

# SEPTEMBER 2012 QUARTERLY REPORT

9 October 2012

#### **LEGEND MINING LIMITED**

ASX Symbol: **LEG** 

ABN 22 060 966 145

Level 2, 640 Murray Street

West Perth

Western Australia 6005

PO Box 626

West Perth

Western Australia 6872

Phone: +61 8 9212 0600 Facsimile: +61 8 9212 0611

Email:

legend@legendmining.com.au

www.legendmining.com.au

### **CONTACT**

Mr Mark Wilson Managing Director

### **PROJECTS**

Cameroon: iron ore, gold

### **HIGHLIGHTS**

- Plateau drilling programme completed.
- Significant thicknesses and grades of magnetite returned from laboratory assays.
- All drilling suspended due to heavy seasonal rains.
- Independent Consultants (Golder Associates) engaged for a Project review leading to recommendations re future work.
- Gold programme planned at Ngovayang.
- Treasury swap from IGO to SIR.

#### **OVERVIEW**

Good progress was made at the Ngovayang Iron Ore Project during the September quarter. The drilling programme at Plateau prospect was completed before the onset of the heavy seasonal rains. Assays received and reported during the quarter continued to demonstrate significant thicknesses and grades of magnetite.

Additionally the visit of an experienced magnetite geologist from Golder Associates Pty Ltd ("Golder") was a critical catalyst to bring together mapping, drilling results and structural interpretations of the Melombo East prospect into a robust high level optimisation report for Melombo East. Further work by Golder is aimed at producing recommendations for metallurgical testwork and drilling programmes to further develop the project.

Meanwhile a stream sediment sampling programme, focussed on the gold potential of the project, will be undertaken in the December quarter. Results will be reported as appropriate.

The Board made a decision to sell the remaining holding in Independence Group NL (600,000 shares) and reinvest the money into Sirius Resources Ltd (ASX:SIR). Legend's current holding in SIR is 1.5M shares at a cost price of \$1.25/share. This compares favourably with the current market price of circa \$2.70/share.



### 1. CAMEROON PROJECT

The Cameroon Project comprises three granted exploration permits covering an area of approximately 2,970km² and is considered prospective for iron ore and gold, see Figure 1. Magnetite-gneiss has been identified as the primary source of iron ore at the project.

# **Drilling**

Diamond drilling continued during the September quarter with a total of five holes (DH097-101) completed at the Plateau Prospect, see Figure 2. Heavy seasonal rains caused the drilling to be suspended on 22 August 2012.

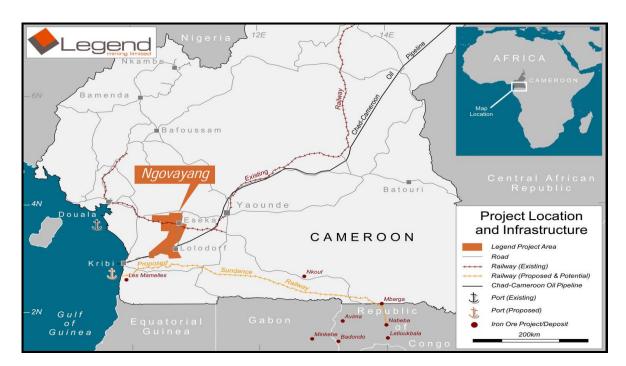


Figure 1: Cameroon Project Location and Infrastructure



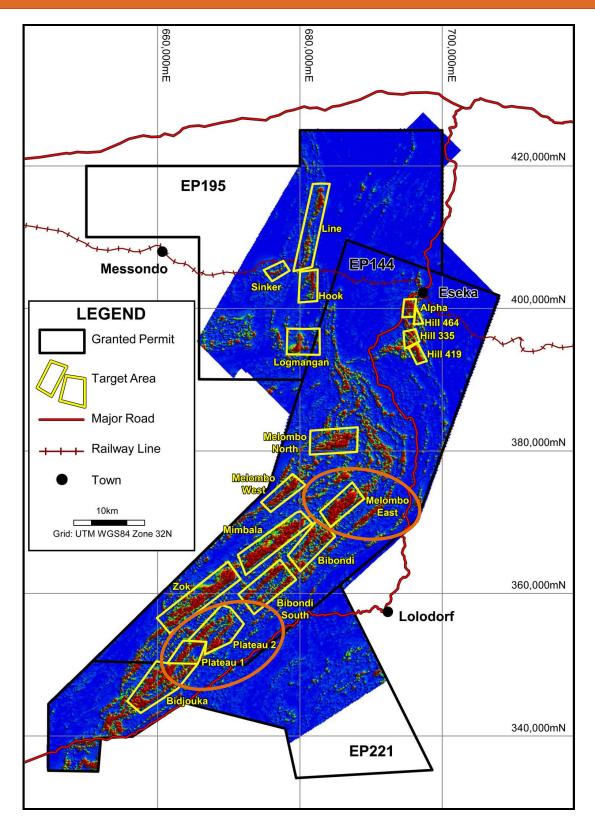


Figure 2: Ngovayang Project - Target Areas over Aeromagnetic Image (Analytical Signal of Total Magnetic Intensity)



#### Plateau

A total of five diamond drillholes (DH097-101) for a total of 280.3m were completed during the quarter at the Plateau Prospect before seasonal rains suspended drilling, see Table 1 for drillhole details. Twenty six holes for 1,793m have now been completed at Plateau, along six NW-SE trending traverses spaced 500-600m apart with holes every 100m along the traverses, see Figure 3.

Table 1: Plateau Prospect -Diamond Drilling Summary					
Hole ID	Easting	Northing	Dip/Azimuth	Final Depth	
DH097	666455	354768	-90/000	65.4	
DH098	666366	354829	-90/000	33.4	
DH099	666864	355224	-90/000	35.9	
DH100	666923	355143	-90/000	90.8	
DH101	666988	355097	-90/000	54.8	
Total				280.3	

Drillholes DH097-DH098 utilised a new track mounted rig - HQ & NQ core sizes.

Drillholes DH0 99-101 utilised Ingetrol man portable diamond drilling rig – HQ & NQ core sizes.

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

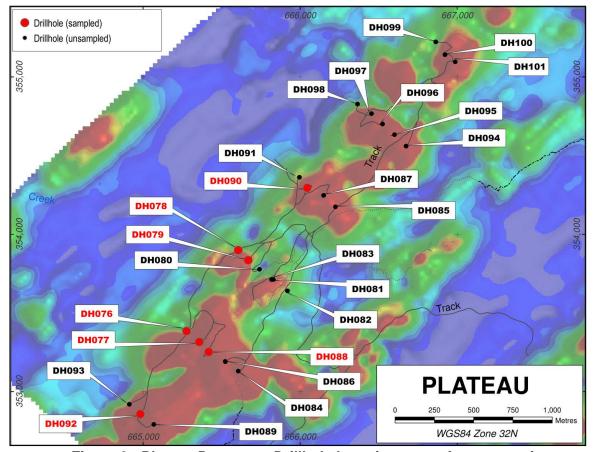


Figure 3: Plateau Prospect - Drillhole Locations over Aeromagnetics



Drillholes DH097-101 are located on the northern most drill sections of the 2.5km long Plateau aeromagnetic feature, associated with NE-SW striking outcrop of magnetite gneiss. These holes intersected the same geological sequence as previous drillholes, with varying thicknesses of interbedded magnetite gneiss.

Drillholes DH076-079, 088, 090 and 092, which intersected significant downhole thicknesses of magnetite bearing gneiss (54.2m-100.4m) were sampled in their entirety over nominal 4m composite intervals and submitted for a standard iron ore suite of elements. Full analytical results were received and are summarised in Table 2 below.

Table 2: Plateau – Diamond Drillhole Results									
Hole	From (m)	To (m)	Int (m)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	P (%)	LOI (%)	Oxidation Depth (m)
DH076	0.6	33.4	32.8	26.8	44.9	9.0	0.076	4.14	25.5
	67.0	85.6	18.6	25.7	50.8	5.3	0.080	-0.01	
DH077	0.6	7.9	7.3	38.3	40.3	2.7	0.127	1.52	20.3
	16.0	29.5	13.5	26.5	49.9	6.1	0.078	0.56	20.3
	39.5	53.4	13.9	21.3	50.9	9.3	0.061	-0.01	
	89.7	95.7	6.0	28.3	45.8	4.5	0.077	-0.01	
DH078	6.2	20.6	14.4	18.7	55.1	9.5	0.067	0.22	10.3
	32.6	51.4	18.8	30.2	48.6	3.4	0.091	-0.01	
DH079	1.2	38.8	37.6	26.8	48.9	6.8	0.070	1.64	15.0
	62.5	72.1	9.6	38.7	42.2	0.2	0.096	-0.01	
DH088	1.0	66.7	65.7	31.3	44.0	3.5	0.076	0.51	21.0
	82.5	88.8	6.3	28.0	44.9	4.7	0.075	-0.01	
DH090	1.3	78.8	77.5	28.6	45.3	6.2	0.076	1.92	25.9
DH092	1.3	60.5	59.2	34.1	44.3	2.8	0.115	0.82	32.4
	76.6	82.7	6.1	27.0	49.1	5.7	0.110	-0.01	

**Note**: The "Oxidation Depth" is the depth of total oxidation. Iron grades associated with magnetite gneiss in the oxidised zone are generally higher, however metallurgical testwork is required to characterise this zone.

**Assay Method:** Fe, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, P by fusion XRF – ALS, Ireland.

LOI – Loss on Ignition at 1,000°C determined gravimetrically

These results demonstrate encouraging iron grades (+25% Fe) and thicknesses (+30m) of magnetite gneiss across the prospect.



#### Melombo East

No further drilling was conducted at Melombo East during the September quarter, with activities focussing on Phase 1 drilling at the Plateau prospect.

However, a simplified geological model for the occurrence of the magnetie gneiss unit has been developed based on; geological mapping, previous geophysical modelling and the reinterpretation/logging of all drillholes. The model comprises two NE-SW trending synclines approximately 4.3km long and 900-1,700m wide, with the magnetite gneiss ranging in thickness between 30-80m. Whilst this model is considered quite robust and fits the current drilling data, further drilling is required to add confidence to the interpretation.

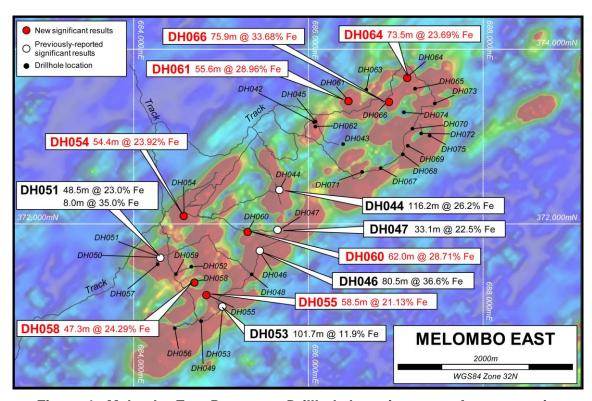


Figure 4: Melombo East Prospect - Drillhole Locations over Aeromagnetics

#### Review and Future Work

Golders have been engaged by Legend to conduct a review of the Ngovayang Iron Ore Project. A senior geologist from Golders experienced in magnetite visited the project in August and a high level optimisation report has been delivered to Legend following his site visit and subsequent work in the Golders Perth Office. The optimisation work was based on the Melombo East geological model and the metallurgical testwork from the Alpha Prospect. The high level optimisation report indicates the potential of Melombo East, should the magnetite mass recovery and concentrate quality be similar to the sighter testwork from the Alpha Prospect. The review will result in recommendations to Legend concerning future work at the project especially regarding appropriate metallurgical testwork and drilling to bring Melombo East to a JORC compliant Inferred Resource status.



# Gold Stream Sediment Sampling Programme

Following a regional review of the gold potential of the Ngovayang Project, a stream sediment pan concentrate sampling programme will be undertaken, focussing on an area on the eastern side of the Ngovayang massif. The area of interest straddles a major NE-SW trending shear corridor (marking the SE boundary of the massif) and contains a large "circular" feature identified in remote sensing data, interpreted to be intrusion related. Previous non-systematic pan concentrate sampling in the region has indicated the presence of gold, while reports of minor alluival workings adds to the potential of the area.

The sampling programme is planned for the December quarter.

#### 2. CORPORATE

## Share Buy Back

As reported to the ASX on 2 August 2012 and 14 August 2012, Legend announced its intention for an on market buy back up to 125,000,000 of its shares to a maximum of \$2.5M. All purchases will be reported on a daily basis as per ASX regulations. The buyback is yet to be activated.

# **Treasury Operations**

During the quarter Legend sold its remaining holding (600,000 shares) in Independence Group NL (ASX:IGO) and has purchased 1,500,000 shares in Sirius Resources Ltd (ASX:SIR) at an average price of \$1.25 per share.

#### **Competent Persons Statements**

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.



# **APPENDIX 1: Full Details of Diamond Drilling Programme - Plateau Prospect**

Hole ID	Easting	Northing	Dip/Azimuth	Final Depth
DH076	665287	353390	-90/000	100.44
DH077	665370	353318	-90/000	100.15
DH078	665616	353903	-90/000	73.39
DH079	665681	353845 -90/000		86.10
DH080	665742	353778	-90/000	68.90
DH081	665830	353713	-90/000	30.21*
DH082	665920	353641	-90/000	68.65
DH083	665818	353713	-90/000	30.20*
DH084	665606	353130	-90/000	32.89*
DH085	666225	354175	-90/000	76.45
DH086	665524	353190	-90/000	100.44
DH087	666150	354248	-90/000	93.40
DH088	665430	353251	-90/000	100.34
DH089	665069	352791	-90/000	70.44
DH090	666059	354302	-90/000	86.58
DH091	665996	354363	-90/000	29.95*
DH092	664993	352860	-90/000	90.76
DH093	664913	352919	-90/000	28.61*
DH094	666675	354561	-90/000	48.15*
DH095	666601	354634	-90/000	95.28
DH096	666525	354702	-90/000	101.43
DH097	666455	354768	-90/000	65.43
DH098	666379	354820	-90/000	33.38*
DH099	666864	355224	-90/000	35.89
DH100	666923	355143 -90/000		90.77
DH101	666988	355097	-90/000	54.76
Total				1,792.99

<sup>\*</sup> Drillhole abandoned due to poor ground conditions and rig limitations.

Drillholes DH076, 93, 99-101 utilised Ingetrol man portable diamond drilling rig – HQ & NQ core sizes. Drillholes DH094-DH098 utilised a new track mounted rig – HQ & NQ core sizes.

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



**APPENDIX 2: Logged Magnetite Bearing Gneiss Intervals - Plateau Prospect** 

Hole	From	То	Int	Description
DH076	0	81.6	81.6	Significant intersection of magnetite gneiss
DH077	16	100.2 EOH	84.2	Significant intersection of magnetite gneiss
DH078	12.1 32.6 68.9	20.6 51.4 73.4 EOH	8.5 18.8 4.5	Three intervals of magnetite gneiss 41% of hole contains magnetite gneiss
DH079	0	77.2	77.2	Significant intersection of magnetite gneiss
DH080	0	48.2	48.2	Top 50% of hole contains magnetite bearing gneiss
DH081	0	27.2	27.2	Hole not completed; 85% magnetite gneiss
DH082	48.3	68.7 EOH	20.4	Bottom 20% contains magnetite bearing gneiss
DH083	0	30.2	30.2	Hole not completed – all magnetite gneiss
DH084	0	32.9	32.9	Hole not completed – all magnetite gneiss
DH085	0	49	49	Top 50% of hole contains magnetite bearing gneiss
DH086	0	54.2	54.2	Top 45% of hole contains magnetite bearing gneiss
DH087	18.5	58.9	40.4	40% of hole contains magnetite bearing gneiss
DH088	0	100.4 EOH	100.4	Significant intersection of magnetite gneiss
DH089	0	13.7	13.7	Two intervals of qtz-magnetite gneiss
	29.2	57.7	28.5	55% of hole contains magnetite bearing gneiss
DH090	0	78.8	78.8	Significant intersection of magnetite bearing gneiss
DH091	-	-	-	Hole not completed – no magnetite gneiss
DH092	0 70.5	60.5 90.8 EOH	<b>60.5</b> 20.3	Significant intersection of magnetite bearing gneiss Bands of qtz-magnetite gneiss
DH093	0	4.6	4.6	Hole not completed – 15% magnetite gneiss
DH094	23.8	31.6	7.8	Hole not completed – 20% magnetite gneiss
DH095	35.1	73.5	38.4	45% of hole contains magnetite bearing gneiss
DH096	45.1	65.3	20.2	20% of hole contains magnetite bearing gneiss
DH097	10.6	22.0	11.4	28% of hole contains magnetite bearing gneiss
DH098	-	-	-	Hole not completed – no magnetite gneiss
DH099	-	-	-	No significant magnetite gneiss
DH100	2.9	12.1	9.2	29% of hole contains magnetite bearing gneiss
DH101	18.1	23.8	5.7	21% of hole contains magnetite bearing gneiss

Note:

Intersections are downhole widths and not necessarily true thicknesses.

Drillholes not completed due to poor ground conditions and rig limitations.

Assessment of all results will determine if not completed holes are redrilled.