



## **BacTech Environmental Receives Final ESIA Permit Approval from Ecuadorian Government to Begin Development of Bioleach Processing Facility in Tenguel**

***Company Initiates \$US20M Green/Social Bond Offering to Help Finance Project as Ministry of the Environment Approves Last Major Permit and Contemplates an Equity Raise***

**TORONTO, ON, November 20, 2023** – BacTech Environmental Corporation (CSE: **BAC**, OTC: **BCCEF**, FSE: **0BT1**), an established environmental technology company specializing in eco-friendly bioleaching and remediation solutions for precious metal and critical mineral recovery, is pleased to announce the official granting of the Environmental License by Ecuador's Ministry of the Environment. This approval allows BacTech to move forward with plans to develop a world-class bioleach processing facility in Tenguel and follows the successful completion of the community consultation process and subsequent sign off by the Minister of the Environment.

With all major permits now secured and in place, BacTech will finalize the terms with Analytica Securities [to launch the previously announced \\$US20M Green/Social bond issue to finance the construction of the bioleach plant at Tenguel](#). Of the total funds raised, approximately \$17 million will be allocated to the capital portion of the bioleaching facility construction, with the remaining \$3 million dedicated to financing the purchase of concentrates from local miners and supporting the local economy. A video summary of today's news release is available by clicking the following link: [BacTech Receives Final ESIA Permit Approval - YouTube](#)

Ross Orr, President, and CEO of BacTech, expressed his enthusiasm: "*Our shareholders are aware that this significant project has been years in the making, and we are very happy to announce the approval of our permits. We would like to commend Minister Davilos (Environment) for his efforts in achieving this milestone for BacTech. With the full support of the local community and government stakeholders, we can confidently proceed with the plant financing.*"

The company has also indicated its deliberation on a private placement of common shares with the aim of securing extra equity for the project and bolstering its working capital.

Once completed, the facility is expected to become South America's largest and most efficient bioleaching plant. It will utilize naturally occurring bacteria that are harmless to both humans and the environment for treating gold and silver-containing materials with high arsenic levels.

To ensure transparency and adhere to global best practices, BacTech has launched its Sustainable Bond Framework for issuing Green and Social bonds, aligning with the International Capital Market Association's (ICMA) Green Bond Principles (GBP) 2021 and Social Bond Principles (SBP) 2023. Additionally, the company proudly received an independent Second Party Opinion (SPO) from Moody's Investors Service, granting BacTech a Sustainability Quality Score of SQS2 (Very Good), recognizing the company's significant contribution to sustainability.

BacTech remains steadfast in its commitment to achieving environmental and social objectives while delivering long-term value to shareholders and stakeholders. The Green/Social Bond offering marks a significant step in this direction.

### **About the Tenguel – Ponce Enriquez Bioleaching Project**

BacTech plans to construct an owner-operated bioleaching facility in Tenguel, Ecuador, a region known for its association with arsenic in sulphide gold ore (Arsenopyrite). The company intends to build a 50 tpd bioleach plant capable of treating high gold/arsenic material. Such a plant, processing feed with 1.75 ounces of gold per tonne, similar to what local miners provide, would yield approximately 31,000 ounces per year. The modular plant designs allow for expansion without disrupting ongoing production. BacTech has also signed an agreement with the government for a Phase 2 plant that would add 150-200 tpd of capacity, producing more than 100,000 ounces per annum.

Key economic highlights, assuming a base gold price of \$1,600 per ounce, include:

- Pre-tax NPV (Net Present Value with a 5% discount rate) of \$60.7 million
- Pre-tax IRR (Internal Rate of Return) of 57.9%
- Annual Gold Production of 30,900 ounces • Capital Cost of \$17.0 million
- Bioleach Operating Cost of \$212 per tonne
- Pre-tax Earnings Prior to Employee Bonus – \$10.9 million annually
- Estimated local employee bonus pool – \$1.64 million

The area hosts over 100 small mines, and BacTech is actively exploring the possibility of establishing modern bioleaching facilities in other regions of Ecuador, Peru, and Colombia. The company aims to collaborate with national and local governments, non-governmental organizations (NGOs), and other stakeholders to fund these projects and ensure adherence to high environmental and ESG (Environmental, Social, and Governance) standards.

## **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.

Shares outstanding: 185,360,333

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.