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Centralised Company Announcements Office  
 ASX Limited  
 Exchange Centre  
 20 Bridge Street, Sydney, NSW 2000

## Potential for Upgrading the Anthony Molybdenum Resource

- Preliminary metallurgical tests suggest that lower grade sulphide molybdenum material could be significantly upgraded by a simple beneficiation process
- The results indicate the potential for processing higher grade material in the early years of production, leading to higher project returns
- Based on the announced resource, application of this process could provide an initial high grade feedstock of over 23 million tonnes (Mt) at 0.084% (840 ppm) Mo

On 6 April 2010, Zamia announced an initial Inferred Resource of 81.1 Mt at 0.043% (430 parts per million – 'ppm') Mo in the primary (sulphide) zone at its Anthony molybdenum project in the Clermont district of central Queensland. The resource includes a high grade sulphide resource of 13.5 Mt at 0.075% (750 ppm) Mo. There is an additional 13 Mt of oxide and transition material (mixed oxide-sulphide) from surface at 0.05% (500 ppm) Mo. The situation is illustrated in the grade section below.

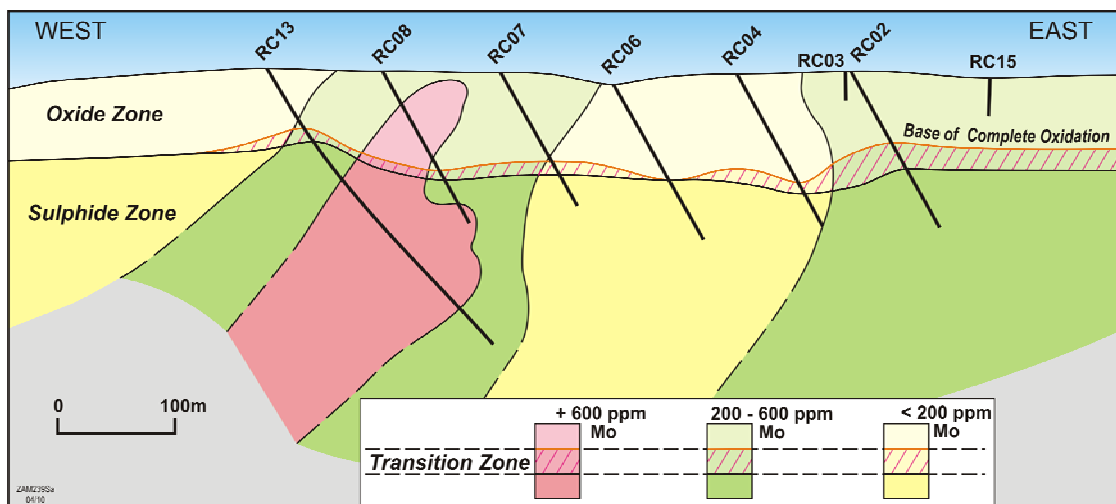


Figure 1: Section 2700N through the Anthony molybdenum deposit showing the western high grade zone (+600 ppm Mo) flanked by lower grade mineralisation

Using an external laboratory, Zamia has carried out preliminary metallurgical tests on samples of drill core from the sulphide zone. Two samples were tested in a simple beneficiation process and both showed significant upgrading:

- Sample 1: A continuous 10m interval from Hole RCD21 in igneous breccia host rock, assaying 510 ppm Mo: An upgrade to 1290 ppm Mo was achieved.
- Sample 2: A continuous 10m interval from Hole RCD28 in Anakie Metamorphics host rock, assaying 340 ppm Mo: An upgrade to 900 ppm Mo was achieved.

These holes are located approximately 150m apart as shown in Figure 2.

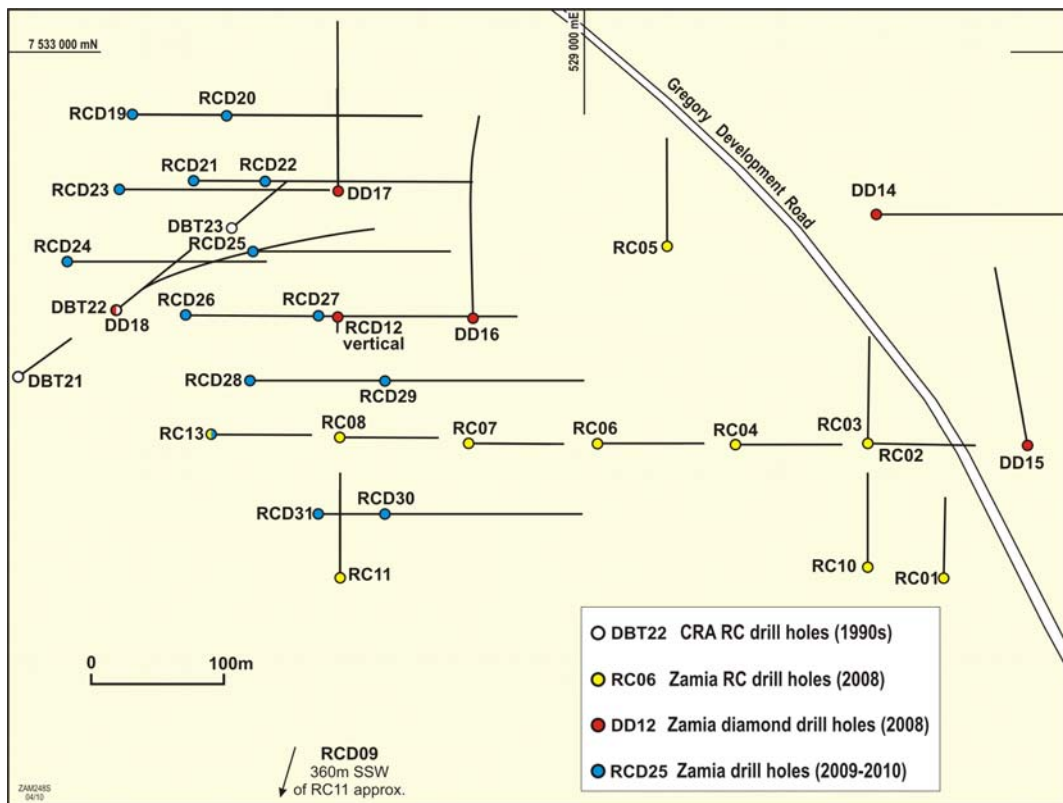


Figure 2: Drill hole locations, Anthony molybdenum project

A summary of the metallurgical test results is provided in the table below.

	Drill Hole RCD28	Drill Hole RCD21
Mo head grade (ppm)	340	508
Mo grade of beneficiated product (ppm)	900	1290
Mo grade of non-beneficiated material (ppm)	250	317
Weight % of beneficiated product	14.3	19.6

Table 1: Beneficiation test results for Anthony sulphide molybdenum zone

These results have raised the possibility of increasing the throughput of high grade material in the early years of the project by adding the beneficiated product to the high grade resource. The Inferred Resource includes high grade zones totalling 13.5 Mt at 750 ppm Mo at a cut-off grade of 600 ppm Mo. Extracting this high grade resource from the total resource leaves a lower grade (less than 600 ppm Mo) balance of 67.6 Mt at 370 ppm Mo as Table 2 indicates.

	Tonnes (Mt)	Mo grade (ppm)
Total Inferred Resource	81.1	430
High grade resource (600 ppm Mo cut-off)	13.5	750
Balance of resource	67.6	370

Table 2: Resource summary

Extrapolating these results for the current Inferred Resource, the tests indicate that the lower grade material could be simply and cheaply beneficiated to produce 10.1 Mt of a product containing 950 ppm Mo. The combined high grade zone and beneficiated product would provide a high grade feedstock of 23.6 Mt at 840 ppm Mo as shown in Table 3.

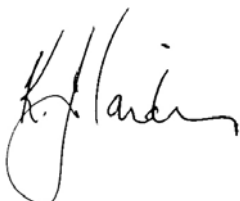
	Tonnes (Mt)	Mo grade (ppm)
High grade resource	13.5	750
Beneficiated product	10.1	950
Combined high grade & beneficiated product	23.6	840

*Table 3: Combined high grade zone and beneficiated product*

The combined high grade resource and beneficiated product could be processed in the early stages of the operation, thereby resulting in **higher early cash flows** and payment of capital. After extracting the high grade zone and beneficiating the balance, a low grade stockpile of 57.5 Mt at 260 ppm Mo would remain for potential processing later in the project's life if molybdenum prices made it economically feasible to do so.

Although the beneficiation tests to date are preliminary, they indicate the **potential for enhanced value** of the existing resource and for any additional resources identified by the forthcoming drilling program which was announced on 5 May 2010. Further beneficiation tests will be conducted on diamond core samples from other parts of the resource as part of the ongoing analysis of the beneficiation process.

As indicated previously, metallurgical testwork is being carried out on both the sulphide zone and the near-surface oxide cap to assess processing options.



Ken Maiden  
Executive Chairman

#### **About Zamia Gold Mines Limited (ASX: ZGM)**

Zamia listed on the ASX in January 2007, and holds a portfolio of Exploration Permits for Minerals in the Clermont district of central Queensland. In 2008, Zamia discovered the Anthony molybdenum deposit by drilling on a soil geochemical target. Diamond drilling confirmed the presence of a large porphyry-style deposit. After a delay of almost 12 months caused by the global financial crisis, evaluation of the Anthony deposit re-commenced in late 2009. Zamia remains focussed on the Clermont district. As a result of the Anthony discovery, Zamia has identified other targets with potential for molybdenum, gold and possibly copper.

#### **About Molybdenum**

Molybdenum, a metal with an extremely high melting point, is widely used in the steel industry as it improves the strength of steels at high temperature as well as strength to weight ratios and corrosion resistance. It also has uses as a catalyst in petroleum refining, in the production of electrodes and filaments, as a high temperature lubricant and as a fertiliser. Global demand for molybdenum has been predicted to grow at 4 - 5% per year over the next twenty years.

For further information on Zamia and molybdenum, visit the website [www.zamiagold.com.au](http://www.zamiagold.com.au)

#### **Competent Person**

Dr Ken Maiden, MAIG FAusIMM, Executive Chairman of Zamia Gold Mines Limited, compiled the geological aspects of this announcement. He has sufficient experience 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". Dr Maiden consents to the inclusion of the matters in the form and context in which they appear.