

9 February 2011

# Peak Hill Iron JV - High-grade haematite mineralisation discovered at Mt Padbury

#### **Highlights:**

AUO BSM IBUOSJBO,

- Highly successful geological mapping near Mt Padbury has delineated a number of new iron ore targets.
- Potentially significant platy haematite-goethite mineralisation discovered with grades up to 63.2% Fe.
- Haematite mineralisation has an exploration target<sup>1</sup> potential of 20–28 million tonnes at 55–60% Fe.
- Potential magnetite deposits also delineated add significant upside to those already discovered at Telecom Hill.

The JV partners, Padbury Mining and Aurium Resources, are pleased to announce the results from a highly successful geological mapping program conducted on the Peak Hill project near Mt Padbury within exploration licence E52/2279 (See Figure 1). The mapping was completed by independent geological consultants CSA Global Pty Ltd as part of the ongoing assessment of the Peak Hill Project, and has highlighted significant additional iron ore potential within the project.

Mapping in the southern part of the tenement near Mt Padbury, has delineated two deposits of high grade haematite-goethite mineralisation (see Figures 2 and 3). The largest pod has a strike extent of 700m and rockchip samples taken during mapping have returned many high-grade iron results (See Table 1). The larger of the two haematite pods has an exploration target<sup>1</sup> potential of 20 to 25 million tonnes at a grade of 55–60% Fe. The smaller pod, located to the north of Mt Padbury, has an exploration target<sup>1</sup> potential of 2-3 million tonnes at 55–60%.

The haematitic mineralisation is well developed at surface and was observed to extend to at least 20m depth in an incised valley within the pod. The mineralisation is interpreted to be the result of hydrothermal or metasomatic alteration. This type of mineralisation is the optimum type to find since it is likely that it will extend to depth, rather than being only a surficial feature. The JV partners plan to follow-up this mineralisation with drilling at the earliest opportunity.

CSA's mapping also located an area with potential for a large magnetite deposit to the northeast of Mt Padbury. The target in this area is interpreted to be a thick (100–150m) magnetic BIF similar to those seen at Telecom Hill. The area has a strong aeromagnetic response and mapping demonstrates that magnetite-bearing BIF is present, although poorly exposed. This discovery

<sup>&</sup>lt;sup>1</sup> NOTE: This potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.



potentially provides significant upside to the 1.5-2.0 billion tonne exploration target<sup>2</sup>, grading 25%-35% Fe interpreted to be present at the Telecom Hill Prospect.

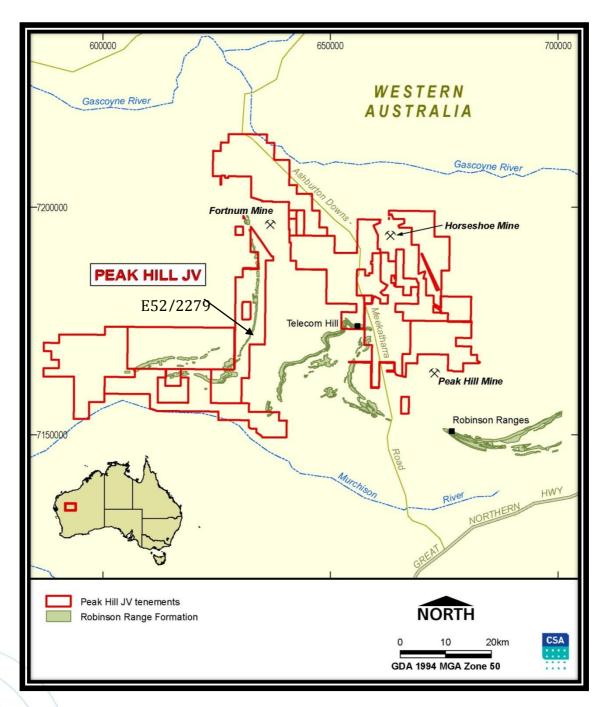


Figure 1 Tenement location plan

<sup>&</sup>lt;sup>2</sup> NOTE: This potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource



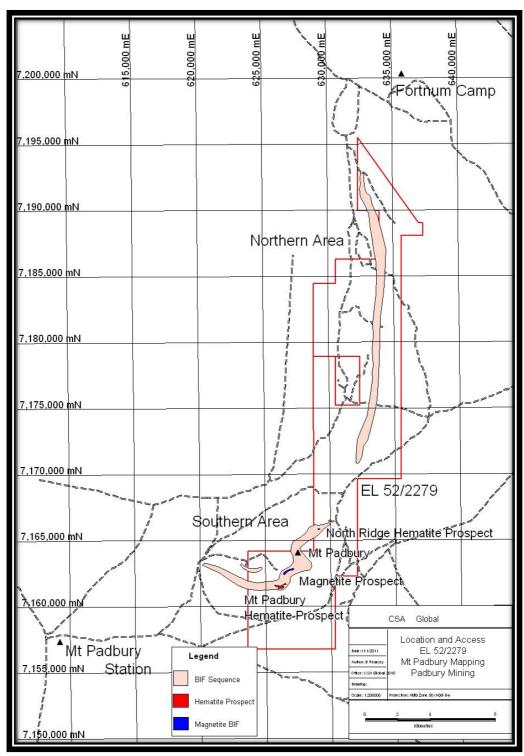


Figure 2. Mapped areas within Tenement E52/2279



### **Mapping Results**

AIUO BSM | BUOSJBQ J

The mapping program was very successful, delineating the Banded Iron Formation (BIF) stratigraphy within the tenure and identifying a number of new iron mineralisation targets.

Geological fact mapping was completed at a scale of 1:5000 scale within tenement E52/2279 to better define the extent and thickness of the BIF stratigraphy present and assess the potential for iron ore mineralisation within the tenure. In areas of particular interest, such as the haematite pods the mapping scale was changed to 1:1000 scale. The data was collected on to gridded paper and transposed into MapInfo GIS for compilation.

The mapping has shown that three main BIF units are present within the Robinson Range Formation within E52/2279. There are two distinct geological domains; the southern and northern domains (see Figure 2). The southern area has been folded into a series of open regional-scale folds. This folding has resulted in thickening of the BIF units in the fold hinge areas. The northern area is quite different, with the stratigraphy in this area attenuated into a narrow, linear, belt with very little folding. The mapping shows that the BIF units in the southern area are thicker, better developed, and have a stronger magnetic response than those in the northern area. These characteristics point to the southern domain being more prospective and this area should be the focus of future exploration.

In detail, the BIF stratigraphy in both areas comprises three main BIF units:

- The basal BIF is 50–150m thick and forms topographic ridges but with poorly developed banding and with a high lithic content.
- The central magnetic BIF unit is thinner, but quite variable in thickness, ranging from 20–150m thick and may contain significant magnetite potential. The middle BIF unit was found to contain small quantities of magnetite at surface in the southern area and has the strongest magnetic signature on the publically available aeromagnetic survey data.
- The upper BIF unit is generally less than 50m thick and is often missing.

## **New Iron Ore Prospects**

The mapping identified two potentially significant haematite prospects near Mt Padbury. A total of 22 surface rockchip samples were taken at the haematite outcrops and these samples gave iron grades ranging from 51.8–63.2% Fe (see Figures 3 and 4), with low silica and alumina but with elevated phosphorous (see Table 1). The elevated phosphorous is not ideal for this style of mineralisation but may be a result of surface enrichment. To assess if the phosphorus is also elevated at depth a number of RC drill holes will be required.

The larger of the two haematite occurrences has an exploration target potential of 20 to 25 million tonnes at a grade of 55-60% Fe. The smaller pod, located north of Mt Padbury, has exploration target potential of 2-3 million tonnes at 55-60% Fe.

The exploration targets are predicated on the observed surface mineralisation extending to a depth of 80m with a density of 3.00g/cm<sup>3</sup>. The exploration targets discussed are not Mineral Resources and are conceptual in nature. It is uncertain if further exploration will result in the estimation of a Mineral Resource.



The haematite mineralisation is well developed and continuous along strike over 700m. The mineralisation is coincident with a distinct area of interpreted magnetite destruction seen in the aeromagnetic data. The haematite mineralisation is seen to extend to at least 20m depth in an incised gully on the side of the ridge demonstrating the deposits are more than just thin veneer of surface enrichment.

The platy style of the haematite mineralisation and size of the deposit suggest either a metasomatic or hydrothermal origin rather than surface enrichment, which makes this a more attractive target.

The magnetite potential within the tenure is restricted to the southern area where the BIF units are thicker and have a higher magnetic response. In the north the BIF units are poorly developed with significant interbeds of non magnetic shale, metapelite and chert.

In the southern area, the most prospective area occurs on an east-west trending fold limb with a high magnetic response (see Figure 5). The magnetic unit outcrops poorly in this area, but subcrop indicates the unit is 100-150m in width. Due to the poor exposures in this area no exploration target estimate could be made. However, this zone does appear to be a good target to explore in conjunction with larger Telecom hill magnetite prospects further east.

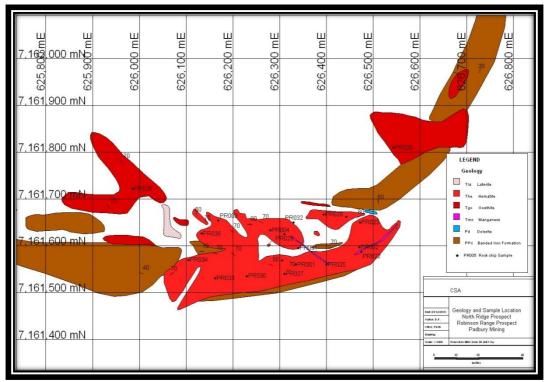


Figure 3. Mt Padbury Haematite Prospect geology map





Figure 4. Haematite outcrop at the Mt Padbury Haematite prospect

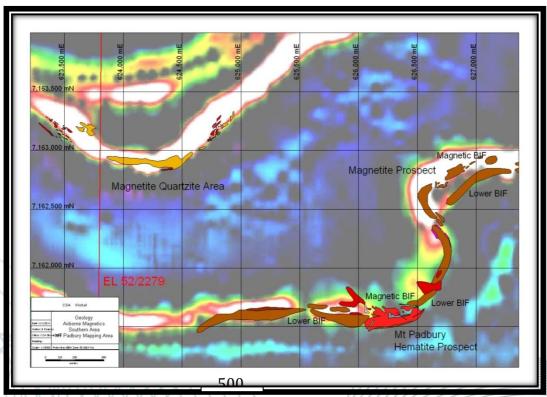


Figure 5. Mapped geology over total magnetic intensity image



Table 1. Significant rock chip samples from the haematite deposits

Table 1. Significant rock chip samples from the haematite deposits								
Sample	Location		Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	P	LOI	Prospect
	east	north	%	%	%	%	%	
PR001	626335	7161560	60.36	4.7	1.27	0.222	6.69	Mt Pad Hem
PR002	626470	7161597	35.71	2.41	2.13	0.256	11.16	Mt Pad Hem
PR003	626169	7161654	58.33	3.85	1.83	0.143	8.72	Mt Pad Hem
PR004	626280	7161633	59.89	1.97	1.51	0.604	9.19	Mt Pad Hem
PR005	626543	7161810	59.77	5.85	1.22	0.247	6.3	North Ridge
PR008	624744	7163140	60.55	4.95	2.29	0.081	3.94	North Ridge
PR009	624820	7163310	61.94	2.04	1.49	0.154	7.29	Mt Pad Hem
PR022	626475	7161587	63.32	2.78	1.6	0.238	4.39	Mt Pad Hem
PR023	626472	7161650	56.22	2.67	2.95	0.684	7.83	Mt Pad Hem
PR024	626442	7161662	58.83	3.24	1.6	0.124	9.52	Mt Pad Hem
PR025	626400	7161560	55.73	9.44	2.59	0.089	6.65	Mt Pad Hem
PR026	626394	7161667	57.54	2.96	2.72	0.497	10.41	Mt Pad Hem
PR027	626310	7161540	57.76	6.2	1.15	0.281	9.11	Mt Pad Hem
PR028	626305	7161569	59.04	7.73	1.25	0.403	5.02	Mt Pad Hem
PR029	626310	7161625	59.31	2.9	2.48	0.19	8.72	Mt Pad Hem
PR030	626230	7161535	57.19	4.66	1.72	0.541	9.76	Mt Pad Hem
PR031	626340	7161595	59.59	2.35	1.74	0.507	8.85	Mt Pad Hem
PR032	626330	7161650	60.85	2.05	1.68	0.464	7.84	Mt Pad Hem
PR033	626162	7161531	51.83	5.9	4.29	0.328	7.83	Mt Pad Hem
PR034	626105	7161570	59.08	5.02	1.25	0.486	7.6	Mt Pad Hem
PR035	626133	7161626	59.98	3.07	1.24	0.36	8.4	Mt Pad Hem
PR036	625986	7161722	60.2	3.32	2.66	0.116	6.93	Mt Pad Hem

NB: Samples were analysed by fused disc XRF for the standard iron suite by Ultra Trace Laboratories in Perth.

For further information please contact:

Gary Stokes Managing Director Padbury Mining Limited Terry Quinn Managing Director Aurium Resources Limited

+61 8 6460 0250

+61 8 6460 0250

#### Competent Persons Statement

The Exploration Results and exploration target estimates discussed in this report were prepared under the supervision of Mr Daniel Wholley BAppSc MAIG, who is a Director and full time employee of CSA Global Pty Ltd and is a competent person as defined by the Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) 2004 Edition. Mr Wholley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.