



ASX:ZGM

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Centralised Company Announcements Office  
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## NEW HIGH GRADE MOLYBDENUM ZONE AT ANTHONY

- **New high grade molybdenum (“Mo”) zone in south of discovery**
- **Latest assays confirm high grade molybdenum core of western zone**
- **Resource estimation to be updated**
- **Reverse circulation (‘RC’) drilling completed for two new deep diamond drill holes**
- **Potential to double resource from completed RC holes and planned diamond drilling programme**
- **Elevated copper (‘Cu’) in some holes continues to support the target model for potential high grade porphyry Cu-Mo at depth.**

A 23-hole RC drilling programme, which commenced in June 2010, has now been completed at the Anthony molybdenum discovery near Clermont in central Queensland. The programme was designed to determine the lateral extent of the deposit, with a view to increasing the JORC-compliant resource which was announced on 6 April 2010.

Assays for the first 14 holes (RC32 to RC45) were reported in the Company’s ASX release of 11 August 2010.

The molybdenum assay results for the remaining nine holes (RC46 to RC54) in the 23-hole programme are now available and are set out in Table 1 together with an outline the results of all holes in the programme and a summary of the Inferred Resource from Hellman & Schofield Pty Ltd (‘H&S’) (April 2010).

### Significant Molybdenum Assays

From the latest drilling (Holes RC46 to RC54), **continuous drill intersections** included the following significant primary (sulphide) Mo results:

- Hole 49: 150 metres (‘m’) at 795 parts per million (‘ppm’) Mo including 9m at **1055 ppm Mo**; 45m at **1027 ppm Mo**; 9m at **1069ppm Mo**; 27m at **1018m Mo**
- Hole 52: 108m at 571 ppm Mo including 15m at **1014 ppm Mo**; 3m at **2510 ppm Mo**; 3m at **953 ppm Mo**
- Hole 54: 118m at 549 ppm Mo including 9m at **1125 ppm Mo**; 3m at **1285 ppm Mo**; 3m at **1005 ppm Mo**

- Hole 51: 150m at 349 ppm Mo including 15m at **1041 ppm Mo**
- Hole 53: 165m at 487 ppm Mo including 3m at **1435 ppm Mo at end of hole.**

In addition to these significant assays, there are also intersections containing greater than 1000 ppm Mo in the shallow oxide or transition zones in holes 47, 49, 51 and 54.

Hole 49 was collared 12m to the northwest of hole RCD12 (drilled in 2008) to verify the high grade core of the western zone of the resource. Also, as shown in Figure 1, the results of holes RC51 to RC54 indicate a third high grade zone in the south of the Anthony discovery in addition to the previously identified western and eastern high grade zones.

Of the 23 holes in the recent drilling programme, 17 have substantial sulphide Mo intersections above a 200 ppm Mo cut-off. These are expected to add substantially to the resource.

As indicated in a previous release, Mo-bearing material above the 200 ppm cut-off grade is expected to be capable of significant upgrading, via cheap and simple beneficiation processes, prior to milling and flotation (ASX Release, 13 May 2010). This would have the effect of reducing capital costs and increasing revenue, thereby adding significant economic benefits in any future mine development. Testwork on an improved beneficiation process is continuing.

## Deep Drilling

RC pre-collars have been drilled for the initial two deep diamond holes (see RCD55 and RCD56 on Figure 1) to target the depth extensions of the current western high grade Mo zone and to test the potential for increasing copper grades with depth in the Anthony system. (See ASX Release of 16 July 2010). Following the evaluation of these holes, it is proposed to drill further deep diamond holes to test the extent of all high grade zones.

## Copper Concentrations

As indicated in an ASX release dated 11 August 2010, elevated concentrations of copper (>400 ppm Cu) have occurred in 11 holes, at the margins of the high grade Mo zones, where copper typically occurs as chalcopyrite within mineralised quartz-molybdenite [MoS<sub>2</sub>] stockwork veins. These zones are shown in Figure 1. In the latest holes (RC46 to RC54), elevated copper assays over **continuous intersections** included:

- Hole 46: 57-63m: 9m at 435 ppm Cu
- Hole 53: 246-252m EOH (end of hole): 6m at 1061 ppm Cu, 10.7ppm Ag
- Hole 54: 132-135m: 3m at 495 ppm Cu.

As indicated previously, these concentrations are not sufficient for an economic copper deposit, but the observed mineralisation indicates potential for the discovery of a porphyry-type copper system at depth associated with additional high grade Mo. Over 50% of current world molybdenum production is sourced from Cu-Mo mines, so it would not be unusual for the Anthony Mo deposit to have associated copper mineralisation.

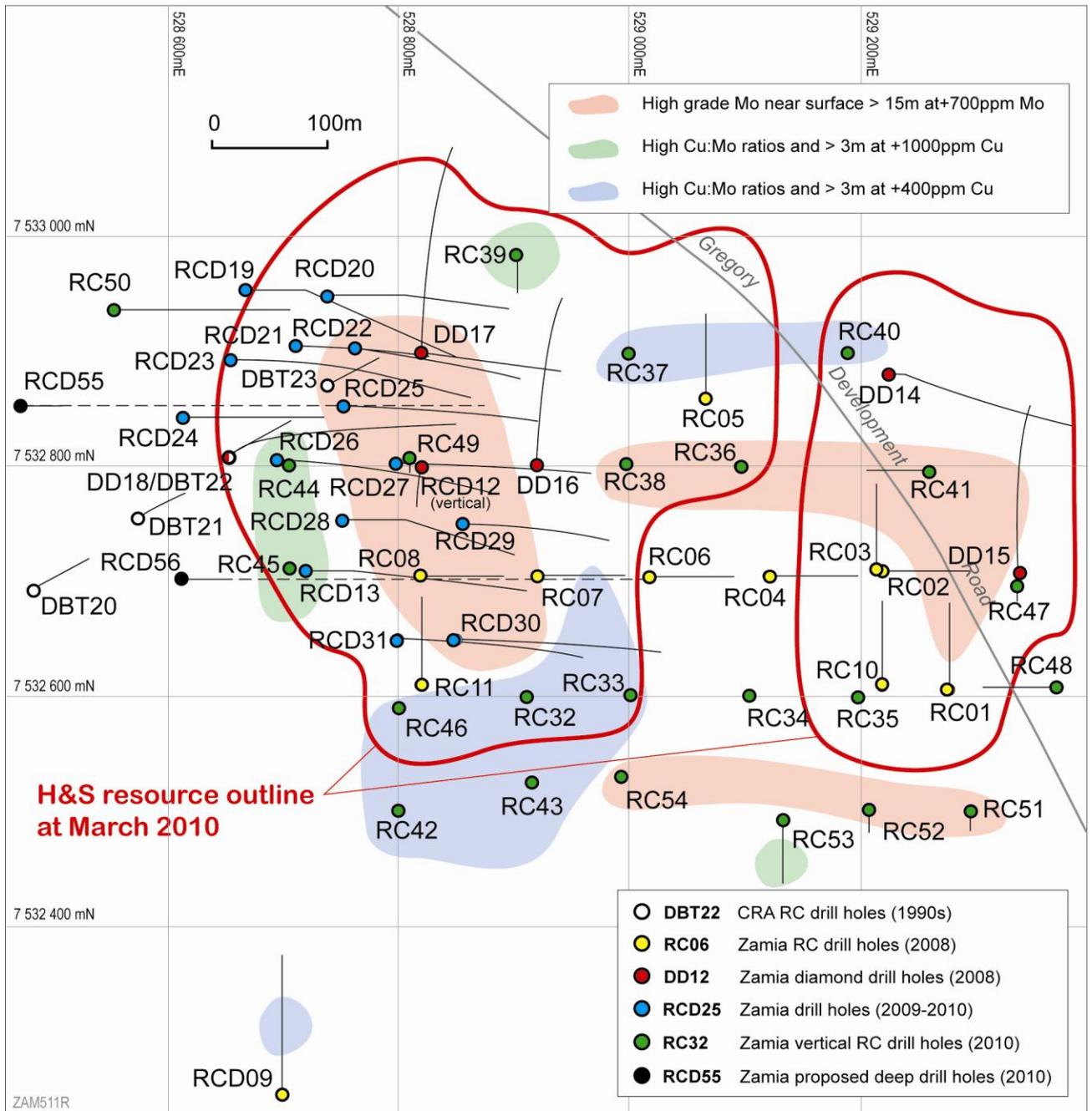


Figure 1: Drilling to date, showing high molybdenum and elevated copper zones, together with H&S resource outline (March 2010, based on holes 1 to 31)

Hole description	Weathered zone depth (m)	Weathered zone assay (ppm Mo)	Transition zone depth (m)	Transition zone assay (ppm Mo)	Sulphide zone depth (m)	Sulphide zone assay (ppm Mo)
<b>Summary – holes 1-31, H&amp;S resource assessment</b>	From surface to 50 - 90m vertical	29.9 Mt at 375 ppm	Variable below weathered zone	6.2 Mt at 398 ppm	To average vertical depth ~ 200m	81.1 Mt at 434 ppm
		<b>incl. 1.2 Mt at 718 ppm</b>		<b>incl. 0.4 Mt at 715 ppm</b>		<b>incl. 13.5 Mt at 748 ppm</b>
<b>RC32</b>	0-87m	409 ppm	87-102m	483 ppm	102-180m	496 ppm
					<b>incl. 168-171 177-180 EOH</b>	<b>975 759</b>
<b>RC33</b>	0-63	297	63 - 102	385	102 - 216	254
<b>RC34</b>	0-78	131	78-87	341	87-222	84
<b>RC35</b>	0-66	227	66-111	284	111-244	157
<b>RC36</b>	0-57	<b>676</b>	57-72	<b>579</b>	72-246	392
					<b>incl. 72-90 72-75</b>	<b>727 1360</b>
<b>RC37</b>	0-51	480	51-81	375	81-246	388
					<b>incl. 159-162 183-186 210-216</b>	<b>822 846 723</b>
<b>RC38</b>	0-87	<b>587</b>	87-114	430	114-246	386
					<b>incl. 114-150 123-135</b>	<b>704 1099</b>
<b>RC39</b>	0-75	158	75-102	141	102-246	115
<b>RC40</b>	0-66	293	66-99	261	99-213	288
					<b>incl. 210-213 EOH</b>	<b>604</b>
<b>RC41</b>	0-75	465	75-87	<b>704</b>	<b>87-234</b>	<b>571</b>
<b>RC42</b>	0-87	85	87-111	32	111-242.5	57
<b>RC43</b>	0-84	314	84-105	247	105-237	289
<b>RC44</b>	0-51	116	51-96	136	96-246	256
					<b>incl. 192-246 EOH</b>	403
<b>RC45</b>	0-60	107	60-90	64	90-246	112
<b>RC46</b>	0-66	217	66-81	160	81-222	145
					<b>incl. 81-84</b>	<b>934</b>
<b>RC47</b>	0-60	486	60-84	399	84-234	272
	<b>incl. 51-57</b>	<b>1373</b>	<b>incl. 63-66</b>	<b>1060</b>	<b>incl. 87-90 231-234 EOH</b>	<b>1080 673</b>
<b>RC48</b>	0-48	355	48-84	348	84-243	247
					<b>incl. 96-99 153-156</b>	<b>966 817</b>
<b>RC49</b>	0-72	648	72-108	779	<b>108-258</b>	<b>795</b>
			<b>incl. 72-84</b>	<b>1028</b>	<b>incl. 129-138 150-195 213-222 228-255</b>	<b>1055 1027 1069 1018</b>
<b>RC50</b>	0-57	2	57-87	8	87-240	41
<b>RC51</b>	0-66	564	66-102	935	102-252	349
	<b>incl. 33-45</b>	<b>1034</b>	<b>incl. 84-102</b>	<b>1364</b>	<b>incl.120-135</b>	<b>1041</b>
<b>RC52</b>	0-69	395	69-102	370	102-210	571
					<b>incl. 105-120 150-153 204-207</b>	<b>1014 2510 953</b>
<b>RC53</b>	0-69	371	69-87	432	87-252	487
					<b>incl. 249-252 EOH</b>	<b>1435</b>
<b>RC54</b>	0-99	356	99-108	662	108-216	549
			<b>incl. 105-108</b>	<b>1310</b>	<b>incl. 126-135 153-156 168-171</b>	<b>1125 1285 1005</b>

Table 1: Mo assay results for holes 46 to 54 together with previously reported results for holes 32 to 45 and resource summary for holes 1 – 31 (H&S, March 2010) (EOH = End of hole)

## Future Exploration Programme

Following the completion of the current RC drilling, Zamia plans the following:

- Produce an updated independent resource estimate for Anthony in September based on latest RC drilling results (holes RC32 to RC54).
- Commencing early September, drill two deep diamond holes to test for depth extensions of the Anthony resource.
- Based on assessment of all information, carry out additional deep diamond drilling and further drilling of the wider area around Anthony.
- Update the resource estimate as may be required following the deep diamond holes.
- Drill shallow gold targets at the Frankfield Hill and West Lucky Break prospects in the Company's Mazeppa tenement (EPM 14790).
- Drill a gold and platinum group element ('PGE') target in the Company's Mount Rolfe tenement (EPM 14792).
- Continue geological mapping and soil geochemical surveys in other tenements to define targets for drill testing.



Ken Maiden  
Executive Chairman

### About Zamia (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.zamia.com.au](http://www.zamia.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.