



## MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE SIX MONTHS ENDED JUNE 30, 2025

*The following management's discussion and analysis ("MD&A") of financial results is dated August 27, 2025, and reviews the business of BacTech Environmental Corporation (the "Company" or "BacTech"), for the six months ended June 30, 2025, and should be read in conjunction with the accompanying condensed interim consolidated financial statements and related notes for the six months ended June 30, 2025, , as well as the audited annual financial statements for the year ended December 31, 2024 and related notes and MD&A. This MD&A and the accompanying condensed interim consolidated financial statements and related notes for the six months ended June 30, 2025, have been reviewed by the Company's Audit Committee and approved by the Company's Board of Directors.*

*This MD&A contains certain forward-looking statements, such as statements regarding potential mineralization, resources and research results, and future plans, and objectives of the Company, that are subject to various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Readers are cautioned not to place undue reliance on these forward-looking statements. Forward-looking statements contained herein are made as of the date of this MD&A 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.*

### **A. Core Business Strategy**

BacTech Environmental Corporation was incorporated on October 5, 2010 under the *Canada Business Corporations Act*. Through the completion of the Plan of Arrangement, the Company was granted a perpetual, exclusive, royalty free license to use a bioleaching technology ("BACOX") in the remediation business for mining wastes and was listed on what is today the Canadian Stock Exchange under the symbol "BAC".

The BACOX technology utilizes bacteria to liberate precious and base metals and has been traditionally used to treat difficult-to-treat sulphide ores and concentrates. The business plan for the Company is to apply the bioleaching technology to the treatment of concentrates produced by gold mines and reclamation projects to remove harmful elements such as arsenic and sulphur from the environment, where this can be assisted by a positive cash flow from metal recovery. Examples of metals which can be extracted include gold, silver, cobalt, nickel, copper, uranium, and zinc. Recently, the Company also included a new R&D program ("0 Waste") for bioleaching pyrrhotite, a particularly difficult sulphide mineral.

Bioleaching is an environmentally friendly process technology for treating difficult-to-treat sulphide ores and concentrates. By replacing smelting and/or roasting with a bioleach process, the production of sulphur dioxide emissions, which is the primary source of acid rain, and arsenic trioxide are eliminated. In addition, the removal of sulphide minerals from tailings compounds reduces the chance of acid rock drainage into the local environment. Furthermore, the capital and operating costs of a bioleach facility are significantly less when compared to other existing treatment methods.

On April 5<sup>th</sup>, 2025, BacTech filed a patent for the treatment of pyrrhotite mineralization. Pyrrhotite is a very volatile iron-sulphide mineral that oxidizes rapidly once exposed to oxygen. The patent covers the bioleaching of the material and the subsequent following steps to produce a pure magnetite (steel) and an organic ammonium fertilizer (agriculture) for sale in addition to precipitating the contained base metals. For additional information please refer to the press release dated April 5, 2025.

On June 18, 2025, BacTech filed a provisional patent application to expand its zero-waste processing technology beyond bioleaching. This new application builds on a full patent application submitted in April, which focused on treating iron and acid streams from bioleaching.

The Company considers this development to have the potential to improve mineral processing operations by enabling the recovery of materials from waste, which may contribute to more sustainable practices. Over the next year, BacTech will seek potential industry partners to test and develop this technology across different platforms, with the goal of moving toward a full patent and a commercial technology. For additional information see the press release dated June 18, 2025

## **B. Mineral Processing**

### **Tenguel, Ecuador**

BacTech has identified the Ponce Enriquez area of southern Ecuador as an area where the Company's bioleaching technology can be successfully deployed for environmental processing of locally produced concentrates from mining and tailings reclamation. Given the high levels of arsenic contained in the ore from the area, miners receive significantly reduced prices for their concentrates due to penalties applied by the buyers. The buyers tend to be from Asia where concentrates are shipped for conventional smelting and/or roasting. In October 2021, the Chinese government imposed a 13% tax on the import of high arsenic/gold concentrates. The purchasers of concentrates in the Ponce Enriquez market have subsequently passed on this cost to the producer reducing what they pay the miner to roughly 50% of the contained gold values. The concentrates are subject to a 3% export tax on the gold value payable by the miner to the Government of Ecuador. BacTech believes that by implementing an in-country bioleach solution it can offer superior pricing for these concentrates to the local producers, better payment terms, and provide domestic Ecuadorian employment opportunities. It should be noted that the final arsenical product resulting from bioleaching, ferric arsenate, is a US Environmental Protection Agency approved land-fillable form of arsenic.

### **Feasibility Study for Tenguel**

On December 16, 2021, BacTech announced and released the executive summary results of its 3<sup>rd</sup> party produced Bankable Feasibility Study ("BFS") for the staged development of its 100% owner-operated bioleaching facility in Tenguel, Ecuador ("TE"). The results point toward a very robust and economically compelling project with strong performance metrics.

South American mining and metallurgical engineering and development firm EPCM Consultores S.R.L. ("EPCMC") was engaged in July 2021 to undertake the independent feasibility study for the Company's proposed bioleach processing plant located in Tenguel, strategically situated for easy accessibility to Ponce Enriquez ("PE") mining operations. The BFS outlines process economics expectations and metrics pointing toward solid and long-term program viability, while considering associated capital and operating costs for the project.

On February 8, 2022, BacTech released an updated executive summary of its third party-produced bankable feasibility study (BFS-II) for the staged development of its 100-per-cent-owner-operated bioleaching facility in Ponce Enriquez (PE), Ecuador. BFS economics have been updated to reflect improved optimization works allowing an increased throughput and improved average gold head grade. All dollar figures are in U.S. dollars unless otherwise indicated. This press release updates the results reported in the December 16, 2021, press release. The latest estimates are reflected in the data that follow:

Updated key economic highlights (based on \$1600 gold and \$18 silver)

- Pre-tax net present value (NPV) with 5-per-cent discount rate of \$60.7 million (up 29.4 per cent from \$46.9 million);
- Pre-tax internal rate of return (IRR) of 57.9 per cent (up from 48 per cent);
- Annual gold production of 30,900 ounces (up 19 per cent from 25,900 ounces);
- Capital cost of \$17.0 million (increased from \$15.5 million).
- Bioleach operating cost of \$212 per tonne.
- Assumed purchase prices of concentrate -- 65 per cent of the contained gold value.
- Pre-tax earnings prior to employee bonus -- \$10.9 million (up from \$8.94 million);
- Estimated local employee bonus pool -- \$1.64 million.
- Payback (75-per-cent debt) -- two years.
- All calculations above are based on a gold price of US\$1600 per oz.
- At current price of gold at US\$3000 per oz, anticipated after tax earnings are \$21.M

The recent increase in gold prices on world markets to over \$3000 US per ounce appears to suggest that the economics of the Project have improved significantly above what is portrayed in the above summary.

The feasibility study contemplates the purchase of concentrates, high in both arsenic and gold levels, from mines located in the Ponce Enriquez area of SW Ecuador. In total, there are over 100 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.

The Company has acquired 100-acre parcel of land to be used for the operations in Tenguel which formally closed in September 2022. The 100-acre farm contains a commercial cocoa tree plantation. Given the first phase of the project will only make use of 20-acres, it was decided that the current employees of the farm will be offered the opportunity to continue to grow and harvest cocoa and sell the output for their own account. Once the expansion is undertaken all the workers will be offered positions in the expanded facility.

During development of this project, the Company granted certain shareholders, a joint 2% Net Smelter Royalty from the Ecuador plant in Tenguel once it is in production in exchange for participating in a private equity placement. 50% of the royalty is eliminated once the Investor has received a 200% after tax return on their investment.

### **Next Steps for Tenguel**

Using the flow sheet developed by the BFS, the final engineering piece of this phase of the project would be detailed engineering. It is our intent to rely heavily on the designs from previous plants that BacTech has built which addressed material with very similar mineralogical structure.

The actual budget for construction, procurement and material is estimated to be \$US 20M (at a time when the single most significant element, stainless steel cost, had been elevated by supply chain constraints resulting from Covid epidemic considerations, now substantially relaxed, with a resulting expectation now of overall cost reduction) with a 20% variance, based on costs from past projects. The detailed engineering will allow the Company to reduce the variance in the budget. At the end of this process BacTech will actively pursue contractual concentrate feeds from local sources and quite possibly from neighboring countries such as Peru. Once the Company successfully completes the initial plant, BacTech will immediately begin work on Phase 2 of the project, a simple scalar expansion of capacity. The current collective output from the Ponce Enriquez area is estimated to be 200-250 tpd of gold/arsenic concentrates. BacTech signed an International Protection Agreement (“IPA”) that provides for international arbitration and a 12-year tax holiday. BacTech must complete Phase 2 to ensure the IPA is valid.

### **Permitting- Tenguel**

On October 3, 2022, the Company announced that it had received official ESIA (Environmental and Social Impact Assessment) approval from the Ministry of Environment, Water, and Ecological Transition. This key approval marks a significant milestone with the process taking approximately seven months.

In November 2023 BacTech was granted a Consultation Permit after working with the local community to explain the project. The Company received 100% support for the project.

### **Financing Tenguel - Silver Crown Royalty Transaction**

On October 28, 2024, BacTech announced the completion of the Royalty Purchase Agreement for the sale of a portion of its anticipated annual silver production with Silver Crown Royalties Inc. (“Silver Crown”). The silver will be produced as a byproduct of its planned bioleach gold production in Tenguel, Ecuador. On November 21, 2024, BacTech announced the closing of the transaction and regulatory approval of the transaction by the CBOE (Chicago Board of Options Exchange).

Under the terms of the agreement, Silver Crown acquires a royalty on BacTech’s planned bioleaching facility in Tenguel, Ecuador (the “Project”). The 10-year term for the annual royalty equates to the cash equivalent of the greater of (i) 90% of the silver processed at the facility, or (ii) minimum annual payment of 35,000 ounces of silver. Royalty payments become due on a quarterly basis after one year from the commencement of commercial operation of the Project. BacTech expects annual silver production of 40,000-45,000 ounces which represents 1.2% of total projected revenues from the Tenguel plant.

In exchange, Silver Crown will pay \$4,000,000 in common shares, issued in three (3) tranches:

- The first tranche, received upon closing of this transaction, included 100,000 common shares issued at a deemed value of \$10.00 share plus 100,000 share purchase warrants exercisable at \$16.00 for 3 years from closing;
- The second installment of 100,000 common shares issued at a deemed value of \$10.00 will be received upon BacTech successfully securing the Project financing for the building of the Tenguel plant; and
- The final instalment of 200,000 common shares issued at a deemed value of \$10.00 will be received once commercial production begins at the Project.

According to the terms of the contract there is no obligation to pay any royalty until the facility in Tenguel, Ecuador is built and commissioned for operations. The future contingent installments of shares to be received upon successfully completing future milestones have not been included in the financial statements as it is not certain these milestones will be reached.

The value of the 100,000 Silver Crown shares and warrants at the time the transaction closed had a fair market value of \$774,000 for the shares and \$59,000 for the warrants. As at December 31, 2024, the estimated fair market value of the 100,000 Silver Crown shares was \$708,000 and the warrants were \$47,000 and realized a loss of \$78,000 from the decrease in fair value at year end. As at June 30, 2025, the estimated fair market value of the 99,500 Silver Crown shares were \$631,825 and the warrants were \$20,000 and unrealized and realized loss of \$100,232.

## **Other Projects**

The Company continues to evaluate other projects in South America and Central America.

## **Research and Development – Patent Development- Treatment for Pyrrhotite**

### Patent Filing

On April 7, 2025, the Company announced it had filed a full patent for its “Zero Waste” initiative, setting a new standard in sustainable mining and resource recovery. This breakthrough innovation was validated through rigorous testing at Mirarco in Sudbury, Canada, under the direction of BacTech's Dr. Paul Miller.

BacTech’s patented process enhances the economic potential of mine waste by integrating bioleaching with a combination of proven downstream processing steps. This approach converts iron sulphides, such as pyrrhotite, into a suite of high-value, saleable products. The process not only aligns with global sustainability goals, it allows for the possibility of refurbishing legacy mine sites (such as an estimated 80 million tonnes in the Sudbury Basin, etc., source *Douglas Duffy et al 2015, U. of Toronto*) but also unlocks untapped revenue streams across multiple industries.

The Zero Waste process represents a paradigm shift in mineral waste management by extracting and monetizing valuable elements:

- **High-Purity Magnetite Iron:** A critical input for the Green Steel sector, this furnace- ready iron feedstock eliminates the carbon emissions associated with traditional iron ore mining and processing and eliminates the need to develop new open pit iron ore projects. It also holds high value for the pigment industry.
  - **Ammonium Sulphate Fertilizer:** A strategically vital agricultural input, BacTech’s process ensures independent production of this organic fertilizer, reducing reliance on petroleum-derived sulphur as well as stabilizing supply chains.
  - **Nickel, Copper, Cobalt and Rare Earths Recovery:** These strategic base metals are precipitated out as high-purity commodities, supporting critical minerals supply and the global shift toward electrification.
  - **Silicate Residue for Construction:** The remaining inert materials can be repurposed as backfill or incorporated into geopolymer-based construction materials, reducing waste disposal challenges.
- A Market-Ready, De-Risked Solution for Global Mining Waste

With a global inventory of 80 billion tonnes of tailings BacTech's Zero Waste patent presents a massive opportunity to transform mine waste into sustainable resources. The process has been de-risked by integrating well-established equipment and processing methods in a novel sequence, combined with BacTech's proprietary bioleaching expertise.

A key advantage of BacTech's approach is its ability to generate diverse and resilient revenue streams:

- Organic Fertilizer Production: The highest revenue contributor, addressing global agricultural demand while reducing price volatility risks.
- Magnetite Iron Sales: A scalable, high-value input for both Green Steel and pigment industries.
- Base Metal Recovery: Nickel, copper, and cobalt extraction provide strategic value.

This revenue diversification significantly enhances the financial viability of long-term mineral waste treatment projects, making them attractive to investors previously deterred by commodity price volatility.

Environmental Benefits are as follows:

- No roasting or smelting. It is a water-based leaching process with no gas emissions
  - Green chemistry: uses ammonia rather than acids or exotic chemicals
  - Organic fertilizer: produces ammonium sulphate via microbial extraction qualifying product as a premium organic fertilizer.
  - Custom iron feedstocks: tailored iron products reduce environmental impacts for steelmakers.
  - Converts mine waste into an alternative supply of metals and fertilizers lowering global mining demand and emissions.
  - Eliminates the need to generate acid for fertilizer production using sulphide minerals to generate organic fertilizer. This delinks fertilizer producers from petroleum-based sulphur supply chains.
- How Complex Is the Technology
- The process is simple and robust using standard tanks and settling systems under atmospheric pressure and moderate temperatures
  - Avoids complex machinery and high-risk technologies ensuring reliability and ease of operation
  - The process is designed for scalability and adaptability making it ideal for remote geography.
  - The technology is built on proven industrial technologies

Green Steel aims to eliminate carbon emissions in steel production by integrating renewable energy and waste-minimization technologies. BacTech's Zero Waste process directly supports this initiative by supplying high-grade magnetite iron, eliminating the need for carbon-intensive virgin ore mining. This presents a unique opportunity for steel producers to secure sustainable, low-carbon raw materials.

Beyond its economic and environmental benefits, BacTech's Zero Waste initiative contributes to resource security for governments and industries worldwide. By converting waste into valuable, domestically sourced commodities, the process reduces reliance on imported iron, fertilizer, and critical base metals, reinforcing supply chain resilience and national strategic resource independence. It also reduces the need for fresh mining and processing, given the quantity of usable metal and byproducts now available because of this invention.

## Development History

The Company announced on May 18, 2022 that Dr. [Nadia Mykytczuk](#), a leading academic in biomining technology and a member of BacTech's advisory board and CEO and President of MIRARCO Mining Innovation, would lead the development and building of a bioleach pilot plant to be located in Sudbury, Canada. Working closely with BacTech's scientific team, the pilot plant is for testing the Company's proposed approach to bioleaching pyrrhotite materials. The pilot plant will simulate a commercial bioleach process consisting of a cascade of reactors operating on a continuous basis. The plant will also include front and back-end equipment operating as separate units for capturing additional revenue sources beyond nickel-cobalt (e.g., elemental sulphur; iron as feed for steel making and oxidised residue conversion for construction materials).

On April 7, 2022, BacTech announced it had filed a provisional patent application documenting its proposed approach to bioleaching pyrrhotite materials. Pyrrhotite is a very volatile sulphide mineral containing nickel and cobalt values that oxidizes rapidly and produces large amounts of iron and sulphur components as by-products which are typically considered as wastes.

On August 14, 2023, BacTech announced that industry partner MIRARCO Mining Innovation will receive \$280,000 in grant money through the Mining Innovation Commercialization Accelerator (MICA) Network, a program focused on developing initiatives for the commercialization of mining technology to increase productivity and sustainability within the mining sector.

The funding will be used to help develop and complete pilot testing of BacTech's novel bioleaching process relevant to the treatment of pyrrhotite to advance the recovery of Nickel and Cobalt battery metals. Pyrrhotite is a very volatile sulphide mineral containing nickel and cobalt values that oxidizes rapidly and produces large amounts of Iron and Sulphur as by-products which are typically considered as wastes. Pyrrhotite tailings used in testing will be provided to MIRARCO by industry partner Vale.

On January 16, 2024, BacTech announced that MIRARCO had commissioned the bioleaching cascade reactor circuit. The MIRARCO bioleaching team, have completed two baseline campaigns to ensure that instrumentation, the solids suspensions, leaching kinetics, and solid/liquid handling are operating as designed. Final refinements are underway, and full-scale campaigns will be possible in the coming weeks.

On April 8, 2024, BacTech announced it had filed an expanded provisional patent application introducing new Intellectual Property (IP) and methods capitalizing on the inherent mechanisms of bioleaching. This process, aside from effectively extracting valuable metals like nickel, copper, and cobalt from pyrrhotite or pyrite tailings, uses eco-friendly technology and sustainable power sources to eliminate all waste during tailings reprocessing operations, delivering a first-ever zero-waste, low-carbon liberation, and extraction approach for valuable metals recovery.

The Company's updated Intellectual Property (IP) retains its original bioleaching approach to recovering metal values and producing multiple commodities from low grade mine wastes, but now introduces novel innovation to selectively convert soluble iron into iron metal using electrowinning for green steel making and produce ammonium sulphate fertilizer from the sulphur which is converted to acid during bioleaching.

While the patent application update offers two iron product options, BacTech will first explore direct electrowinning of iron from the bioleach solution for on-site iron metal production, potentially bypassing the need for manufacturing an iron feedstock for conventional iron/steel production and likely proving to be more environmentally sustainable and cost-effective. Further, following the sequential

precipitation of copper, nickel, and cobalt from the solution, the soluble ammonium sulphate, produced during the process, will be crystallized and packaged for sale as a premium organic fertilizer. Any residual water will be returned to the process, effectively leaving **zero-waste**.

## **Research and Development – Patent Development – Additional Patent**

BacTech Environmental Corp. has filed a provisional patent application to expand its zero-waste processing technology beyond bioleaching. This application builds on a full patent submission from April 2025, which focused on treating iron and acid streams generated by bioleaching.

BacTech believes this development has strong potential to improve mineral processing operations by recovering valuable materials from waste and advancing more sustainable practices. Over the next year, BacTech intends to seek industry partners to test and develop the technology across multiple applications, with the goal of advancing it to a full patent.

### Addressing Acidic Iron Streams

Acidic iron streams are a common byproduct of mineral processing and are typically treated with neutralizing agents, creating large volumes of waste sludge. BacTech's zero-waste approach offers a breakthrough by recovering valuable materials and turning iron and acid into marketable products. Instead of traditional neutralization methods, BacTech uses ammonia—a reagent increasingly important in the green economy. This method enables:

- Production of clean, usable iron and fertilizer products
- Recovery of additional contained metals
- Reduced consumption of neutralizing agents
- Lower infrastructure requirements
- Better water conservation, since water is not trapped in sludge and emerges cleaner and easier to manage under environmental standards

### Beyond Bioleaching – Next Generation Zero-Waste Technology

Unlike BacTech's original processes, this next-generation technology does not rely on bioleaching, making it adaptable to a wide range of mineral processing applications. Potential uses include:

- Copper and nickel sulphide processing
- Nickel laterite processing
- Heap and dump leaching for base metals
- Heavy mineral sands processing
- Phosphoric acid production
- Rare earth element leaching
- Manganese and uranium leaching
- Refractory gold pressure oxidation and oxidative leach processes

The method may also be applied to treat acidic runoff from legacy mine sites, offering long-term remediation benefits.

### Unlocking New Opportunities

This innovation not only transforms waste streams into valuable products such as iron and fertilizer, but also produces clean water, marking a major improvement over traditional methods that generate long-term waste liabilities.

Additionally, BacTech's process has the potential to enable new heap leaching opportunities for low-grade ore deposits that were previously uneconomical. Historically, these processes were hindered by large volumes of acidic, iron-rich solutions that required costly neutralization with lime or limestone and extensive waste storage.

This challenge has been particularly limiting in the pre-treatment heap leaching of low-grade refractory gold ores, where the cost of managing soluble iron and acid made recovery uneconomic. By eliminating or reducing these barriers, BacTech's technology can economically unlock new sources of metal production.

### **C. Results of Operations**

This analysis of the results of the Company's operations should be read in conjunction with the Company's condensed interim consolidated financial statements for the six months ended June 30, 2025.

#### **Revenues**

The Company has no revenue or sources of recurring revenues.

#### **Operating and Administrative Costs**

Operating and administrative expenses marginally decreased to \$626,554 for the six months ended June 30, 2025, from \$795,541 in the same period last year. Significant components of this expense include:

1. Salaries and management fees decreased to \$271,099 for the six months ended June 30, 2025, from \$292,664 in the same period last year. These costs are for the salaries and management fees for the executive team and in country management team in Ecuador. The difference between the periods is due to the timing of certain payroll expenses in the prior year. In the current period all expenses have been accrued and not paid.
2. Share-based payments, as explained in note 11 to the condensed interim consolidated financial statements, were \$Nil for the six months ended June 30, 2025, and \$123,730 for year ended December 31, 2024. Yearly fluctuations in stock option expense are dependent on several factors including, but not limited to, number of options issued, valuation of options, vesting period and timing. For the year ended December 31, 2024, there were 2,200,000 options granted. For the six months ended June 30, 2025, no new options were granted.
3. Professional fees increased to \$190,860 for the six months ended June 30, 2025, from \$79,805 in the same period last year. The higher fees in the current year is due to an increase in business and financing development professional fees relating to the Ecuador project, increase in legal fees relating to patent development and patent filings, as well as business development fees involving the new patents. These types of expenses are deemed as indirect expenses for legal, strategic advisory, and consulting and not included in project costs.
4. Shareholder information and filing fees expenses decreased to \$72,014 for the six months ended June 30, 2025, from \$263,744 in the same period last year. These types of expenditures have been reduced as a result of limited cash resources. The trend is expected to continue for the remainder of the year.

#### **Project Expenditures**

Project expenditures for the first six months ending June 30 2025 focused on the completion of the patent filing of the zero waste patent.

No further project related expenditures for the Ecuador project were not incurred. Overhead and mgt cost for Ecuador are included in the operating and administrative items. The status of the Ecuador project still remain with permitting is now 95% complete and the detailed engineering work which is 90% complete.

### **Finance Charges and Debentures**

Finance charges are made up of interest charged by suppliers and vendors, loans payable and the debentures payable.

Between April 19, 2017, and September 26, 2017, BacTech completed three tranches of a debenture financing for gross proceeds of \$445,000. This debenture included bonus interest in the form of common shares. This debenture has generated interest expense of \$6,000 for the six months ended June 30, 2025. The remaining principal portion of these debentures is \$100,000.

On April 25, 2022, BacTech completed a debenture financing for gross proceeds of \$1,000,000, then a second tranche of 250,000 was completed on March 2023 followed by a third tranche of \$150,000 in September 2023. This debenture has generated interest expense of \$24,283 and accretion expense of \$77,780 for the six months ended June 30, 2025. This convertible debenture maturity date has been extended to September 30, 2025.

Included in accrued liabilities is a demand loan of \$120,000 from an investor with fixed interest of \$20,000 which is accrued and reported under finance charges. The loan was repayable as of May 31, 2024 but has been extended to September 30, 2025.

### **Cash Flow Comparison**

Cash flow from financing activities: BacTech completed three tranches of a private placement for gross proceeds of \$1,266,700 through the issuance of 25,334,000 common shares and warrants.

Cash flow from operating activities: This represents the cash paid for overhead expenditures and project expenditures. These payments were financed from the existing cash reserves and private placement.

## **D. Liquidity and Capital Resources**

At June 30, 2025, the Company had cash of \$456,163 and a working capital deficit of \$3,446,848.

On April 4, 2025, the Company announced it had entered into an agreement, dated March 28th, 2025, with the sole holder of a convertible debenture including principal of \$1.4M and interest, and an interim demand loan of \$120,000, totaling an obligation of \$1,810,186. The individual has agreed to amend the terms of the convertible debenture and demand loan. The amendments will have the entire obligation extended to September 30, 2025; at which time it will be converted to equity at revised conversion price. In addition, interest generated from the obligation will cease to be accrued effective March 15, 2025. The current conversion price of 15 cents per share for the convertible debenture has now been revised to an exercise price of 10 cents for the entire obligation. To retire the obligation, BacTech would be required to issue 18,101,868 shares for the redemption of the obligation and 18,101,868 common share purchase warrants at an exercise price of \$0.20 and will have a two-year term from the conversion date. The debenture holder has the option to, and if successful, arrange the US\$20.0M financing for the proposed bioleach facility in Ecuador by September 30, 2025. If the debenture holder is successful, the conversion price for the obligation will be revised to \$0.065. In this case BacTech would be required to issue 27,849,028 common

shares and the same number of common share purchase warrants at an exercise price of \$0.13 and will have a two-year term from the conversion date to retire the obligation.

On March 4, 2025, March 28, 2025 and May 30, 2025, BacTech completed three tranches of a private placement for gross proceeds of \$1,266,700 through the issuance of 25,334,000 units. Each unit consists of one common share of BacTech and one, two-year warrant exercisable at \$0.10. The warrant includes an acceleration clause. In the event the common shares trade at or above \$0.20 for 10 consecutive trading days, as indicated on the CSE Exchange, the Company shall have given notice by way of a press release that the Warrants' expiry date will expire 20 trading days thereafter.

<b>Share Capital</b>				
	<b>June 30, 2025</b>		<b>December 31, 2024</b>	
	<b>Number of shares</b>	<b>\$ Amount</b>	<b>Number of shares</b>	<b>\$ Amount</b>
Balance, beginning of period	193,035,834	10,494,623	193,035,834	10,494,623
Shares issued from private placements	25,334,000	1,266,700	-	-
Less share issue costs				
Fair value of warrants and debenture instruments	-	(381,213)	-	-
Share issue costs	-	(23,681)	-	-
Balance, end of period	218,369,834	11,356,429	193,035,834	10,494,623

For a description of the outstanding warrants and stock options that are outstanding to purchase common shares of the Company, please refer to Note 9 - Share Capital, Note 10 – Warrant Reserve, and Note 11 – Stock Options of the condensed interim consolidated financial statements.

## **E. Quarterly Information**

Selected quarterly information for the most recently completed quarter is presented below in Canadian currency (\$), and in accordance with International Financial Reporting Standards.

	<b>2025</b>		<b>2024</b>				<b>2023</b>	
	<b>Q2</b>	<b>Q1</b>	<b>Q4</b>	<b>Q3</b>	<b>Q2</b>	<b>Q1</b>	<b>Q4</b>	<b>Q3</b>
	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>	<b>\$000's</b>
Ecuador Direct project Expenditures	-	-	(20)	-	-	(32)	(95)	(14)
Net Loss from operations	(399)	(470)	(503)	(293)	(498)	(475)	(684)	(381)
Other income	-	-	933	-	-	-	82	-
Loss per share (0.00)	0.00	(0.005)	0.005	0.00	(0.01)	0.00	(0.005)	(0.005)

## **F. Off-Balance Sheet Arrangements**

The Company had no off-balance sheet arrangements as of June 30, 2025.

## **G. Financial Instruments**

The Company does not have any specialized financial arrangements to minimize its investment risk, currency risk or commodity risk.

## **H. Outlook**

With the breakout of war between Ukraine and Russia, global equity markets have become extremely volatile. The resource sector has relatively fallen from favour with investors making capital raising in the sector more difficult than it has traditionally been for junior companies in the resource sector and in the remediation and reclamation of mine waste and tailings. There can be no assurance that the Company will be successful in attracting either new financing or new opportunities to apply its technology.

## **I. Risks**

The Company's strategy emphasizes developing projects to leverage its intellectual property to create shareholder value. This strategy has required, and continues to require, significant financings, and is subject to risks associated with mineral prices, mineral resources, and operations. Due to the nature of the Company's business, the present stage of development of its projects, and the constraints placed upon the Company's ability to move forward by its current liquidity situation, readers should carefully review and consider the financial, environmental and operational risk factors affecting the Company.

### **Need for Additional Financing**

The Company currently has no source of operating cash flow, and there is no assurance that additional funding will be available to the Company as and when needed for further assessment and evaluation, as well as development of its projects, or to fulfill its obligations to its existing creditors. Volatile markets may make it difficult or impossible for the Company to obtain adequate debt or equity financing in the future, or on terms acceptable to the Company. The failure to obtain additional financing could force the Company to liquidate its assets to satisfy creditor claims.

### **Dependence on Management**

The Company's business and operations are dependent on recruiting and retaining the services of a small number of key members of management and qualified personnel. The success of the operations and activities of the Company are dependent, to a significant extent, on the efforts and abilities of the management of the Company. Investors must be willing to rely, to a significant extent, on the discretion and judgment of the management of the Company. Furthermore, while the Company believes that it will be successful in attracting qualified personnel and retaining its current management team, there can be no assurance of such success. The Company does not maintain key employee insurance on any of its employees.

### **Competition**

The Company competes with other engineering companies for the acquisition of mineral rich mine tailings and mine waste that can be developed economically. The Company competes with other engineering companies that have greater financial and technical resources and experience. Such competition may result in the Company being unable to acquire desired properties, to recruit or retain qualified employees, or to acquire the capital necessary to fund its operations and develop its properties. The inability of the Company to compete with other engineering companies for these resources would have a material adverse effect on the Company's results of operations and business.

Currently, the Company's bioleaching technology does not operate in an overly competitive marketplace; however, the Company anticipates that it may face increased competition in the future, as advanced technologies become available. While management believes that the Company's technology is more advanced, commercially proven and better situated than its competitors, there can be no assurance that the Company will be able to effectively compete with companies who have or may develop similar technologies and may possess greater financial resources and technical facilities. Competitive pressures, or

the inability of the Company to successfully license its technology on terms that are acceptable, may have a material adverse effect on the Company's business, operating results and financial condition.

### **Protection of Intellectual Property Rights**

The Company is dependent not only on its ability to protect its intellectual property rights, but also upon the protection of rights of third parties from which it may license intellectual property rights. The Company currently holds patent rights and has pending patent applications. In addition, the Company relies upon certain other technologies, ideas; know how, secrets or other information, which it may not be able to protect. Notwithstanding precautions the Company may take to protect its rights, third parties may copy or obtain and use the Company's proprietary and licensed or optioned technologies, ideas, know how, secrets and other proprietary information without authorization or independently develop technologies similar or superior to the Company's proprietary and licensed or optioned technologies. The Company enters confidentiality and restriction on use agreements with its employees, strategic partners, and others; however, these agreements may not provide meaningful protection of the Company's proprietary and licensed or optioned technologies or other intellectual property in the event of unauthorized use or disclosure. Policing unauthorized use of such technologies and intellectual property is extremely difficult, and the cost of enforcing the Company's rights through litigation may be prohibitive. Further, the laws of jurisdictions other than Canada and the United States may not provide meaningful protection of the intellectual property rights of the Company and such third parties.

### **Obtaining and Enforcing Patents**

The patent positions of technology firms, including the Company, are generally uncertain and involve complex legal and factual questions. The Company's success in utilizing and licensing its bioleaching technology will depend, in part, on its ability to obtain, enforce and maintain patent protection for its technology worldwide. The Company cannot be assured that patents will issue from any pending applications or that claims now or in the future allowed under issued patents will be sufficiently broad to protect its technology. In addition, no assurance can be given that any patents issued to or licensed by the Company will not be challenged, invalidated, infringed, or circumvented, or that the rights granted thereunder will provide continuing competitive advantages to the Company. Furthermore, there is no assurance that the patents of others will not impede the ability of the Company to do business or that others will not independently develop similar products or technologies, duplicate any of the Company's products or technologies or, if patents are issued and licensed to the Company, design around the Company's patented product or technology.

Accordingly, the Company may not be able to obtain and enforce effective patents to protect its proprietary rights from use by competitors, and the patents of other parties could require the Company to stop using or pay to use certain intellectual property, and as such, the Company's competitive position and profitability could suffer as a result.

### **Claims of Infringement of Proprietary Rights of Others**

The Company is not currently aware of any claims asserted by third parties that the Company's intellectual property infringes on their intellectual property. However, in the future, third parties may assert a claim that the Company infringes on their intellectual property. As a result, there is a risk that the Company, or one or more of its licensors, may become subject to litigation alleging that the products or technologies of the Company or its licensors infringe on the proprietary rights of third parties. Whether or not the products or technologies infringe on the proprietary rights of third parties, the Company or such licensors could incur significant expenses in defending allegations of infringement of proprietary rights. Further, the Company or such licensors may be required to modify their products or obtain licenses for intellectual property rights because of any alleged proprietary infringement which may not be achievable on commercially reasonable terms, in a timely manner, or at all, any of which could adversely affect the Company's business revenue, results from operations and financial condition.

### **Conflicts of Interest**

Certain of the Company's directors and officers may serve as directors or officers of other reporting companies, companies providing services to the Company, or companies in which they may have significant shareholdings. To the extent that such other companies may participate in ventures in which the Company may participate, the directors of the Company may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. If such a conflict of interest arises at a meeting of the Company's directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms.

From time to time, several companies may participate in the acquisition, assessment and evaluation, and development of mineral reclamation properties, thereby allowing for the participation in larger programs, permitting involvement in a greater number of programs and reducing financial exposure in respect of any one program. It may also occur that a particular company will assign all or a portion of its interest in a particular program to another of these companies due to the financial position of the company making the assignment. In accordance with the laws of Canada, the directors of the Company are required to act honestly, in good faith and in the best interests of the Company. In determining whether the Company will participate in a program and the interest therein to be acquired by it, the directors will primarily consider the degree of risk to which the Company may be exposed and its financial position at the time.

### **J. Related Party Transactions**

Please refer to Note 7 of the condensed interim consolidated financial statements for the six months ended June 30, 2025.

### **K. Other MD&A Requirements**

Additional information related to BacTech Environmental Corporation may be found on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca). For further detail, see BacTech's Financial Statements. Additional information about BacTech can also be found on its website ([www.bactechgreen.com](http://www.bactechgreen.com)) and [www.sedar.com](http://www.sedar.com).