Papua New Guinea Mining and Oil and Gas webinar

21 July 2016
PNG MINING & OIL & GAS

Type your question HERE

Welcome to the webinar, this session will commence shortly.

Q. What's for lunch today?
PNG Mining & Oil & Gas

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21 July 2016
OVERVIEW OF WEBINAR

David Knapton, Senior Trade Commissioner, Austrade Port Moresby
• Introduction to PNG and overview of opportunities and key projects

Mark McMonagle, Director, Sun Engineering QLD
• Overview of PNG projects, Why PNG and challenges in the market

Mario Pace, Business Development Lead, Logicamms.
• Discussion on experiences in PNG (no presentation)

• Open up to questions
PNG – WELCOME TO THE LAND OF THE UNEXPECTED

• PNG is currently going through a period of “restrained growth”

• History shows that the PNG economy runs in cycles - it is fair to say that it is currently in one of its ‘down’ cycles

• While the PNG economy grew by an impressive 9.9% in 2015, ADB’s forecast for growth is only 4.3% in 2016 and 2.4% in 2017

• There are many reasons why growth in the PNG economy has slowed
PNG – WELCOME TO THE LAND OF THE UNEXPECTED

• This has created cash flow problems for PNG and forced the Government to introduce significant spending cuts in its 2016 budget

• For quite some time, the Bank of PNG has also had tight controls in place on the availability of foreign currency

• The PNG Government is currently in the process of arranging a US$500 million syndicated loan through international finance agency, Credit Suisse, to help fund its deficit and reduce the backlog in demand for foreign currency
The mining and oil & gas sectors still form the backbone of the PNG economy.

There are currently 7 significant mines in PNG, the largest being Porgera, Lihir, Ok Tedi and Ramu NiCo.

The mines produce gold, copper, silver, nickel and cobalt.

Although the mining sector is also in a ‘down’ cycle, contributions from the mines remain significant in terms of revenue from taxes and royalties as well as export earnings.
This part of my presentation will focus on two major mining projects and two major Oil & Gas projects that are planned for development in PNG:

• **Wafi-Golpu**
  - a gold/copper mine to be developed jointly by Newcrest Mining and Harmony Gold
  - capital cost of the Stage 1 Golpu development is estimated at US$2.3 billion

• **Frieda River**
  - PanAust has just lodged a special mining lease application for this copper-gold project
  - pre-production capital cost is expected to be around US$3.6 billion
PNG OIL & GAS

- The PNG LNG project was a game changer for PNG
  - this US$19 billion 2 train project was completed by ExxonMobil and its partners ahead of time and within budget
  - PNG LNG is one of the lowest cost producers in the world

- ExxonMobil and several of its partners now plan to spend a further US$10 billion to develop the P'nyang gas field in Western Province
  - timing of the P’nyang project rests largely with the PNG Government
  - this project is likely to underpin the construction of a third train at the PNG LNG site or secure ongoing gas supplies for the existing project
  - a decision on whether to proceed with the construction of a third train could be made as early as 2017
• Partners in the Papua LNG project (Total, Interoil and Oil Search), plan to treat and pipe condensed gas from the Elk/Antelope fields in the Gulf Province to an LNG plant site near Port Moresby

• Papua LNG is likely to be a world competitive LNG project
  - with some logistics advantages and a lower cost global environment, it could possibly be developed as a 2 train project for not much more than US$10 billion

• Total’s local subsidiary, Total E&P PNG, is expected to move to the Front End Engineering Design (FEED) stage in 2017 with a final investment decision likely in early 2018

• It is expected that the project will take at least 4 years to construct
OPPORTUNITIES FOR AUSTRALIA IN PNG MINING & OIL AND GAS

• Australia is already a significant supplier of equipment, services and technology to most of the existing mines in PNG

• Australia is geographically well placed to service this market

• Several of the PNG projects are run in whole or part by Australian entities

• There are a significant number of Australians working in PNG who tend to look for Australian products and services with which they are already familiar and/or which meet the required industry standards

• Australian companies have also been successful in supplying the PNG LNG project
OPPORTUNITIES FOR AUSTRALIA IN PNG MINING & OIL & GAS

• Most of the projects in PNG (both current and planned) are located in very remote parts of the country where infrastructure is generally quite limited, security is often an issue and logistics can be an absolute nightmare

• With the fall in the price of most global commodities, PNG mining and oil and gas companies are looking for ways to improve their productivity, increase production, protect the environment, lift safety standards and, probably most importantly, reduce their costs

• Australia has much to offer in all of these areas
POSSIBLE NEXT STEPS

• Consider planning a visit (or follow up visit) to the market

• Participate in the Mining and Oil & Gas Industry Mission that Austrade will be arranging in PNG from 22 to 24 November, 2016
  
  EOI for mission to martin.ferreyra@austrade.gov.au

• In follow up to our Mission, consider attending the biennial PNG Mining & Petroleum Investment Conference to be held at the Hilton Hotel in Sydney from 5 to 7 December, 2016 (to obtain more details on this event, go to www.pnginvestment.com.au)
WE WILL CONSTRUCT EXACTLY THE PROJECT YOU WANT
Our Vision
To be the Engineering, Procurement and Construction partner of choice for resource and infrastructure projects globally

Our Mission
We safely deliver unique engineering and construction projects in the global resource sectors.

Our Values
Pride

PRIDE

Play it Straight
We are all responsible for creating an environment where open, honest and direct two-way communication occurs. We tell it like it is, give and receive honest feedback and listen carefully. All our interactions have an outcomes focus. We operate with the utmost integrity throughout all our operations.

Respect Builds Success
We respect the individual talents, differences and strengths of every employee. We engage and ask for support or action. We support and care for each other and deliver on the commitments we make. Everyone makes a significant contribution to the organisation.

Improve and Innovate
We anticipate change, and are switched on to new ideas and possibilities. To grow with our employees and stakeholders we must constantly improve and innovate. We look for continuous improvement in our activities and for new opportunities everyday.

Deliver to Win Together
Sun wins when our stakeholders win. We only deliver products and services that provide the best quality and value for our customers and stakeholders. The products and services we deliver to our customers and stakeholders equip them with solutions for business success. We partner together across the organisation to deliver outcomes and solutions. We work together to make things happen. We seek win/win outcomes.

Expect the Best
We expect the best results across all operations. We recruit and develop the best, and strive to be the best in all of our markets. We set our standards high, set stretch goals, plan to achieve and exceed desired
The Sun Group of Companies

Business Operating in PNG

Sun Engineering Pty Ltd
Manufacturing and Construction

One Point Software Solutions

Pan Process Pty Ltd
Electrical and Controls

Ningbo Zhong Lain Steel Structures
Manufacturing in China

Powergen
Power Generation Maintenance and Construction

WE WILL CONSTRUCT EXACTLY THE PROJECT YOU WANT
Safety & Quality

Sun Engineering's safety programme is a fully implemented third party certified process that represents the core philosophies of the company. Our programmes include a detailed risk assessment review and elimination process. This process forms part of a fully documented management programme.

Oil & Gas
ISO 29001

Quality
ISO 9001

Health & Safety
AS 4801

Environment
ISO 14001

Welding
ISO 3834
Sun Engineering's Head office is located on a 2 hectare production and support facility at Motukea 25 kilometres from Port Moresby the capital city of PNG. It is the home to our construction, manufacturing, equipment hire and equipment maintenance businesses in PNG. The facility is strategically located adjacent the PNG LNG Project. The Port Moresby facility gives us access to our key mining partners such as Oktedi Mining.
Hidden Valley Gold Mine

Construction of a gold mine processing plant & overland conveyor for the Hidden Valley Mining J.V.

Steel Fabrication: Free issue – Constructed in: PNG

Summary
Pipe work: Over 34 kilometres of Process piping
Thickeners: 8 off
Regrind Mill: 5.5 metres diameter
Sag Mill: 11 metres diameter
Steelwork / Plate work: Over 8,500t
Installations Completed: August 2009
Project value: In excess of $55 million
Man-hours on site: Over 1 million + (with 0 LTIs to date) 550 + Labour force
Ok Tedi

Mine Expansion Fabrication and Construction

Steel Fabrication: China – Constructed in: PNG

Summary

<table>
<thead>
<tr>
<th>Steelwork</th>
<th>1,800t</th>
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<tbody>
<tr>
<td>Pipe work</td>
<td>500t</td>
</tr>
<tr>
<td>Plate work</td>
<td>300t</td>
</tr>
<tr>
<td>Thickeners</td>
<td>2 X 45 metres diameter</td>
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<td>Installations Completed</td>
<td>April 2008</td>
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<tr>
<td>Project value</td>
<td>$36 million</td>
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<tr>
<td>Man-hours on site</td>
<td>Over 500,000 (with 0 LTIs)</td>
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**Lihir Island**

**Lihir Gold mine Expansion**

Steel Fabrication: Australia – Constructed in: PNG

**Summary**

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<thead>
<tr>
<th>Steelwork</th>
<th>2,500t</th>
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<tr>
<td>Pipe work</td>
<td>1,200t</td>
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<td>Plate work</td>
<td>800t</td>
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<tr>
<td>Thickeners</td>
<td>35 metres diameter</td>
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<tr>
<td>Ball Mill</td>
<td>5.5 metres diameter 10 Flange to Flange</td>
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<tr>
<td>Sag Mill</td>
<td>7.32 metres diameter 8.6 Flange to Flange</td>
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<tr>
<td>Installations Completed</td>
<td>July 2007</td>
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<tr>
<td>Project value</td>
<td>$40 million</td>
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<tr>
<td>Man-hours on site</td>
<td>Over 600,000 (with 0 LTIs)</td>
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Porgera Paste Plant

Barrack gold Porgera Paste Back Fill Project
Fabrication and Construction
Structural, Mechanical, Piping, Tankage & Electrical

Steel Fabrication: China – Constructed in: PNG

Summary
Pipe work 5km
Plate work 230 tonne
Belt Conveyors 800 tph / 600mts
Pipe Conveyors 400 tph / 1100mts
Steelwork 480 tonne
Installation completed November 2010
Combined Values $28 million
Man hours on site 380,000 – Zero LTI’s
WHY PNG?

PNG Projects

Lihir Gold Limited  Simberly Gold
OKTEDI Mining        St Barbara Mining
Barack Gold          K92 Mining
MMJV                 Newcrest
Porgera Joint Venture Puma
Harmony Gold         Interoil
Wood Group           SP Breweries
Exon Mobil           Dulux
Ramu Nickel          PNG Power

Web: www.suneng.com.au
Our Experiences in PNG

Challenges

- Working visas
- Accommodation costs
- Chinese and Philippine Competition (not a level playing field on safety issues)
- Workforces being utilised from low cost countries
- Security
- Lack of work continuity (small economy)
- Cultural differences with the local workforce
- Difficult to get money out of the country
- 2017 Elections
- Proposed changes to the Mining and Lands acts?
- Ability to get funding for projects in PNG

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PNG MINING & OIL & GAS

Any questions?

Questions section

Type your question here
Thankyou.

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EOI for PNG Mission.

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