

BacTech Announces Successful TCPL Testing Results; Confirms Long-Term Environmental Stability of Ferric Arsenate Precipitate as Ecuador Gold Project Advances

TORONTO, ON., August 30, 2021 – [BacTech Environmental Corporation](#) (OTC:BCCEF, CSE:BAC) (“BacTech or the Company”), a commercially proven environmental technology company delivering effective and eco-friendly biomining and remediation solutions, is pleased to announce final bioleaching test results showing the successful neutralization of bio-oxidation liquors and TCLP stability testing of ferric arsenate precipitates.

Four neutralization tests were performed on two final bio-oxidation liquors from the Ecuadorian commercial bioleach testing program, confirming that an environmentally stable ferric arsenate precipitate could be produced. The neutralization process, where limestone is added and calibrated to raise the pH of the bioleach liquor to facilitate the precipitation of the ferric arsenate, conclusively demonstrated that the precipitate passes the TCLP (Toxicity Characteristic Leaching Procedure) requirements for stability set out by the U.S. Environmental Protection Agency (“EPA”).

“These results tick another important box for us, as we formally wrap-up commercial bioleach testing with the information and results needed to press forward and accelerate our feasibility study (FS) and site negotiation efforts,” said Ross Orr, President and CEO of BacTech. “I’ve been actively connecting with all the right people throughout Ponce Enriquez and surrounding regions, and our opportunity space grows with every trip taken. The impact potential of a scalable bioleaching facility is enormous and I’m not leaving anything to chance.”

Duplicate neutralization tests were performed on each liquor, using both lime and limestone as the neutralization reagent. Neutralization was conducted in an agitated aerated reactor over a six-hour contact time as per commercial protocol for bio-oxidation plants. Test results showed that the amount of arsenic remaining in solution was 0.5ppm, while the quantity of iron was minimal (between 3ppm to 18ppm due to the presence of residual ferrous iron). This analysis confirms that the neutralization operation will produce a neutral clean water as a by-product that is suitable for recycling in the process. This finding is significant for BacTech as it will reduce the quantity of fresh water required on site.

The Toxicity Characteristic Leach Procedure (TCLP) test is a procedure to evaluate the long-term stability of the arsenic in the precipitate produced by the neutralization process. It is a favoured US EPA method for characterizing waste as either hazardous or non-hazardous as defined in the Code of Federal Regulations; RCRA 40 CFR Part 261. The test involves efforts to re-leach the arsenic into an acidic solution using a standardized protocol and aims to simulate long term conditions within a landfill.

Summary of Liquor Neutralisation and TCLP Test Results

Test No	Bio-oxidation Liquor Iron and Arsenic Concentration.	Neutralization Reagent	Iron and Arsenic Remaining in Liquor after Neutralization.	Arsenic in Solid Precipitate.	Arsenic leached in TCLP.
10506	26.87g/l Fe;12g/l As.	Limestone	18ppmFe; 0.5ppmAs	4.9%	1.5ppm
10507	29.67g/lFe;11.64g/l As.	Limestone	4ppmFe;0.5ppmAs	5.66%	0.5ppm
10508	Same as 10506	Lime	7ppmFe;0.5ppmAs	4.56%	2.4ppm
10509	Same as 10507	Lime	3ppmFe:0.5ppmAs	4.92%	0.7ppm

This press release has been reviewed by Dr. Paul C. Miller Ph.D Chem. Eng. C.Eng. MIMM., considered a qualified expert for reporting purposes.

About the Ponce Enriquez Bioleaching Project

BacTech is planning to build its new owner-operated bioleaching facility in Ponce Enriquez, Ecuador, in a region where arsenic is well-known to exist in the gold ore. The Company's plan is to build a 50 tpd bioleach plant capable of treating high gold/arsenic material. A 50 tpd plant, processing 1.5 ounces of gold per tonne of feed, similar to feeds available to the Company, would produce approximately 26,000 ounces per year. Plant designs are modular and can be expanded without affecting ongoing production.

BacTech continues to investigate the prospects of establishing additional modern mining operations across other areas of Ecuador, Peru, Colombia, and Central America. Where possible, the Company will partner with national and local governments, non-governmental organizations (NGOs), and others to assist with the funding of these projects.

About BacTech Environmental Corporation

BacTech is a proven environmental technology company, delivering effective and eco-friendly biomining and remediation solutions to commercial operations to smartly process and recover preferred metals (gold, silver, cobalt, and copper) and safely remove and transform harmful contaminants like arsenic into benign EPA-approved products for landfill. Tapping into numerous environmental and economic advantages of its proprietary method of bioleaching, BacTech uses naturally occurring bacteria, harmless to both humans and the

environment, to neutralize toxic mining sites with high-pay potential. BacTech is publicly traded on the CSE under the symbol “BAC” and on the OTC as “BCCEF”.

For further information contact:

Ross Orr

President & CEO, BacTech Environmental Corporation

416-813-0303 ext. 222,

Email: borr@bactechgreen.com

Website: <https://bactechgreen.com/>

Investor Presentation: <https://bactechgreen.com/investors/>

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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: 140,592,204

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.

This press release does not constitute an offer to sell or a solicitation of an offer to buy any of the shares, nor is it a solicitation of interest from a prospective investor.

