

## June 2011 Quarter Activities Report

### ABOUT ARC EXPLORATION LIMITED

Formed in 1983, Arc Exploration Limited (**ASX Code: ARX**) is an Australian listed gold company focused on exploration in Indonesia.

The Company has a 95% joint venture interest in two projects with PT Sumber Mineral Nusantara. These are the Trenggalek tenement located in East Java and the Bima tenement located in East Sumbawa. Both projects lie on the Sunda-Banda magmatic arc and are prospective for high-grade epithermal gold-silver vein deposits and porphyry copper-gold deposits.

In association with Anglo American Group, the Company is exploring for large porphyry copper/gold deposits in Papua.

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### Exploration - Indonesia

- Diamond drilling commenced on epithermal vein and breccia-silica cap targets at **Trenggalek**, East Java. Early results have confirmed the presence of low-grade gold mineralisation in the extensive breccia-silica cap targets at **Suruh** and **Timahan** and support the potential for the discovery of significant gold deposits in these large prospect areas.
- At **Bima** in East Sumbawa, the Company undertook an intensive program of meetings and discussions with the Government Authorities and local communities following the civil disturbances in February with a view to commencing the planned drilling program at the **Baku** and **Soro** prospects at the earliest opportunity. No field exploration was undertaken at Bima during the quarter.
- ARX – Anglo Strategic Alliance commenced preparations to undertake an airborne magnetics and radiometrics survey over the **West Papua** IUP. The results are expected to generate new prospects and drilling targets.

### Corporate

- The Company held its Annual General Meeting on 27 May 2011.

## PROJECT ACTIVITY – INDONESIA

ARX is exploring for gold, silver and base metal deposits on Java and elsewhere along Indonesia's highly prospective magmatic arcs and associated terranes. The primary exploration targets are high-grade epithermal gold-silver veins and bulk tonnage porphyry-related gold-copper deposits.

### Java

#### Trenggalek Project, East Java (ARX – 95%)

The Company operates a joint venture with P.T. Sumber Mineral Nusantara, which holds the Trenggalek Exploration IUP license covering an area of 30,044 ha (~300 km<sup>2</sup>) in the Southern Mountains of East Java.

Trenggalek is located about 180 km west of Intrepid's Tujuh Bukit Project, where an inferred resource of 990 Mt at 0.4% copper and 0.45 g/t gold was recently announced by Intrepid in the Tumpangpitu porphyry copper-gold zone. Both Trenggalek and Tujuh Bukit lie on the same segment of the Sunda-Banda magmatic arc.

This highly prospective terrane is underlain by Early Miocene to Pliocene intermediate-felsic volcanic and volcanoclastic rocks, fossiliferous limestone and high-level intrusions. Targets identified at Trenggalek include gold-silver-rich low- to intermediate-sulphidation epithermal veins, stockwork and breccias, some of which may be related to deeper porphyry copper-gold targets.

An initial 5,000m/45-hole scout diamond drilling programme undertaken last year demonstrated that Trenggalek represents a substantial epithermal vein field hosting multiple targets and produced significant gold intersections in the principal vein targets (Sentul, Buluroto and Kojan), including some locally high-grade gold intercepts including 2m at 17.2 g/t gold within 9.6m at 4.5 g/t gold in TRDD04.

The main exploration activity undertaken at Trenggalek during the quarter was diamond drilling using two man-portable drill rigs.



## DRILLING

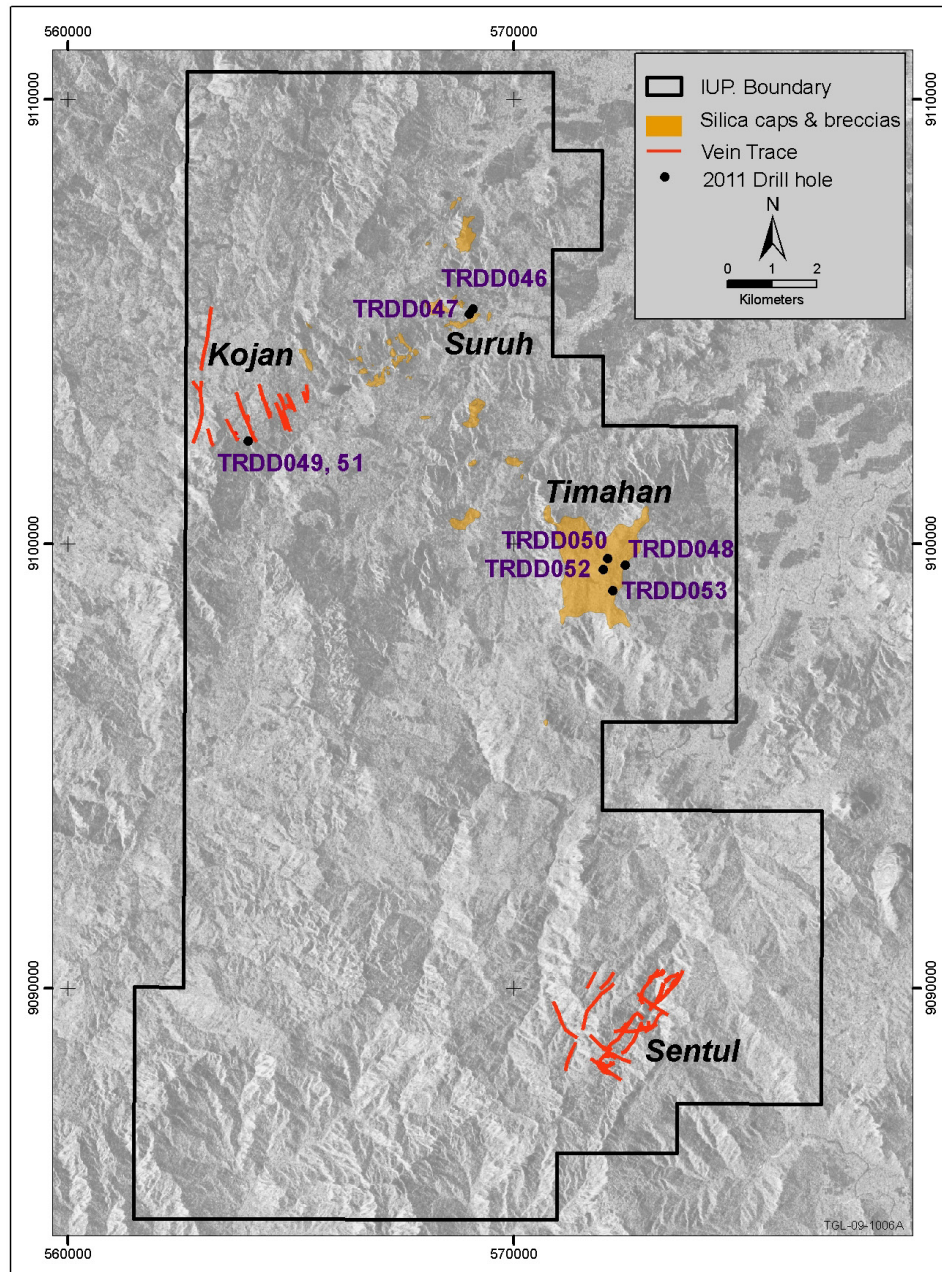
A total of 1,429 m of diamond drilling was completed in eight holes (TRDD046 – TRDD053) during the quarter starting in May at the **Suruh**, **Timahan** and **Kojan** prospects. Drill-hole details and mineralised intercepts are summarised in the tables below.

### Summary of Drill-hole Details:

Hole ID	Prospect	Target	Collar Coordinates			Dip	Azimuth	Final Depth (m)
			mN	mE	mRL			
TRDD046	Suruh	Breccia	9,105,295	569,101	222	-55 <sup>0</sup>	180 <sup>0</sup>	270.5
TRDD047	Suruh	Breccia	9,105,171	569,025	261	-45 <sup>0</sup>	225 <sup>0</sup>	301.1
TRDD048	Timahan	Genteng	9,099,525	572,514	649	-45 <sup>0</sup>	320 <sup>0</sup>	113.3
TRDD049	Kojan	Koneng	9,102,320	564,056	855	-60 <sup>0</sup>	079 <sup>0</sup>	223.5
TRDD050	Timahan	Macan	9,099,667	572,129	624	-45 <sup>0</sup>	131 <sup>0</sup>	130.8
TRDD051	Kojan	Koneng	9,102,319	564,055	855	-52 <sup>0</sup>	116 <sup>0</sup>	210.4
TRDD052	Timahan	Macan	9,099,420	572,021	700	-45 <sup>0</sup>	120 <sup>0</sup>	70.85
TRDD053	Timahan	Genteng	9,098,948	572,239	708	-45 <sup>0</sup>	085 <sup>0</sup>	108.30

### Summary of Mineralised Intercepts:

Hole ID	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	As ppm	Sb ppm	Core Recovery
TRDD046	65.0	69.0	4.0	0.55	3.5	1230	8.5	100%
TRDD047 Incl	77.0	93.8	16.8	0.18	3	443	<5	100%
	77.0	83.0	6.0	0.35	3	445	<5	
	158.5	159.5	1.0	0.58	4	714	<5	100%
	268.5	272.5	4.0	0.24	2	162	<5	100%
TRDD048	55.8	61.1	5.3	0.15	<1	227	9	100%
	64.3	70.8	6.5	0.17	1	218	14	100%
TRDD049 Incl	104.2	105.3	1.1	1.39	40	51	<5	100%
	161.3	163.95	2.65	0.43	27	181	<5	81%
	163.6	163.95	0.35	1.04	63	11	<5	86%
TRDD050	72.5	74.0	1.5	0.18	<1	581	<5	100%
TRDD051	126.0	132.5	6.5	0.17	1	97	<5	91%
TRDD052	1.2	3.05	1.85	0.27	1	99	19	100%
	13.25	23.5	10.25	0.21	<1	193	17	90%
TRDD053	4.6	17.6	13.0	0.23	1	263	20	100%



**TRENGGALEK IUP ON PALSAR SHOWING 2011 DRILL HOLE LOCATIONS  
ON PALSAR IMAGE**

### **Suruh**

Two holes drilled at Suruh (TRDD046 & TRDD047) tested the eastern side of a geophysical anomaly characterized by coincident zones of high chargeability and resistivity and a magnetic high.

Both holes intersected low-grade gold mineralisation in thinly quartz veined and strongly clay-pyrite altered volcanoclastic rocks, adjacent to a weakly altered, andesite porphyry intrusion. Down-hole intersections included 4 m at 0.55 g/t gold from 65 m in TRDD046 and 16.8 m at 0.18 g/t gold from 77 m in TRDD047. The true-width of these mineralised intersections is uncertain.

These initial drilling results have confirmed the presence of low-grade gold beneath the eastern portion of an extensive, gold-arsenic-antimony anomalous, silicified breccia capping. The strongest part of the high chargeability and resistivity anomaly lies beneath silicified breccias on the western side of the prospect. This is also associated with a magnetic low, which may indicate a large alteration system. This will be drill-tested in the next quarter.



## Timahan

Four holes drilled at Timahan (TRDD048, TRDD050, TRD052 and TRDD053) have tested two linear zones of surface gold mineralization hosted in quartz stockworked, silicified limestone ("jasperoid") on the eastern side of the prospect. Shallow trenching over these two zones produced 28 m at 0.29 g/t gold and 13 m at 0.74 g/t gold in continuous-chip samples taken across the silicified outcrops.

TRDD050 and TRDD052 are located about 250 m apart along the Macan Zone and returned down-hole intercepts of 1.5 m at 0.18 g/t gold from 72.5 m and 10.25 m at 0.21 g/t gold from 13.25 m, respectively.

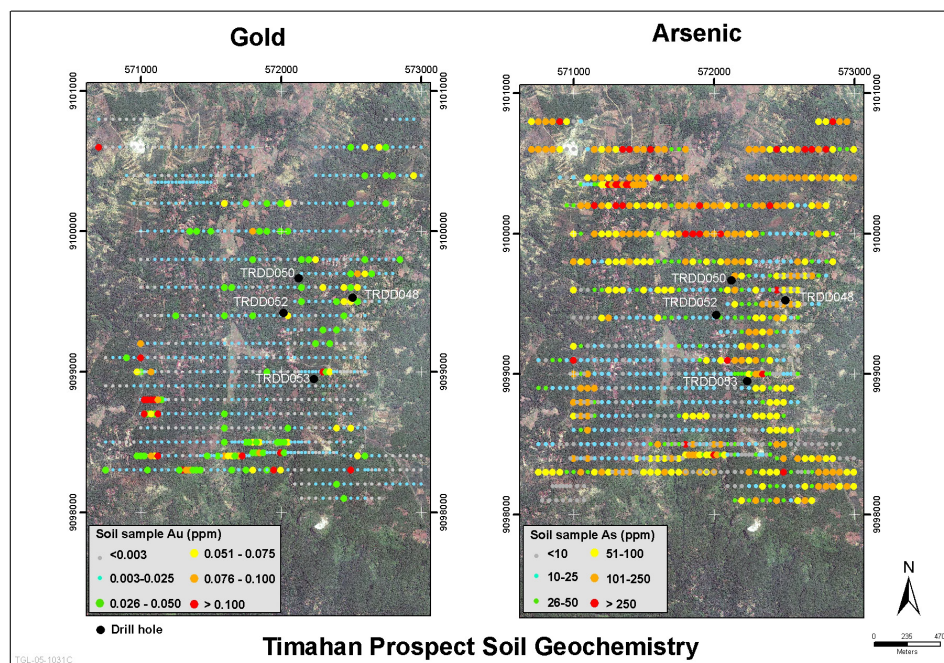
TRDD050, the northern of these two holes, drilled into weakly altered volcanoclastic rocks beneath a shallow colluvium of silicified limestone boulders. TRDD052 intersected a 10-15 m thick quartz-stockworked, silicified limestone ("jasperoid") caprock underlain by weakly altered, interbedded limestone and volcanoclastic rocks. The shallow gold-mineralised intersection in this hole is probably flat-lying.

TRDD048 and TRDD053 are located about 500 m apart along the Genteng Zone. TRDD048 returned down-hole intercepts of 5.3 m at 0.15 g/t gold from 55.8 m and 6.5 m at 0.17 g/t gold from 64.3 m. TRDD053 returned a down-hole intercept of 13 m at 0.23 g/t gold from 4.6 m.

TRDD048, the northern of these two holes, drilled into strongly altered volcanoclastic rocks hosting a narrow bed of silicified limestone, beneath a shallow colluvium of silicified limestone boulders. The hole ended in intensely clay-pyrite altered volcanoclastic rocks. TRDD053 intersected a 10-15 m thick quartz-stockworked, silicified limestone ("jasperoid") caprock underlain by weakly altered volcanoclastic rocks. The shallow gold-mineralised intersection in this hole is probably flat-lying.

These initial holes confirm the presence of low-grade gold mineralization with coincident arsenic and antimony anomalism in silicified limestone ("jasperoid") on the eastern side of Timahan. The holes tested only a small part of the large 4 km<sup>2</sup> silica capping and may indicate a halo of low-grade mineralization adjacent to higher grade feeder structures in the upper levels of an epithermal gold system.

Mapping and trenching are planned to investigate gold-soil anomalies highlighted on the southern and western sides of the prospect in the next quarter.



**TIMAHAN PROSPECT SHOWING DRILL HOLE COLLARS  
& GOLD-ARSENIC SOIL ANOMALIES ON WORLDVIEW IMAGE**

## Kojan

Two holes drilled at Kojan (TRDD049 and TRDD051) have tested the very southern end of the Kenong Vein. These holes are located, respectively, about 50 m further down-dip of and along strike from TRDD035, which returned a strong down-hole intersection of 1.9 m at 11.28 g/t gold & 293 g/t silver.

TRDD049 returned down-hole intercepts of 1.1 m at 1.39 g/t gold & 40 g/t silver from 104.2 m and 2.65 m at 0.43 g/t gold & 27 g/t silver from 161.3 m. TRDD051 returned a down-hole intercept of 6.5 m at 0.17 g/t gold and 1 g/t silver from 126.0 m.

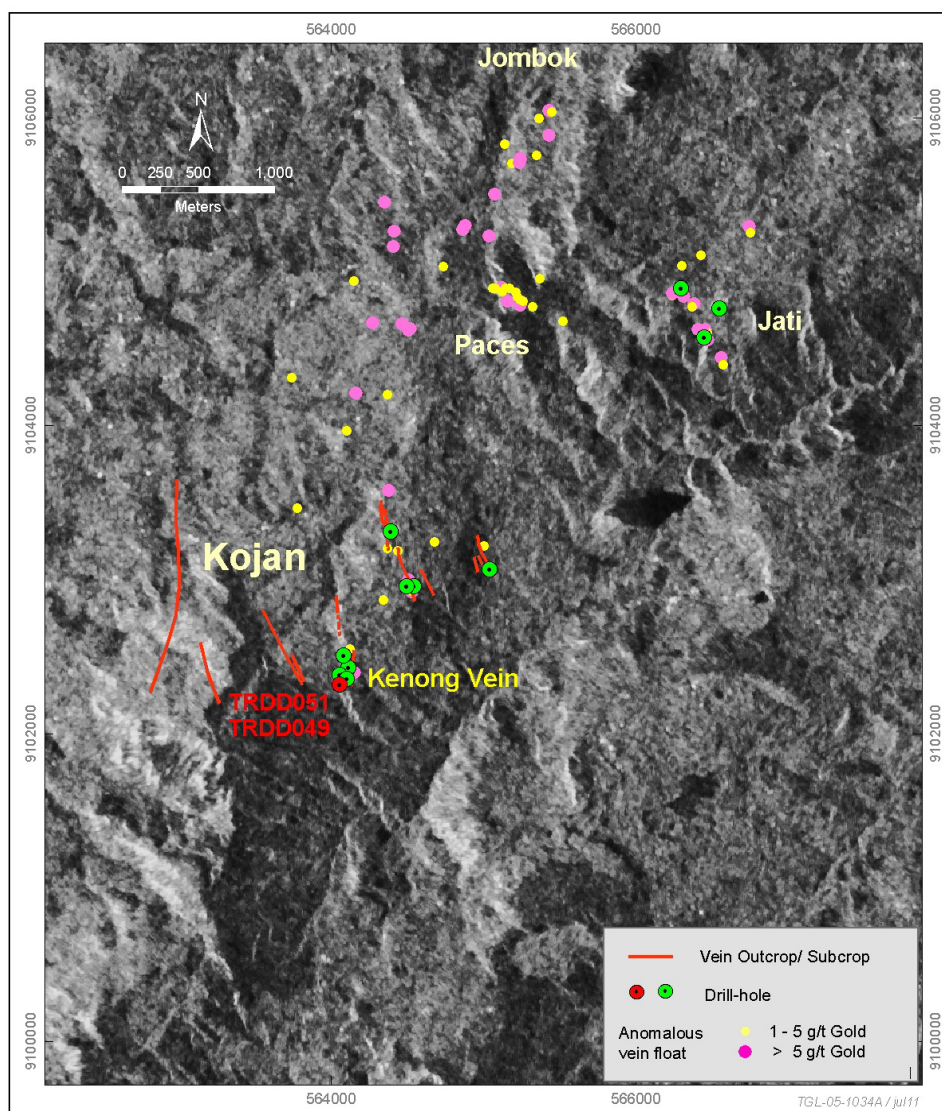
These latest drilling results indicate the Kenong Vein has pinched at its southern extremity and potential for an ore shoot in this part of the vein structure has been downgraded.

Nine holes in total have now tested the Kenong Vein over about 250-300 m strike-length and to a vertical depth of up to 100 m. It has an average true-width of between 0.5 and 1.5 m along this vein segment and remains open at depth and to the north.

Kenong is part of a multiple vein system controlled by prominent NNW-trending structural lineaments that extend for at least several kilometres beyond the prospect area. Only a small part of this large vein system has been drill tested.

Areas of high-grade vein float to the north and east of Kojan will be evaluated by test-pitting in the next quarter to guide further drilling at this prospect.

Exploration expenditure at Trenggalek during the quarter totalled A\$639,385.



**KOJAN PROSPECT SHOWING VEIN TRACES, DRILL HOLE COLLARS & GOLD VEIN FLOAT DISTRIBUTION ON PALSAR IMAGE**

## West Nusa Tenggara

### **Bima Project – East Sumbawa (ARX – 95%)**

The Company operates another joint venture with P.T. Sumber Mineral Nusantara, the Bima Exploration IUP license covering an area of 24,980 hectares (~250 km<sup>2</sup>) in East Sumbawa, West Nusa Tenggara Province.

The Bima Project is located about 230 km east of Newmont's Batu Hijau porphyry copper-gold deposit and lies on the same segment of the Sunda-Banda magmatic arc. This highly prospective terrane is underlain by Early Miocene to Pliocene intermediate-felsic volcanic and volcanoclastic rocks, fossiliferous limestone and high-level intrusions. Targets identified at Bima are gold and base metal-rich intermediate-sulphidation epithermal veins, disseminated gold in silicified limestone ("jasperoid"), and gold-rich high-sulphidation lithocaps, all of which may be related to deeper porphyry copper-gold targets.



Following civil disturbances in the Bima district resulting from protests by an anti-mining group in February, no exploration field activity was conducted by the Company during the quarter.

Instead, the Company's focus over the quarter, supported by and in conjunction with Government Authorities, has been to meet with local communities to fully inform them about the Company's proposed exploration activities so as to address any concerns they may have with a view to securing their continuing support.

This work progressed well during the quarter. Meetings are continuing and when the Company considers the environment is right to recommence field activities at Bima, it will do so with the initial objective being to commence further trenching and undertake scout diamond drilling on the **Baku** and **Soro** prospects at the earliest opportunity.

Exploration expenditure at Bima during the quarter totalled A\$206,567.

## Papua

### **Aisasjur Project - Anglo Strategic Alliance (ARX – 20%)**

The Company holds a 20% interest in a Strategic Alliance with Anglo American PLC (Anglo) to explore for copper-gold deposits in Papua and West Papua provinces. The first project in this alliance is an Exploration IUP license covering an area of 99,410 hectares (nearly 1,000 km<sup>2</sup>) located in remote, heavily forested and mountainous terrain at the centre of the Bird's Head peninsula in West Papua Province.



The project lies in the same belt of rocks that host the giant Grasberg mineral district. At the Aisasjur prospect previous drilling has demonstrated that gold mineralisation persists from surface to 700 meters depth. Indications of porphyry copper-gold mineralization were also intersected beneath the shallow gold zone.

The project is highly prospective for both epithermal gold and porphyry copper-gold deposits. Anglo is advancing preparations to fly an airborne magnetics and radiometrics survey over the IUP in the next quarter. The results of this should generate new prospects and drilling targets.



## Qualified Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr John Carlile, who is a Fellow of the Australian Institute of Mining and Metallurgy, and Mr Brad Wake, who is a member of the Australian Institute of Geoscientists. Mr Carlile and Mr Wake have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr. Carlile and Mr. Wake are full time employees of Arc Exploration Limited and consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

## Sampling and Sample Analysis

Results relating to drilling reported herewith are derived from splitting and sampling of half-core from continuous 0.5 to 2-m long intervals across mineralised zones and surrounding wallrock intersected in the holes. Sampling is entirely supervised by the Company's project geologists. Commercial geochemical standards are routinely inserted into the sample batches for quality control. Samples are securely packaged, batched, and then transported under supervision to the Intertek Laboratory in Jakarta. At the laboratory, the samples are prepared by crushing and pulverizing the entire sample. Gold is assayed by 50 g charge Fire Assay with an AAS finish. Other metals including silver, copper, lead, zinc, arsenic and antimony are tested by Multielement ICP analysis following a multi-acid digestion.

This report is dated 25 July 2011.

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