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# Asiamet plans additional drilling to enhance BKM BFS

Over the past 15 months Asiamet Resources Limited (Asiamet) has been systematically working to deliver a high quality Bankable Feasibility Study (BFS) for the development of an open pit mine and heap leach solvent extraction electro-winning facility (SX-EW) to produce LME grade copper cathode from its 100 percent owned Beruang Kanan Main Copper Project ("BKM" or the "Project") in Central Kalimantan, Indonesia.

While the technical work has all been completed to a high standard, a detailed review of the BKM BFS study inputs recently received from the various project consultants has highlighted selected areas of the study where additional technical work is likely to significantly enhance the robustness of the project. This will provide important flow on benefits from a project financing perspective.

Limited further drilling is required in the BKM pit area to better assess geological and geotechnical components and their impact on the open pit mine design. This drilling will also evaluate the additional Resource tonnages that currently sit both inside and outside the pit shells, and which are currently classified as Inferred Resources (JORC 2012). Material classified as Inferred Resources cannot be considered for conversion to Ore Reserves in the BFS. This additional infill drilling, data assessment and rework of the mine design and schedule to be completed over the next 4-6 months is expected to increase Ore Reserve tonnage's available for incorporation into the mine schedule and significantly enhance project economics.

Simultaneous with this final piece of work on the BKM BFS, a targeted exploration programme is underway to work up and test a number of high impact targets in the BK district with a view to expanding and updating the BKM project Resource base, extending and further evaluating BKZ and testing several high potential targets below and adjacent to BKM and BKW. Surface exploration will be undertaken at the exciting Baroi target in preparation for drilling upon receipt of a forestry permit.

Patrick Creenaune, formerly Chief Geologist with Australia's largest gold producer Newcrest Mining, has recently joined our exploration team in a senior consulting capacity and is working together with Asiamet's exploration manager Bowo Kusnanto, to prioritise a series of targets for testing over the coming months.

## Peter Bird, Asiamet's Chief Executive Officer commented:

"The Company has given extensive consideration to the delivered study inputs and the impact of undertaking additional work at this late stage in the feasibility study, however the opportunity to capture substantial additional value while further de-risking the project is considered to potentially have material positive impacts on project financing outcomes. So whilst from a time perspective this additional work extends the timeframe of the Feasibility Study, we are firmly of the opinion that all stakeholders will significantly benefit from the impact of this additional work as we move into the project financing stage. As this final piece of work is being completed on the BKM BFS we are excited to be significantly lifting the momentum of our exploration effort in the BK district."



## **BKM Feasibility Study**

The BKM BFS incorporates extensive and detailed studies on mining, processing and associated infrastructure including the access, logistics and supply chain. Detailed environmental and socioeconomic baseline studies have also been completed which underpin a comprehensive Environmental and Social Impact Assessment (ESIA), in line with the International Finance Corporation (IFC) Standards.

A detailed layout of the site and associated infrastructure is provided below (Figure 1.)



Figure 1: BKM Feasibility Study – Mine Site Layout

The BKM FS covers four main work areas:

1. **Mining facilities** comprise an open-pit mine; waste rock dump; mine services area (containing workshops, warehouses, offices, and fuel storage); magazine (explosives storage); and water management facilities (e.g. dewatering dams and ARD (acid-rock drainage) ponds);



- 2. **Processing facilities:** The BKM process facilities (figures 2 and 3) are based on a heap leach, with SX-EW processing route comprising:
  - Three-stage ore crushing circuit with primary and secondary sizers and two parallel tertiary impact crushers;
  - Ore agglomeration to facilitate fines stabilisation and pre-conditioning of ore with acid and raffinate;
  - Leach pad stacking incorporating portable ramp conveyors and a radial stacker.
  - Single-stage heap leaching utilising raffinate from the solvent extraction (SX) plant irrigate ore. The Pregnant Leach Solution (PLS) is collected in sumps and pumped to the SX plant;
  - Solvent extraction, where the PLS and electrolyte from the electrowinning plant are contacted with an organic extractant that selectively transfers copper from the PLS to the electrolyte and increases its concentration. Raffinate is recycled to the heap leach;
  - Electrowinning where a direct electrical current is applied to the circulating electrolyte in cells containing multiple lead anodes and stainless-steel cathode mother-plates. Oxygen is formed at the anode and copper metal is plated on the stainless steel mother-plates. This copper deposit is stripped from the cathode mother-plates, bundled and strapped for sale.

Feasibility Study level metallurgical testwork and modelling has proven the potential of the Beruang Kanan Main ore types to support a commercial scale conventional heap leach operation. The ore types show typical column leach responses, based on the mineral assemblages and host rock.



Figure 2 – Mine and Process Area Layout





### Figure 3 – Processing Facilities

3. **On-site non-process infrastructure and support services (NPI):** The NPI areas comprise power generation facilities; water management infrastructure (both civil facilities such as dams, diversion channels, etc., and mechanical facilities such as transfer pumps and the site water neutralization plant); general site infrastructure (e.g. offices, warehouses and storage areas, accommodation facilities, and waste management services); and site roads. Water management will utilise a series of capture ponds (top soil environmental pond, raincoat pond, underdrain pond and environmental pond after waste water treatment) (see Figures 1 and 6) following which water is sampled and analysed before being released into the environment where quality meets water release guidelines.

Power requirements for the site are expected to be approximately 20 megawatts per annum. The BFS assumes owner operated power generation using a series of conventional diesel power plants.



Figure 4 – Waste Water Treatment Facilities



4. **Off-site non-process infrastructure and support services** comprises the primary access road from Tumbang Manggu to the BKM site (unsealed, all-weather access route) and transportation services by road, to and from, the main importation and exportation facility at Banjarmasin Port, in South Kalimantan. The Banjarmasin port is one of the largest coal export and general freight terminals across Indonesia, with sufficient capacity for a project of this size.

# **BKM Project Feasibility Study - Environment and Community**

Detailed environmental and socio-economic baseline studies were completed for the BFS and to meet Indonesian permitting requirements. A comprehensive Environmental and Social Impact Assessment (ESIA) aligned with the International Finance Corporation (IFC) Standards was completed for the Project. Based on these environmental, social and engineering studies, the Project is not expected to have significant negative impacts on the environment or communities. Engineering controls, such as the waste water treatment plant have been developed as part of the BFS to minimise environmental impacts.

# **BKM Project - Permitting**

The four key approvals in support of project development permitting are well advanced and include:

- 1) Government of Indonesia Feasibility Study;
- 2) Environmental and Social Impact Assessment (AMDAL);
- 3) Mandatory 5-Year Reclamation and Mine Closure Plans; and,
- 4) Forestry Borrow-to-Use Permit.

# BKM Project Feasibility Study – Summary of Key Outputs (to date).

- Project economics indicate a commercially viable project;
- Additional geotechnical and infill drilling work is expected to significantly enhance project economics;
- Write-up of all feasibility study chapters is complete, with results of the additional drilling programs to be incorporated when available;
- No untested technology or equipment has been assumed to be used, with all processes and components having been extensively employed in existing mining operations; and
- A stand-alone owner operated diesel generated power supply with associated infrastructure is assumed in the Project capital plan for the BFS.

# ON BEHALF OF THE BOARD OF DIRECTORS

Peter Bird, Deputy Chairman and CEO

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