



BacTech Hires Sustainable Mining Veteran David Tingey as New Chief Operating Officer

*Experienced International Executive and Sustainability Professional
Will Lead Ecuador Site Operations and Bioleaching Project Development*

TORONTO, ON. January 4, 2022 – [BacTech Environmental Corporation](#) (CSE: BAC, OTC: BCCEF, FSE: OBT1) (“BacTech or the Company”), a commercially proven environmental technology company delivering effective and eco-friendly biomining and remediation solutions, today announced Mr. David Tingey has been hired as Chief Operating Officer. David will join BacTech’s executive team, working closely with CEO Ross Orr, to oversee operations development and management across the Company, setting and driving strategic recommendations that support immediate shareholder interests in its Ponce Enriquez, Ecuador bioleaching project and its evolving South American growth strategy.

The strategic addition of David comes on the heels of the Company announcing robust and economically compelling results of its 3rd party produced [Bankable Feasibility Study](#) for the staged development of its 100% owner-operated bioleaching facility in Ponce Enriquez, Ecuador.

An experienced manager and sustainability professional who has developed and built on-site capabilities across global operations for organizations including Rio Tinto, Walter Energy, Bluestone Resources, New Pacific Metals, Global Alumina, CCC Construction and Western Coal, David has a track record of delivering and capitalizing on positive change at site operational levels, all complemented by sustainability best practices and extensive construction expertise. Prior to his employment in the mining business, David worked for many years in different civil project and construction roles with Ernest Green Partnership, Komex Clark Bond, and AMEY Construction.

“David is intimately familiar with EPCMC’s Feasibility Study findings, and all engineering and development considerations, including the proposed environmental setting, project infrastructure and process economics expectations,” said Ross Orr, President and CEO of BacTech. “Throughout his career, David has built diversified expertise in sustainable strategy, project management and development, ESG (environmental, social and governance) initiatives and stakeholder communications and engagement. He’s the type of informed executive that I want driving execution, as he’s equally as comfortable operating in the boardroom as he is breaking new ground on-site. I’m glad this pursuit paid off.”

“BacTech, through the innovative leadership of Ross Orr, is a company that is looking to solve the ESG conundrum,” said David Tingey, COO of BacTech. “It is a company that will accomplish its strategic goals by utilizing ESG, my expertise and their technology. BacTech is dedicated to increasing and enhancing the sustainability of mining, providing us with a competitive advantage as well as the foundations for a successful and profitable business partnership with key community stakeholders.”

The Company also announced that, pursuant to the Company’s stock option plan, the Board of Directors has approved the issuance of an additional 1,100,000 options to purchase common shares of the Company to directors, officers, employees and consultants of the Company at an exercise price of \$0.15 for a term of five years.

About the Ponce Enriquez Bioleaching Project

BacTech is planning to build a new owner-operated bioleaching facility near Ponce Enriquez, Ecuador, in a region where arsenic is associated with gold ore (Arsenopyrite). The Company’s plan is to build a 50 tpd bioleach plant capable of treating high gold/arsenic material. A 50 tpd plant, processing 1.75 ounces of gold per tonne of feed, similar to feeds available to the Company from local miners, would produce approximately 26,000 ounces per year. Plant designs are modular and can be expanded without affecting ongoing production. The total concentrate market in the Ponce Enriquez area is estimated to be between 200 and 250 tonnes per day, allowing for increased throughput potential with a larger plant.

In total, there are over 90 small mines operating in the area. BacTech intends to return local miner compensation back to previous payment levels, prior to a sweeping price reduction imposed by Chinese buyers due to recent import levies on arsenic/gold concentrates entering China. BacTech continues to investigate the prospects of establishing additional modern bioleaching facilities across other areas of Ecuador, Peru, and Colombia. 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.

Key Economic Highlights:

- Pre-tax NPV (Net Present Value with 5% discount rate) of \$46.9M
- Pre-tax IRR (Internal Rate of Return) of 48%
- Annual Gold Production of 25,900 ounces
- Capital Cost of \$15.5M
- Bioleach Operating Cost of \$212 per tonne
- Assumed Purchase Prices of Concentrate - 65% of the contained gold value
- Pre-tax Earnings Prior to Employee Bonus - \$8.94M
- Payback (75% DEBT) - 2 years

Additional Project Economics & Parameters:

- Plant Design Capacity -15,030 tonnes of dry concentrate per annum
- Plant Life - 20 years
- Average Gold Recovery Bioleaching – 96%
- Annual Gold Production (55 gpt average feed) - 25,900 ounces
- All-in Opex - \$212 per tonne
- Up Front Capital - \$15.5M
- Base Case Gold Price - \$1600 per ounce
- Payback from Start of Production – 2.5 years

Project Gold Price Sensitivity:

Gold Price	NPV (5%)	IRR	EBITA
\$1,500	\$41M	43%	\$8.1M
\$1,600	\$47M	47%	\$8.8M
\$1,700	\$53M	53%	\$9.7M
\$1,800	\$59M	57%	\$10.6M
\$1,900	\$65M	62%	\$11.4M

About BacTech Environmental Corporation

BacTech is a proven environmental technology company, delivering effective and eco-friendly biomining and remediation solutions to commercial operations to process and recover preferred metals (gold, silver, cobalt, and copper) smartly 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”; on the OTC as “BCCEF”; and the Frankfurt Stock Exchange as “OBT1”.

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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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: 157,455,558

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.