



## **BacTech Updates Zero-Tailings™ Patent Application to Include Fertilizer Concentration Process**

*Addition of Reverse Osmosis and Mechanical Vapour Recompression Technology Supports Production of Specification-Grade Ammonium Sulphate*

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**TORONTO, ONTARIO — May 25, 2026 — BacTech Environmental Corporation**  
(CSE: BAC | OTCQB: BCCEF)

BacTech Environmental Corporation (“BacTech” or the “Company”) announces that it has updated its provisional Zero-Tailings™ patent application to include a two-stage concentration process designed to improve the production efficiency of ammonium sulphate generated from acidic mining-related process streams.

The revised patent application incorporates Reverse Osmosis (“RO”) pre-concentration and Mechanical Vapour Recompression (“MVR”) evaporation technologies into the Zero-Tailings™ process flowsheet. These technologies are intended to reduce energy consumption associated with ammonium sulphate crystallization and support the production of specification-grade fertilizer products.

The Company believes the addition strengthens the scope of the provisional patent application by extending coverage from acidic feed streams through to ammonium sulphate recovery and crystallization.

### **Process Enhancement**

Many hydrometallurgical and mining operations generate acidic, iron-bearing streams that require neutralization and disposal treatment. BacTech’s Zero-Tailings™ process is being developed to recover potentially valuable by-products from these streams, including ammonium sulphate, magnetite, and certain base metals.

The Company identified ammonium sulphate concentration and crystallization as an area requiring additional optimization for certain mining-derived streams due to their relatively dilute nature. The addition of RO and MVR technologies is intended to improve process efficiency and reduce energy requirements associated with fertilizer production.

RO and MVR are commercially established technologies currently used in a range of industrial water treatment and evaporation applications. The Company believes the revised provisional patent application broadens the technical scope of the Zero-Tailings™ process and supports ongoing evaluation of potential commercial applications.

The process is intended to reduce waste treatment requirements while generating potentially recoverable products from streams that are typically treated as waste.

Where appropriate, the RO reject stream can be recycled into the evaporation circuit, further minimising water consumption and maximising ammonium sulphate recovery. Condensate from the evaporation stage is also recycled, making the overall process highly water-efficient — a meaningful advantage in water-stressed mining jurisdictions.

### **Patent Application and Development Activities**

The revised provisional patent application protects the complete, commercially Zero-Tailings™ flowsheet from acidic waste stream through to a saleable, specification-grade ammonium sulphate fertilizer product. Management believes the revised provisional patent application may:

- expand the technical scope of the Zero-Tailings™ process;
- support evaluation of the process across a broader range of feed streams; and
- preserve the Company's priority date while patent work continues.

This technology development would not be possible without the research funds secured through MIRARCO from Natural Resources Canada, Critical Minerals Research Development and Demonstration, the Strategic Innovation Fund through the Mining Innovation Commercialization Program, Ontario Centre of Innovation, Critical Minerals Innovation Fund (Ontario Ministry of Energy and Mines), the Northern Ontario Heritage Fund Industrial Research Chair Program, institutional support through Laurentian University and Cambrian College, and industrial support from Vale Base Metals.

BacTech Environmental Corporation is a leader in commercial bioleaching, utilizing naturally occurring bacteria to recover valuable metals while stabilizing harmful elements such as arsenic. The Company is advancing a fully permitted 50-tonne-per-day bioleach facility in Tenguel–Ponce Enríquez, Ecuador, and is developing its proprietary Zero-Tailings critical minerals recovery technology in Sudbury, Canada with Mirarco.

Ross Orr, President and CEO of BacTech, is responsible for the contents of this press release.

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### **About BacTech Environmental Corporation**

BacTech Environmental Corporation (CSE: BAC | OTCQB: BCCEF) is a Canadian clean-technology company specialising in the commercialisation of bioleaching and advanced mineral processing technologies that convert environmentally harmful waste streams into revenue-generating products. The Company's flagship Tenguel bioleaching project in Ecuador is fully permitted and construction-ready, targeting approximately 30,000 ounces of gold production per year from arsenopyrite concentrates supplied by local artisanal miners. BacTech's Zero-Tailings™ platform extends the Company's technology offering to the global hydrometallurgical industry, with applications across gold, copper, nickel, rare earths, and acid mine drainage remediation.

### **Investor Relations Contact**

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### **Cautionary Note Regarding Forward-Looking Statements**

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