



BacTech Secures Funding to Advance “Zero-Waste” Patent for Pyrrhotite

Toronto, Canada, July 15, 2024.

BacTech Environmental Corporation (“BacTech or the Company”), (CSE:BAC, OTCQB:BCCEF) today announced that it has reached an agreement to vest a 10% stake in a “zero-waste” patent for treating pyrrhotite and pyrite tailings using bioleaching to an investor group for Cdn\$100,000.

As part of the ongoing MIRARCO piloting study, this will enable the technology to be further developed to full patent status along with preliminary process modeling work required for a conceptual design of a demonstration plant. As part of the larger MIRARCO study, BacTech has committed \$100,000, which is sufficient to meet its obligations.

A BacTech “zero-waste” preliminary patent, which is to be finalized by April of next year, aims to generate a portfolio of saleable products from re-treatment of tailings near Sudbury, Canada. This technology produces products from materials that otherwise would have no value and report as waste to create an environmental liability. With this new approach, incentives are added to encourage investment in re-treatment and rehabilitation projects, in part by diversifying revenue streams and risk to treat wastes containing subeconomic metal values while also remediating the environment.

BacTech's Vice President of Metallurgy and Bioleaching, Dr. Paul Miller, stated “With the advent of complementary technology and a dramatic increase in the prices of the underlying elements that constitute pyrrhotite, we have a strong foundation for delivering economic benefits from bioleaching sulphide tailings.”

For many years low grade nickel pyrrhotite was mined alongside pentlandite in the Sudbury mining camp only to see it separated and deposited as waste in lakes to eliminate the rapid oxidation of this very volatile sulphide mineral creating toxic environmental issues. The zero-waste technology can also be applied to the treatment of other iron sulphide minerals, such as pyrite, which often contain low value metals but are difficult to process economically.

The patent details the process of using bioleaching first to make the elements of pyrrhotite soluble followed by a unique combination of downstream processing steps that interface effectively with the iron industry by producing intermediate iron for steel or battery production, as well as producing ammonium sulphate fertilizer for sale. Nickel and cobalt contained within the mixed precipitates will be precipitated out as saleable commodities. This will provide an additional revenue stream while smaller amounts of separated magnetite will also be sold. The remaining silicate residue will either be used as backfill material or can be mixed with geopolymers to form construction materials.

BacTech has filed preliminary patent applications earlier this year, with the final application to follow the completion of the test work. In the 1990s, BacTech conducted a pilot plant at Radio Hill, Australia, to separate metals from solution from pyrrhotite tailings but the existing technology was not economical viable at the time.

BacTech will provide updates on the progress of the test work as results become available.

About BacTech Environmental Corporation

BacTech Environmental Corporation is a company that specializes in environmental technology. We use a process called bioleaching to recover metals like gold, silver, cobalt, nickel, and copper, while also safely removing harmful contaminants like arsenic. This process is eco-friendly and uses naturally occurring bacteria that are safe for both humans and the environment. By using our proprietary method of bioleaching, we can neutralize toxic concentrates and tailings while also creating profitable opportunities. The company is publicly traded on several stock exchanges, including the CSE, OTCQB, and Frankfurt Stock Exchange.

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Special Note Regarding Forward-Looking Statements

This news release contains “forward-looking information”, which may include, but is not limited to, statements with respect to future tailings sites, sampling or other investigations of tailing sites, the Company’s ability to make use of infrastructure around tailings sites or operating performance of the Company and its projects. Often, but not always, forward-looking statements can be identified using words such as “plans”, “expects”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, or believes” or variations (including negative variations) of such words and phrases, or state that certain actions, events or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance, or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims, other than as required by law, any obligation to update any forward-looking statements whether because of new information, results, future events, circumstances, or if management’s estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements.

The Canadian Securities Exchange (CSE) has not reviewed and does not accept responsibility for the adequacy or the accuracy of the contents of this release.