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**PROJECTS****Cameroon:** iron ore, gold**Pilbara:** nickel, copper, zinc,  
iron ore**Mt Gibson:** zinc, copper, gold**HIGHLIGHTS**

- Drilling recommenced on 27 January 2011.
- Magnetite gneiss identified as prospective host rock.
- Metallurgical testing revealed high grade (70.8%Fe) magnetite concentrate with low impurities.
- New gold project acquired in Cameroon.

**OVERVIEW**

The March 2011 quarter has been very productive for Legend.

The identification of the magnetite gneiss as a prospective host rock, the depth of intercepts at some of the Eseka prospects and the results of the metallurgical testwork, which are all discussed in detail in the body of this report, are encouraging from a magnetite project perspective.

When these are coupled with the project size, the proximity to coast and infrastructure a big picture view of the potential of this project for Legend shareholders emerges.

The early geochemical sampling of the Tapare Gold project commenced mid April and results of the programme will be released as they become available.

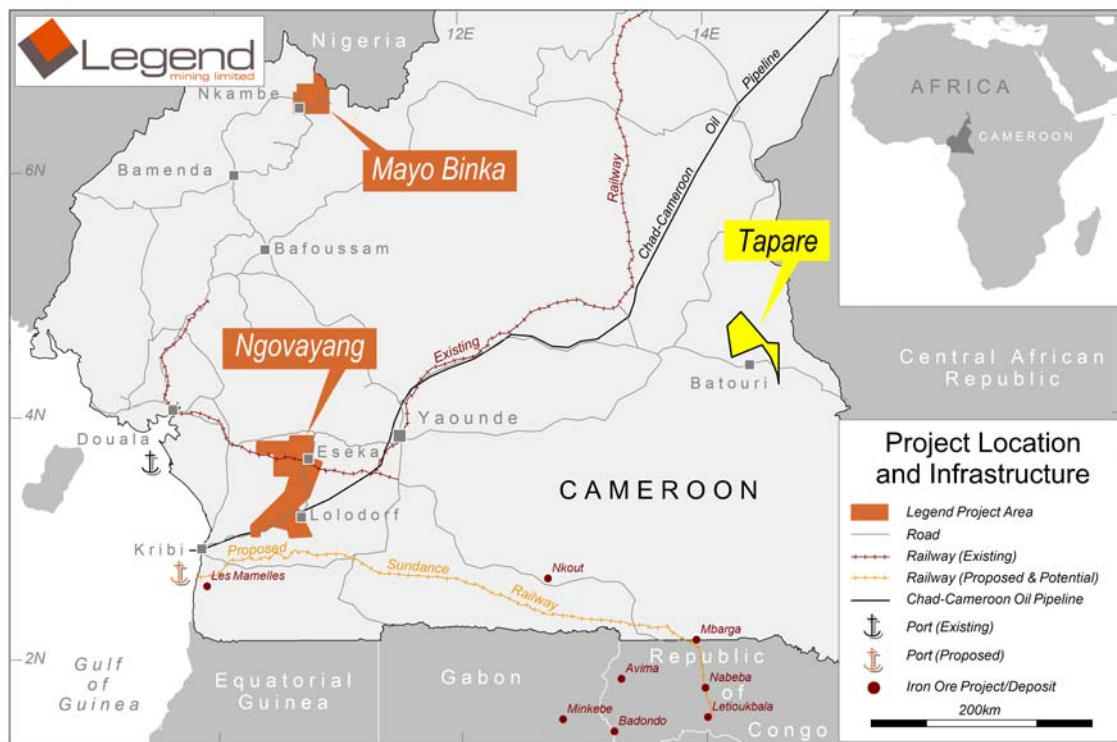
## 1. CAMEROON PROJECT

The Cameroon Project comprises four granted exploration permits covering an area of approximately 3,970km<sup>2</sup> and is considered prospective for iron ore and gold, see Figure 1. Discovery of 50Mt of direct shipping ore (DSO) is the primary objective, however magnetite-gneiss ore (lower grade but potential very high tonnage) will also be targeted. The Ngovayang Project area has the advantage of being well served by access infrastructure including rail and road networks to and from the port city of Douala.

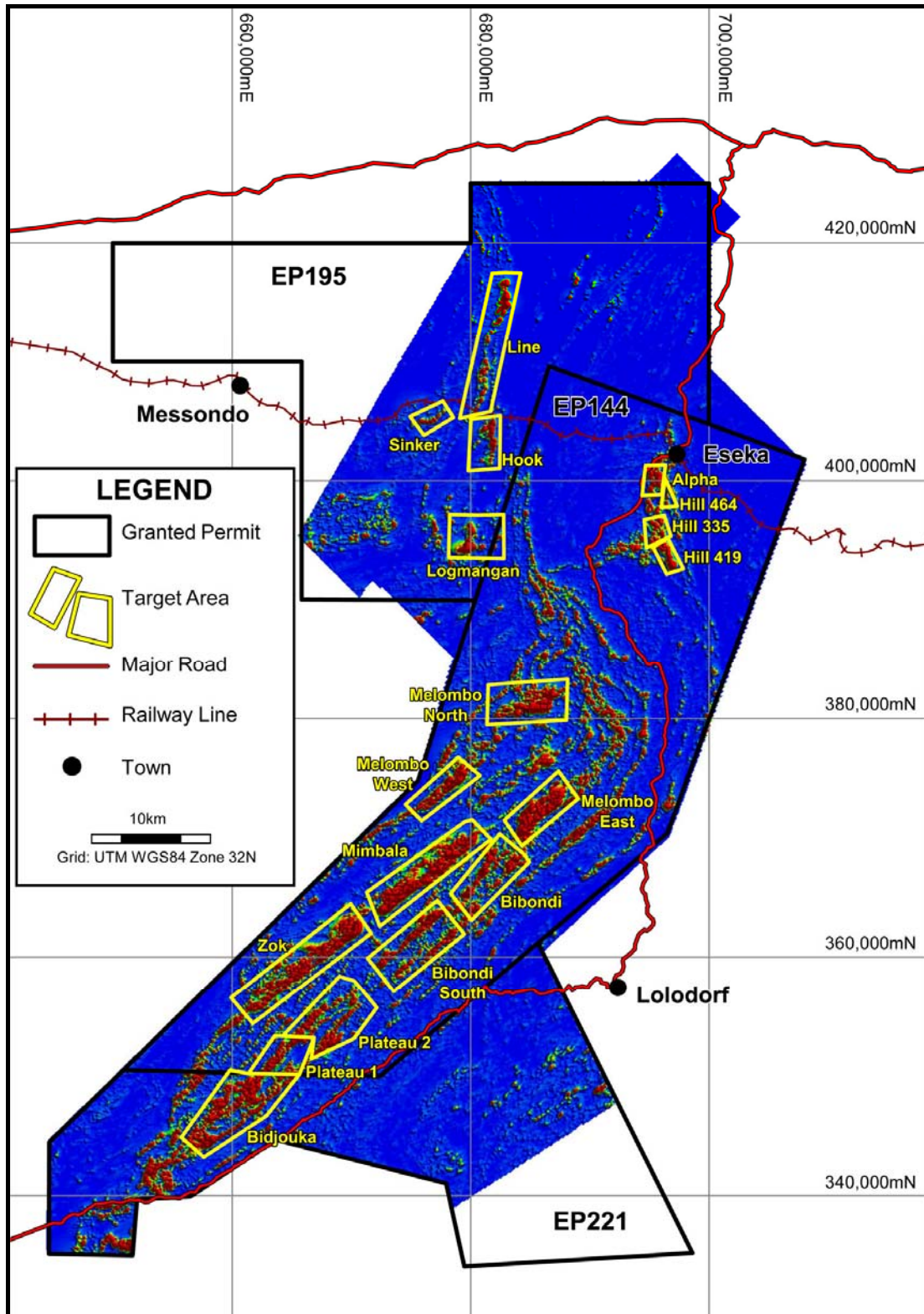
### *Drilling Recommended*

Diamond drilling recommenced on 27 January 2011 at the Ngovayang Project. This drilling marked the resumption of the proposed 5,000m man portable rig programme, which was suspended on 30 September 2010 due to monsoonal rains.

The proposed programme is targeting a combination of aeromagnetic and topographic highs associated with +50% Fe rockchip sample results. Seven priority target areas will be tested during this phase of drilling – Hill 335, Hill 419, Melombo, Melombo West, Melombo East, Bibondi and Southern target areas, see Figure 2.



**Figure 1: Cameroon Project Location and Infrastructure**



**FIGURE 2: Ngovayang Project - Target Areas over Aeromagnetic Image (Analytical Signal of Total Magnetic Intensity)**

As reported to the ASX on 14 March 2011, first pass drilling in the Eseka region has been completed at four prospects; Hill 464 and Alpha, prior to the rain delay, and Hill 335 and Hill 419 completed since the resumption of drilling on 27 January 2011, see Figure 3. Nine diamond drillholes NESD016-024, for a total of 771.94m have been completed at the Hill 335 and Hill 419 prospects, see Table 1.

<b>Table 1: Diamond Drillhole Details</b>					
<b>Hole ID</b>	<b>Easting</b>	<b>Northing</b>	<b>Prospect</b>	<b>Dip/Azimuth</b>	<b>Final Depth</b>
NESD016	696036	394509	Hill 335	-90/000	102.48
NESD017	695998	394737	Hill 335	-90/000	77.89
NESD018	696295	395307	Hill 335	-90/000	100.48
NESD019	696871	393012	Hill 419	-90/000	35.95
NESD020	696694	393229	Hill 419	-90/000	155.62
NESD021	696554	393829	Hill 419	-90/000	83.88
NESD022	696866	393013	Hill 419	-90/000	128.88
NESD023	697049	392626	Hill 419	-90/000	35.88
NESD024	694664	393278	Hill 419	-90/000	50.88
<b>Total</b>					<b>771.94</b>

NESD001-015 details reported previously (ASX announcement 30 September 2010).

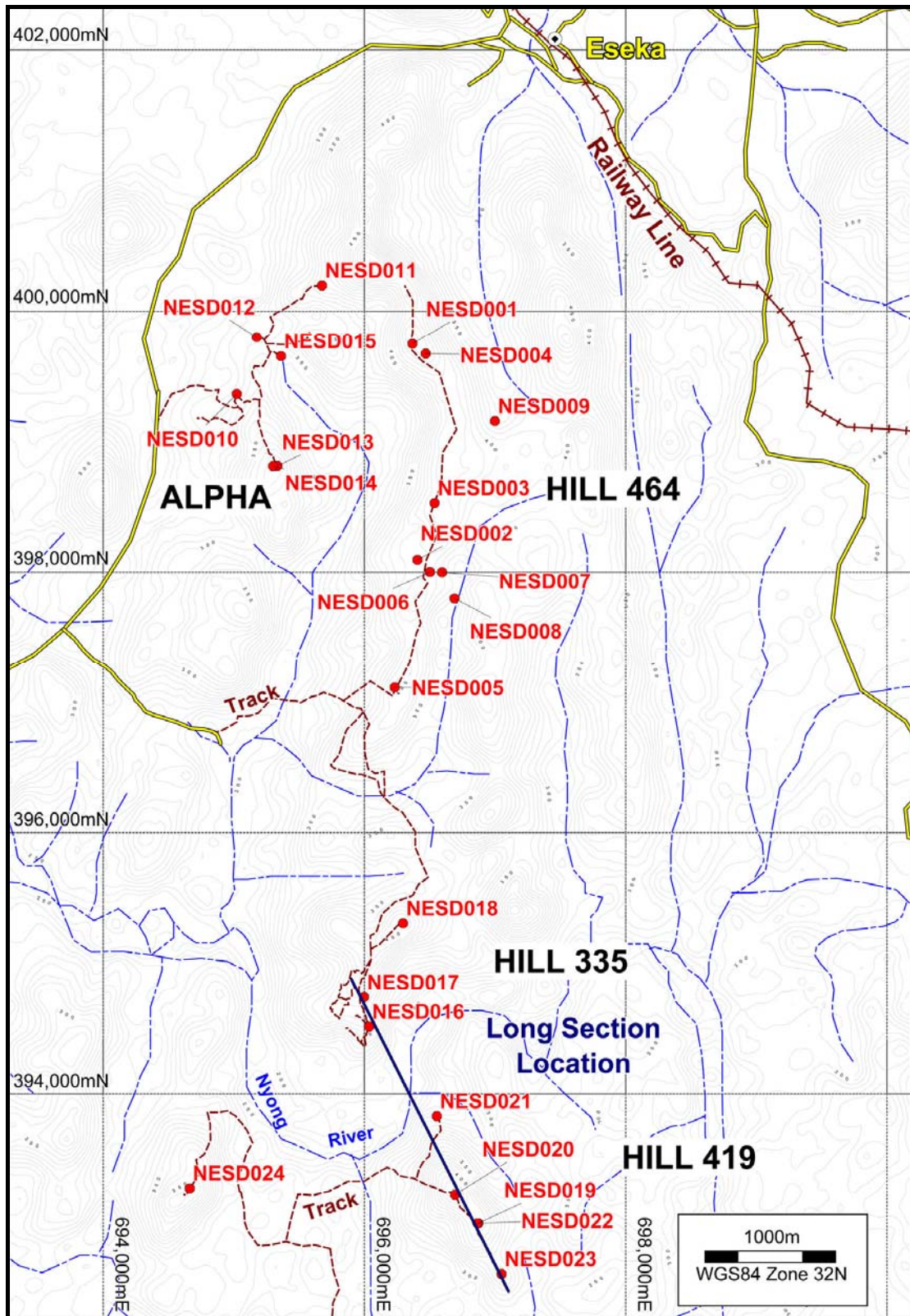
Drilling utilised an Ingetrol man portable diamond drilling rig – HQ and NQ core sizes.

Co-ordinates: Universal Transverse Mercator WGS84, Zone 32, Northern Hemisphere.

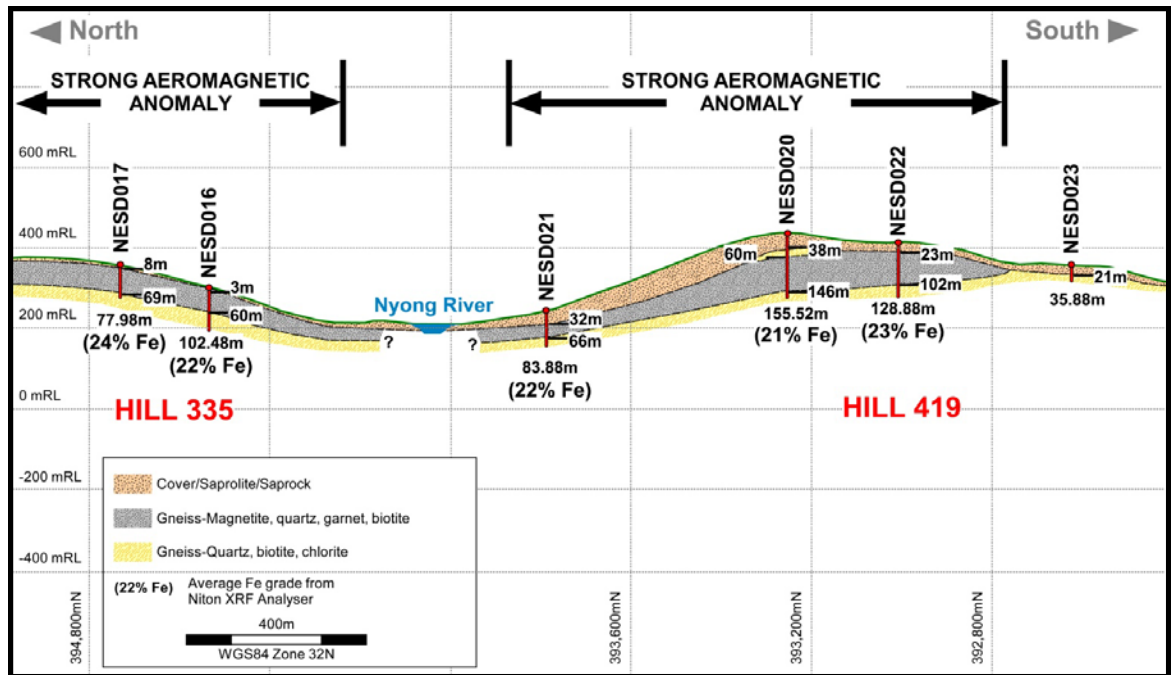
Drillholes NESD016 and NESD017 at Hill 335 intersected magnetite-quartz-garnet gneiss, over thicknesses of 57m and 61m respectively, with an indicative iron grade of 22-24% Fe as measured from the Niton XRF analyser, see Figure 4. This unit was the targeted iron rich lithology identified in outcrop just above the Nyong River and a strike extent of at least 250m is now indicated. The drilling has successfully tested the magnetic source and the extent of the iron rich lithology.

At Hill 419, drillholes NESD020-22 also intersected the magnetite-quartz-garnet gneiss, with thicknesses of 86m, 34m and 79m respectively, over a strike length of at least 1.2km, see Figure 4. Drillhole NESD022 has been submitted for full analysis, however indicative iron grades of 21-23% were returned from the Niton XRF analyser. A weathered saprolite/saprock profile between 21-37m thick overlies the quartz-magnetite-garnet gneiss, with an underlying unit of quartz-biotite-garnet-chlorite gneiss.

The magnetite-quartz-garnet gneiss intersected at Hill 335 (57-61m thick) and Hill 419 (34-86m thick) is the same lithological unit encountered in several drillholes at the Alpha prospect, some 4km to the north. Drillhole NESD011 at Alpha intersected a 35.48m interval of magnetite-quartz-garnet gneiss, with an indicative iron grade of 22-23% from the Niton XRF analyser. A 4m composite sample from this interval was selected for metallurgical testwork as discussed below and the core from the hole has been submitted for full analysis.



**FIGURE 3: Eseka Region Diamond Drillhole Location over Topography**



**FIGURE 4: Hill 335 and Hill 419 Long Section**

**Metallurgical Testwork**

Consultants Independent Metallurgical Operations (IMO) were contracted to undertake preliminary Davis Tube Recovery (DTR) testwork on sample MET1; a 4m composite of half NQ drillcore taken from diamond drillhole NESD011 (46-50m) at the Alpha Prospect. The rock type sampled was a strongly banded magnetite-quartz-garnet gneiss containing medium to coarse grained disseminated magnetite throughout, see Photo 1.

It should be noted here, that this is a representative sample, selected to provide an indication of the metallurgical character of the magnetite-quartz-garnet gneiss with respect to magnetite weight recovery and quality of the concentrate. The testwork was completed in two stages, based initially on a (conservative) fine grind size of 38µm, followed by a second stage focussed on establishing a first pass optimal grind size.



**Photo 1 : Magnetite-quartz-garnet-chlorite Gneiss (Drillhole NESD011)**

Table 2 summarises the DTR product grades for MET1.

Table 2: Stage 1 – DTR Product Grades for Sample Met1								
Product	Mass %	Fe Distribution%	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P%	S%	LOI%
Head	100	100	31.45	47.48	2.98	0.097	0.070	-0.89
Concentrate	35.1	79.6	71.33	0.92	0.23	0.004	0.016	-3.34
Tailing	64.9	20.4	9.88	72.66	4.47	0.147	-	-

Assay Method Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, P, S by fusion XRF – Amdel Limited, Perth.

LOI – Loss on Ignition at 1,000<sup>0</sup>C determined gravimetrically.

Results based on P<sub>100</sub> size of 38µm.

The results from Stage 1 indicated that based on a 35.1% mass recovery, high iron grades with low levels of impurities were achievable from Met1. Stage 2 testing was undertaken to provide an indication of the ability to maintain iron recovery and concentrate quality at coarser sizes. Stage 2 testing involved DTR tests at four different grind (P<sub>80</sub>) sizes from 44µm up to 121µm. Average results across this grind size range are summarised in Table 3.

Table 3: Stage 2 – Average DTR Product Grade for Sample Met1							
Mass %	Recovery %	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P%	S%	LOI%
36.8	82.7	70.8	1.42	0.20	0.006	0.028	-3.30

Key points from the Stage 2 testwork are:

- Average DTR concentrate mass recovery 36.8%;
- Average DTR concentrate grade 70.8% Fe (31.1 % FeO);
- DTR grade maintained at coarser size; 71.5% Fe (P<sub>80</sub> 44µm) and 69.9% Fe (P<sub>80</sub> 121µm);
- Average iron recovery 82.7% from a 31.5% Fe head grade;
- Direct Reduction (DR) quality concentrate indicated on moderate grind size (P<sub>80</sub>) of 90µm to 120µm;
- Potential for Blast Furnace (BF) concentrate up to a grind size (P<sub>80</sub>) of 180µm;
- Low silica and sulphur grades indicate that processing may not require reverse flotation trim on silica and sulphur;
- Low phosphorous, averaging 0.005% to 0.006%.

The results of this preliminary testwork are highly encouraging, as it indicates that magnetite bearing gneiss can be beneficiated into a saleable magnetite concentrate with low impurities. Magnetite bearing gneiss has been intersected at the four Eseka prospects and in outcrop further south in the Ngovayang Project. .

### ***Regional Reconnaissance***

First pass regional reconnaissance by the geological team continued during the quarter over strong aeromagnetic features in the southern part of the Ngovayang Project area. This work is aimed at identifying surficial evidence of iron deposits associated with coincident magnetic and topographic highs.

Early observations from a number of areas are sufficiently encouraging to warrant follow up programmes including vehicular access tracks to facilitate geological mapping and geochemical sampling and ultimately drilling. Any high priority areas identified during this work will be fast tracked to the drill testing stage.

Evaluation of the iron ore potential of the magnetic features on the recently granted permit EP221 is now included in reconnaissance programmes. This reconnaissance work is very challenging and time consuming given the rugged terrain and thick vegetation, however because of these factors, limited if any reconnaissance has been undertaken previously.

### ***Tapare Gold Project***

On 3 March 2011 Legend announced that its 90% subsidiary Camina SA had acquired the Tapare Gold Project from Cameroon General Mining SA (CGMSA), see Figure 1.

#### **The Deal**

Legend has paid USD 20,000 to CGMSA and the permit has been transferred to Camina.

Legend then has until 1 July 2011 to carry out initial exploration programmes with provision for a further extension of three months.

Upon the completion of these programmes to Legend's satisfaction, a further payment of USD 130,000 and the issue of 5,000,000 Legend options exercisable @ AU\$0.08 per option on or before 30 June 2013 will be made to CGMSA.



The Tapare Gold Project is located 300km east of the Cameroon capital Yaounde and lies north of the town of Batouri, see Figure 1. The project comprises a single granted exploration permit covering an area of approximately 1,000km<sup>2</sup>. Local artisanal miners are producing gold from residual laterite, alluvial and eluvial deposits and outcropping quartz-sulphide vein lodes.

The permit is located in the southern part of a major gold district (100km x 150km) controlled by a crustal scale fault corridor on the northern margin of the Archaean Congo Craton. A suite of Archaean to Palaeoproterozoic age granitoids and associated gneiss/amphibolite dominate the area along with minor mafic volcanics. Overlying these basement rocks is a saprolitic profile and a well developed extensive residual laterite, especially in the north.

Several outcropping quartz lodes observed within the permit are hosted in a series of N-S and NE-SW trending shear zones and shallow dipping thrust faults. The gold occurs in quartz-pyrite±arsenopyrite veins hosted by quartz-sericite schist and sheared biotite-hornblende meta-granite.

There is no outcrop in the immediate vicinity of the known quartz lode due to the presence of a thick soil and clay saprolite profile. As a result, the strike extent of these lodes, and the possibility of multiple/repeat quartz lodes occurring up or down dip has not been tested beneath the soil cover. It is likely that there are numerous other quartz lodes in the area, however they have not been found as they don't outcrop. No modern exploration for gold has been undertaken over the permit.

Work commenced on 12 April 2011 to undertake systematic exploration over the Tapare Gold Project to evaluate the gold potential of the permit. The programme is designed to test for quartz-sulphide lode gold deposits (mainly beneath soil cover) and gold hosted within laterite. A summary of the exploration programme is given below.

- Landsat data analysis and interpretation,
- Regional stream sediment sampling,
- Reconnaissance over known quartz lodes,
- Follow-up soil and rockchip sampling,
- Geological mapping,



***Artisanal workings at Tapare Project***

### **Mayo Binka Project**

Regional reconnaissance work at Mayo Binka, following the aeromagnetic survey, was not encouraging from an iron ore prospectivity point of view. Coupled with the logistical access difficulties of the area a decision was taken to drop this project. Advice was received from the Cameroon Department of Mines that this tenement is officially no longer a Camina asset on 1 April 2011.

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

- Continue 5,000m man portable diamond drilling programme at Melombo, Melombo West, Melombo East, Bibondi and Southern area prospects.
- Continue regional reconnaissance in the southern portion of the Ngovayang Project.
- First pass programme at Tapare Gold project.

## **2. PILBARA PROJECT**

The Pilbara Project is located 7-50km south of Karratha in the northwest of Western Australia 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 electromagnetic surveys. The Project is considered prospective for nickel-copper, copper-zinc and magnetite iron ore.

No exploration activities were possible over the Pilbara Project due to access issues related to heritage agreement negotiations.

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

Nothing to report.

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

Nothing to report

## **3. MT GIBSON PROJECT**

Ongoing rehabilitation works will continue on the heap leach ponds and tailings dam with a view to reducing the environmental liability.

#### 4. GUM CREEK PROJECT

As reported in the December 2010 Quarterly Report Legend sold its last Gum Creek Project assets with the signing of a Sale Agreement with Nemex Resources Limited (“Nemex”) over the Woodley tenements (E57/632 & E57/634). Under the terms of the agreement, Legend will receive 3.3 million fully paid Nemex shares, 1.65 million options and \$100,000 cash reimbursement. The transaction is conditional upon Nemex successfully completing a capital raising and obtaining approval to list on the ASX and is expected to settle within the current quarter (June 2011).

#### 5. EXPLORATION MANAGER APPOINTED

On 1 February, Mr Laurent Sapor was appointed Exploration Manager for Legend Mining. Mr Sapor’s fluency in French and his familiarity with West Africa, having spent 20 years there, coupled with his leadership experience with Western Mining Ltd, Prony Nickel (Inc) and Vale, add valuable attributes to the Legend Team.

*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 consultant to 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.*

*The information in this announcement that relates to Project Metallurgy has been compiled by Mr Daryl Evans, who is a Member of The Australasian Institute of Mining and Metallurgy and who has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and in the activity which is being undertaken 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”. Mr Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

Visit [www.legendmining.com.au](http://www.legendmining.com.au) for further information and announcements.

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