



AIM and PLUS code: MARL

7th November 2007

### **IP/Resistivity surveys delineate a large system of prospective silicified structures at Sierra Blanca, Santa Cruz Province, Argentina**

Mariana Resources Limited (Mariana) has received interpreted results for four grids of gradient array IP and Resistivity surveys (totaling 55 line kilometres) completed at the Sierra Blanca Project, Santa Cruz, Argentina. The report from Quantec Geoscience (geophysical contractors and consultants) states **“The gradient IP and resistivity surveys appear to have detected and delineated a large system of prospective silicified structures. The density of interpreted veins appears to be very high, significantly greater than usually encountered on these types of projects in Patagonia.”**

On October 15<sup>th</sup>, 2007, Mariana announced that bonanza grade gold and silver mineralisation had been discovered at the Veta Chala Vein located in the NE part of the concession after the IP survey was completed (see Figure 1). Assays of rock chips taken across vein outcrops yielded up to **17.8 g/t (grams/tonne) gold and 518 g/t (17 ounces/tonne) silver**. Results of follow up diamond saw channel sampling at Veta Chala are awaited.

In general, IP chargeability effects are often observed in low-sulphidation epithermal systems as a result of the presence of sulphides (usually pyrite) in the rock. High electrical resistivity in such systems is typically caused by silica filling pore spaces and voids. Chargeability and resistivity together, can be effective in detecting epithermal veins, particularly in the Patagonian environment.

In excess of 40 resistive lineaments have been identified at Sierra Blanca, with an aggregate strike length of 24 kilometres, many of which have coincident chargeability lineaments. (A synthesis of lineaments overlain on resistivity images is shown in Figure 2). Some of these resistivity lineaments correlate with outcropping quartz vein zones, confirming the interpretation in these areas. A pattern of brittle fracture and displacement is exhibited by the interpreted lineaments, which is considered to be very significant, as key exploration targets may be structural intersections at which silicification has taken place.

Significantly, resistivity trends in the southernmost part (Vetarron) are coincident with strongly northeast trending silicified and brecciated wall rocks which outcrop over an area up to 200 metres in width and 2 kilometres in length. The IP survey interpretation indicates the Vetarron vein system extends further east for up to 800 metres under thin cover of recent volcanic ash. Previous limited rock chip sampling of the main outcrop obtained up to 1.6g/t gold.

Commenting today, Managing Director, John Sutcliffe said: “These geophysical results indicate that we could well be dealing with a large but poorly exposed mineralized system at Sierra Blanca. This, together with the recent high-grade vein discovery is most encouraging. Only a small part of the area has so far been explored by Mariana. On-going detailed geological mapping, soil/rock chip geochemistry and trenching will assist in prioritisation of these targets for drilling”

#### **ON BEHALF OF THE BOARD**

John Sutcliffe  
Managing Director

For more information:

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#### ADDITIONAL INFORMATION

*The exploration programme is being directed by the Argentina Exploration Manager, Dr Gustavo A. Rodriguez under supervision of Managing Director Mr John Sutcliffe. The geophysical surveys and interpretation were carried out by geophysical consultants Quantec Geoscience. Samples were prepared by ALS Chemex in Mendoza, Argentina, using standard industry practice. Analytical work was carried out at the ALS Chemex laboratory in Santiago de Chile, using conventional fire assay technique for gold and silver. Exploration information in this announcement has been compiled by John Sutcliffe who is a Fellow of the Geological Society of London, a Chartered Engineer and a Member of the Institute of Mining and Metallurgy. Mr Sutcliffe has sufficient experience relevant to the style of mineralisation and types of gold deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the JORC Code.*

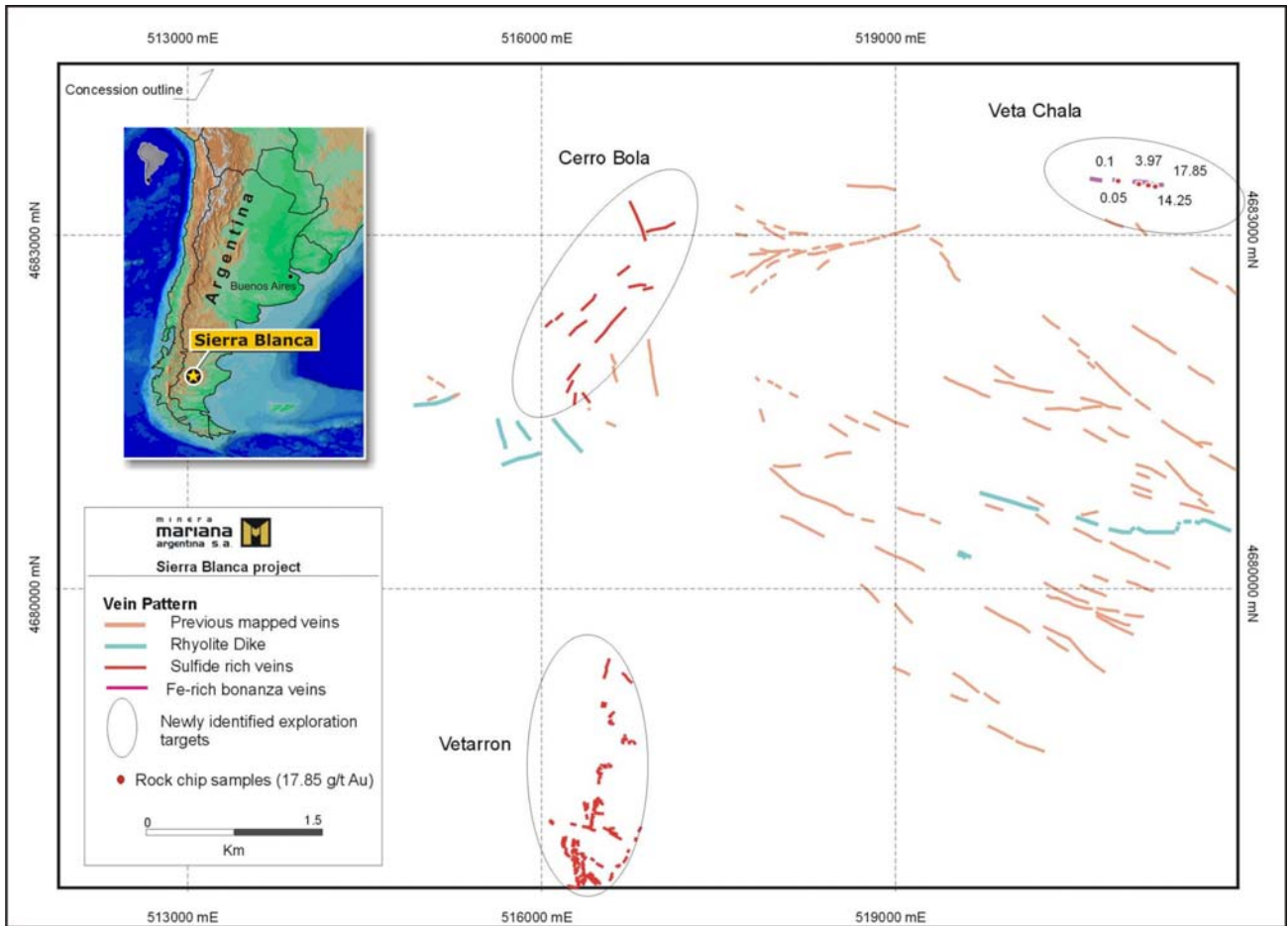
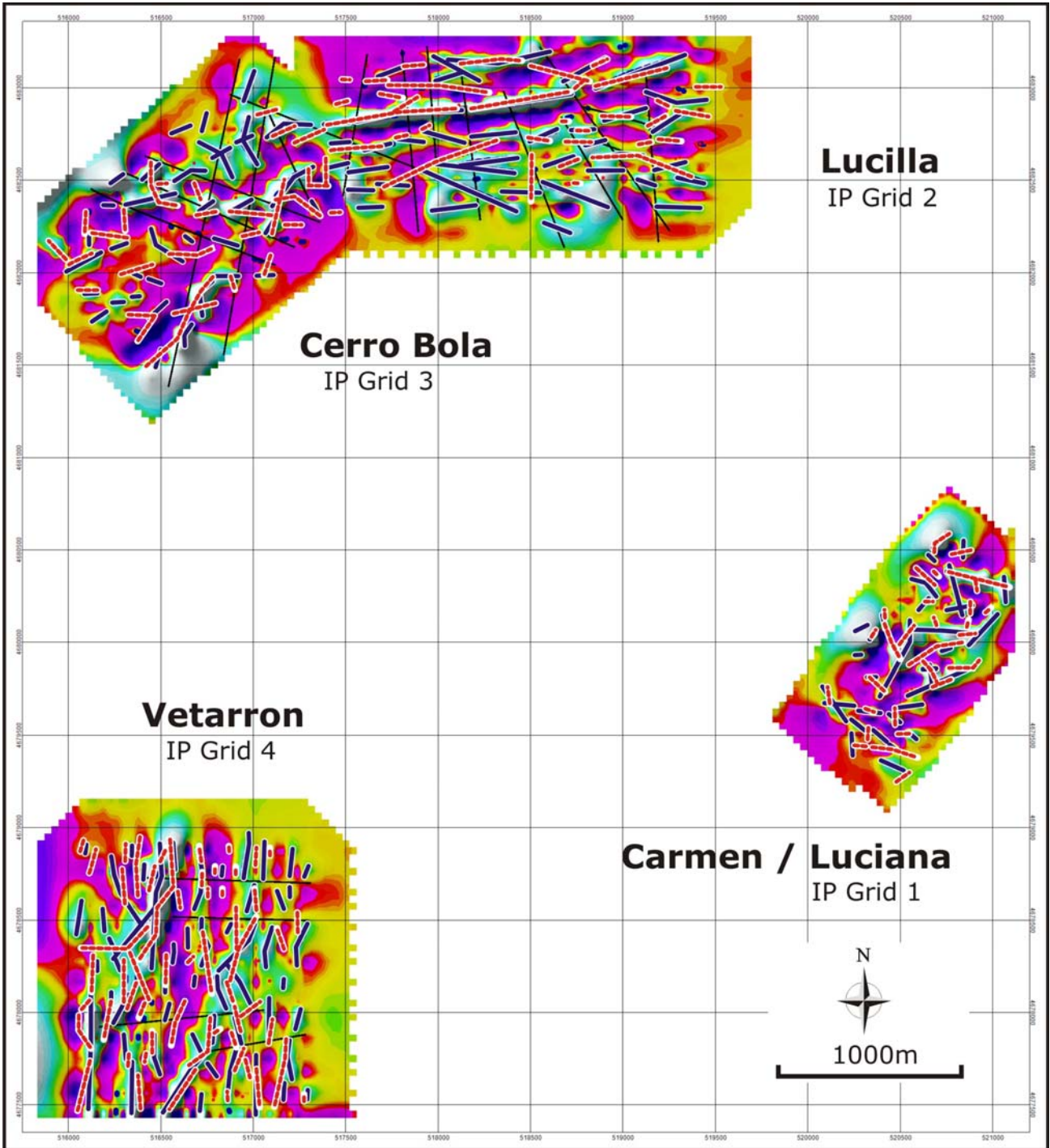


Figure 1: Newly identified exploration targets at Sierra Blanca and initial rock-chip assays from the bonanza grade Veta Chala vein. Projection is UTM zone 19, Southern Hemisphere (WGS 84).



- - - Chargeable Lineaments
  - Resistive Lineaments
  - Inferred Faults
- (\* Overlain on Resistivity Images)

Figure 2  
**Sierra Blanca**  
 IP Interpretation