



# LIFE CYCLE OF A MINE

Cameroon Mining Forum  
Hilton Hotel, Yaounde  
May 29-31 2012

Presented by David Meehan  
Chief Operating Officer / Project Director



# Disclaimer

Certain statements made during or in connection with this communication, including without limitation, those concerning the economic outlook for the iron ore mining industry, expectations regarding iron ore prices, production, cash costs and to the operating results, growth prospects and the outlook of SDL's operations including the likely commencement of commercial operations of the Mbalam Project and its liquidity and capital resources and expenditure, contain or comprise certain forward-looking statements regarding SDL's exploration operations, economic performance and financial condition.

Although SDL believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in iron ore prices and exchange rates and business and operational risk management. For a discussion of such factors, refer to SDL's most recent annual report and half-year report. SDL undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

## Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Robin Longley, a Member of the Australian Institute of Geoscientists, and Mr Lynn Widenbar, a member of the Australasian Institute of Mining and Metallurgy. Mr Longley and Mr Widenbar are consultants to Sundance and have sufficient experience which is relevant to the style of mineralisation and type of Deposit and to the activity which they are 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".

The information in this report that relates to Ore Reserves is based on information compiled by Mr Bruce Gregory, a member of the Australasian Institute of Mining and Metallurgy. Mr Gregory is employed by AMC Consultants Pty Ltd and is a consultant to the Company. Mr Gregory has sufficient experience which is relevant to the style of mineralisation and type of Deposit and to the activity 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".

Messrs Longley, Widenbar and Gregory consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

For more information including modelling parameters and details, the ASX announcements pertaining to Exploration Results, Mineral Resources and Ore Reserves are available from the Company's website: [www.sundanceresources.com.au](http://www.sundanceresources.com.au).

# “The Life Cycle of a Mine” can be considered in four phases.



1. Exploration
Geological desk studies Geophysics and geological mapping Drilling and test programme Evaluation of mineral resources & reserve Pre-feasibility studies
2. Project Development
Bankable feasibility studies Environmental and Social Assessments & Development of Sustainability and Community Programmes Regulatory and Government approvals Project Financing Construction of infrastructure and mine development Training, operations readiness, commissioning and start up
3. Operations
Mine and infrastructure operations and maintenance Capital upgrades Sustainable community and environmental programmes
4. Mine Closure
Mine Closure Rehabilitation Monitoring

**These phases and activities are not necessarily consecutive and many overlap to some degree.**



# Mbalam Iron Ore Project



We can look at each of these four phases in terms of the Mbalam Iron Ore Project being developed by Sundance Resources, Cam Iron and Congo Iron in partnership with the Governments of Cameroon and Congo.

- Sundance are an Australian public company based in Perth, Western Australian
- We have knowledge and expertise to support Cameroon develop its mining potential

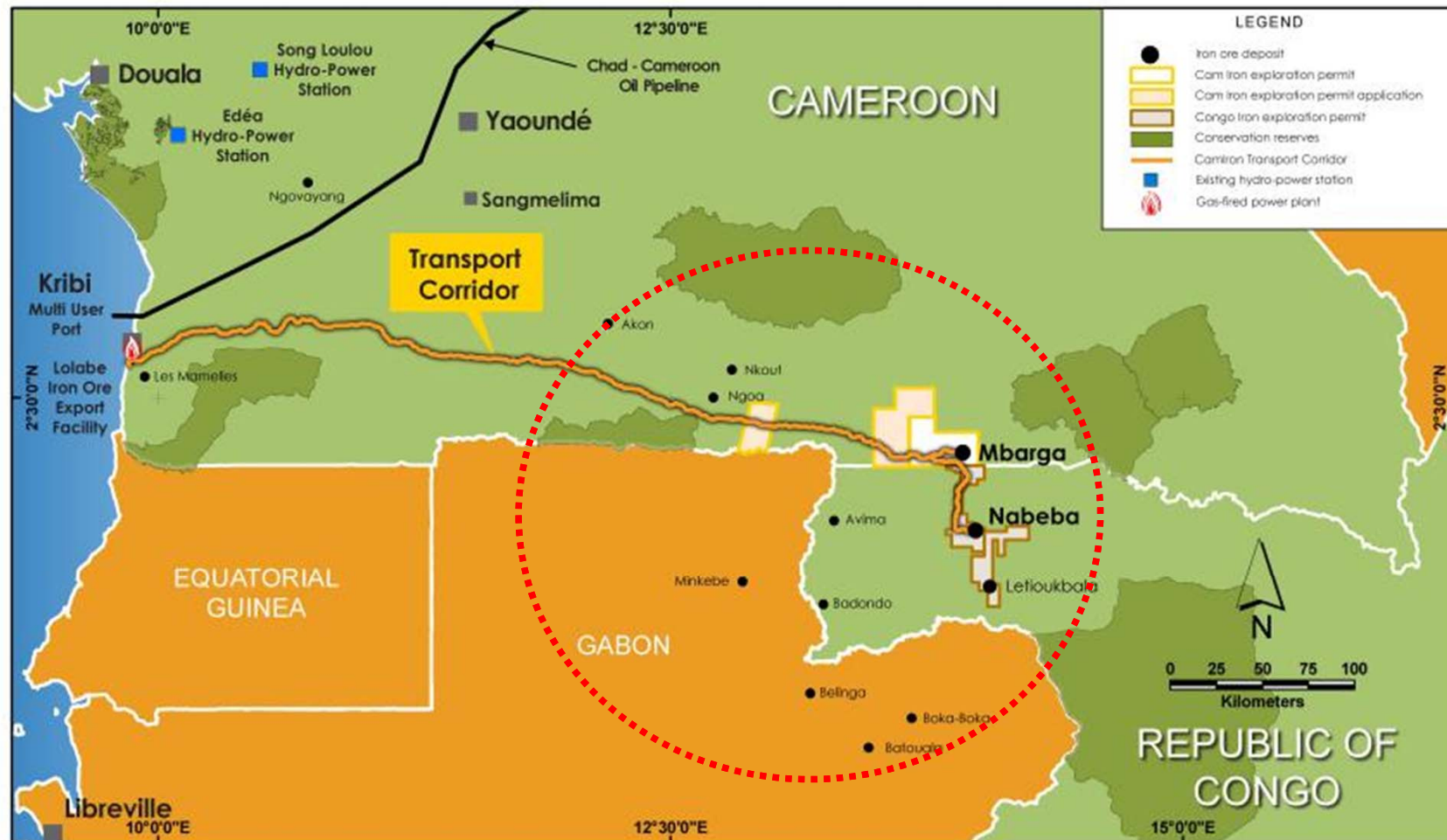


1. Cameroon Government has a right to a 10% interest in Cam Iron pursuant to the Cameroon Mining Code. Under the Framework Agreement signed in 2007 with the Cameroon Government, the State can purchase an additional 15% of the project.
2. Congo Government has a right to a 10% interest in Congo Iron pursuant to the Congo Mining Code.
3. Should Cameroon and Congo Governments exercise their option for a 10% interest in Cam Iron SA and Congo Iron SA, then Sundance Resources Ltd interests in each will reduce to 81% and 76.5% respectively.

# The Mbalam Iron Ore Project



- Strategically located at the heart of an emerging iron ore province
- Rail and port infrastructure is essential to unlock potential of the region - - >100Mt
- Proposed production of 35 Million tonnes per annum of iron ore for minimum 25 years



## Showing of video of the proposed Mbalam Project

Can be found on company website at [www.sundanceresources.com.au](http://www.sundanceresources.com.au) > News & Reports > Audio & Video Files





# Exploration

# High Grade Hematite Resources



Exploration programme commenced in June 2007 - and programme is still ongoing:

- Over 600 km<sup>2</sup> of detailed geological ground mapping
- Over 4250 km of geophysical flight lines
- A total of over 1,100 No. exploration bore holes drilled
- A total of over 155,000 linear metres of exploration holes drilled



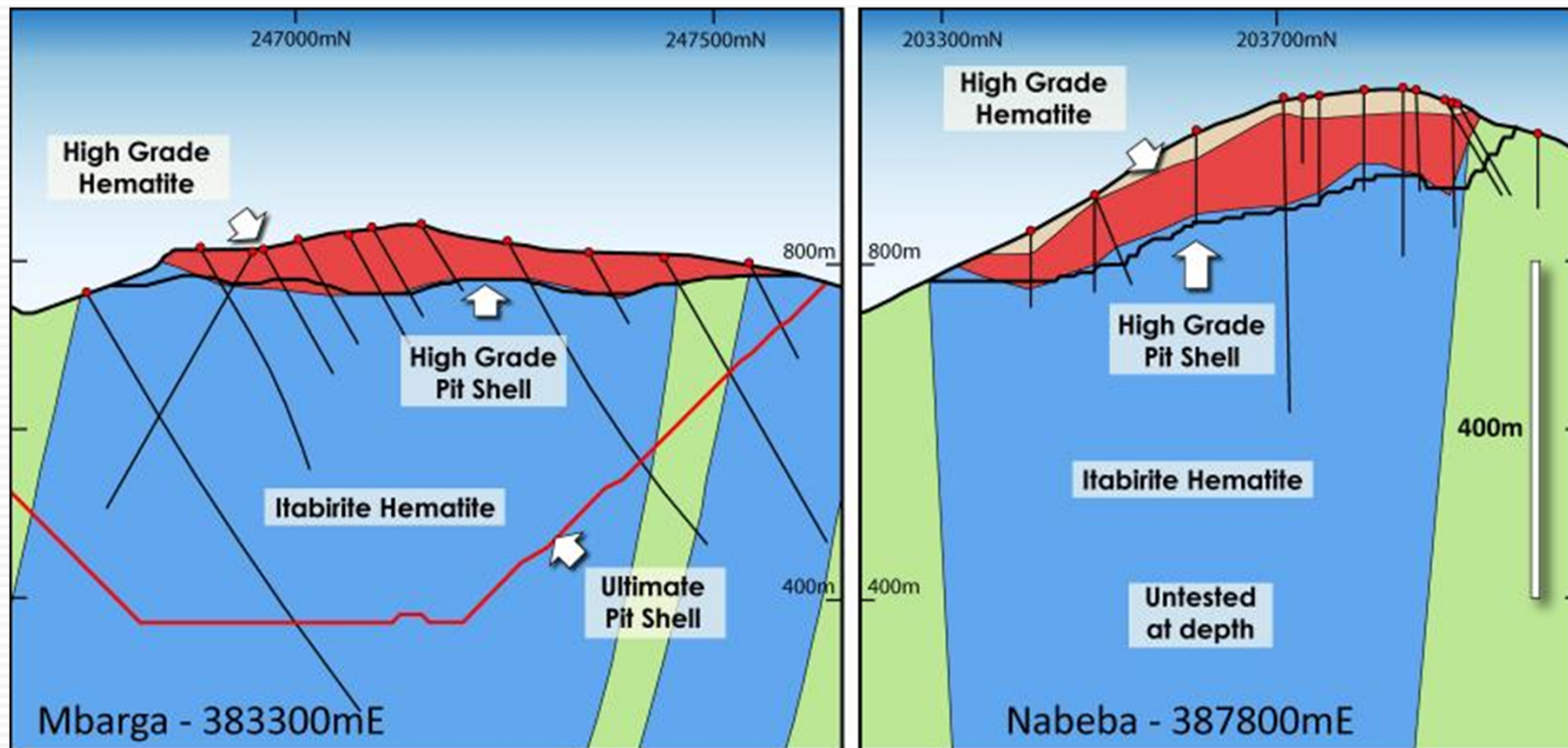
- JORC-Code Compliant High Grade Hematite Resources total 521.7 million tonnes @ 60.7% Fe
- High Grade Ore Reserves total 352 million tonnes @ 62.4% Fe
- Confirms Stage One production of Direct Shipping Ore for 10 years



# Ongoing Exploration to Quantify Underlying Itabirite Resources



- Resource of 2.3 Bt Itabirite Hematite at 38% Fe directly underlying the Mbarga supergene cap
- Significance is that it means long mine life potential of 25+ years
- Exploration target of an additional 1.5 - 2.5 Bt of Itabirite at 30 - 40% Fe at Nabeba<sup>1</sup> in Congo



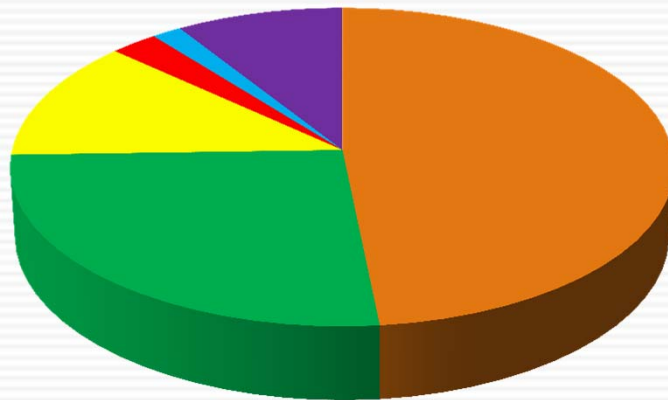
1. It must be noted that this range is an Exploration Target only, and not to be misconstrued as an estimate of Mineral Resources. The potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a mineral resource and that it is uncertain if further exploration will result in the determination of a mineral resource.

# Strong In-Country Presence



- Currently have ~300 total employees (direct and indirect) in-country
- Majority of workforce are local Cameroon and Congolese people
- We are committed to developing the skills of the local workforce
- Project set to employ thousands of people directly and tens of thousands indirectly

## Workforce Nationalities



■ Cameroon	■ Congo	■ Australian
■ British	■ French	■ Other



Over US\$ 0.3 million has been spent on sustainable social and environmental projects within the local communities during the exploration phase.





# Project Development



# Project Development



## Project Development Schedule:-

- Feasibility Study (completed in March 2011) and Front End Engineering – 2 years
- Arrange project finance 1 to 2 years
- Construction - 6 months preliminary works + 3 years construction
- Commissioning and start-up – 3 months
- Project schedule contains 10,000 activities

## CAPEX Budget Estimates:-

### Definitive Feasibility Study – Stage One DSO

<i>CAPEX<sup>1</sup></i>	<i>US\$M</i>
Mining, Processing and Infrastructure	914
Rail	2,019
Port	537
Subtotal	3,471
PMC, Owners Costs and Contingency	1,214
<b>Total (US\$M, real as at December 2010)</b>	<b>4,686</b>

## OPEX Budget Estimates:-

<i>OPEX<sup>1</sup></i>	
Estimated Operating Cost <sup>2,3</sup>	US\$21.20/t

### Pre-Feasibility Study – Stage Two Itabirite

<i>CAPEX<sup>1</sup></i>	<i>US\$M</i>
Beneficiation	1,908
Pellet Plant	400
Subtotal of direct costs	2,308
PMC, Owners Costs and Contingency	835
<b>Total (US\$M, real as at December 2010)</b>	<b>3,143</b>

<i>OPEX<sup>1</sup></i>	
Estimated Operating Cost <sup>2,3</sup>	US\$40/t

Overall project development schedule in the order of 5 years

## Mine Development

### Two mine sites

- Geotechnical investigation, pit wall design, mining block modelling and grade control drilling
- Construction of access roads, tree clearing and top soil removal
- Pre-stripping unsuitable material and preparation of first mining bench
- Construction of processing plants, material handling facilities, stockpile areas, train loading facilities and waste disposal areas.
- Construction of mining support facilities including offices, accommodation, workshops laboratories, power supply, water supply and waste water treatment and disposal facilities.



**Kalgoorlie and the “Superpit”**

# Rail & Port



- 510 km rail line from Mbarga to Port with a Parallel rail access road
- 70 km spur line from Nabeba
- 32 t axle load
- 6 trains each comprising 3 locos & 190 wagons
- 28-hour cycle time from mine to port to mine
- Deep water near shore (25 meters)
- Open water jetty – no breakwater
- Single berth capacity for up to 45 Mtpa
- Port being designed for 300,000 DWT “China-max” bulk ore carriers

**Environmental approval granted for Port, Rail and Mine in Cameroon in 2010**

**Declaration of Land for Public Utility for Port in 2010; and for Rail Corridor in Nov 2011**





# Started Preliminary Construction Works in 2011



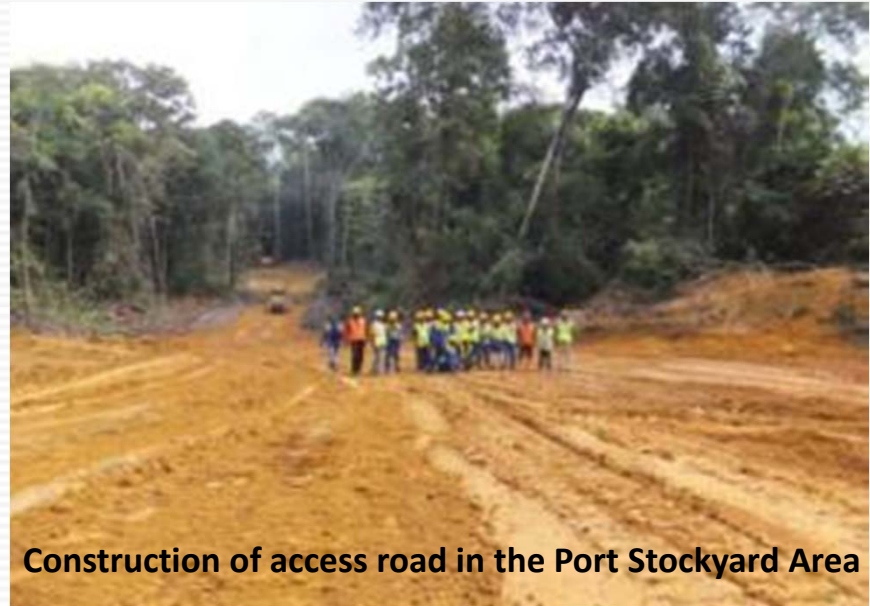
Assessing the Lolabe port site



Preliminary planning of Mbalam rail corridor



Geotechnical Drilling at the Car Dumper location



Construction of access road in the Port Stockyard Area

## Social Benefits During Construction

- Total investment during the project development phase will be around US\$ 5 billion. A significant proportion of this will be spend directly in country on local labour, the use of local contractors and the procurement of local materials and services.
- Specific training and advice will be offered to the local business community, contractors and vendors to help them understand and comply with the standards required for involvement in the project development.
- The peak workforce during project construction will be around 12,000 to 14,000 people with substantial opportunities for local employment.
- Some US\$ 150 million of costs has been embedded in the engineering design and construction standards to ensure minimum disruption and environmental conservation.
- It is proposed to invest around US\$ 5 million on sustainable social and environmental projects within the local communities during the project development phase.



# Operations



## Mine Operating Life

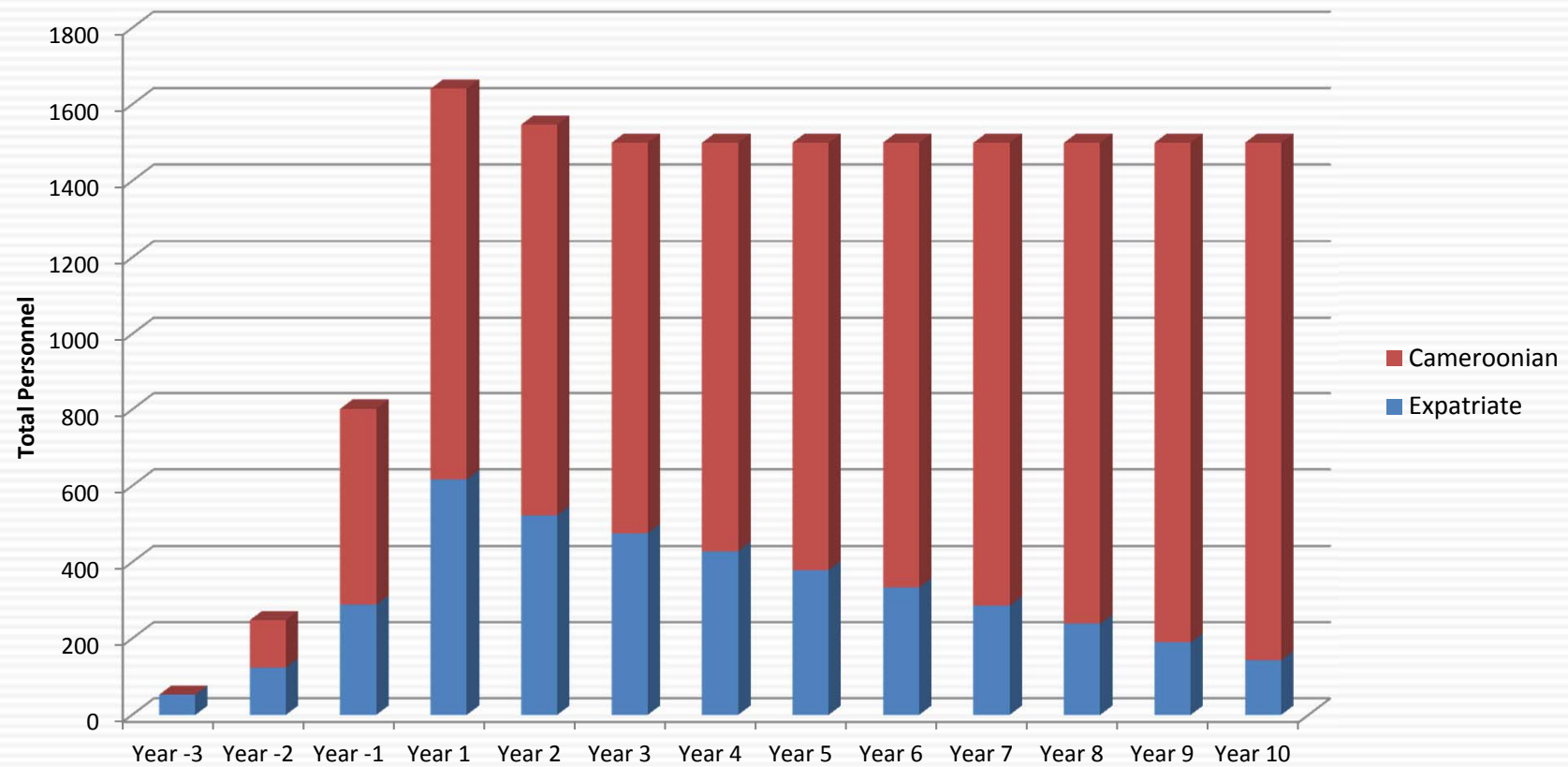
- The based on current resources and reserves the operating life of the mines will be not less than 25 years.
- It is confidently anticipated that mine life will increase as additional knowledge of the ore deposits is developed through further exploration and early mining operations.
- **Activities during the mine life will include:-**
  - **Mining**
  - **Ore processing and beneficiation**
  - **Railway operations**
  - **Materials handling and blending at the port stockyard**
  - **Ship loading and marine operations**

# Expatriate to Cameroonian Transition

- The training of unskilled and semiskilled employees will be carried out during construction and commissioning.
- The implementation team will also seek to include training positions in the construction contracts to maximise the participation of local people.
- The process for skilled and management positions will take longer. These positions involve earning recognised qualifications.
- During the period of time necessary for the Cameroonian employees to obtain these qualifications, expatriates will be utilised to fill some positions.
- As local personnel are trained to carry out the required duties, the expatriates overseeing or conducting those tasks will be replaced with Cameroonian employees.

# First 10 Years Labour Split

## Expat to Cameroonian Labour Split





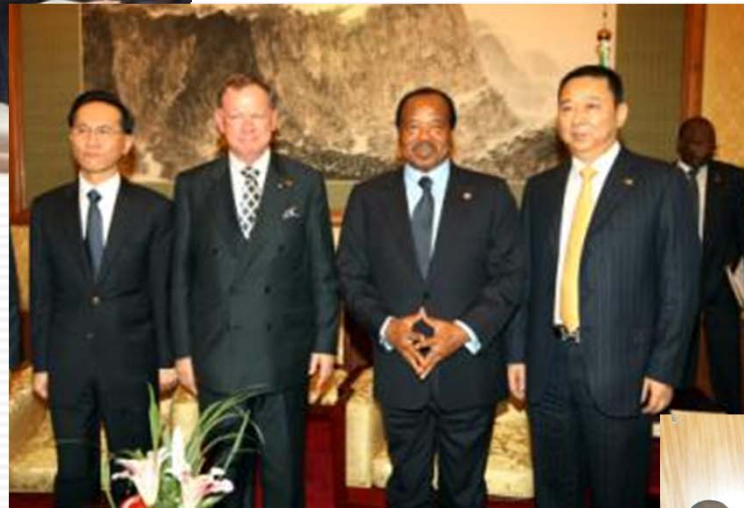
## Social Benefits During Operations

- The peak workforce during project operation will be around 1,400 people with over 95% of these ultimately being local nationals.
- Ongoing training programmes will be developed in collaboration with local tertiary education institutions.
- Some US \$7 million per year has been allocated in the general operating budget for environmental and social training, performance and compliance monitoring.
- A commitment has been made to set aside 0.5% of total after tax profits annually to be spent on sustainable social and environmental projects within the local communities throughout the operations phase.
- Based on a 25 year mine life free cash flow (royalties, taxes, dividends etc.) to the host governments are expected to total around about US\$ 20 billion.

# Firm Commitment from Government



- Strong support for Project by both Governments
- Met with Cameroon President Biya in Beijing in 2011 and again in Yaounde in April 2012
- Met with Cameroon Prime Minister Yang in Perth in 2011



- Cameroon Government established top-level Ministerial Steering Committee to oversee planning for the mine and infrastructure in Feb 2012 (replaced the Cellule est. 2007)
- Meetings currently underway in Paris with Minister Motaze and delegation to finalise key terms of Mbalam Convention
- Anticipate passed by National Assembly in August 2012







**We are a partner of the Cameroon Government in operationalising nation building projects to support the Cameroon government's vision for 2035 of becoming:**

- a prosperous economy with good infrastructure;
- low unemployment and underemployment rates;
- well-trained youth exalting merit and country's expertise;
- fair distribution of resources between urban and rural areas, and between the various regions of the country.

Sundance Resources Ltd  
Tel: + 61 8 9220 2300  
Fax: + 61 8 9220 2309  
info@sundanceresources.com.au  
www.sundanceresources.com.au



Avenue Charles De Gaulle  
Hippodrome Yaoundé  
Tel: +237 2201 9783  
Fax: +237 2201 9780  
info@camiron.net