

## **DECEMBER 2009 QUARTERLY REPORT**

29 January 2010

#### **LEGEND MINING LIMITED**

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#### **CONTACTS**

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#### **PROJECTS**

Pilbara: nickel, copper, zinc,

iron ore

Gum Creek: copper, nickel,

PGE, gold, iron ore

Mt Gibson: zinc, copper, gold

Cameroon: iron ore, gold

#### **LOCATION OF PROJECTS**



#### **HIGHLIGHTS**

- Strategic Investor joins Register in Share Placement.
- Shareholders approve Share Sale Agreement for Cameroon Project, West Africa.
- Aeromagnetic survey covering 3,510km<sup>2</sup> commenced in Cameroon.
- Magnetite "Exploration Target" of 600Mt-1,000Mt identified in Pilbara Project.

#### **OVERVIEW**

Following Shareholder approval for the Cameroon transaction at the General Meeting on 4 December 2009, Legend has moved quickly to commission the aeromagnetic survey over most of the Cameroon tenement holdings, which commenced on 21 January 2010. Results from various stages of the survey will be released as each stage is completed.

A successful capital raising was announced to the market on 29 December 2009 to raise \$3.42M and a subsequent substantial shareholder notice confirmed the introduction of a strategic investor on to Legend's Share Registry.

The magnetite inversion modelling of the Cleaverville Formation resulted in an "Exploration Target" of 600Mt – 1,000Mt of magnetite with an expected grade of 25-35% Fe at the Pilbara Project. The results of a similar study at the Gum Creek Project are eagerly awaited.



# 1. Cameroon Project

Legend announced in September 2009 the signing of a legally binding Heads of Agreement (HOA) with Camina SA to explore for iron ore in Cameroon, West Africa. The HOA gives Legend the right to acquire a 90% interest in Camina, with Legend committed to a minimum exploration expenditure of \$1M over 12 months to assess the iron ore potential of the project.

The Cameroon Project covers an area of approximately 3,900km<sup>2</sup>, comprising two granted exploration permits and two exploration permit applications, including the recently applied for exploration permit to the immediate northwest of Ngovayang, see Figure 1.

The new exploration permit application contains 58km of itabirite in 11 separate zones (identified from 1986 BRGM mapping), bringing the total strike length of itabirite within Legend's Ngovayang tenements to 115km in 24 separate zones. These itabirite zones, which can contain 20-45% Fe, are considered possible proto ore for higher grade direct shipping ore (DSO) mineralisation due to supergene/alteration processes.

A three week field trip was undertaken during the quarter by the Legend's technical team to conduct ground truthing over eight iron ore targets at Ngovayang and assess massive outcropping hematite/magnetite at Mayo Binka. This work assisted in the planning of the area to be covered by the aeromagnetic/radiometric survey.

## Aeromagnetic/Radiometric Survey

An extensive aeromagnetic/radiometric survey covering a total of approximately 3,510km<sup>2</sup> commenced over the Ngovayang (2,550km<sup>2</sup>) and Mayo Binka (960km<sup>2</sup>) areas on 21 January 2010. The survey will provide modern, high quality data over the 115km of magnetite bearing itabirite at Ngovayang, and define the extent of the iron occurrences at Mayo Binka. Legend has contracted New Resolution Geophysics for the survey which is expected to take 4-5 weeks to complete.

## **Cameroon Project - Next Phases of Work**

- Ongoing assessment of data from the aeromagnetic/radiometric survey over Ngovayang and Mayo Binka and planning 100-200m infill over areas of interest.
- Commence geological mapping, trenching and geochemical sampling over priority areas identified from the aeromagnetic survey.
- Mobilisation of Exploration Manager to Cameroon.



# 2. Pilbara Project

The Pilbara Project is located 7-50km south of Karratha in the northwest of Western Australia, (Figure 2) and comprises 686km<sup>2</sup> of granted tenements and tenement applications. Legend has previously defined 14 priority drill targets from airborne Versatile Time Domain Electromagnetics (VTEM) and ground EM surveys. The Project is considered prospective for nickel-copper, copperzinc and magnetite iron ore.

During the quarter, results from magnetic inversion modelling over 20km of banded iron formation (BIF) units of the Cleaverville Formation were received from Southern Geoscience Consultants (SGC). Of this 20km, Mt Marie JV tenements (E47/1807 and E47/1878) contain 9.2km of strike length, while Legend 100% owned tenements contain 10.8km.

The modelling over the entire 20km length indicated an "Exploration Target" of 600Mt–1,000Mt<sup>1</sup> of magnetite with an expected grade between 25-35% Fe, based on similar nearby resources at Cape Lambert and Mt Oscar, see ASX announcement 28<sup>th</sup> October 2009. Separate estimates have not been made for Mt. Marie JV and Legend tenements.

<sup>1</sup> SGC consider the global tonnage estimate of 800Mt to be broadly indicative at best, potentially accurate to ±25% ( 600Mt to 1,000Mt), however should be considered accurate to ±50% ( 400Mt to 1,200Mt) for planning purposes. The tonnage estimate is calculated down to a vertical depth of 200m below surface and assumes a density of 3.3g/cm<sup>3</sup>.

## Mt Marie JV (Legend earning 70% from Fox Radio Hill PL)

The JV tenements contain two high priority VTEM targets as well as 9.2km of the magnetite prospective BIF of the Cleaverville Formation. Magnetic inversion modelling results over the 9.2km of BIF are included in the "Exploration Target" of 600Mt–1,000Mt of magnetite discussed above. No separate calculation has been completed for the Mt Marie JV portion of the Cleaverville Formation.

## Munni Munni JV (Legend 30%, East Coast Minerals NL 70%)

Nothing to report.

#### **Pilbara Project - Next Phases of Work**

- Heritage Agreement negotiations with the Ngarluma Aboriginal Corporation to continue.
- Plan follow-up rockchip sampling over the Cleaverville Formation BIF.
- Drilling of previously identified VTEM/ground EM and iron ore targets, following signing of Heritage Agreement and receiving all statutory clearances.



# 3. Mt Gibson Project

Decommissioning of the Mt Gibson plant/mill infrastructure was completed during the quarter with the removal of all salvageable equipment and scrap metal down to concrete footings.

# Mt Gibson Project - Next Phases of Work

 Final rehabilitation around the plant/mill site will be undertaken with a view to reducing the environmental liability.

# 4. Gum Creek Project

The Gum Creek Project is considered prospective for intrusion-related (Ni-Cu-PGE), komatiite flow-related (Ni) sulphide mineralisation and iron ore, see Figure 2.

Magnetic inversion modelling of high resolution aeromagnetic data over the 22km strike length of BIF at Woodley continued, with the results expected this quarter.

# West Bungarra JV – E57/709 (Legend 70%, Gateway Mining Ltd 30%)

The planned drill testing of EM anomalies in the southern part of E57/709 was delayed due to rig availability. All preparatory work for the drilling, including establishing sumps was completed.

## **Gum Creek Project - Next Phases of Work**

- Assess the results of the magnetic inversion modelling over the Woodley BIF.
- Drill testing of ground EM conductors.

## 5. Corporate

#### **Share Placement**

Legend raised \$3.42M in a share placement of 120M shares @ 3c/share mostly to institutional clients of CPS Securities, as announced to the ASX on 29 December 2009.

## **General Meeting**

At a General Meeting held on 4 December 2009, Legend shareholders voted to pass all resolutions relating to the Cameroon Iron Ore Project. Results of the meeting were released to the ASX on the same day.



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## **Mark Wilson**

**Managing Director** 

29 January 2010

The information in this announcement that relates to Exploration Results has been compiled by Mr Derek Waterfield, a Member of the Australian Institute of Geoscientists and a full time employee of Legend Mining Limited. Mr Waterfield has sufficient relevant experience in the styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.



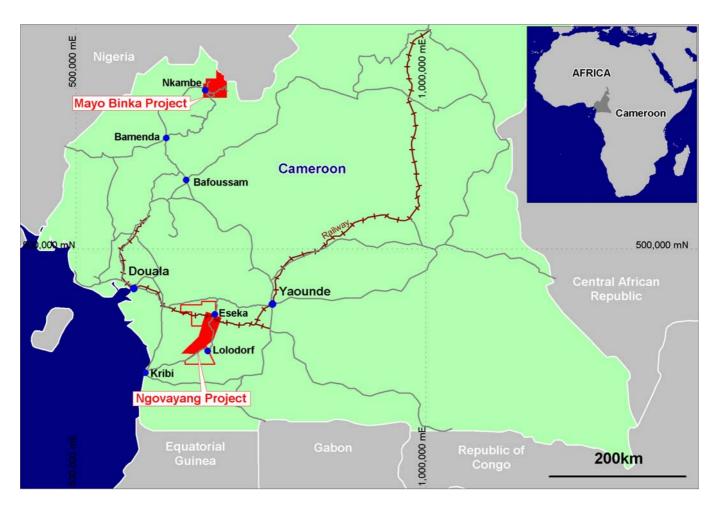


Figure 1: Cameroon Project Location





Figure 2: Western Australian Project Location