

## ASX ANNOUNCEMENT

12 May 2013

## FIRST DRILLING RESULTS FROM SINGGAHAN PROSPECT, INDONESIA

## Highlights:

- Three scout drilling holes for total of 745.9 m have been completed at Singgahan Prospect with assay results from the first and second holes received. Drilling continues with hole TRD058 in progress.
- A gold intercept of 17.5 m at 0.65 g/t Au from 27.5m down-hole in TRDD055 highlights potential for shallow replacement-style gold mineralisation in calcareous rocks.
- Anomalous copper-gold-molybdenum intercepts returned in a stockworked diorite intrusion lower down the same hole supports the potential for a significant porphyry system at Singgahan.
- Soil sampling results highlight some new copper-gold-molybdenum anomalies notably to the west and north of Jerambah.

Arc Exploration Limited (ASX Code: ARX) is pleased to announce this update on drilling and other exploration activities with its joint venture partner, Anglo American, on the Trenggalek Project located in East Java, Indonesia.

Managing Director, Dr Jeffrey Malaihollo, commented:

"Encouraging first results have been received from scout drilling of the Singgahan porphyry target identified at Trenggalek with our joint venture partner, Anglo American. Singgahan is one of several new targets identified on the exploration tenement.

Anomalous copper-gold-molybdenum intercepts were returned in the first hole and these results are consistent with the trace amounts of disseminated chalcopyrite-molybdenite mineralisation in magnetiterich veining and alteration that was logged in this hole. We are also encouraged by the intersection of gold mineralisation in silicified calcareous rocks and possible skarn near the top of the hole, which highlights potential for shallow gold targets.

Early indications from the scout drilling at Singgahan are consistent with a porphyry environment and further drilling is in progress to test the system at deeper levels beneath an extensive copper-gold-molybdenum soil anomaly that was previously reported.

We look forward to reporting the results of this work in the coming weeks."

Scout diamond drilling continues on the Singgahan Prospect located in the southeast corner of the Trenggalek Exploration IUP tenement. A total 745.9 m has been completed in three inclined diamond holes (TRDD055, TRDD056 and TRDD057) and a fourth hole (TRDD058) is currently in progress (see Table 1 and Figures 1 & 2). These holes are testing part of an extensive copper-gold-molybdenum soil anomaly underlain by a discrete magnetics high feature and a broader potassium-channel radiometric anomaly (see ARX announcement of 19<sup>th</sup> March 2014).

Assay results have been received for TRDD055 completed early last month (see ARX announcement of 9<sup>th</sup> April 2014). A significant gold intercept of 17.2 m at 0.65 g/t gold from 27.5 m down-hole, with elevated associated elements such as arsenic-antimony-molybdenum-zinc, was returned in sulphidic silicified calcareous

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T + 62 21 5316 0118 F + 62 21 5316 0119 volcaniclastic rocks and incipient garnet-bearing skarn. The peak individual gold result within this interval was 1.08 g/t Au.

Anomalous copper-gold-molybdenum intercepts, including 38 m at 0.032% copper, 0.054 g/t gold & 9 ppm molybdenum from 150 m down-hole, were returned in a quartz-anhydrite-magnetite-sulphide stockworked diorite intrusion with visible traces of disseminated chalcopyrite and molybdenite mineralisation (see Table 2 and Figure 3). Peak individual results within this interval were 0.069% Cu, 0.129 g/t Au & 27 ppm Mo.

A second hole (TRDD056) collared about 150 m east of TRDD055 was abandoned at a shallow depth of 30.8 m due to poor ground conditions. The bottom of the hole returned an anomalous gold intercept of 1.6 m at 0.17 g/t Au, with elevated associated arsenic-antimony-molybdenum-zinc results, in similar rocks to those intersected in the upper part of TRDD055.

A third hole (TRDD057) was collared on the same drill pad as TRDD055. It was drilled in the opposite direction to TRDD055 to a final depth of 383.4 m and intersected a quartz-sericite-pyrite altered tonalite intrusion hosting localised quartz-anhydrite-pyrite stockwork containing rare traces of disseminated chalcopyrite and molybdenite mineralisation. Sampling of this hole is in progress and assays should be available in 2-3 weeks.

A fourth hole (TRDD058) is in progress and is testing for potential higher grade mineralisation beneath TRDD055.

Although the copper-gold-molybdenum grades intersected in TRDD055 are low they do indicate the presence of porphyry-style veining and mineralisation in the prospect area. The large soil and bench geochemical anomaly identified at Singgahan in previous months has had only limited drill testing and potential remains for a porphyry system to be discovered.

Samples will be sent to a consulting petrologist to confirm that the rock types and alteration assemblages intersected at Singgahan are consistent with a near porphyry environment and to help vector toward zones of potential higher grade mineralisation. These results are expected in 4-6 weeks.

### Regional targets

Grid-based soil sampling has been completed over 4 km by 8 km block area that surrounds Jerambah, Buluroto, Sentul and Singgahan prospects. Assay results have been received for about 90% of this program.

A new area of coincident copper-gold-molybdenum soil anomalism of greater than 90 ppm Cu, 20 ppb Au & 4 ppm Mo has highlighted in the recent results. This new area is known as Torongan and is located about 2 km southwest of Jerambah (see Figure 4). Maximum individual soil results returned within this approximately 2 km by 1.7 km area of anomalism are 171 ppm Cu, 0.05 ppm Au and 25 ppm Mo.

Follow-up prospecting is in progress to investigate the source of this large anomaly.

## About Trenggalek

The Company has two Indonesian projects. **Trenggalek, in East Java, the subject of this announcement**, and a Strategic Alliance with Anglo American in Papua.

The Trenggalek Project is an Exploration IUP tenement covering about 300 km<sup>2</sup> located in the same arc segment that hosts the giant Tumpangpitu porphyry gold-copper deposit in the Southern Mountains of East Java. The project has excellent infrastructure with a network of sealed to graded roads traversing almost all of the tenement area.

In December 2012, ARX announced that Anglo American had elected to enter into an agreement with ARX and SMN to farm into the Trenggalek Project. Details of this agreement were presented in the December 2012 quarterly report. Formal legal documentation in support of the Joint Venture between ARX and Anglo American was signed on 22 August 2013. Exploration activities at Trenggalek are currently managed by ARX but fully funded by Anglo American.

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#### Competent Person Statement

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Brad Wake, BSc(Applied Geology), who is a member of the Australian Institute of Geoscientists. Mr Wake has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which is being undertaking 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.' Mr Wake is a full time employee of Arc Exploration Limited 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 1. SINGGAHAN PROSPECT - Drill-hole Details

Hole ID	mE	mN	mRL	Dip	Azimuth (mag.)	Depth (m)
TRDD055	574,956	9,088,554	351	-50 <sup>0</sup>	285 <sup>0</sup>	331.7
TRDD056	575,099	9,088,517	310	-65 <sup>0</sup>	210 <sup>0</sup>	30.8*
TRDD057	574,958	9,088,554	351	-70 <sup>0</sup>	105 <sup>0</sup>	383.4
TRDD058	574,753	9,098,639	471	-75 <sup>0</sup>	125 <sup>0</sup>	In progress

\*Hole TRDD056 abandoned short of targeted depth because of poor ground conditions

#### Table 2. SINGGAHAN PROSPECT - Anomalous Intercepts

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (ppm)	Mo (ppm)	As (ppm)	Sb (ppm)	Zn (ppm)
TRDD055	16.0 27.5 98.0	27.5 44.7 120.0	11.5 17.2 22.0	0.057 0.65 0.024	250 104 230	3 28 5	5700	61	
TRDD056 TRDD057 TRDD058		•	38.0 1.6 - assays per ill in progres	•	320 167 ys pending	9 29 g	3000	42	



Figure 1. Singgahan Prospect – Location in Trenggalek Exploration IUP



Figure 2. Singgahan Prospect – General Geology, Bench & Drillhole Location



Figure 3. Singgahan Prospect – Examples of porphyry-style quartz-anhydrite-magnetite-sulphide veining in diorite from drill core showing depth down-hole



Figure 4. Buluroto Block – Showing coincident copper-gold-molybdenum soil anomalies

## ANNEXURE: Assessment and Reporting Criteria according to 2012 JORC Code Section 1 – Sampling Techniques and Data

Criteria	Explanation
Sampling Techniques	Drilling:
	• The core is securely boxed and sealed in standard trays and transported to the
	company's secure core shed facility at Trenggalek.
	• The core was marked up for sampling after logging by the project geologists and split for
	sampling using a petrol-driven diamond-blade core saw at the company's secure core
	shed facility in Trenggalek.
	Quarter-core samples were split and sampled from PQ and half-core samples were split
	and sampled from HQ-NQ-BQ core. Samples were generally taken over two-metre
	intervals down the entire length of the hole.
	Individual sample weight varies from about 3-6kg depending on the core size. Samples
	were collected and each labelled with a unique number in individual calico bags
	<ul> <li>Sampling was supervised by the project geologists &amp; geotechnicians under the supervision of the project geologists.</li> </ul>
	supervision of the project manager.
	<ul> <li>Samples were dispatched by a road courier service in secured polybags to the internationally certified commercial laboratory, PT Intertek Utama Services in Jakarta.</li> </ul>
	Soil Sampling:
	<ul> <li>Soil samples were taken at 100m sample intervals along 100-200m spaced E-W oriented</li> </ul>
	<ul> <li>gridlines surveyed by slope-corrected compass-and-tape survey technique</li> <li>Soil sample pits were dug with crowbar-and-shovel</li> </ul>
	<ul> <li>About 1-2kg soil samples were taken unsieved from 30-50cm sample depth within the C</li> </ul>
	soil horizon (skeletal immature soil development) in uniquely labelled, plastic bags
	<ul> <li>Sampling was supervised by project geologists &amp; geotechnicians</li> </ul>
	Duplicate samples & geochemical standards were submitted with each sample batch for
	Quality Control
	<ul> <li>Samples were sent by road in secured boxes to the internationally certified commercial International DT late table lateral</li> </ul>
	laboratory, PT Intertek Utama Services in Jakarta
	<ul> <li>Samples were weighed, dried and completely pulverised for sub-sampling and determination of:</li> </ul>
	Gold by 50g Fire Assay/Lead Collection with AAS Finish
	Thirty-two multielement package (including copper and molybdenum) by four-acid mixed
	digest with ICP-AES volumetric finish
Drilling techniques	<ul> <li>Diamond core drilling is contracted to PT Maxidrill Indonesia using a man-portable MX- 420 drill rig to do triple-tube coring with depth capabilities of about 130m PQ, 400m HQ, 700m NQ &amp; 1,000m BQ. Not relevant; No previous drilling has been conducted at Singgahan</li> </ul>
Drill sample recovery	Core recovery was recorded directly off the triple tube splits after each drill run; core recovery from the holes reported in this announcement is greater than 98%.
Logging	Core photography, geotechnical/geological logging, mark-up and sampling are done by
	the project geologists and geotechnicians under the supervision of a project manager.
Cub compliantochainung 9	Soil samples were logged descriptively by trained geotechnicians
Sub-sampling techniques & sample preparation	<ul> <li>At Intertek the core samples were weighed, crushed and completely pulverised for sub- complian and determination of:</li> </ul>
Sample preparation	sampling and determination of: Gold by 50g Fire Assay/Lead Collection with AAS Finish (0.005 ppm gold DL)
	32 multielement package (including copper & molybdenum) by four-acid mixed digest and
	ICP-AES volumetric finish
	<ul> <li>At Intertek the soil samples were weighed, dried and completely pulverised for sub- complian and determination of:</li> </ul>
	sampling and determination of: Gold by 50g Fire Assay/Lead Collection with AAS Finish (0.005 ppm gold DL)
	32 multielement package (including copper & molybdenum) by four-acid mixed digest and
	ICP-AES volumetric finish.
Quality of assay data &	The laboratory inserts its own blank, standards & sub-split pulp duplicates for Quality
laboratory tests	Control and reports these results accordingly.
	The Company also inserts its own sample duplicates and commercially purchased gold &
	base metal standards on every 25 <sup>th</sup> sample for Quality Control.
	Results fall within acceptable levels of accuracy and precision.
Manifia dia a	<ul> <li>No external check assaving has been done to-date</li> </ul>
Verification of sampling & assaying	No external check assaying has been done to-date
	Drill holes and soil sample locations were fixed by compass-and-tape and GPS surveying
assaying	<ul> <li>Drill holes and soil sample locations were fixed by compass-and-tape and GPS surveying</li> <li>The path of each drill hole is directly measured using a down-hole digital survey camera</li> </ul>
assaying	Drill holes and soil sample locations were fixed by compass-and-tape and GPS surveying

Data spacing & distribution	<ul> <li>The entire length of each drill hole was split and sampled for assaying.</li> <li>This is a scout drilling program with insufficient data points to estimate any potential</li> </ul>
	resource.
	<ul> <li>Soil samples were taken at 100m sample intervals along 100-200m spaced E-W oriented gridlines surveyed by slope-corrected compass-and-tape survey technique.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Uncertain; but geochemical trends in soil and structural information obtained from bench exposures and drill core suggest that the drill holes intersect the target at moderate to high angle to the prevailing mineralised trends; this will be further evaluated by a more detailed structural analysis of the oriented drill core.</li> </ul>
Sample security	<ul> <li>Samples were located, bagged, sealed and dispatched under the supervision of a project manager, project geologists &amp; geotechnicians</li> </ul>
Audits or reviews	<ul> <li>No external audits or reviews of the data at this early stage</li> </ul>

# Section 2 – Reporting of Exploration Results

Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>The Exploration IUP tenement is held by PT Sumber Mineral Nusantara ("SMN"). ARX has a joint venture with SMN and has a 95% interest in the Trenggalek Project. Anglo American has recently entered into an agreement to farm-in to the project.</li> <li>Singgahan Prospect is covered by freehold and government forestry land. SMN holds a valid <i>Pinjam-Pakai Permit</i> to work on the forestry land and negotiates access to freehold land with individual landowners.</li> </ul>
Exploration by other parties	<ul> <li>No systematic exploration work has been previously conducted on the prospect area by other parties</li> </ul>
Geology	<ul> <li>Located in the Southern Mountains segment of the Sunda-Banda magmatic arc.</li> <li>Oligo-Miocene volcanosedimentary rocks, limestone &amp; igneous intrusions.</li> <li>Similar rock package to that hosting the Tumpangpitu porphyry copper-gold deposit located in the Southern Mountains about 200 km to the east.</li> <li>Targeting potential porphyry &amp; porphyry-related copper-gold mineralisation</li> <li>Detailed compilation is in progress.</li> </ul>
Drill hole Information	<ul> <li>A total of 745.9 m completed in three drill holes in the current scout drilling program; there has been no previous drilling done on this prospect</li> <li>Assay results are available for two of the three drill holes completed to date.</li> </ul>
Data aggregation methods	<ul> <li>Drill intercepts are reported by equal-weighted averaging of composited individual results over the reported intersection interval.</li> <li>Gold (only) intercepts reported at 0.1 g/t Au cut-off</li> <li>Copper intercepts reported at 200 ppm cut-off</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The true-width &amp; orientation of the mineralisation reported in this announcement is uncertain and will be better quantified with a more detailed analysis of the oriented structural readings measured from the core</li> <li>The geochemical trends recognised in soil and structural information obtained from bench exposures and drill core suggest that the drill holes intersect the target at moderate to high angle to the prevailing mineralised trends.</li> </ul>
Diagrams	<ul> <li>Diagrams depicting the distribution of the bench, soil, and drill hole locations &amp; anomalies are presented in this announcement</li> </ul>
Balanced reporting	Representative reporting of all relevant results have been provided in this announcement
Other substantive exploration data	None available at this early stage of work on Singgahan Prospect.
Further work	<ul> <li>An additional scout diamond drill hole is in progress.</li> <li>Complete data compilation and interpretation of the results will be done after the completion of the current hole.</li> </ul>