

# MEDIA ASX RELEASE

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ASX: NZC

KALONGWE COPPER-COBALT PROJECT UPDATE

# SX-EW SCOPING STUDY AND FURTHER METALLURGICAL TESTWORK AWARDED TO MAXIMISE COBALT AND COPPER RECOVERIES

Leading Australian engineering firm Lycopodium appointed to undertake Scoping Study to evaluate SX-EW (Solvent Extraction – Electro-Winning) options in parallel with a key metallurgical testwork program, to be conducted by CORE, aimed at fully defining SX-EW leach parameters and generating customer DMS (Dense Media Separation) product samples – all designed to unlock greater cobalt and copper value

# <u>Highlights</u>

- Kalongwe Stage 2 Scoping Study for potential leaching/SX-EW processing of the Kalongwe coppercobalt deposit awarded to Lycopodium.
- The Scoping Study will enable high-level capital and operating costs to be evaluated for a full SX-EW development, as well as a variety of post-DMS development options currently being considered for Kalongwe Stage 2 ("K2"). This work follows the successful Stage 1 DMS Feasibility Study ("FS") completed in October 2017.
- The Scoping Study will pave the way for a detailed K2 SX-EW Pre-Feasibility Study ("PFS"), planned for the second half of 2018.
- CORE has been awarded the contract to undertake a detailed leaching/SX-EW testwork program of Kalongwe copper-cobalt ore which also includes DMS variability work and customer product sample preparation. The testwork program will utilise a 4.2-tonne sample collected during 2017
- The testwork will allow Nzuri to evaluate all key parameters for the leaching and SX-EW recovery of copper-cobalt ores from Kalongwe whilst generating representative product samples for potential DMS customers. In addition, a key focus will be on unlocking greater cobalt value from the deposit and potential cobalt-only ore.

Nzuri CEO Mark Arnesen commented:

"After securing a cornerstone \$10 million investment from our new Chinese strategic partner, Huayou Cobalt, just before Christmas, we have hit the ground running in 2018 with the award of key contracts to progress both the planned DMS Stage 1 project development as well as potential expansion studies that will lay the foundations for the Stage 2 of the Kalongwe Copper-Cobalt Project."

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"The Scoping Study, which has been awarded to Lycopodium, will enable us to better drive the direction of of the Stage 2 Project prior to a detailed Pre-Feasibility Study on potential SX-EW solutions planned for the second half of 2018. We have consistently said that, following implementation of the Stage 1 DMS project, leaching/SX-EW processing of all or part of the ore generated from the Kalongwe pit will provide the opportunity to unlock the full value of the Kalongwe deposit for our shareholders and we are confident that the SX-EW Scoping Study will build on the robust outcomes of the Stage 1 FS announced in October last year.

"The leaching/SX-EW metallurgical testwork program, to be undertaken in parallel with the Scoping Study, will help us to confirm the key parameters required for an expanded project aimed at unlocking the value of the project both from a cobalt and copper perspective.

"There could not be a better time to be pursuing the development and potential expansion of the Kalongwe asset, with copper prices recently hitting 3-year highs and cobalt prices at historical highs in response to strong demand and supply constraints for both metals."

Nzuri Copper Limited (**ASX:** NZC) (**Nzuri** or the **Company**) is pleased to announce the award of key contracts to advance development and optimisation studies on its flagship 85%-owned **Kalongwe Copper-Cobalt Project** in the Democratic Republic of Congo (DRC).

The contracts including:

- 1. The award of a Scoping Study on the Kalongwe Stage 2 Project options to evaluate potential leaching/SX-EW processing options of the various ore/product streams parameters for the Kalongwe deposit; and
- 2. Initiating a detailed metallurgical testwork program to evaluate leaching/SX-EW processing parameters, generate key DMS customer product samples and carry out DMS variability testwork paving the way for a Stage 2 Pre-Feasibility Study planned for the second half of 2018.

The optimisation and expansion studies will enable Nzuri to fine-tune its development plans for Kalongwe, positioning it to unlock the full value of the copper-cobalt resource for its shareholders.



#### Kalongwe Stage 2 SX-EW Scoping Study

The Company has awarded a contract to leading Australian engineering firm Lycopodium to undertake the Scoping Study on the Kalongwe Stage 2 Project, focused on potential leaching/SX-EW processing options for the deposit. The planned Scoping Study will be carried out to determine the economic viability of processing:

- Whole-of-ore leach (<u>no DMS</u>)
- Cobalt-only ore zones (as mined per the DMS FS)
- DMS Concentrate/s; and
- DMS Mineralised rejects and blends of the above

A standard copper-cobalt oxide hydrometallurgical flowsheet will be used as the basis for analysis, i.e.

- Comminution circuit;
- Tank acid leaching (with reductant added for cobalt extraction);
- Counter-Current Decantation;
- Copper SX-EW;
- Iron and Manganese Removal;
- Zinc Removal; and
- Cobalt hydroxide precipitation

Deliverables from the initial high-level study will include a Block Flow Diagram, operating cost estimates and capital & cost estimates (+/-40%).

Outputs from the Scoping Study and concurrent metallurgical testwork program are designed to support a detailed mass balance, detailed flowsheet and capital/operating cost estimates for a K2  $\pm$ 25% Pre-Feasibility Study in the second half of 2018.

#### DMS variability, Customer Product Sample and Leaching/SX-EW Testwork Program

The Company has awarded a metallurgical contract to Brisbane-based laboratory CORE to:

- 1. Undertake a detailed confirmatory leaching/SX-EW testwork program for the Kalongwe Stage 2 Project;
- 2. Generate key DMS customer product samples; and
- 3. Carry out DMS confirmatory variability testwork.

The planned testwork is focused on progressing both the current DMS development (as outlined in the October 2017 DFS) and looking forward to the potential Stage 2 expansion.

Therefore, it includes both the preparation of key DMS customer product samples, confirming the impact (if any) of variable feed grades to the DMS circuit, as well as a major focus on potential leaching solutions for Kalongwe Stage 2 which will enable milling power, leaching/SX-EW reagent consumption and flowsheets to be confirmed for the following scenarios not previously considered or examined in the previous DMS-only focused studies: -

- Whole-of-ore leaching;
- Cobalt-only ore leaching;
- DMS rejects leaching; and



Planned testwork also includes: -

- Detailed comminution testwork; and
- Thickener design parameters.

Outputs from the study are designed to support a mass balance, detailed flowsheet and capital/operating cost estimates for a K2  $\pm$ 25% SX-EW PFS planned for the latter half of 2018.

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# About Nzuri Copper Limited

Nzuri Copper Limited (ASX: NZC) is an ASX-listed copper-cobalt company focused on the identification, acquisition, development and operation of high-grade copper and cobalt projects in the Katangan Copperbelt of the Democratic Republic of the Congo (DRC). The Company has two key projects in the DRC: the Kalongwe Copper-Cobalt development project and the Fold and Thrust Belt JV exploration project with Ivanhoe.

## Kalongwe Copper-Cobalt project

The Kalongwe Copper-Cobalt deposit ("Kalongwe") is the Company's 85%-owned flagship development project.

Kalongwe is located in the Lualaba Province of the DRC and is situated towards the western end of the worldclass Central African Copperbelt (Figure A), less than 15km from where Ivanhoe Mines Mines Ltd (TSX: IVN, "Ivanhoe Mines") has announced a second world-class copper discovery at Kakula (see announcement from Ivanhoe Mines Mines Ltd TSX: IVN on 11 August 2016).

Kalongwe hosts a near-surface JORC resource of 302,000t contained copper and 42,700t contained cobalt as predominantly oxide ore (see ASX announcement on 5 February 2015 for further details).

## Fold and Thrust Belt JV project

The Fold and Thrust Belt JV ("FTBJV") project consists of five highly prospective tenements, covering an area of approximately 334km<sup>2</sup>, contiguous to the Kalongwe copper-cobalt deposit in the Central African Copperbelt, Lualaba Province, DRC.

The Company has signed an MOU with Ivanhoe Mines Ltd (TSX: IVN, "Ivanhoe Mines") to acquire up to a 98% interest in the project (see ASX announcement on 24 April 2015 for further details).

The FTBJV project is managed by the Company, covers an area of the western Lufilian Arc, a fold belt that contains the world largest cobalt endowment and some of the richest copper deposits in the world. The project area is considered to offer high-quality exploration targets, for Kamoa-Kakula type targets hosted on redox boundaries within the Grand Conglomerate Formation, as well as structurally-controlled copper deposits hosted within the Kamilongwe thrust akin to Mutanda, Deziwa and the Kansuki deposits which occur 60km to the north-east along the structural trend