



## **BacTech Announces Bioleach Test Work Completion**

TORONTO, ON., June 24, 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 that all formal bioleach test work for the Company’s Ponce Enriquez bioleaching project is now complete. BacTech will deliver final testing results and analysis when received by third-party testing provider ALS Laboratories. Interim bioleach results, covering four key areas, are presented below.

“Results to date continue to show great promise, and I’m excited to see interim findings suggest that key technical areas are lining up beautifully with our own internal process models,” said Ross Orr, CEO of BacTech Environmental.

### **Bio-Oxidation Kinetics**

Bioleach test work on material collected from small mine producers in Ponce Enriquez, Ecuador, previously assayed to confirm positive magnitudes of gold, was completed on June 23<sup>rd</sup>, 2021. While assay results from oxidized solids are pending to confirm the extents of oxidation achieved, the results from solution assays taken throughout the testing campaign indicate good kinetics with complete solubility of arsenic from all samples tested complimented by a high level of iron dissolution from refractory mineralization. ***This is a positive indicator in being able to obtain a high gold recovery from downstream processing. No unusual phenomenon was encountered during the testing compared to other feedstocks which have been previously tested and resulted in a successful commercial plant.*** These results are particularly encouraging, given the fact that some of the feedstocks tested were cyanide tails with high arsenic contents which are recognized as more difficult to treat due to toxicity phenomenon. A specialized pre-washing process was used to mitigate the toxicity effects of any residual cyanide species present in these feedstocks on the bio-oxidation process. ***A further positive attribute is that due to the low amount of inert siliceous gangue present in the feedstocks, a high weight loss was noted in the bio-oxidation testing. This has positive***

***process implications in reducing the size of equipment required for downstream gold recovery and hence capital and operating costs.***

### **Gold Recovery**

Cyanidation work will be conducted on the bio-oxidized residues at an independent lab to quantify the amount of gold that was liberated using bioleaching. Previous diagnostic test results received from ALS Laboratories on 20 April showed that if the feedstocks are oxidized to extinction, then 99% of the gold can be recovered.

### **Bioleach Liquor Neutralization**

This study will validate model predictions for reagent requirements of limestone (CaCO) and other reagents. Limestone (or lime) will be added to the post bioleach solution to raise the pH enabling precipitation of the iron and arsenic to form a stable ferric arsenate precipitate recognized by the USEPA and similar bodies as being environmentally benign and suitable for disposal. This test work will also produce a clean water for recycling to the process and the final solutions from neutralization will be assayed to ensure compliance for re-use.

Toxicity characteristic leach procedures (TCLP) will be undertaken by an independent qualified laboratory on the ferric arsenate test precipitates to confirm that they are benign and meet environmental regulatory requirements for approval and process permitting.

### **Environmental Testing**

This testing will focus on the arsenic precipitate produced from the neutralization process to confirm resulting ferric arsenate is in compliance with the Toxicity Characteristic Leaching Procedure (“TCLP”) standards and the US EPA’s standards for deposition of waste materials. BacTech intends to transform harmful contaminants into benign EPA-approved products and the results from this test work will contribute to environmental approval for the project and process permitting.

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.

### ***Ponce Enriquez Bioleaching Project***

BacTech is pursuing a new owner-operated bioleaching facility in Ponce Enriquez, Ecuador where arsenic is well-known to exist alongside gold mining. The Company’s plan is to build a 50 tpd bioleach plant capable of treating high gold/arsenic material in Ponce Enriquez, Ecuador. A 50 tpd plant, processing 1.5 ounces of gold per tonne of feed, 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 has plans to build its new owner-operated bioleaching facility in Ponce Enriquez, Ecuador where arsenic is well-known to exist alongside gold mining and is investigating 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. BacTech is publicly traded on the CSE under the symbol "BAC" and on the OTC as "BCCEF".

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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: 138,112,204

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.