



ASX RELEASE

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QUARTERLY ACTIVITIES REPORT QUARTER ENDED 31 DECEMBER 2011

CORPORATE

TENEMENTS

Pilbara Minerals Limited holds a 100% interest in 12 granted exploration licences totalling 380 blocks (approximately 1,216 km²) in the West Pilbara Mining District, north-western Western Australia (see Figure 1). The Company is the applicant for a 100% interest in an exploration licence in the same district. In December 2010 the 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 magnetic feature associated with the Mount Oscar iron deposit. During the current quarter the application E47/2258 was granted to another party, which resulted in a request by WADMP that Pilbara Minerals Limited withdraw its formerly competing application (E47/2259).

EXPLORATION ACTIVITIES

WEST PILBARA PROJECT (WA)

No field work was carried out in the reporting period. In order to minimise expenditure, exploration activity was restricted to desk studies of geophysical and geological data.

Geochemistry of Exposed Archaean rocks with Associated VTEM Anomalies

As reported in the September 2011 Quarter, reconnaissance geological mapping and geochemical sampling were carried out over the Archaean greenstone sequence that hosts VTEM anomalies PMVA 4 and 5. This area is in the southern part of exploration licence E47/1097 and is located approximately 30 km north of Pannawonica township. The 5 km² area of Archaean rocks is exposed through a window in overlying basalts of the lower Fortescue Group.

A total of 28 stream sediment samples were collected within the Archaean window, together with rock samples for PGM and Au analysis. Geochemical assays were received during November 2011, but no anomalous results were indicated.

New Target Concepts and Geological - Geophysical Interpretations

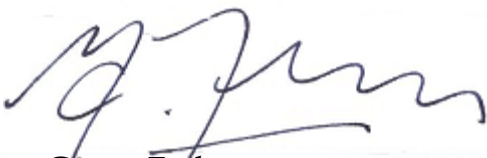
The Company has further developed its hypotheses regarding the potential for base and precious metal mineralisation in the Fortescue Group rocks of the Pilbara Region. Presentations under confidentiality agreements were made to several companies with a view to seeking farm-in / joint venture arrangements for exploration based on the Pilbara concepts. Two of the companies have expressed a keen interest in carrying out further investigations. They have been supplied with datasets for detailed reviews; responses are expected shortly.

NEW PROJECTS

Pilbara Minerals Limited continues to seek to acquire interests in mineral projects with good prospects for near-term development. This would support and complement the Company's "greenfield" exploration programmes in the Pilbara Region.

The Company continues to receive and appraise a range of project proposals from a variety of sources, both local and international. The Company is actively working on two proposals that it considers may have significant shareholder value if initial judgements are confirmed by the due diligence currently in process.

At this time, Pilbara's principal commodity focus is on base metals, particularly copper and gold-silver. Regions of significant interest include Western Australia, South America and southern Africa.



Gavan 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. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity that 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.

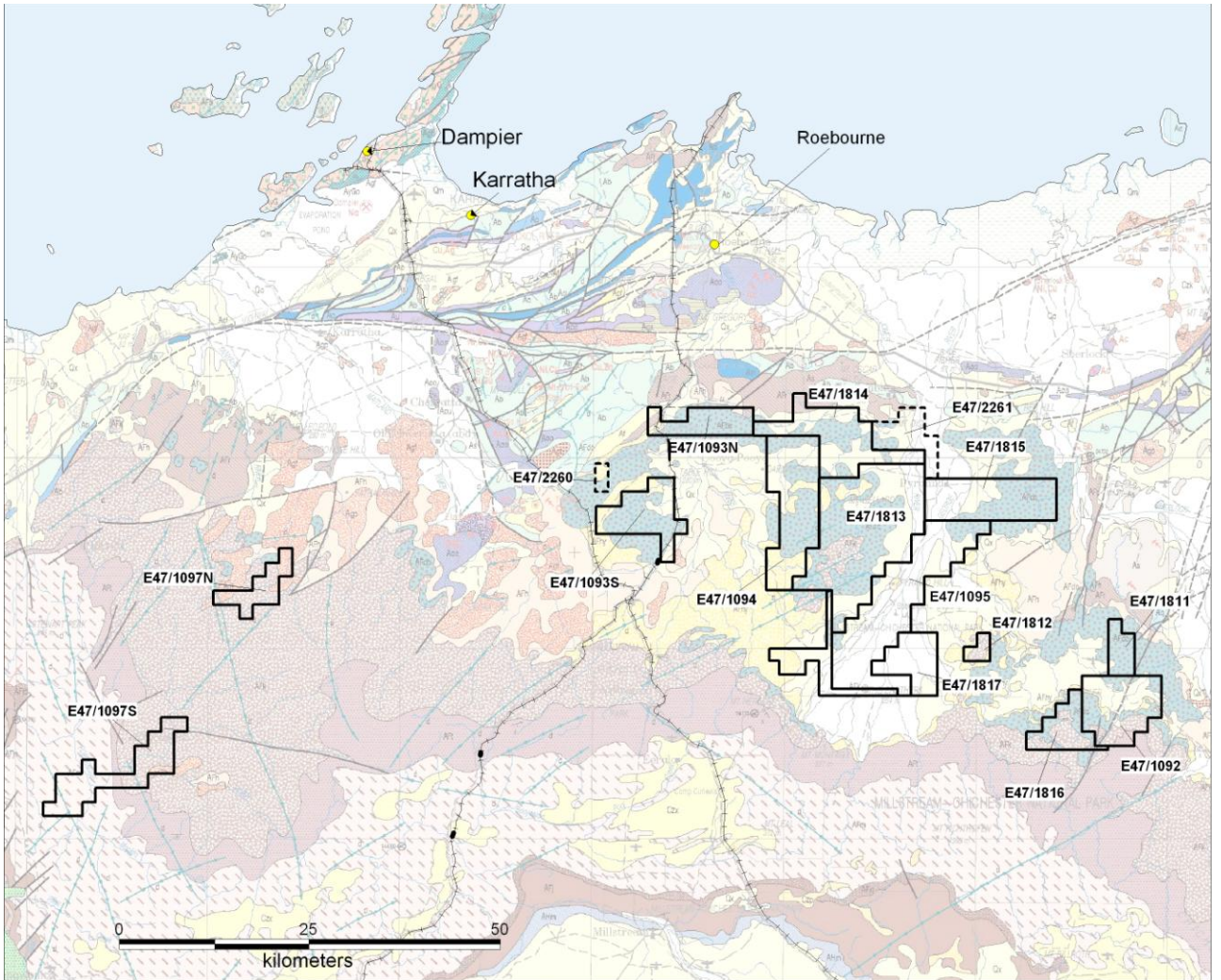


FIGURE 1