WO<sub>3</sub> & 0.77% MoS<sub>2</sub> from 31.7m.

These results compare very favourably with the historical resource grade of 0.32% WO<sub>3</sub> and 0.19% MoS<sub>2</sub>. Detailed results of all drilling including hole location and intercept details have been provided previously in individual announcements.

## **2012 March Quarter activity schedule**

### **DFS**

Results from the DFS are scheduled to be available during the quarter, along with an updated resource estimate and ore reserve and mining plan.

### **Finance and sales agreements**

Initial discussions have been held with a number of parties who have expressed interest in securing off-take agreements for the supply of tungsten and molybdenum concentrates, and also in various alternatives for financing the project. These discussions are ongoing.

## **GOLD EXPLORATION**

### **SPRING HILL PROJECT - NT (THR acquiring earn-in rights to up to 80% equity)**

Six diamond drill holes of a planned ten hole program were completed at Spring Hill before drilling was halted by the early onset of the annual wet season. Although the program was not completed, outcomes included;

- demonstration of potentially economic mineralisation extending up to 100 metres below historical resource drilling; and,
- Good correlation between diamond drill holes & historical reverse circulation gold intersections in the upper levels.

Drilling highlights include:

SHDD001 - 3.6m @ 0.7 grams/tonne (g/t) gold (Au) from 191 metres including;

- 0.6m @3.9g/t from 194 metres.

SHDD004 - 3.4m @9.7 g/t Au from 24.6 metres including;

- 1.0m @31.4g/t from 25 metres,

SHDD005 - 4.7m @5.7g/t Au from 28.6 metres including;

- 0.7m @36.2g/t from 30.8 metres and,
- 5.0m @ 2.1g/t Au from 106 metres including;
- 0.1m @78.5g/t from 109.2 metres

SHDD007 - 20.0m @1.6g/t Au from 100 metres including;

- 3.1m @5.1g/t from 115 metres

Detailed results of all drilling including hole location and intercept details have been provided previously in individual announcements.

## **2012 March Quarter activity schedule**

The annual wet season has interrupted field activities which are scheduled to re-commence as seasonal conditions permit, probably in April. However

confidence in the resource is such that the Company proposes to commission a scoping study aimed at assessing the potential economic outcome of mining and producing gold at Spring Hill, along with environmental and social impact studies.

In addition interpretation and modelling of new and previously existing data (Ross Mining/Billiton JV 89-92) will be undertaken to determine targets and priorities for 2012 drilling. Targets will include following previously described areas.

Additional drilling is planned to follow up high grade intercepts from Ross Mining/Billiton JV drilling undertaken in 1989-92.

SHRC181            26m @2.56g/t    from 59m - (0.1g/t cutoff)

                  including: 16m @ 4.0g/t    from 63m - (0.5g/t cutoff)

SHRC182            6m @ 0.26g/t    from 0m - (0.1g/t cutoff)

                  and: 13m @ 0.77g/t    from 26m - (0.1g/t cutoff)

                  including: 7m @ 1.13 g/t    from 29m - (0.5g/t cutoff)

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***Historic drill intercepts***

Drill testing these targets is scheduled for the beginning of the 2012 dry season.

Drill testing the much larger scale "Callie style" model is now also scheduled to commence in 2012 when the Northern Territory's "wet season" concludes.

**DUNDAS PROJECT - WA (60% THR)**

A detailed flora and fauna study was submitted to the WA Department of the Environment in support of proposals for the scheduled drilling programs.

Approval for this program remains pending.

**2012 March Quarter Exploration schedule**

Calcrete (geochemical) sampling will continue and provide broad reconnaissance information along with some infill work around previously identified areas of gold anomalism.

Approval and commencement of the proposed drill program is anticipated during the March quarter

**CORPORATE AND FINANCE**

During the quarter the Company raised further additional funds through the issue of just under 38.25 million ordinary shares, in a placing to sophisticated investors in the UK. This issue raised UKP£382,500, before costs associated with the issue.

## Competent Persons Statement

*The information in this report that relates to exploration results is based on information compiled by Richard Bradey, who holds a BSc in applied geology and an MSc in natural resource management and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Bradey is an employee of Thor Mining PLC. He has sufficient experience (at least five years) which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' and under AIM Rules. Richard Bradey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

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Updates on the Company's activities are regularly posted on Thor's website [www.thormining.com](http://www.thormining.com), which includes a facility to register to receive these updates by email.