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Company Announcements Platform
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MAGNETITE – CHINESE TECHNOLOGY DEVELOPMENT CONTRACT

The Directors of Athena Resources Limited (ASX Code: AHN) are pleased to advise that an agreement has been signed in China with the Changsha Research Institute of Mining and Metallurgy (CRIMM) for test work to be carried out on the high grade Byro Iron Ore magnetite project located in the mid west region of Western Australia.

Founded in 1955, CRIMM which is located in Hunan Province China is a state owned metallurgical research institute specialized in metallurgical testing, beneficiation process testing and design. It is a world leading institute for magnetite iron ore process testing and beneficiation process design and optimizations.

The purpose of the test work is as follows;

Process Mineralogy Study

- Carryout multi-element analysis of the ore to identify the chemical composition and particularly identify the beneficial components plus any detrimental components;
- Identify the type of ore, the main iron minerals and gangue mineral compositions together with disseminated features and symbiotic relationships;
- Chemical phase analysis of the iron to identify which mineral form that the iron exists in the ore;
- Determination of particle liberation sizes for the disseminated iron minerals;

Experimental Research on Potential Beneficiation Methods

- Evaluate the effect of various grind sizes on low intensity magnetic separation. Identify the optimum grind sizes to produce concentrate grades of 63%, 65%, 67% or higher;
- Conduct low intensity magnetic separation tests at various magnetic field strengths, to determine the appropriate magnetic field intensity for efficient magnetic separation;
- Conduct a series of magnetic separation tests, including scavenging tests and other tests, aimed at producing acceptable grades/recoveries of concentrates and tailings. Objectives of these tests include:- the definition of a suitable process flow sheet, an understanding of process equipment and costs, including studying the benefits of a stage grinding/recovery process particularly in relation to possible reduced grinding equipment and lower costs;
- Multi-element chemical analysis for the iron ore concentrates and the tailings, to identify content of harmful elements including Sulphur, Phosphorous, Arsenic etc, plus the

identification of any distribution trends in regard to various chemical elements during processing.

The bulk magnetite iron ore samples will be shipped to CRIMM in late January for the specified testing.

E W Edwards
Managing Director



Athena's non executive director Dr Caigen Wang (right) signed the agreement together with Professor Zen Weilong, the Head of the Department of Mineral Process Technology of CRIMM.