

# BacTech Reports First Stage Metallurgical Test Results

TORONTO, Oct. 25, 2017 /CNW/ - BacTech Environmental Corporation ("BacTech" or the "Company"), (CSE: BAC, OTC: BCCEF) today released the results from its initial metallurgical test work on material sourced from the Telamayu tailings in Bolivia.

Overall the results were positive as expected and additional test work using different reagents will be carried out immediately to potentially add more metal recovery. The results are broken down below by metal type.

## **Copper**

Bench scale laboratory washing tests conducted at ambient temperature using 1 kg samples of 'as-received' material gave a copper extraction of between 56.4% and 66.9%. The variation in recovery was dependent upon whether acid additions were made to the wash water. A larger scale batch test using 120kg of feed resulted in a copper extraction of 59.6% with a sulphuric acid consumption of 21.6kg/t of feed. Cementation of copper from the wash solution gave a cement quality copper precipitate of 97.8% purity and a scrap iron consumption of 1.08kg iron per kg of copper precipitated. Copper recovery from the solution was 99.9%. After this first step of copper recovery, 30kg of washed material was screened at 65mesh (230um) and a bulk sulphide flotation test conducted under acidic conditions on the undersize to produce a silver copper rougher concentrate. The results from flotation of this undersize fraction indicated that a further 23.5% of the copper present in the original 'as-received' feed can be captured into a flotation concentrate, complimented by 61% of the silver. The concentrate assayed 753g/t silver and 0.71% copper. The combination of copper recovered from wash water combined with the copper reporting to the rougher flotation concentrate gave an overall copper recovery of 83.1%.

## **Silver**

The silver remains inert in the acid washing stage and remains unaltered whether washing is conducted or not. Silver recovery for the second flotation test was improved to 75.3% compared to the recovery obtained from the first test of 61% - although into a higher concentrate mass of 33.5%. The second flotation test was conducted under alkali conditions and a different reagent regime. This suggests that conducting further optimization work on reagent schemes, may lead to further improvements in silver recovery.

Such an improvement on flotation reagent regimes was investigated by using a sulphidization step prior to flotation. The objective of this step is to make semi-oxidized material more amenable to the sulphide flotation process. This resulted in a silver recovery of 65% into a concentrate mass of 22.2% and an assay value of 3,190g/t silver while copper recovery also improved. These tests support the premise that conducting further flotation optimization work may lead to improved grade and metal recovery.

## **Tin**

The tailings from the flotation of copper and silver were subjected to additional flotation testing for the recovery of tin. From the limited flotation conditions investigated, 33.1% of the tin was recovered into a concentrate of 13.1% by mass but at a very low grade of 3.1% tin. Further test work using a wider range of flotation reagents and test conditions may result in an improvement in both tin grade and recovery. Alternative methods for upgrading an improved tin rougher concentrate may also improve the final concentrate grade while reducing loss of recovery. Initial diagnostic type testing using a laboratory super-panner recovered 42.4% of the tin at a concentrate grade of 9.6% into a mass of 6.4%. These results are preliminary in conclusion because of the exploratory nature of the gravity techniques investigated in this phase of test work. The application of magnetic separation to remove hematite iron gangue may also be of value for upgrading final concentrates.

"As a first pass we are happy with the results. This allows us to narrow down the focus on the tin that has been trickier given the small size of the material. We will start the tin work as soon as possible. In the interim we can start to look at engineering for the copper and silver," stated Ross Orr, President and CEO of BacTech.

All the test work was conducted at the University of Oruro in Bolivia, an accredited lab for metallurgical test work.

Finally, the Company announced today that the Board of Directors have approved the issuance of 2,200,000 options to purchase common shares of the Company to directors, officers, employees and consultants of the Company. The exercise price of the options is \$0.10. They are subject to a four-month hold and have a term of 5 years.

The total number of outstanding options under the Company's plan, including the grant above, is now 5.39M options or approximately 8.25% of the outstanding shares. The Stock Option Plan allows for up to 10% of the outstanding common shares to be reserved for stock options.

## **Project Overview**

The Telamayu project involves the environmental remediation of the "Antiguo" tailings with an option on the larger "Nuevo" tailings, both situated at the Telamayu mill site near the town of Atocha in the Department of Potosi in Bolivia. As part of the remediation process BacTech will recover silver, tin, and copper utilizing a conventional gravity and flotation process supported with a copper cementation circuit.

The existing Telamayu mill concentrator has generated the Antiguo and Nuevo tailings by processing mineralized material from the surrounding mines for over 80 years. There is considerable infrastructure at the mill site including high voltage power, rail, mill housing, and a local workforce. The current infrastructure will contribute to a reduction in capital costs of the project. Currently metallurgical test work is underway to determine the percentage of metal to be recoverable. Results are expected in October.

## Qualified Person

Dr. Antonio Salos Casado, P.Eng., Director of Faculty at the Technical University of Oruro, Bolivia is an independent Qualified Person and has reviewed and approved the contents of this release.

## Company Profile

BacTech Environmental Corporation holds the perpetual, exclusive, royalty-free rights to use the patented BACOX bioleaching technology for the reclamation of tailings and mining waste materials. The Company's principal focus is a high-grade silver/copper/tin tailings project called Telamayu, located in Atocha, Bolivia, in association with COMIBOL, the state mining group. Testing at Laurentian University in Canada has begun to test the ability of bioleaching to treat high arsenic concentrates sourced in Ecuador. The Company continues to field enquiries globally with respect to additional opportunities for remediation, including licensing transactions for the technology.

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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.

Shares outstanding 65,302,930

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.

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