

# **December 2016 Quarter Activities Report**

#### ABOUT ARC EXPLORATION LIMITED

Arc Exploration Limited (ASX Code: ARX) is an Australian-listed company focused on gold and base metal exploration in Indonesia and Australia.

The Company has a joint venture interest with PT Sumber Mineral Nusantara on the Trenggalek Project in East Java. The project lies on the highly prospective Sunda-Banda magmatic arc, which is host to several known high-grade epithermal gold and porphyry copper-gold deposits.

The Company also has an interest in Australia. It is farming-in on a gold-base metal property located in the Mount Garnet mineral district of northeast Queensland. The project contains a drill-delineated gold resource at Triple Crown and has potential for expansion through further exploration.

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# **INDONESIA**

# Trenggalek Project, East Java

- Ground Magnetic survey completed at Singgahan to define drill targets. Results currently being interpreted.
- Further ground works including soil sampling and mapping undertaken in area of porphyry style mineralisation exposed at surface in Singgahan.
- Preparations for Stage 2 Exploration work program including community and local government consultation.
- · Independent geologist engaged to undertake project review.
- Work undertaken to help local communities following landslides due to heavy rains.

## **AUSTRALIA**

# Mount Garnet Project, Queensland

No field activity to report for the Quarter. Project review initiated.

# **CORPORATE**

- Placement of 950,000 shares at a price of \$0.60 per share completed raising \$570,000.
- Board and Management changes effected following completion of the Placement as the first step in a strategy to re-establish Arc Exploration as a regional explorer.

# **INDONESIA**

ARX is exploring for gold and base metal deposits along Indonesia's highly prospective magmatic arcs and associated geological terranes (See Figure 1). The primary exploration targets are high-grade epithermal gold-silver veins and porphyry-related copper-gold deposits.



Figure 1. Trenggalek Project location & major gold and base metal deposits in Indonesia

# Trenggalek Project, East Java (farming out up to 80%)

ARX operates a joint venture in respect of the Trenggalek Exploration IUP tenement, located in the Southern Mountains of East Java (See Figure 1). The Southern Mountains is composed of an older segment of the Sunda-Banda magmatic arc, which hosts several known large porphyry copper-gold deposits; *Tumpangpitu* located about 200 kilometres to the east of Trenggalek, and *Batu Hijau* and *Elang* located on Sumbawa. Trenggalek contains a similar package of rocks to those hosting these three major porphyry deposits.

The Trenggalek Exploration IUP tenement is held by ARX's Indonesian partner, PT Sumber Mineral Nusantara ("SMN"). The tenement, covering an area of 29,969 ha or about 300 km<sup>2</sup>, is now valid until November 2018.

PT Danusa Tambang Nusantara (Danusa), a subsidiary of one of the largest contract miners in Indonesia, is currently managing and funding exploration work at Trenggalek.

A total of 2,745 metres in a 20 hole diamond drilling program was completed in the first half of 2016. These holes have tested for mineralised extensions within the large Sentul and Buluroto epithermal gold veins (See Figure 2), which were previously tested with scout diamond drilling by ARX in 2010/11.

Danusa has agreed to continue with Stage 2 Exploration with a budget of US\$ 1 million to be spent in the first half of 2017.

Gold results from the drilling in 2016 were reported in April 2016 (See ASX announcement Update on Drilling at Trenggalek, Indonesia dated 18 April 2016), in the June 2016 quarterly activities report (See ASX announcement June 2016 Quarter Activities Report dated 29 July 2016) and in September 2016 (See ASX announcement Update on Drilling at Trenggalek, Indonesia dated 1 September 2016).

Review and interpretation of these results in conjunction which historic data was undertaken during the quarter.

# **Singgahan Prospect**

Scout diamond drilling on the Singgahan Prospect located in the southeast corner of the Trenggalek Exploration IUP tenement (See Figure 2) was conducted in 2014 (see ARX announcement of 12<sup>th</sup> May 2014 and 21<sup>st</sup> July 2014). The four inclined diamond holes (1,541m) drilled at Singgahan completed a fence of holes across part of an extensive copper-gold-molybdenum soil anomaly and coincident magnetic-high anomaly. The source of the soil geochemical anomaly is interpreted to be a weakly mineralised intrusion breccia cropping out at surface. The source of the magnetic high is a small mineralised diorite intrusion that appears to be rootless as modelled by a 3D magnetics inversion analysis. The high-magnetic signature of the diorite is attributed to abundant secondary

magnetite occurring as disseminations in porphyry-style quartz-anhydrite veins and potassic-propylitic alteration. Porphyry-style mineralisation was intersected in these holes which returned multiple low grade copper-gold-molybdenum intercepts.

Previous petrological studies on selected core samples taken from these holes has confirmed the occurrence of porphyry-style veining and alteration, with copper and molybdenum minerals and recent mapping in the area has identified porphyry style mineralisation at the surface. A Ground Magnetic survey consisting of 25.5 line km covering an area 1.5km x 1.6km was completed during the quarter. These results combined with existing aeromagnetic data and detailed geological mapping will be used to define drill targets at Singgahan for the next phase of exploration to be undertaken at Trenggalek by Danusa in the first half of 2017 after consultation with the local community.

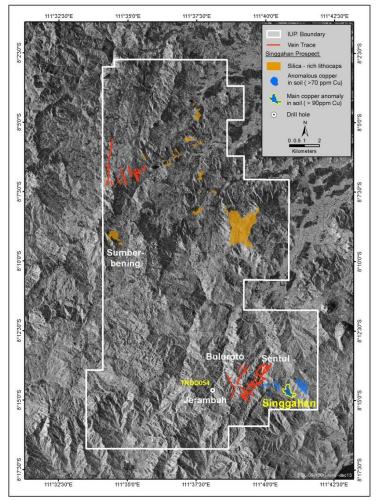


Figure 2. Trenggalek Exploration IUP

Exploration expenditure at Trenggalek for the quarter totalled US\$ 229,248.

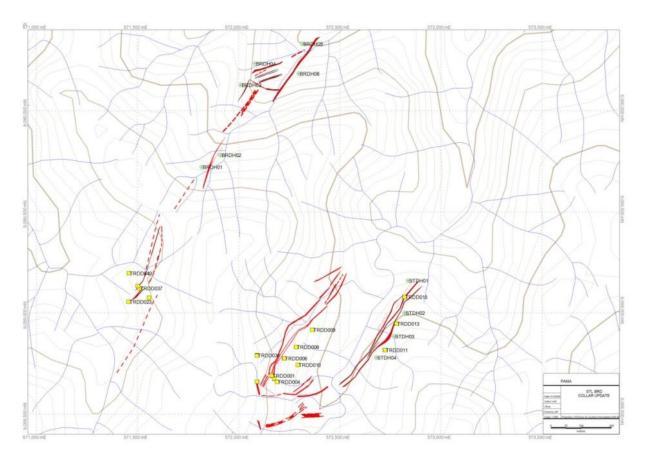


Figure 3: Buluroto & Sentul Prospects – Drillhole Location Plan (Note: The TRDD hole ID's are previous ARX holes drilled in 2010/11)

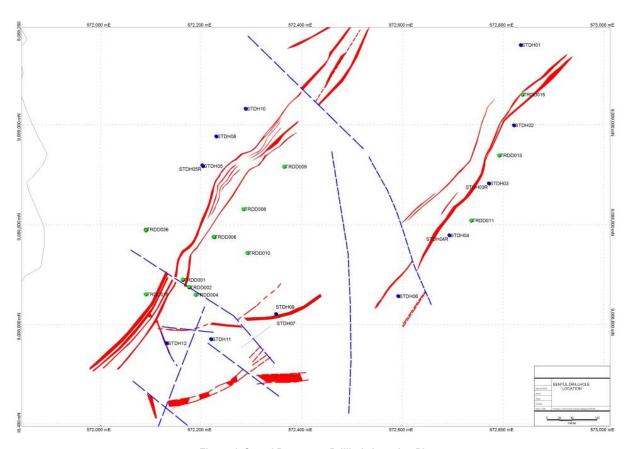


Figure 4: Sentul Prospect – Drillhole Location Plan (Note: The TRDD hole ID's are previous ARX holes drilled in 2010/11)

# **AUSTRALIA**

ARX operates a joint venture to explore for gold and base metals on the Mount Garnet Project located in northeast Queensland (See Figure 6).

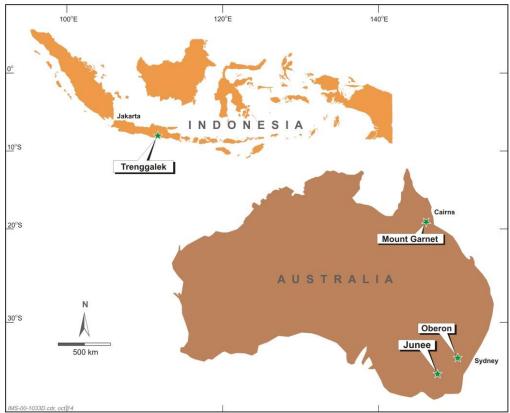


Figure 6. Australian and Indonesian Project Locations

# Mount Garnet Project, Queensland (100% Snowmist, ARX earning up to 80%)

The **Mount Garnet** Project, located near the major regional centre of Cairns, comprises three Mining Leases (ML's 4363, 4390, 20018) covering about 150 hectares that are 100% held by Snowmist Pty Ltd ("Snowmist"), and an exploration tenement (EPM 25343) covering about 17 km² that is held by Arc Exploration Limited ("ARX").

The package of mining tenements held by Snowmist contains the *Triple Crown* gold deposit, which has a drill-indicated gold resource estimated to be 69,000 ounces and includes a small oxide resource of about 25,000 ounces gold (see ASX announcement of 21<sup>st</sup> August 2013). Historic drilling at Triple Crown has produced some broad low-grade gold intercepts including 22m at 2.33 g/t gold, 51m at 1.73 g/t gold and 35m at 1.39 g/t gold (see ARX Announcement dated 21 August 2013).

The project area lies in the Mount Garnet tin-base metal mining subdistrict of the Herberton Tinfield and within the southern end of a discontinuous belt of Siluro-Devonian calcareous metasedimentary rocks (Chillagoe Formation) that is bounded by the major regional Palmerville fault and intruded by Permo-Carboniferous granites. These rocks are host to a number of gold-base metal-tin skarn and disseminated gold-base metal-tin stockwork/breccia deposits in the region, including Red Dome (gold-copper), Mungana (gold-zinc) and King Vol (zinc) in the Chillagoe district, and Mount Garnet (zinc-copper), Gillian (tin) and Triple Crown (gold) in the Mount Garnet district.

There is a significant potential to increase the known gold resource at Triple Crown and additional potential to identify new gold-breccia targets and other deposit styles, including base metal skarn similar to that exploited at the nearby Mount Garnet zinc-copper mine.

No material field activities were undertaken during the guarter.

ARX expenditure on the Mount Garnet Project for the quarter totalled A\$1,127.00.

### **CORPORATE**

#### **Placement**

Following approval at a general meeting of shareholders held on 5 October 2016 the Company completed a placement of 950,000 shares at an issue price of \$0.60 per share to raise \$570,000 with Taylor Collison Limited as the Lead Manager. The funds were raised to provide the Company with additional working capital and for the investigation of further exploration opportunities.

#### **Board And Management Changes**

A number of Board and management changes were made during the quarter following completion of the Placement referred to above.

Each of the following Directors and management resigned effective 11 October 2016:

Mr. Bruce Watson: Non-Executive Chairman Dr. Jeff Malaihollo: Managing Director Mr. John Carlile: Non-Executive Director Mr. Max Ramajaya: Non-Executive Director Mr. Cahyono Halim: Chief Financial Officer

The following were appointed as Non-Executive Directors to join Mr. Robert Willcocks on the Board:

Mr. Simon O'Loughlin Mr. Simon Taylor Mr. Andrew Cooke

These Board changes were made as the first step in a strategy to re-establish Arc Exploration as a regional explorer. This strategy will continue to be centred around the Company's existing commitment to the Trenggalek gold project in East Java.

This report is dated 31 January 2017.

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#### Competent Person Statement

The information in this report that relates to the following were created and reported in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves:

- The exploration results in this report that relate to the Trenggalek Project is extracted from the report entitled Update on Exploration at Trenggalek, Indonesia created and released to the ASX on 1 September 2016;
- The information in this report that relates to the Triple Crown gold resource is extracted from the report entitled Mount Garnet Project Statement of Resources created and released to the ASX on 21 August 2013.

The reports referred to above are available to view on the Company's website: <a href="www.arcexploration.com.au">www.arcexploration.com.au</a> The Company confirms that it is not aware of any new information or data that materially affects the information included in these original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

# Table 3. Details of Tenements & ARX Interest At 30 September 2016

Project	Location	Tenement	Area (km²)	ARX Interest
Trenggalek	East Java, INDONESIA	Exploration IUP	$299.7~\mathrm{km}^2$	95%
Mount Garnet	Queensland, AUSTRALIA	ML 4363 ML 20018 ML 4390 EPM 25343	129 ha 21 ha 1 ha 17 km <sup>2</sup>	Farming-in Farming-in Farming-in 100%

# Table 4. Exploration/Mining Tenements Acquired/Disposed of during the Quarter

Project	Location	Tenement	ARX Interest	Comment
-	-	-	-	-