



## ASX ANNOUNCEMENT

8<sup>th</sup> April 2010

### POSITIVE SCOPING STUDY RESULTS FOR KORELLA PHOSPHATE DEPOSIT

#### HIGHLIGHTS

- ▲ Krucible Metals Ltd has recently completed a Scoping Study on the Korella phosphate deposit (previously called PHM South). Results are positive and vindicates the commencement of a Pre-Feasibility Study on this deposit, located 150km SE of Mount Isa
- ▲ The indicative economic model (derived from costs ascertained from the Scoping Study and projected market conditions) indicates a Net Present Value (NPV) of \$82 million at a discount hurdle of 15% and an exchange rate of \$US0.90
- ▲ The operation assumes a mine life of 6 years, transporting DSO ore to Townsville by rail at a rate of 600,000 tpa at a market price of \$Au200 per tonne. The current Inferred Resource includes 5 million tonnes @ 30.8% P<sub>2</sub>O<sub>5</sub>
- ▲ The capital cost (including working capital of \$15 million) is estimated to be in the range of \$39-45 million and break even production costs of \$120-130 per tonne. Contract mining and handling is planned
- ▲ The greatest SENSITIVITY to the success of such an operation is market pricing and outlets – these conditions have improved markedly over the last 4 months and phosphate prices are predicted to continue to improve over the next 10 years. Current FOB contract prices for rock phosphate from North Africa are believed to be in the range of \$US110-130/tonne
- ▲ Krucible will now initiate a Pre-Feasibility Study, under the supervision of director and Project Manager Ray Koenig. This PFS will include the pegging of a Mining Lease Application, Native Title negotiations, metallurgical testwork, detailed costings, further work on market penetration and research on fertiliser usages and pricing
- ▲ A smaller Mining Lease will also be pegged to facilitate bulk sampling so that potential customers can be supplied with test material in 2011
- ▲ If the above work indicates a robust operation is likely, then a Definitive Feasibility Study will be carried out for commencement of a mining operation in late 2011 or early 2012. The presence of nearby existing infrastructure such as rail, roads, power and operating mines will benefit the economics of this proposed operation
- ▲ Australia and New Zealand currently import a combined total of 1.2 million tonnes of rock phosphate. Krucible will pursue markets in Australasia, Indonesia, China, India and South America



The directors of Krucible Metals Ltd are pleased to announce that the Scoping Study has been completed on the Korella (formerly known as PHM South) high grade phosphate deposit, located about 150 km SE of Mount Isa and immediately adjacent to the Phosphate Hill Mine (owned and operated by Incitec Pivot Ltd).

The Scoping Study was carried out under the direction of Project Manager Ray Koenig, a senior Metallurgist with extensive experience in project development. Ray is a director of Krucible.

The purpose of the Study was to ascertain if the relatively high grade rock phosphate deposit of **5.0 million tonnes @ 30.8% P<sub>2</sub>O<sub>5</sub>** (with low iron, aluminium and cadmium content) is likely to be economic under predicted market conditions and to determine what work needs to be carried out in a Pre-Feasibility Study. A Table of the JORC Code Inferred Resource is outlined below;

**TABLE 1**

**CORELLA BORE / PHM SOUTH INFERRED RESOURCE (KORELLA DEPOSIT)**  
**(Computer Generated Polygonal Method Based on Simple Flat to Low Dipping Tabular Body)**

Lower Cut-Off	Inferred Resource	R <sub>2</sub> O <sub>3</sub> % (Al <sub>2</sub> O <sub>3</sub> + Fe <sub>2</sub> O <sub>3</sub> )	CaO/P <sub>2</sub> O <sub>5</sub>
10% P <sub>2</sub> O <sub>5</sub>	19.3 million tonnes @ 19.0% P <sub>2</sub> O <sub>5</sub>	4.6%	1.32
20% P <sub>2</sub> O <sub>5</sub>	8.3 million tonnes @ 27.36 P <sub>2</sub> O <sub>5</sub>	3.6%	1.39%
25% P <sub>2</sub> O <sub>5</sub>	5.0 million tonnes @ 30.8% P <sub>2</sub> O <sub>5</sub>	3.0%	1.37

(NB – Cadmium content is generally in the range of 2-5ppm)

**NET PRESENT VALUE**

The Scoping Study has indicated a **NPV of \$83 million** for the Project at a discounted hurdle rate of 15%.

This is for a projected discounted cash flow on a “dry” mining and screening operation of 600,000 tonnes per annum (tpa) for a period of six years, transporting Direct Shipping Ore (DSO – approximately 30% P<sub>2</sub>O<sub>5</sub>) by rail to the port at Townsville.

The **economic model** assumes a price of \$Au200 per tonne, an exchange rate of US 90 cents and transport costs of \$Au40 – 45 per tonne.

The **capital cost** for project development is in the range of \$39-45 million (this includes working capital of \$15 million. The break-even range for production is estimated at \$120-130 per tonne.



## **SUMMARY OF SCOPING STUDY**

Krucible Metals has discovered a phosphate resource at Corella Bore EPM 15572/PHM South Deposit (now called **Korella Deposit**) as a result of a major drilling program. The drilling program has outlined 19.3 million tonnes of inferred phosphate resource grading 19.0% P<sub>2</sub>O<sub>5</sub> and includes 5.0 million tonnes at a grade of 30.8% P<sub>2</sub>O<sub>5</sub>. This scoping study has been developed to assess the potential for a direct phosphate rock (DSO) shipping operation. The minimum grade for DSO is about 30% P<sub>2</sub>O<sub>5</sub>, although Krucible believes the grade at Korella can be increased by dry screening processes.

A preliminary drilling and testing program had previously outlined a phosphate rich resource with a mineralogy that indicated high grade phosphate adequate for direct shipping ore or a phosphate mineralogy that could be beneficiated by flotation. The extended drilling program then aimed for a project to allow direct shipping ore at a modest production rate of 600,000 tonne per annum. The program confirmed ore grade at a greater than 30% P<sub>2</sub>O<sub>5</sub> and the scoping study has been done on the basis of a 6 year operation at that tonnage.

As a result of the availability of infrastructure and a rail line within 10 km of the Korella Deposit, discussions have been held with Queensland Rail's Network group and the above rail transport group. Capacity is available within an 18 month horizon and prices were received for the freight cost from the site to Townsville.

Discussions have also been held with Queensland Sugar about the use of their port storage and handling facilities at Townsville. They consider no problems in using the same facilities for phosphate as well as sugar. This potentially provides an export facility capable of handling Panamax vessels.

The major business driver for the project is the rock phosphate market. Krucible Metals has contacted potential customers and has accessed market information relating to phosphate demand and prices. The International Fertiliser Agency is predicting an annual increase of 5.5% in demand for phosphate rock over the next 5 years. In addition the CRU has predicted that prices are likely to increase over the next 10 years.

The capital cost for the project is estimated to be \$42 million at 40% accuracy. Capital costs, including working capital of \$15m, have been minimised by the use of contract mining and crushing. The operating costs are estimated to be \$Au125 per tonne.

A simplified model has been used to estimate that at a product price of \$Au200 per tonne, the NPV is estimated to be \$83 million and the IRR 51%.

The high grade material is likely to attract a premium price of about \$Au200 per tonne and this is used as the base case financial model. This provides an incentive to develop the project further by commencing the environmental approval process as well as initiating the pre-feasibility study.

Environmental Studies have commenced and the Mining Lease Application is being developed.

The development actions required in order of priority are therefore;



1. Continue the activities required by the MLA including environmental field studies, Native Title negotiations and surveying
2. Develop a more detailed concept for a trial mine to test the mining conditions as well as provide bulk samples for potential customers
3. Obtain proposals for the pre-feasibility study from recognised engineering consulting groups capable of developing the resource and mine planning as part of the pre-feasibility study
4. Develop letters of agreement for the transport of phosphate from the mine site to ships at Townsville
5. Establish phosphate prices by visiting with and negotiating the current prices for 600,000 tpa of phosphate rock.

According to market research, phosphate prices are likely to increase over the next 5 years at the rate of about 5.5% per annum and Krucible Metals can be in position to benefit from the increased prices. Current prices for North African phosphates are \$US100 to \$US130 per tonne. These landed in New Zealand are around \$US250 per tonne.

Australia imports around 600,000 tpa to the West Australian CSBP fertiliser plant and the Impact fertiliser plant in Hobart. New Zealand imports a similar quantity of 600,000 tpa to the Ballance and Ravensdown plants. So the market in Australasia is around **1.2 million** tpa and this is currently provided by Moroccan and other North African rock phosphate suppliers.

## **CONCLUSIONS**

- ▲ The directors of Krucible believe that the Company has made significant progress in defining a relative high grade phosphate resource near the operating Phosphate Hill Mine in NW Queensland
- ▲ The Scoping Study has indicated that this resource is likely to provide the basis for an economic DSO fertiliser operation, provided market prices continue to improve
- ▲ The Company will soon commence a Pre-Feasibility Study to better determine the economics of the proposed Project and will also examine funding options.

Attached: Figures 1-3

Tony Alston  
Managing Director  
Krucible Metals Ltd.

Further Information: Mr. Tony Alston Ph: (07) 4772 5880

WEBSITE: [www.kruciblemetals.com.au](http://www.kruciblemetals.com.au)



**KRUCIBLE METALS LTD**

*Mineral Discovery Company*

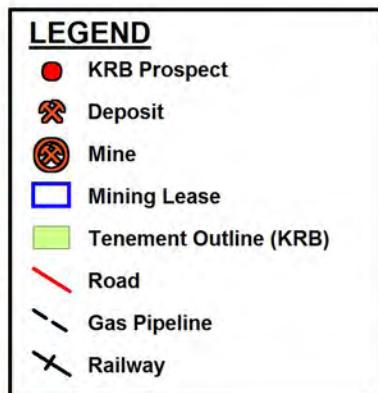
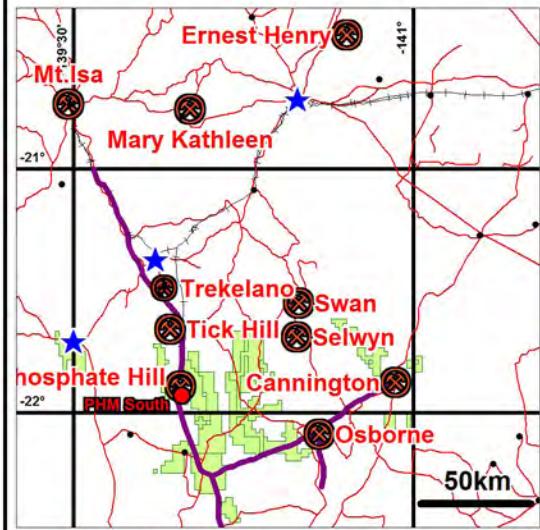
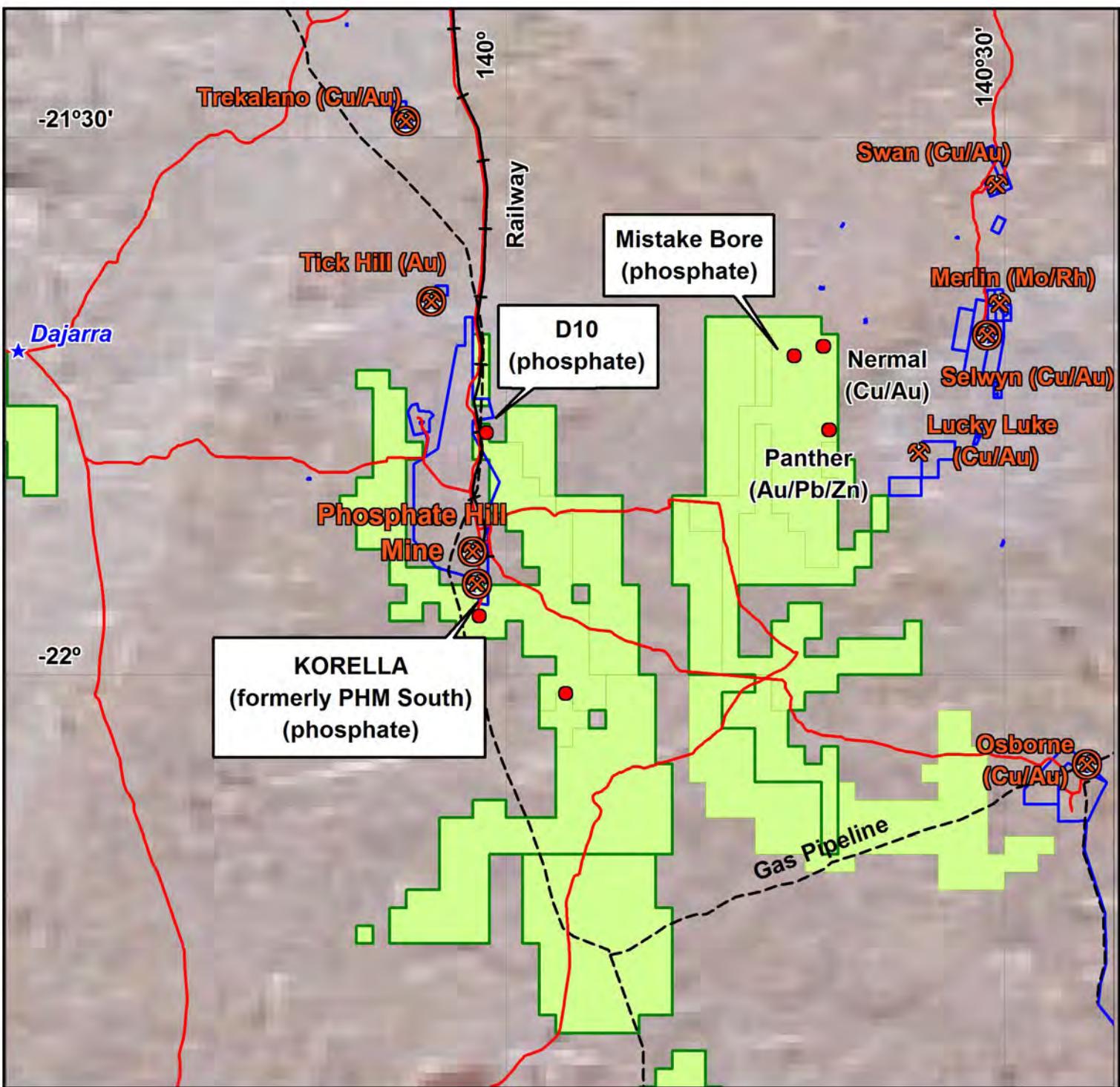
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Information of a scientific or technical nature in this report was prepared under the supervision of A.J. Tony Alston, CEO and Chief Geologist of Krucible, who is a member of the Australian Institute Geoscientists and the Australian Institute of Mining and Metallurgy. Mr Alston has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a "competent person" as defined in the 2004 edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Alston has reviewed and approved Krucible's quality assurance program, quality control measures, the geology, samples collection and testing procedures the basis for information contained in this report. For further information regarding the Korella Deposit (PHM South) discovery please refer to reports and releases to the Australian Stock Exchange over the last 18 months together with the Company's website at [www.kruciblemetals.com.au](http://www.kruciblemetals.com.au)

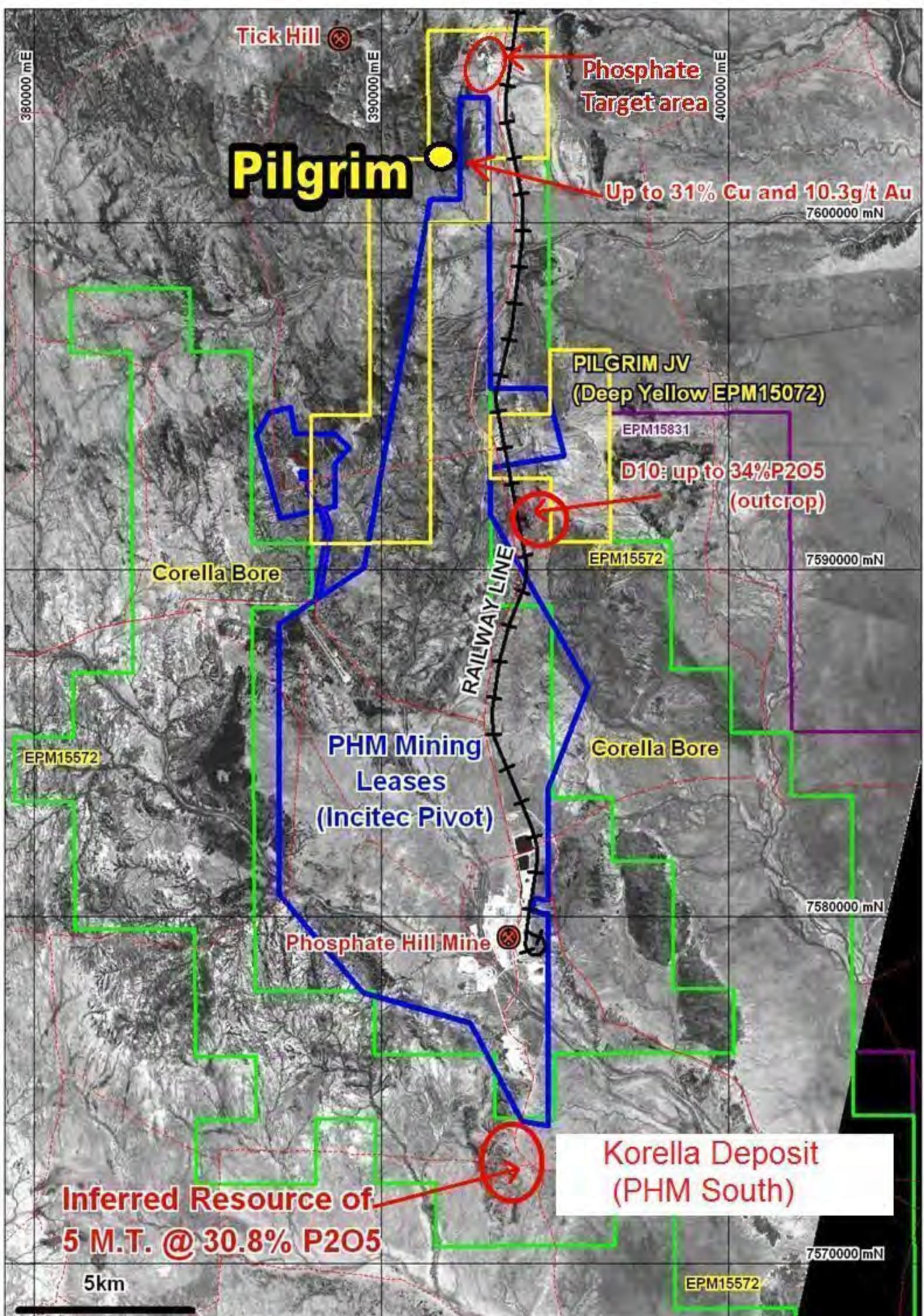
This report contains forward-looking statements. These forward-looking statements reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. A number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward looking statements.

Mr Alston consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

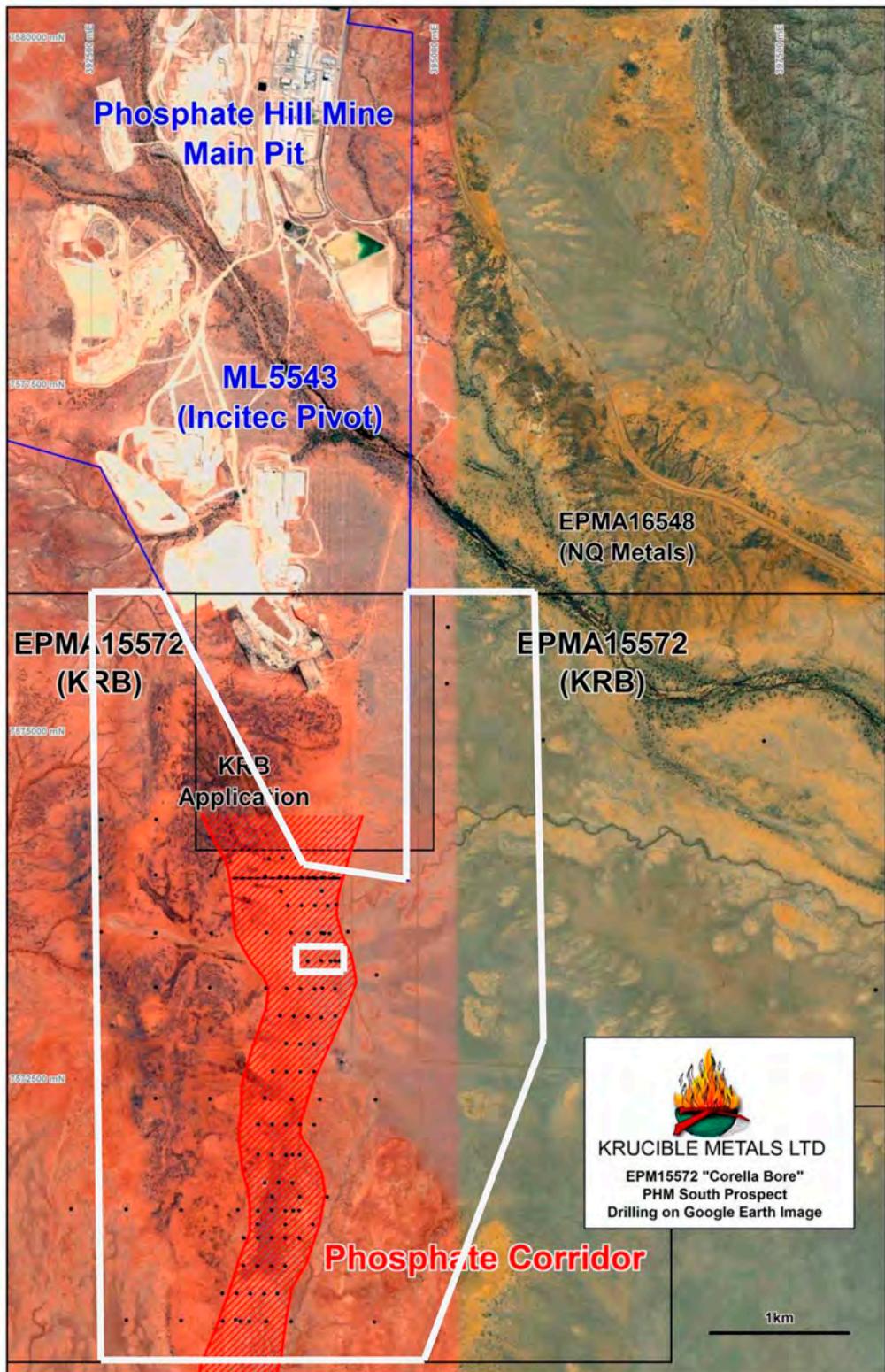
Information in this Announcement relating to the Korella Deposit (PHM South) Scoping Study has been documented by Mr Ray Koenig who is a Senior Project Metallurgist and Chartered Professional and Fellow of the AusIMM. Mr Koenig consents to this information being included in the ASX Announcement.




**KRUCIBLE METALS LTD**  
**MT ISA SOUTH AREA**  
**Krucible Tenements,  
Mines and Infrastructure**



Regional Aster Image showing tenement locations Mt Isa South



PROPOSED MINING LEASE APPLICATION AREAS FOR KORELLA PHOSPHATE OPERATION  
(NB - smaller MLA is for Bulk Sampling purposes)