

# ASX:ZGM

6 April 2010

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

### ANTHONY MOLYBDENUM PROJECT:

## **OVER 80 MILLION TONNES IN INITIAL RESOURCE**

- Independent resource estimate prepared by Hellman & Schofield Pty Ltd (H&S) on Anthony project drilling to date
- 81 million tonnes (Mt) at 0.043% (430 ppm) molybdenum (Mo) at a cut-off grade of 0.02% (200 ppm Mo) in primary sulphide zone
- Includes a high grade zone of 13.5 Mt at 0.075% (750 ppm) Mo
- Additional 36 Mt of oxide and mixed sulphide-oxide at 0.02% (200 ppm Mo) cut-off grade
- Mineralisation continues at depth with 15 holes assaying greater than 200 ppm Mo at bottom of hole
- Resource remains open laterally, with less than half of main soil anomaly drilled
- H&S has recommended a priority 2000m drilling program with the objective of expanding this initial resource
- Submitted standards suggest the Mo grade may be understated by 10-15%.

# **Resource Estimation**

As announced on 26 March 2010, the recent drilling program at Zamia's Anthony molybdenum discovery in the Clermont district of central Queensland has been completed. Details of all significant assay results for the 31 holes drilled to date were reported to the Australian Securities Exchange on 23 and 26 March 2010.

Based on all the Anthony assay data to date, independent resource consultant, Hellman & Schofield Pty Ltd (H&S), has produced an initial resource estimate for the Anthony deposit reported in accordance with the JORC (Joint Ore Reserves Committee) Code and Guidelines. The resource estimates for the main sulphide zone, near-surface oxide zone and the transition between the two zones are summarised in Table 1.

Table 1: Summary of initial Inferred Resource estimates by H&S

	Sulphide molybdenum		Oxide molybdenum		Transition: mixed oxide/sulphide molybdenum		Total	
Cut-off grade ppm Mo	Million tonnes	Average grade ppm Mo	Million tonnes	Average grade ppm Mo	Million tonnes	Average grade ppm Mo	Million tonnes	Average grade ppm Mo
200	81.1	434	29.9	375	6.2	398	117.2	417
400	40.4	574	10.3	501	2.7	515	53.3	557
600	13.5	748	1.2	718	0.4	715	15.2	745

Note: Significant figures in table 1 do not imply precision and are used to avoid round-off errors

Table 1 shows that, based on drilling to date, Anthony contains a high grade sulphide zone of 13.5 million tonnes at almost 750 ppm Mo within a large molybdenum deposit. As indicated in Figure 1, the high grade zone lies close to surface and would most likely provide the focus for initial mining in any future operation.

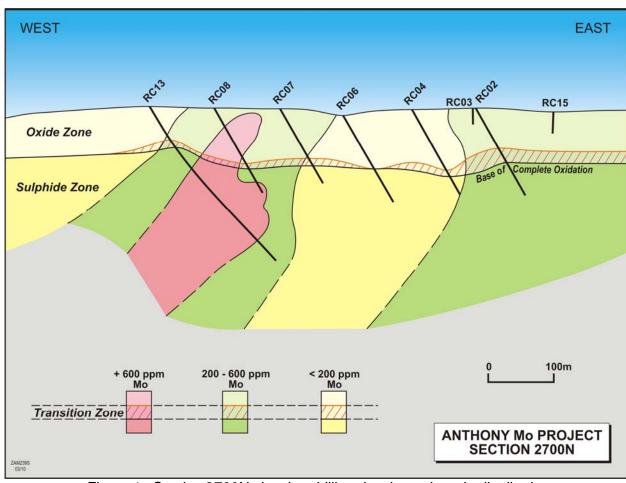


Figure 1: Section 2700N showing drilling density and grade distribution (based on resource blocks defined by H&S)

H&S has assigned the resource to the Inferred category pending completion of additional quality assurance work. It is likely that a proportion of the resource will be re-assigned to the Indicated category after completion of this work. H&S also points out that submitted standards suggest that the Mo grade may be under-stated by 10-15%.

In addition to the sulphide Mo resource, there is a resource of 36 Mt of oxide and mixed oxide-sulphide at 0.02% (200 ppm Mo) cut-off in a zone 60 – 80m thick from surface to the base of complete oxidation. This oxide molybdenum from surface is potentially viable. Zamia notes that

Climax Molybdenum successfully utilised an extraction process for oxidised molybdenum in the 1960s. A metallurgical program to investigate beneficiation and leaching options for this oxidised material at Anthony is currently underway.

The resource remains open laterally. As shown in Figure 2, less than half of the main +50 ppm Mo-in-soil geochemical anomaly has been drilled at 100 metre centres.

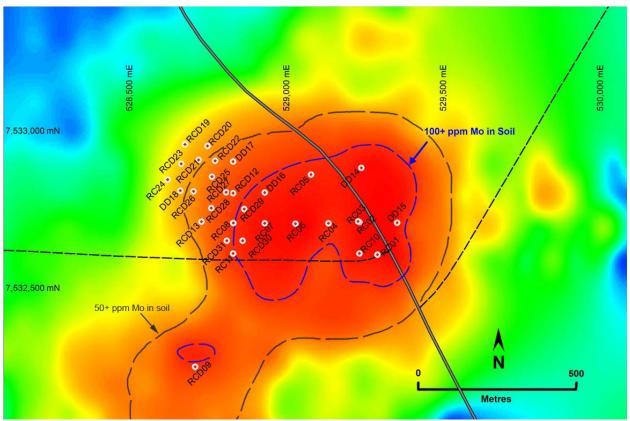


Figure 2: Positions of drill holes in relation to soil geochemical anomaly.

Contours show Mo-in-soil at 50 ppm and 100 ppm

Figure 1 also illustrates that the resource remains open at depth. Of the 31 holes drilled to date, 10 holes have been drilled to a maximum vertical depth of only 130m and 18 holes to a maximum depth of 280m. Of the 31 holes drilled, 15 holes assayed greater than 200 ppm Mo at the bottom of the hole, as indicated in Table 2. These results indicate the potential for higher grade molybdenum to be present in the east of the soil anomaly as well as around the established western high grade zone.

Table 2: Drill holes with greater than 200 ppm Mo at the bottom of the hole

Hole number	Hole depth (m)	Last Mo assay (ppm)
RC01	150	318
RC02	150	597
RC03	150	871
RC08	144	424
RC10	150	276
RC11	150	921
RCD12	322	368
DD16	301	638
DD18	352	720
RCD19	312	331
RCD20	300	256
RCD21	307	325
RCD22	307	214
RCD23	300	297
RCD25	300	239
RCD31	300	680 (average - bottom 6m)

# **Zamia's Immediate Objectives**

The immediate objectives for Zamia include:

- Establishment of a more comprehensive geological model;
- Metallurgical testing of oxide and sulphide material;
- Design of a drilling program to expand the resource. H&S has recommended a priority 2000m drilling program;
- Additional quality control tests to assess validity of standards used and to move a portion of the resource to the Indicated category;
- Identification of significant geophysical and geochemical anomalies for the wider area around Anthony

Ken Maiden Managing Director

#### **Hellman & Schofield Resource Estimation Notes**

A block model with dimensions of 20 x 20 x 6 metres was constructed and the base of complete oxidation and the base of partial oxidation were modelled from drill hole digital data. The average surface elevation is 321m, the base of complete oxidation is at 254m and the base of transition is at 243m resulting in an oxidation thickness of 67m and a transition thickness of 11m. Densities were assigned on advice from Zamia. Completely oxidised material is assigned a density of 2.3, transition a density of 2.4 and fresh material 2.6.

The mineralisation appears to have a diffuse contact with the country rock (Anakie Metamorphics). Due to the preliminary nature of this work a detailed geological model was not constructed though with the "soft boundary" nature of the mineralisation contact it is likely that the imposition of hard boundaries will be inappropriate unless barren intrusive phases or faults are identified. Several grade models were constructed including one based on a flat search. Two different softwares were used and the results plotted on sections in juxtaposition with the data. The results for Mo grades are virtually identical for the two outcomes. At cut-off grades from 100 to 500 ppm Mo the average difference between the two sets of results is approximately 1%.

The searches for both these outcomes were conducted in three passes: 60 x 60 x 40m to 120 x 120 x 80m with maximum and minimum data of 32 and 10 to 32 and 6. Passes 1 & 2 are classified as Inferred Resources and Pass 3 as potential which does not qualify as a resource estimate but rather as Exploration Results and are not reported. A dip of 60 degrees to the west was assigned to the search.

H&S notes that results for standards submitted by Zamia suggest that there may be an understatement of Mo grade by up to 10 to 15%. Due to the preliminary nature of this work a confidence category of Inferred is appropriate.

#### **About Zamia Gold Mines Limited**

ZGM listed on the ASX in January 2007, and holds a portfolio of Exploration Permits for Minerals in the Clermont area of central Queensland. Following a review of past exploration data, soil geochemical sampling and an initial drilling program, molybdenum mineralisation was discovered at the Anthony prospect in 2008. Evaluation of the Anthony prospect, which appears to be a large porphyry-style deposit, is in progress. ZGM remains focussed on the Clermont area. As a result of the Anthony discovery, ZGM has identified other potential molybdenum targets in addition to its gold targets.

### **About Molybdenum**

Molybdenum is a metal with a high melting point that 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 has uses as a catalyst in petroleum refining, in the production of electrodes and filaments, as a high temperature lubricant and as a fertiliser. Due to its cost, environmental benefits and multiple uses, 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

### **Competent Persons**

The information in this report that relates to Mineral Resources is based on information compiled by Dr Phillip Hellman. Dr Hellman, FAIG, is a Director of Hellman & Schofield Pty Ltd ('H&S') and qualifies as a Competent Person under the meaning of the 2004 JORC Code. He consents to the inclusion of these estimates in the form and context in which they appear and takes responsibility for resource estimation.

Dr Ken Maiden, MAIG FAusIMM, Managing Director of Zamia Gold Mines Limited, compiled the technical 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 and takes responsibility for data quality and "reasonable expectation" assumptions relating to cut-off grades and resource potential.