
**QUARTERLY ACTIVITIES REPORT:
QUARTER ENDED 31 DECEMBER 2011**

HIGHLIGHTS

- Pilbara - final VTEM data received, regional aeromagnetic compilation complete
 - Bomong (Indonesia) gold project option not exercised
 - Negotiating additional titles for Seluma (Indonesia) iron sand option
 - New Projects continually being assessed
-

CORPORATE:

WEST PILBARA TENEMENTS

Final Registrations of transfers for 13 exploration licences (E47/1092-1097 and E47/1811-1817) to Pilbara Minerals Limited (Pilbara) were affected in November.

Pilbara currently owns 100% interests in 13 exploration licences totalling 559 blocks (approximately 1,800 km²) in the West Pilbara Mining District and is the applicant for three exploration licences in the same district.

In December, Application for Exploration Licence 47/2261 was recommended for granting. This application (area 41.7 km²) includes a 3.5 km section of the eastern extension of the Mount Oscar iron deposit magnetic feature.

HERITAGE AGREEMENT NEGOTIATIONS

The Company is actively negotiating Heritage Agreements with Native Title Holders Ngaluma Corporation and with Native Title Claimants Yaburara Coastal Marthudunera and Kuruma Marthudunera in order to enable ground disturbing exploration activities.

EXPLORATION ACTIVITIES

WEST PILBARA PROJECT (W.A.)

The West Pilbara Project consists of four groups of exploration licences totalling approximately 1,800 km². They are situated within an area extending from about 70 kilometres south-west of Karratha to approximately 110 kilometres south-east of Karratha.

The Company is targeting volcanogenic massive sulphide deposits (potentially Cu-Zn-Au-Ag mineralised), layered basic intrusives (potentially Ni-Cu-PGM mineralised) and magnetite-bearing sequences (potentially iron mineralised) within Archaean greenstone-metasediment sequences underlying widespread Fortescue Group cover rocks.

As reported in the previous quarter, Pilbara's geophysical consultant has identified 13 primary and high priority targets identified by airborne magnetic and VTEM (versatile time domain electromagnetics) surveys.

The target anomalies potentially represent strongly sulphidic bodies within the Archaean greenstones and metasediments and are located at depths of <100m to ~200-300m. All of the prospective areas are covered by shallow-dipping Fortescue Group volcanics and sediments from <100m to possibly >200m thickness.

Pilbara Minerals is very encouraged by these results and is planning a drilling campaign to test the more prospective anomalies as soon as is practicable.

During the quarter, openfile airborne magnetic and radiometric datasets were merged with the July 2010 survey flown over EL47/1097. Processing has produced a major dataset of grids, contours, images and an image atlas. This data will enhance interpretation of the final VTEM data package.

The VTEM contractor has delivered the final data package following completion of post-acquisition processing in Canada. Pilbara's consultant geophysicist will carry out further processing and data enhancements over the coming quarter.

To more precisely delineate and target the drilling of these priority prospects, four ground fixed loop TEM (time domain electromagnetic) surveys are scheduled for the latter half of February. These are over four promising VTEM anomalies located on EL47/1097 approximately 30 km north of Pannawonica (see attached figure). Ground geophysical surveys of this type are non-ground disturbing activities in terms of Heritage Agreements.

After completion of Heritage Agreements and required heritage surveys, drilling is planned to commence in the second quarter of 2011.

BOMONG GOLD PROJECT (INDONESIA)

Subsequent to the end of the reporting quarter, Pilbara Minerals Limited has resolved not to exercise an option to acquire a 55% interest in a private Indonesian company that has certain rights to gold prospects (Bomong Project) in North Sulawesi, Indonesia. In the course of due diligence, it has become clear that ownership of the critical title is not as represented. Furthermore, field inspection and rock chip sampling has not provided encouraging results.

SELUMA IRON SANDS PROJECT (INDONESIA)

A desk review of available geological and sample data suggests that higher grade iron-bearing sands tend associate with the active beach and fore dune environments of Seluma. Metallurgical considerations indicate that sampling to determine levels of possible deleterious components is advisable.

Discussions in December with the owners' representative focussed on extending the Seluma option so as to include a more extensive tenement package at another location on the south Sumatra coast. A pilot-scale separation plant and a modest concentrate stockpile are part of the package. Negotiations are ongoing.

NEW PROJECTS

The Company continues to receive and appraise a range of project offerings from a variety of sources. We are actively investigating a select few that fit with our principal commodity focus, being base-metals, particularly copper, and gold.



Gavin Farley
Director

The information pertaining to the technical content of this announcement has been compiled by Robert (Bob) Adamson, B.Sc., M.Sc. (Hons Geol), MAusIMM, CP (Geo). Mr Adamson is the principal of Robert G Adamson Consultants and a director of Pilbara Minerals Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (The JORC Code). Mr. Adamson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

