TORONTO, CANADA--(Marketwired - Jan 27, 2017) - BacTech Environmental Corp. ("BacTech" or the "Company") (CSE:BAC)(OTC PINK:BCCEF) today presents its vision for an Ecuadorian project that includes the use of bioleaching to treat high arsenic gold concentrates, resulting in a reduction in mercury use.

Industry Background

With the significant increase in the price of gold over the past 10 years, there has been a corresponding surge in the number of artisanal gold miners ("AGM") globally. An AGM is someone who produces small amounts of ore, usually through the use of rudimentary methods and tools. There are literally hundreds of thousands of these AGMs in the countries of Peru, Ecuador and Colombia, according to Dr. Marcelo Veiga of the University of British Columbia ("UBC") School of Mining, a specialist in this field. Over 30 million people globally participate in at least one facet of the industry and collectively AGMs produce an estimated 10 million ounces of gold (Barrick Gold Corp. produced 5.5 million ounces in 2016).

The Problem

After mining the ore, AGMs typically use mercury as an amalgamator of gold and silver, and the resulting environmental damage is significant. In particular, the use of mercury to obtain gold from arsenopyrite-rich material can be an exercise in futility as normally less that 10% of the gold is separated from this refractory type of ore. This is due to the gold being physically encapsulated within the arsenopyrite, which is unreactive and impervious to mercury amalgamation. The increased use of mercury over the past 10 years has led to many governments and NGOs looking for a solution to the problem. Interested readers should visit the Company's website (www.bactechgreen.com) (under "Newsroom", May 24, 2016) to view a video produced by a documentary company, Vice, on AGM mining in Colombia that illustrates the health risks of dealing with mercury. The long-term effects of mercury exposure to humans have been well documented.

In Ponce Enriquez, Southern Ecuador, steps were taken with the assistance of Dr. Veiga and the Canadian government to build sulphide flotation plants to produce arsenopyrite concentrates that are easier to ship and treat using methods other than mercury amalgamation. For the most part, especially in the case of simple sulphides, this led to a noticeable reduction in the use of mercury. However, in cases where arsenopyrite is the main refractory mineral, it provided a double-edged sword, namely, very good gold grades in the concentrates but also prohibitively high arsenic levels (+10%), making the resulting product much less attractive to buyers.

The Solution

This scenario creates a unique opportunity for BacTech and bioleaching. The reader may not be aware that bioleaching is an effective solution for processing high arsenic compounds. Currently, due to the lack of buyers for arsenopyrite concentrates, in which arsenic can run as high as 17%, there are few options for the miner to be paid a decent price for his labours. During the last year, over 150 tons per day of high arsenic compounds found their way to Asia for processing, but the prices paid to the miner can be as low as 50% of the value of the concentrate before even more deductions are made for high arsenic penalties. In addition, the buyer retains any mineral credits such as silver and copper. BacTech would be able to recover more of the gold, as well as most of the other mineral credits, thus allowing higher payments to be made to local AGMs for their concentrate.

The opportunity provided to BacTech is real. Given BacTech's experience in bioleaching, and after studying the local market with the assistance of the Company's newly appointed country representative, Bernardo Brito, we are confident that a strategy of building a bioleach circuit in Ponce Enriquez would provide healthy returns, not only for BacTech, but also for the local inhabitants. With Ponce Enriquez exports of high-arsenic concentrates growing at a 15-20% yearly rate during the last decade, BacTech would be able to capitalize on a booming mining district, and contribute to its sustainability with minimal competition.

It is BacTech's intent to immediately source 250 kgs of material from the local flotation plants and ship the product to Laurentian University in Sudbury, Ontario. The Company is working closely with Dr. Nadia Mykytczuk at Laurentian to design a 5-6 month bioleach test work program that will be used to confirm a scoping study being provided by Dr. Paul Miller of BacTech. A successful outcome from this program would allow BacTech to pursue the construction of a bioleach plant near the flotation circuits of the area, and to become the sole processor of gold concentrate that is currently shipped halfway around the world.

The benefits to Ecuador and Ponce Enriquez are readily identifiable: from the government's perspective, an increase in employment and subsequent tax receipts; from the locals' perspective, an increase in what they are paid for their ores, as well as an improvement in the environment in which they live due to the elimination of the use of mercury because of the reduced arsenic release into the local environment from processing the concentrate.

Should BacTech be successful in implementing its strategy for Ecuador, there are opportunities to duplicate these plants in other high arsenic areas of the Andes Mountains, namely Northern Peru and Colombia.

It is BacTech's intention to source a local partner in all of its international projects.

Finally, with respect to the drill program underway in Bolivia at the high-grade Telamayu tailings, initial assay results from the 12 pre-Christmas drill holes are expected shortly.

Company Profile

BacTech Environmental Corp. 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. Investigation has begun to identify opportunities in Ecuador. The Company continues to field enquiries globally with respect to additional opportunities for remediation, including licensing transactions for the technology.

Follow us on:

Facebook: http://www.facebook.com/BacTechGreen

Twitter: http://twitter.com/BacTechGreen

LinkedIn: http://www.linkedin.com/company/1613873

Vimeo: http://vimeo.com/bactechgreen

YouTube: http://www.youtube.com/user/bactechgreen

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 by the use of 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 as a result 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 58,882,930

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.

Contact

BacTech Environmental Corp.
Ross Orr
President & CEO
416-813-0303 ext 222
borr@bactechgreen.com
Bill Mitoulas
Investor Relations
416-479-9547
billm@venturenorthcapital.com