

Significant gravity anomaly at Buenaventura Iron Oxide-Copper-Gold (IOCG) Project, Northern Chile

- **A significant gravity ridge has been defined extending northwards from the Cerro Brecha IOCG prospect for approximately 3km.**
- **3D-modelling in progress to define drill targets.**
- **Previous drilling (2002) at the southern end of the gravity ridge intersected IOCG type copper mineralisation with anomalous gold.**
- **Buenaventura is located in the highly prospective IOCG Belt between Freeport's Candelaria and Anglo American's Manto Verde copper mines.**

Mariana Resources Ltd ("Mariana") is pleased to announce that it has received preliminary geophysical images from joint venture partner Minotaur Exploration Ltd ("Minotaur") which outline an area of immediate interest north of the Cerro Brecha IOCG prospect at the Buenaventura Project in Northern Chile.

Mariana/Minotaur have completed processing of additional and infill gravity surveying over Buenaventura. The new gravity data has been merged with previous re-levelled data. As a result, a significant gravity ridge has been defined extending northwards from the Cerro Brecha. This indicates a 3 x 2km area of immediate interest in the northeast sector of the project area. 3D-modelling is in progress to define drill targets. It is important to note that previous drilling (2002) at the southern end of the gravity ridge intersected IOCG type copper mineralisation with anomalous gold. Intercepts included 16m @ 0.5% Cu from 31m, 10m @ 0.9% Cu from 79m plus 4m @ 1.1% Cu from 103m and 28m @ 0.4% Cu from 25m plus 28m @ 0.4% Cu from 173m.

The 44 square kilometres Buenaventura Project is within the world-class Chilean IOCG Belt, mid-way between the Candelaria and Manto Verde copper mines operated by Freeport-McMoRan and Anglo American respectively (see figure). Previous drilling (2002) was close to outcrop at Cerro Brecha and Cerro Amada with IOCG type oxide and sulphide copper mineralisation encountered in a number of holes, from near surface to depths of up to 400m, with intervals ranging from 10 to 90m and grades in the range 0.2 to 0.5% copper. With 75% of the project area covered by gravels, exploration by Mariana/Minotaur has used gravity surveying to identify targets for follow up.

Buenaventura is 130km north of Mariana's 100% Perro Chico IOCG project at which infill gravity surveying of some prominent gravity anomalies is in progress.

Mariana/Minotaur Agreement

Mariana and Minotaur are exploring Buenaventura with titleholders Sociedad Minera Contractual Buenaventura and may earn 51% through expenditure of US\$3 million over 3 years. Mariana's first year commitment is US\$100,000 and Minotaur's is US\$300,000, after which either or both parties may withdraw. Once Mariana/Minotaur have earned 51%, they can earn up to 80% by completing a bankable feasibility study within 3 years.

Mariana/Minotaur can introduce a funding partner and also maintain first right of refusal to purchase the remaining 20%.

About Minotaur

Minotaur Exploration Ltd (ASX:MEP) is a successful Australian mineral explorer with recognized expertise developed in the field of IOCG exploration. Senior management discovered the Prominent Hill IOCG deposit in South Australia, currently in production by Oz Minerals Limited (formerly Oxiana Ltd). This discovery was guided by geophysical surveying to pinpoint targets below 100m of cover rock.

See Mariana website to view diagrams:

www.marianaresources.com

Commenting today, Managing Director John Sutcliffe said "We are confident this new gravity anomaly will generate one or more drill targets. Mariana's exposure to the US\$400,000 committed by Mariana/Minotaur is only US\$100,000."

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. 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 mineralization 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.

Quality Assurance/Quality Control

All technical information for the Company's Argentina projects is obtained and reported under a quality assurance and quality control (QA/QC) program. All samples are collected under the supervision of the Company geologists and dispatched via commercial transport to ALS Chemex laboratories in Mendoza, Argentina, and assayed in Santiago de Chile. ALS Chemex's quality system complies with the requirements for the International Standards ISO 9001:2000 and ISO 17025:1999. Samples returning greater than 10 g/t gold and/or greater than 100 g/t silver are assayed using gravimetric analyses. Systematic assaying of sample duplicates and commercially prepared standards and blanks is performed for analytical reliability.



