



## December 2017 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. PT Danusa Tambang Nusantara is farming into the Trenggalek Project. 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.

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### INDONESIA

#### Trenggalek Project, East Java

- PT Danusa Tambang Nusantara continues to manage and fund exploration work at Trenggalek.
- 3 hole scout drilling program of 1,422.7m completed during quarter following consultation with the local community and local authorities. All holes hit porphyry style mineralisation, although at low level of mineralisation. Area is interpreted to be the outer shell of porphyry style mineralisation but disrupted by phreato-magmatic eruption

### CORPORATE

- 1 for 2 Rights Issue @ \$0.51 raised \$607,904 in December 2017
- The Company is focused on identifying and evaluating new opportunities in the resources sector which have the potential to create shareholder value.

## 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* (*Tujuh Bukit*) 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 valid until November 2018.

Since November 2015 PT Danusa Tambang Nusantara (Danusa), a subsidiary of one of the largest contract miners in Indonesia, has been managing and funding exploration work at Trenggalek. In early 2017 Danusa agreed to continue with Stage 2 Exploration with a budget of US\$ 1 million.

#### **Jerambah Prospect:**

There has been only one hole drilled previously at the Jerambah Prospect (Figure 2) which intersected extensive hydrothermal alteration and disseminated pyrite with traces of base metal mineralisation in a prospective rock package (see ARX announcement 12 December 2013). Subsequent petrological studies on selected core samples confirmed the presence of porphyry-associated alteration mineral assemblages, fragments of porphyry-style quartz veins, anhydrite veining, traces of disseminated chalcopyrite and molybdenite mineralisation and narrow structurally controlled zones of high-sulphidation epithermal mineralisation overprints. These petrological results are interpreted that the hole was drilled in a peripheral position to a potential mineralised porphyry system (see ARX announcement of 9 April 2014).

Further large grid-based soil sampling programmed shows a new cluster of overlapping spotty copper-gold-molybdenum anomalies north of Jerambah Prospect thus highlighting the untested potential of this prospect (see ARX announcement of 9 April 2014).

During the September 2017 quarter an Induced Polarisation and ground magnetic surveys in combination with additional mapping and soil sampling were undertaken at Jerambah. Outcrops of diorite with quartz-sericite-(chlorite) alteration and quartz stockworks were identified (assaying 0.15% Cu and 0.15g/t Au). Alteration zones were mapped with the aid of a Terraspec machine and a Ground magnetic survey was also undertaken which confirmed the mapping results that the area is dominated by dioritic rocks with a strong NW-SE structural control (Figure 2).

The induced polarisation and ground magnetic results combined with re-interpretation of aeromagnetic data, spectral analyses, re-mapping and re-sampling of the area identified three drill targets (Figure 2). Scout drilling commenced in late September to test these targets.

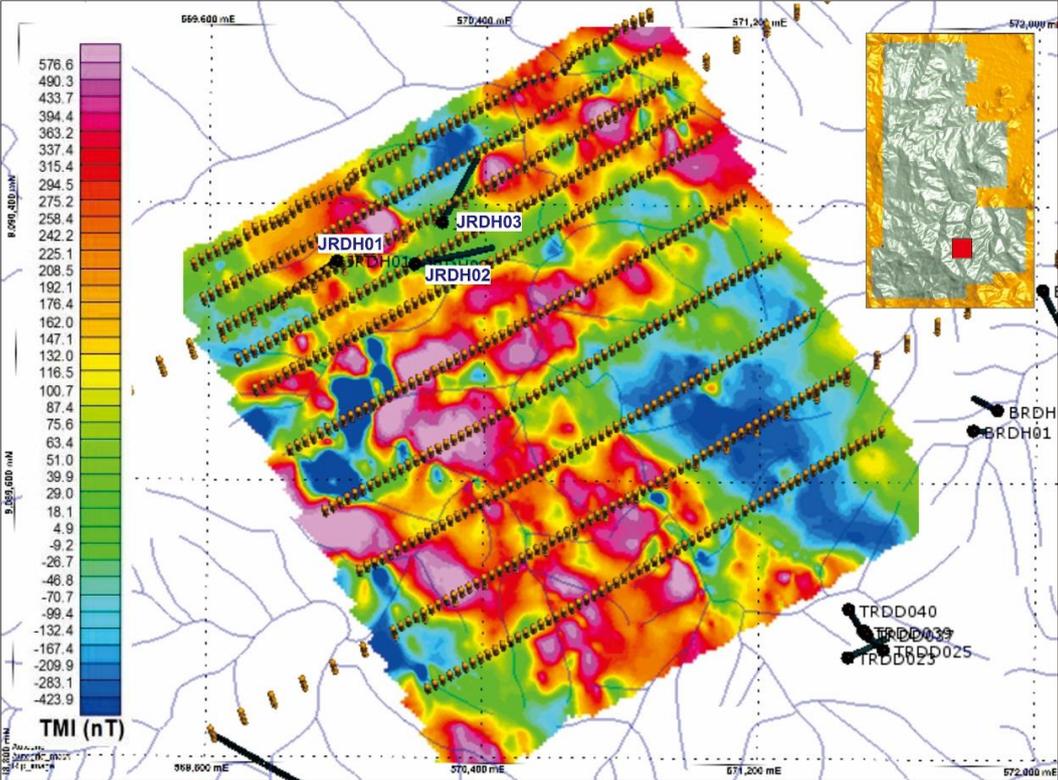


Figure 2. Drillhole locations with IP survey lines and groundmagnetic background

Summary of Drilling Results:

Hole JRDH01 – was dominated by an intense quartz stockwork with associated pyrite (Figure 3.) from approximately 170m to 380m. These stockwork crosscut the host diorite within a phyllic alteration zone. There was very little copper or gold mineralisation associated with this.



Figure 3. Intense quartz stockwork in Hole JRDH01

Hole JRDH02 – had less intense quartz stockwork with associated pyrite from approximately 50m to 125m depth, cutting through mainly diorite within a phyllic-dominated alteration zone.

Hole JRDH03 – There is no significant result in this hole which is dominated by propylitic and argilic altered diorite.

Table 1. Trenggalek Project - Drill-hole Details

Hole ID	Collar Coords			Dip deg	Azimuth Deg	Depth m
	mE	mN	mRL			
<b>Jerambah Prospect</b>						
JRDH01	569,980	9,090,196	621	-60	240	477.8
JRDH02	570,203	9,090,191	577	-60	070	464.9
JRDH03	570,281	9,090,311	588	-60	023	480.0

Table 2. Trenggalek Project –Copper Intercepts

Hole ID	From (m)	To (m)	Interval (m)	Cu ppm	Recovery
<b>Jerambah Prospect</b>					
JRDH01	261	271	10	149	100%
	289	292.5	3.5	246	100%
	358	405	47	111	100%
JRDH02	55	87	32	296	100%
	102	124	22	172	100%
JRDH03	NSR				100%

NSR – denotes No Significant Results

Interpretation:

These results have been interpreted to be the barren, outer shell of porphyry or older porphyry. Similar mineralised porphyries in other parts of Sunda arc also have multiple phases of porphyry mineralisation and in these areas the often older diorite-dominated host is less mineralised compared to the younger tonalite-hosted porphyry.

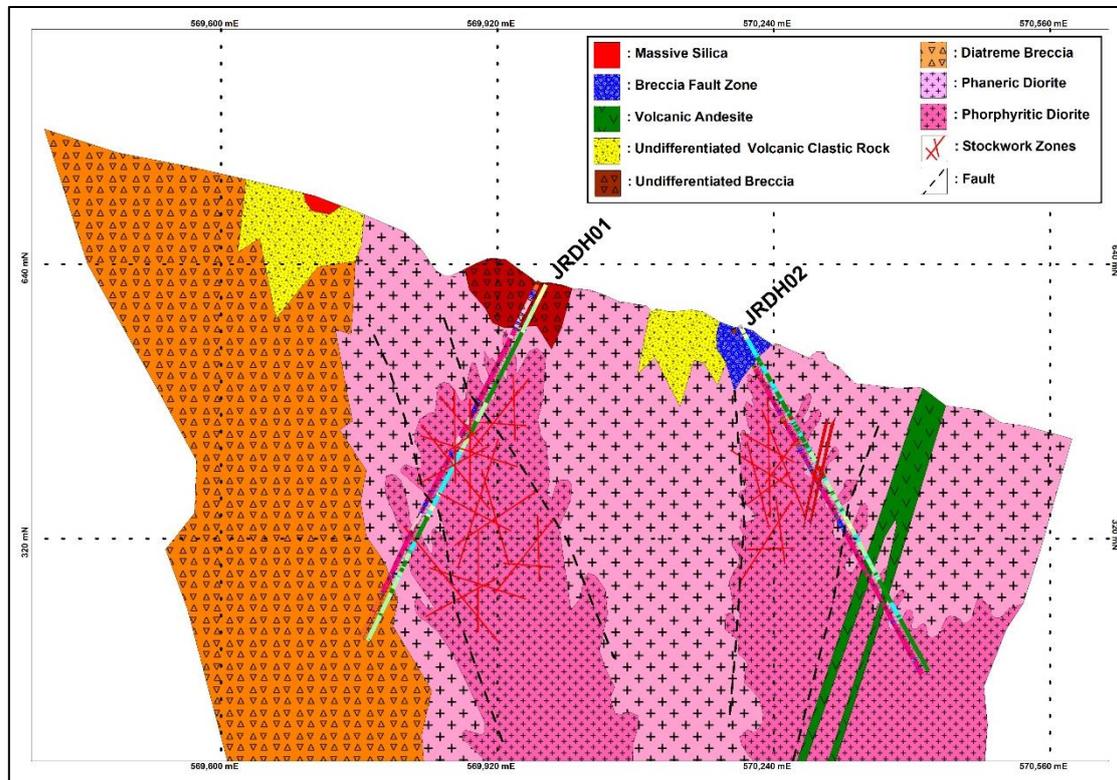


Figure 4 – Interpreted cross section of Holes JRDH01 and JRDH02.

**Singahan Prospect:**

Previous mapping, petrological studies and drilling at the Singahan Prospect to the east of Jerambah identified the occurrence of porphyry style copper mineralisation. A Ground Magnetic survey consisting of 25.5 line km covering an area 1.5km x 1.6km was completed during the December 2016 quarter. Further geological mapping

and soil sampling were undertaken earlier in 2017. These results combined with existing aeromagnetic data and detailed geological mapping have assisted in defining drill targets at Singgahan. It is anticipated that drilling at Singgahan will be pursued by Danusa after consultation with the local community and local authorities.

Further details (including 2012 JORC Code reporting tables where applicable) which relate to exploration results in this Quarterly Activities Report can be found in the following announcements lodged on the ASX:

Update on Trenggalek Gold Project, Indonesia dated 19 October 2017  
 Drilling Results from Jerambah, Trenggalek Project Indonesia dated 29 January 2018

Exploration expenditure at Trenggalek by Danusa for the quarter totalled US\$453,704.

This report is dated 30 January 2018.

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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 historic exploration results in this report that relate to the Trenggalek Project have been extracted from the following reports:

- First Hole Completed on Porphyry Target at Trenggalek, Indonesia created and released to the ASX on 12 December 2013;
- Update on Trenggalek Exploration Activities created and released to the ASX on 9 April 2014.

The reports referred to above are available to view on the Company's website: [www.arxexploration.com.au](http://www.arxexploration.com.au) 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.

The information in this announcement that relates to Exploration Results from the Jerambah Prospect is based on information compiled by Dr Jeffrey Malaihollo, who is a Fellow of the Australian Institute of Mining and Metallurgy and Fellow of the Geological Society of London. Dr Malaihollo has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Dr Malaihollo is a consultant to the Company and a director of the Company's subsidiary in Indonesia and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Table 3. Details of Tenements & ARX Interest**

Project	Location	Tenement	Area (km <sup>2</sup> )	ARX Interest
Trenggalek	East Java, INDONESIA	Exploration IUP	299.7 km <sup>2</sup>	95% (farming out up to 80%)

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

Project	Location	Tenement	ARX Interest	Comment
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