

**ASX Announcement**

**ASX Code: MAR**

**29<sup>th</sup> October 2012**

## **NEW MINERALISED ZONE DISCOVERED AT LORENA GOLD PROJECT, QUEENSLAND**

---

**Follow-up prospecting and BLEG stream sediment sampling has discovered a new outcropping zone of copper-gold mineralisation and alteration in the Lorena district, with dimensions of at least 260m x 30m. This new find, named “Bloodwood”, is located 5km from the Company’s Lorena gold mine and displays characteristics indicative of the Iron Oxide Copper Gold (IOCG) style of mineralisation.**

---

Malachite Resources Limited (“Malachite” or “the Company”) is pleased to advise that follow-up prospecting and sampling to locate the bedrock source of gold-anomalous stream sediment samples has discovered a new outcropping zone of mineralisation. This zone (named “Bloodwood”) is located in the headwaters of a gold-anomalous drainage in the eastern section of EPM 18908 (Figure 1).

This new zone has been located during the current program of prospecting, geological mapping, and stream sediment and rock chip sampling which the Company is conducting to discover gold and gold-copper deposits in the district surrounding its Lorena gold mine (east of Cloncurry, Queensland).

### **Malachite-coated dolerite rock samples at Bloodwood Prospect**



Chief Executive Officer, Geoff Hiller, commented:

**“We have been at just how effective our ‘boot leather’ exploration program has been in the Lorena district and we feel a strong sense of building momentum that augers well for Lorena and Malachite’s long term future in the Cloncurry region.”**

As reported to the ASX on 19<sup>th</sup> October, stream sediment sampling using the BLEG<sup>1</sup> technique located several strong gold anomalies in creeks in the southern section of the Table Mountain area on EPM 18908, with a peak value of 107ppb Au (strongly contrasting with the regional background in the area of 2-3ppb Au in BLEG samples). Follow-up prospecting and the results received for a suite of 34 follow-up BLEG stream sediment samples have now confirmed the initial BLEG anomaly, and anomalous BLEG samples in the smaller creeks upstream of the original sample site have identified the probable source of the gold in the BLEG samples. The likely source is a new zone of mineralisation which outcrops on a ridge at the head of this drainage system. In the follow-up program, a repeat BLEG sample collected at the original site returned 13ppb Au, while BLEG samples in the creeks draining the western and southern sides of the ridge returned anomalous values of 17, 22, 28 and 30ppb Au (Figure 2).

The Bloodwood zone of alteration and mineralisation has dimensions of at least 260m x 30m and is open along strike to the northwest and southeast (Figure 2). The zone is hosted by foliated and sheared dolerites and meta-basalts of the Toole Creek Volcanics. The alteration suite is characterised by epidote-K feldspar-silica-magnetite, while the mineralisation consists of veins and stockworks of calcite-siderite-quartz-chalcopyrite-magnetite. Both these mineral assemblages are typical of the IOCG (Iron Oxide Copper Gold) deposit type. In addition, gossans with boxworks, malachite and copper oxide minerals are present in the surface exposures of the Bloodwood zone.

A batch of 16 representative rock chip samples collected from the zone during the follow-up program have been sent to the laboratory for assay, and results are expected in the next two to three weeks.

The discovery of the Bloodwood zone of alteration and mineralisation is further evidence of the success of the Company’s methodical exploration programs in the Lorena district, which surprisingly appears to have been subject to minimal previous exploration. The BLEG technique in stream sediment sampling has been very effective in locating previously unknown mineralisation in these programs, and it is noteworthy that BLEG sampling was the principal exploration technique that led to the discovery of the half million ounce Tick Hill gold deposit by Mt Isa Mines in 1989. Tick Hill is located approximately 100km southwest of Cloncurry.

---

<sup>1</sup> BLEG is the acronym for Bulk Leach Extractable Gold and is a laboratory analytical technique used to determine the easily-extractable gold content of larger soil and stream sediment exploration samples. Normally a large sample of the silt and sand from the creek bed (or soil profile) is sieved in the field and 2kg of the -2mm size fraction material is collected. This sample is then leached at the SGS Australia Pty Ltd laboratory in Townsville for 24 hours using a weak cyanide solution, with the gold content determined using the carbon rod and AAS techniques. SGS analytical technique BLL61N (which has a detection limit of 0.05ppb Au) was used for the assaying of the BLEG samples. As part of the QA/QC program to measure the accuracy and precision of these results, the laboratory re-assayed splits of two of the 34 samples and both returned assay values close to the original assay.

Bloodwood adds a new dimension to the Company's growing inventory of Cu-Au discoveries which are located just above the base of the Toole Creek Volcanics, the other two being Lady Mary and Copperhead (Figure 1). This is important because there are a number of significant Cu-Au deposits in the broader Cloncurry region which are also close to (or at) the base of the Toole Creek Volcanics, including the Monakoff Cu-Au deposit held by Xstrata.

The Company is excited by the discovery of the Bloodwood zone of alteration and mineralisation because its size and its IOCG deposit characteristics suggest the presence of a major mineralised system. Once assay results for the outstanding batch of rock chip samples from Bloodwood are received, follow-up exploration will be conducted to delineate drill targets using a combination of geological mapping, additional rock chip sampling, soil sampling, and ground geophysics. In addition, prospecting will be conducted in the immediate area around the zone to locate on-strike extensions and possible parallel lenses of mineralisation. The potential for parallel mineralised zones is suggested by the presence of anomalous gold values in BLEG samples collected from the creeks 100m west of the outcropping zone, which have not yet been followed-up (Figure 2).

---

**About Lorena:**

*The Lorena Gold Project is wholly owned by Malachite and is located about 15km east of Cloncurry in northwest Queensland. Malachite is the holder of six mining leases (ML7147, MLs 90192-90196), two exploration permits (EPM18189 and EPM18908) and one EPM application at Lorena.*

*Lorena has a total JORC Mineral Resource in the Measured and Indicated categories containing approximately 56,000ozs of gold at a 2g/t cut-off grade. This is made up by a resource of 179,500t at 8.8g/t Au containing 50,700ozs of gold in the A Lode, and a resource of 23,700t at 7.8g/t Au containing 5,900ozs of gold in the B Lode. These resources are within a potential open pit mine and are open at depth. The gold-bearing ore is principally of massive and stringer sulphide type and copper-gold mineralisation occurs in conjunction with the gold ore body. Recent drill intersections including 5.9m @ 12.9g/t Au (located 100m down-plunge from the defined resources) demonstrate the potential for significantly increasing the Lorena resource inventory.*

---

**COMPETENT PERSON STATEMENT:**

*The information in this report that relates to Exploration Results is based on information compiled by Mr Russell Meares, who is a non-executive Director of the Company and a former full time employee. Mr Meares is a Fellow of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activities which he is undertaking 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.' Mr Meares holds shares and options in the Company. Mr Meares consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

---

For further information, please contact the Company on **(02) 9411 6033** or by email at [info@malachite.com.au](mailto:info@malachite.com.au) or visit the Company's website at [www.malachite.com.au](http://www.malachite.com.au)

Figure 1: Lorena Gold Project – Regional Geology, Prospects and Malachite Tenement Plan

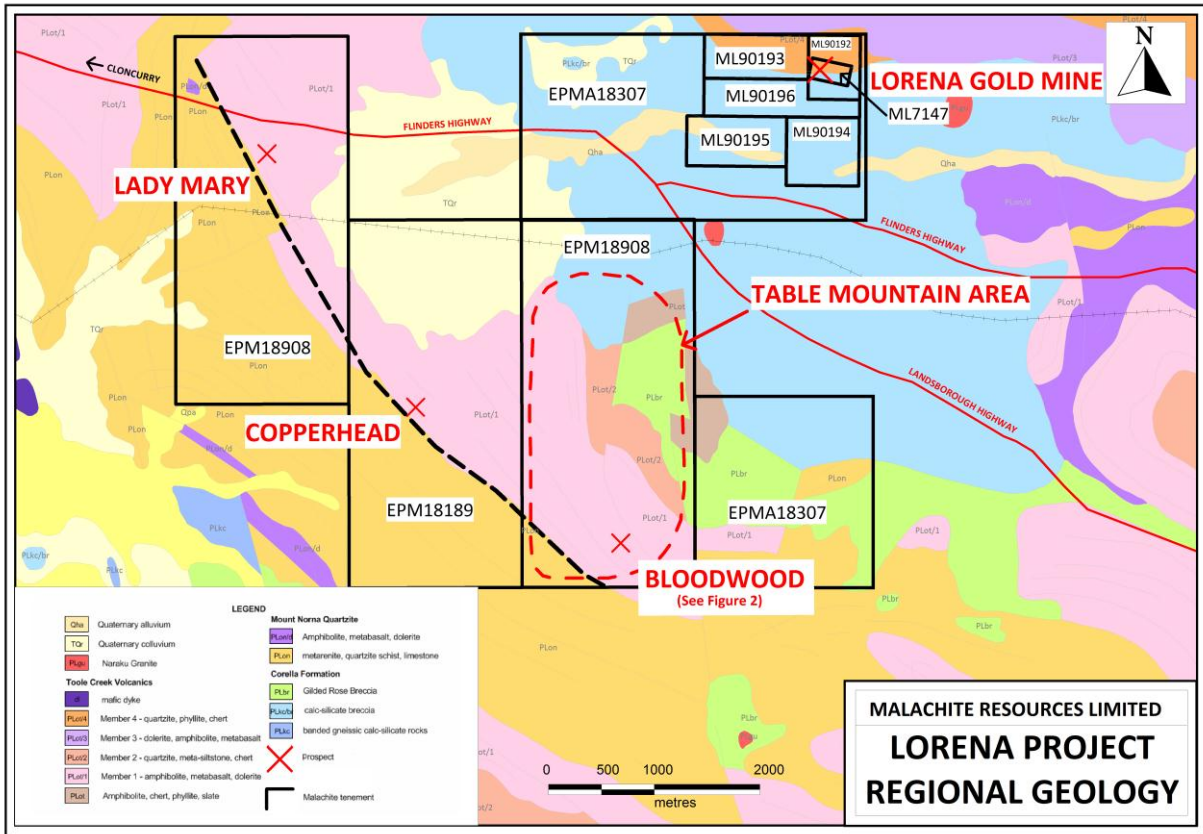


Figure 2: Bloodwood Prospect – Plan Showing Altered/Mineralised Zone and BLEG Samples

