17 June 2014

KITUMBA PROJECT UPDATE – DFS DRILLING COMMENCES

KEY POINTS

- **Drilling for the Kitumba Definitive Feasibility Study under way**
- **Approximately 12,000m of drilling planned with three drill rigs, targeting infill drilling for additional resource definition, and further metallurgical, geotechnical and hydrogeological assessment**
- **Sterilisation drilling for major infrastructure is also planned.**

Blackthorn Resources Limited (ASX: BTR) ("the Company") is pleased to provide the following update on activities at the Company's 100% owned Mumbwa Project in Zambia that hosts the flagship Kitumba deposit, as well as other prospective targets, including the Kakozhi prospect.

The Company recently announced the results of the Optimised Prefeasibility Study (OPFS) for its Kitumba Copper Project in Zambia, - refer to ASX Announcement 'Prefeasibility Study Provides Positive Re-Rating' dated 29 April 2014.

The OPFS significantly enhanced the Project's economics and development potential and the Company confirmed that it would progress to a Definitive Feasibility Study (DFS).

Prior to engaging a study manager for the DFS, the Company will be conducting a comprehensive drilling campaign of approximately 12,000m in and around the Kitumba Mineral Resource to aid in the DFS level studies for both the proposed mine and process plant design. The drilling programme has been designed in consultation with Blackthorn Resources' metallurgical, mining, engineering, geotechnical and hydrological consultants.

Proposed Drilling

Metallurgical Testing

The Kitumba mineable reserve contains a range of primary and secondary copper minerals, with varying copper grade and mineralogy. The flowsheet presented in the OPFS was selected as the best way to treat this mixed feedstock.

The drilling for the collection of metallurgical samples has therefore been designed with this in mind, to ensure that the right type and volume of samples are collected to enable the impact of orebody variability to be appropriately assessed by the test-work programme.

Variability test work on a range of ore blends representing the changing spatial distribution of minerals throughout the deposit is planned to provide data on the range of metallurgical performance expected for the proposed flow sheet.

The proposed test-work programme will comprise three discrete phases:

- **Phase 1 – Batch Optimisation** test work to confirm the optimum grind size and leach parameters for the subsequent variability test work.

- **Phase 2 – Batch Variability** test-work programme on samples selected to represent ROM feed from the mine draw points on a time basis. This will provide information on the expected plant performance over the life of the Kitumba orebody.

- **Phase 3 – Pilot Plant** programme of sufficient duration to evaluate the proposed flow sheet in continuous operation. Minor element deportment and product quality will be assessed. Three representative composites are planned to test operations in years 1 to 4, 5 to 8, and Year 9 to the end of the mine life.

Geotechnical Drilling

The geotechnical drilling requirements for the DFS-level assessment are based on the revised sub-level caving mine design presented in the OPFS. The DFS geotechnical drilling program is mainly based on targeting the box cut, development drives and shafts, and cave areas lacking sufficient coverage from previous drilling.

The primary objective of the investigation program is to carry out a drilling, core logging, field and laboratory testing program to collect high quality geotechnical data for detailed design of underground excavations including their size, shape and requirements for support.

Hydrogeological Drilling

The drilling plan for hydrogeological assessment has been prepared to collect sufficient data for a DFS-level assessment of both the mine dewatering requirements as well as to confirm water supply sources for the operation.

Mine Dewatering

The aim of the mine dewatering investigation is to predict mine inflow rates and the associated drawdown extents with time. This activity is divided into three sub activities:

- Mine Dewatering Investigation Plan - review the previous studies and evaluate the implications for the underground development
- Mine Dewatering Field Investigation
- Mine Dewatering Numerical Modelling

Borefield Investigation

The purpose of the bore field investigation is to determine the potential for groundwater to meet the make-up water requirement as determined in the mine water balance, and includes:

- Groundwater Resource Test Holes
- Test Production Bore Drilling and Testing
- Borefield Numerical Model

Resource Definition

In addition to the assay results from diamond drill core collected as part of the above investigations, three holes are planned to be drilled specifically for resource definition to further confirm the grade and extent of the Kitumba Mineral Resource model.

Sterilisation Drilling

A number of reverse circulation (RC) drill holes are planned at the proposed location of major infrastructure to confirm the absence of significant mineralisation at these locations prior to final mine infrastructure design.

Should you require further information please contact:

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