



MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE YEAR ENDED DECEMBER 31, 2021

The following management's discussion and analysis ("MD&A") of financial results is dated May 2, 2022 and reviews the business of BacTech Environmental Corporation (the "Company" or "BacTech"), for the year ended December 31, 2021, and should be read in conjunction with the accompanying annual consolidated financial statements and related notes for the year ended December 31, 2021. This MD&A and the accompanying annual consolidated financial statements and related notes for the year ended December 31, 2021 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 by REBgold Corporation ("REBgold" and formerly known as BacTech Mining Corporation) 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.

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.

B. Mineral Processing

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. 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. The concentrates are subject to a 3% export royalty 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, 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.

Plans for Ecuador

<i>Ecuador</i>	<i>Q1 2022</i>	<i>Q2 2022</i>	<i>Q3 2022</i>	<i>Q4 2022</i>
<i>Project</i>				
<i>Bioleach Test Work</i>	<i>Completed</i>			
<i>Feasibility Study</i>	<i>Completed</i>			
<i>Detailed Engineering</i>	<i>In Progress</i>			
<i>Project Financing</i>	<i>In Progress</i>			
<i>Permitting</i>		<i>In Progress</i>		
<i>Construction</i>			<i>In Progress</i>	

In the above chart we can see that the first step in the process involves ear-marking suitable concentrates for which a detailed bioleach test program will be undertaken. The Company collected samples from 6 different mines in the area from which 3 were selected as candidates for bioleaching. These samples were assayed for gold and arsenic content before being subjected to bioleach test work carried out at ALS Labs in Perth, Australia. A first step in the process was the completion of a diagnostic leach study to get a better understanding of the leachability of the gold. On April 21, 2021, BacTech announced that it had achieved gold recoveries of over 99%.

Feasibility Study for Ponce Enriquez

On December 16, BacTech announced and released the executive summary results of its 3rd 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 to be 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 updated executive summary results 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:

- 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.

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 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.

Next Steps

Using the flow sheet developed by the BFS, the final 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.

BacTech has an option to purchase a parcel of land to be used for the operations in Tenguel. Applications will be made to the Ministries of Mining, Water and Environment, for approval of a water usage license, and tailings approval for the post bioleach residues.

We estimate that the cost to get the project to a “shovel ready” state will be approximately US\$800,000. The actual budget for construction, procurement and materiel is estimated to be \$US 17M with a 20% variance, based on costs from past projects. The detailed engineering will allow the company to reduce the variance in the budget. The estimated time to complete the pre-construction studies is approximately 12 months with the permitting being the longest part of the process. 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, it is

conceivable we will attract enough feed to exceed the plant's capacity. The current output from the Ponce Enriquez area is estimated to be 200-250 tpd of gold/arsenic concentrates. This could lead to a straight-forward expansion as BacTech's plants are modular in design.

Bolivia

On May 24, 2016, BacTech announced that its 98% owned Bolivian subsidiary, EMABSA, had signed an Association Contract with COMIBOL, the state mining company of Bolivia. On September 15, 2016, the Bolivian government by Law N degrees 831, approved and ratified the agreement.

On September 9, 2019, BacTech announced that it will not proceed with the reclamation of the Telamayu tailings project in Bolivia. After completing metallurgical test work on the project and evaluating the economics of the project it was decided that the project would be too difficult to finance. It was estimated that the project would cost approximately \$US 9M.

The inability to recover tin into a suitable concentrate severely hampered the economics of the project. Given the fact that the value of the tin made up roughly 50% of the value of the contained metal in the tailings, financing the project was deemed to be too difficult.

Other Projects

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

On May 15, 2019, BacTech announced that it had signed a letter of intent with GMR Inc. ("GMR") to license BacTech's proprietary bioleach technology. BacTech joins Dundee Sustainable Technologies (CSE: DST) as a technology partner with GMR to develop a potential solution for the remediation of the Gold Residual Stockpile in Snow Lake, Manitoba. Through this agreement, BacTech received a \$20,000 cash payment as an advance for the right to utilize the BacTech proprietary bioleach technology on the Gold Residual Stockpile in Snow Lake, Manitoba. In addition, BacTech will earn 3% undivided equity interest in the net income of the project. GMR is relying on BacTech's historical research conducted in 2011 and 2012 that showed oxidation rates of 95% and gold recovery of 88.6% on material obtained from the arsenic stockpile.

Colombia

On August 10, 2020, the Company announced that it has agreed to participate in an evaluation of mine tailings near Medellin, Colombia. The grades of gold and platinum were very high compared to normal tailings grades. Even though MetalTec LLC, the prospective partner company, provided assay results from ALS Laboratories, it was decided that an independent contractor should be engaged to conduct an arm's length study of the tonnage and grade of contained metal. The tailings also contain 1% arsenic. There has been little development of this project due to Covid-19 and unstable political conditions in Colombia.

East Africa

On April 26, 2021, the Company announced that it has executed a strategic Memorandum of Understanding ("MOU") with Curatio Gold Limited ("Curatio") to source refractory ores for processing from Eastern Africa. Curatio was recently established to provide funding to support improved metallurgical processing, with the goal of eliminating the dangerous and environmentally unfriendly use

of mercury for gold liberation. The group will initially focus its efforts in East Africa on an active Artisanal and Small-scale mining (“ASM”) industry. The principal founders of Curatio have many years of technical mining expertise and are well versed in supporting small and medium-sized businesses in Africa. Curatio CEO Doug Ramsey, R.P.Bio., is a biologist with expertise in environmental mercury concerns and four decades of experience in solving mining related environmental issues. Prior to founding Curatio with Mark Francis, Doug was CEO and VP Sustainability with a junior miner and a consultant to industry and government

C. Selected Annual Information

The following table presents selected financial information in Canadian dollars (\$), for each of the three most recently completed financial years and has been prepared in accordance with International Financial Reporting Standards (“IFRS”).

	2021	2020	2019
	\$	\$	\$
License fee	Nil	Nil	20,000
Gain from forgiveness of debt	Nil	1,219,674	Nil
Gain from debenture conversion	Nil	163,162	Nil
Net income (loss) for the year	(1,596,395)	861,145	(1,084,611)
Net income (loss) per share	(0.01)	0.01	(0.01)
Total assets ⁽¹⁾	234,969	33,673	34,161
Total current liabilities	1,471,031	2,653,880	4,053,596

⁽¹⁾The Company does not capitalize any of its developmental expenditures notwithstanding that they may have enduring value in future operations.

The Company does not generate any recurring revenue at this time except for the one time advance payment for \$20,000 received in fiscal 2019 as a participation fee for a project in Snow Lake, Manitoba. The funding of the Company’s operations since inception in December 2010 has been from the exercise of warrants and options, equity private placements, debentures, bridge loans and notes, which have been used for general working capital, advancing the projects Ecuador, as well as pursuing other projects of interest.

The increase in liabilities from 2015 through to 2019 is the result of limited funds available to fund project initiatives and corporate expenditures. A significant portion of accounts payable in 2019 and 2018 related to accrued salaries and consulting fees to officers and managers of the Company.

In fiscal 2020, certain officers and a consultant of the Company forgave the debts owing to them totalling \$1,219,674 from accrued salaries and management fees effective June 30, 2020. As a result, no salaries or fees were earned in the six months ended June 30, 2020 and all related debts owing to them from accrued salaries from previous years in the amount of \$1,219,674 were written down to \$Nil and resulted in a gain from forgiveness of debt for the year ended December 31, 2020. In addition, during 2020, a total of \$287,000 of debentures and related accrued interest of \$120,480 were settled through the issuance of common shares of the Company. From these two transactions, involving the forgiveness debt for salaries and wages owing and the settlement of debentures and interest payable, the outstanding total current liabilities have been significantly reduced.

In fiscal 2021, the Company reached agreements with 83.1% of its current debenture and loan holders to convert \$642,500 of the Company’s outstanding debt and \$557,585 accrued interest into 12,000,854 Units, comprised as above. Each Unit, priced at \$0.10 per Unit, is comprised of one common share and one common share purchase warrant in the capital of the Company. Through additional and separate

transactions, the Company repaid additional debentures totaling \$100,000 in principal and \$27,300 accrued interest.

D. Results of Operations

This analysis of the results of the Company's operations should be read in conjunction with the Company's annual consolidated financial statements for the year ended December 31, 2021.

Revenues

The Company has no revenue or sources of recurring revenues.

Operating and Administrative Costs

Operating and administrative expenses increased to \$1,115,435 for the year ended December 31, 2021 from \$295,373 last year. Significant components of this expense include:

1. Salaries and management fees increased to \$178,509 for the year ended December 31, 2021 from \$81,755 last year. These costs are for the salaries and management fees incurred directly in managing and operating the business of the Company.
The officers and a consultant of the Company forgave the debt owing to them from accrued salaries and management fees effective June 30, 2020. As a result, no salaries or fees were earned in the six months ended June 30, 2020 and all related debt owing to them from accrued salaries from previous years were written down to \$Nil. Common share stock options were issued as compensation for the cancellation of the accrued salaries;
2. Share-based payments, as explained in note 12 to the annual consolidated financial statements, were \$398,300 for the year ended December 31, 2021 and \$74,900 for year ended December 31, 2020. 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, 2020, the Company granted 2,500,000 options (primarily in consideration of the forgiveness of the debt as explained above). For the year ended December 31, 2021, the Company granted 4,100,000 options.
3. Professional fees increased to \$322,907 for the year ended December 31, 2021 from \$57,570 last year. The increase in professional fees is due to an increase in activity pursuing the development of the Ecuador project. These expenses are indirect expenses (legal, strategic advisory and consulting) and not included in project costs.
4. Travel costs increased to \$32,356 for the year ended December 31, 2021, from \$655 last year. For Fiscal 2020, the travel expenditures were reduced and kept to a minimum because of the current pandemic. With the easing of the travel restrictions, travel expenditures have increased and were solely focused on Ecuador project in the current year; and
5. Shareholder information and filing fees expenses increased to \$135,865 for the year ended December 31, 2021, from \$53,600 last year. This type of expense was reduced, starting in fiscal 2019, and the trend has continued until mid 2021. Additional expenditures have been incurred to update the company video in multiple languages, improve website and improve distribution of news flow to European investors.

Project Expenditures

The project expenditures were for the diagnostic and bioleaching test work for the Ecuador project, as well the feasibility study that was initiated in the current period.

Finance Charges and Debentures

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

For the loan payable of \$150,000, interest expenses for the year ended December 31, 2021 was \$87,217 (2020 -\$55,500). This loan accrued interest at a rate of 1.5% per month compounded monthly. The repayment of loan payable was completed on November 1, 2021 through the issuance of 4,764,970 common shares and 4,764,970 warrants to settle the outstanding promissory note of \$150,000 and accumulated interest and penalty interest accumulated to the settlement date of \$326,497.

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 \$36,000 and accretion expense of \$2,865 for the year ended December 31, 2021. In fiscal 2020, \$20,000 of the debenture holders formally accepted the terms to extend the maturity date. A total of 496,000 warrants were issued at a value of \$6,072. On November 1, 2021, the Company settled the repayment of certain debentures through the issue of 3,564,822 common shares and 3,564,822 warrants to settle the outstanding debenture face value of \$232,500 and accumulated interest \$123,982. In separate transactions the Company completed \$112,500 worth of redemptions of the debentures as of December 31, 2021. The remaining principal portion of these debentures is \$100,000 as of December 31, 2021.

On November 29, 2017, BacTech completed a debenture financing for gross proceeds of \$100,000 and accompanied it by the issuance of 400,000 common shares, which are included as a bonus equity interest and NSR of 0.50% in relation to the project in Bolivia. The debenture has a 2-year term and pays 12% interest. This debenture has generated interest expense of \$9,991 and accretion expense of \$13,600 for the year ended December 31, 2021. In fiscal 2020, the debenture holder formally accepted the terms to extend the maturity date. A total of 2,480,000 warrants were issued at a value of \$21,300. On November 1, 2021, the Company settled the repayment of this debenture through the issue of 1,470,795 common shares and 1,470,795 warrants to settle the outstanding debenture face value of \$100,000 and accumulated interest \$47,079.

On May 14, 2018, BacTech completed a debenture financing for gross proceeds of \$85,000. The debentures were accompanied by the issuance of 340,000 common shares which are included as a bonus equity interest and NSR of 2.50% in relation to the project in Bolivia. The debenture has a 2-year term and pays 12% interest. This debenture has generated interest expense of \$8,561 and accretion expense of \$19,530 for the and year ended December 31, 2021. The debenture holders reached their maturity date in fiscal 2020. In fiscal 2020, the debenture holders formally accepted the terms to extend the maturity date. A total of 2,108,000 warrants were issued at a value of \$28,400. On November 1, 2021, the Company settled the repayment of this debenture through the issue of 1,203,786 common shares and 1,203,786 warrants to settle the outstanding debenture face value of \$85,000 and accumulated interest \$35,379.

On May 1, 2019, the Company closed a \$150,000 Senior Bridge Debenture. The Senior Bridge Debenture was for one year and will pay 12% interest on redemption. This debenture included warrants. This debenture has generated interest expense of \$10,440 and accretion expense of \$40,710 for the year ended December 31, 2021. The Senior Bridge Debentures holders reached their maturity date in fiscal

2020. In fiscal 2020, the debenture holders formally accepted the terms to extend the maturity date. A total of 3,360,000 warrants were issued at a value of \$61,070. BacTech repaid the principal balance of \$75,000 plus interest to one of the convertible debentures holders that was completed on May 1, 2019. On November 1, 2021, the Company settled the repayment of the remaining debenture through the issue of 996,480 common shares and 996,480 warrants to settle the outstanding debenture face value of \$75,000 and accumulated interest \$24,648.

Cash Flow Comparison

Cash flow from financing activities: For the year ended December 31, 2021, the Company completed three equity private placements for gross proceeds of \$606,307 from the exercise of options and warrant received proceeds of \$746,307, as well as repaid a debenture principal amount of \$75,000.

Cash flow from operating activities: This represents the cash paid for overhead expenditures and project expenditures. These payments were financed from the sources of cash in financing activities.

E. Liquidity and Capital Resources

At December 31, 2021, the Company had cash of \$64,285 and a working capital deficit of \$1,196,062.

On April 21, 2022, the Company announced that it has arranged for a \$1.0 million debenture with an existing strategic investor. The terms of the convertible debentures call for a conversion at \$0.15 per share, an annual interest rate of 8% and a term of 18 months.

On March 1, 2022, the Company announced it had closed the first tranche of its previously announced financing for gross proceeds of \$1.21million at a price of \$0.20 per Unit . On April 21, 2022, the Company announced it had received an additional \$900,000 in subscription agreements for a second tranche, of this financing which will be closed in the coming week. The issue price of the Units was \$0.20 per unit. Units are comprised of (i) one (1) common share in the capital of the Company (or its successor) (hereinafter a "Share" and collectively, the "Shares"), (ii) one (1) transferable common share purchase warrant (each, a "Warrant" and collectively, the "Warrants"). Each whole Warrant shall entitle the holder thereof to acquire one (1) additional common share (each a "Warrant Share") in the capital of the Company (or its successor) at a price of \$0.30 per Warrant Share until the date that is twenty-four (24) months from the Closing Date (as defined herein). If the holder of the warrant exercises the warrant in the first 6 months they will participate in an additional royalty to be issued by the Company. Only the people who exercise the warrant would participate in the new royalty to be issued. And (iii) a Royalty Certificate representing the Royalty Incentive as defined below; the Royalty Certificate may be transferred subject to the approval of the Company.

On November 1, 2021, BacTech announced that it had reached agreements with 83.1% of its current debenture and loan payable holders to convert \$642,500 of the Company's outstanding debt and \$557,585 accrued interest into 12,000,854 Units. Each Unit, priced at \$0.10 per Unit, is comprised of one common share and one common share purchase warrant, exercisable at \$0.20 for 2 years, in the capital of the Company.

On October 15, 2021, BacTech announced it had closed its previously announced private placement for gross proceeds of \$331,250 through the issue of 3,312,500 Units. Each Unit, priced at \$0.10 per Unit, is comprised of one common share and one common share purchase warrant in the capital of the Company.

During the year ended December 31, 2021, a total of 1,800,000 common share stock options were exercised at various prices providing gross proceeds of \$140,000 to the Company. Furthermore, a total of 11,631,157 common share purchase warrants were exercised providing gross proceeds of \$581,559 to the Company.

On February 2, 2021, BacTech announced the closing of the second round of financing using the Regulation “A” exemption. In this round the Company raised US\$94,500 (\$121,577) at US\$0.015 per share through the issuance of 6,300,000 common shares.

On February 5, 2021, BacTech announced that it closed the previously announced, non-brokered private placement. A total of \$153,500 was raised through the issuance of 5,116,666 common shares priced at \$0.03 per share. Four insiders of BacTech participated in this financing for a total of \$39,000 resulting in the issuance of 1,300,000 common shares.

On July 15, 2020, the Company’s Tier 2 Regulation A offering memorandum originally filed on April 2, 2020, with the United States Securities and Exchange Commission (SEC) was qualified. The share price for the first tranche is US\$0.0150. On September 15, 2020, the Company closed its first tranche for gross proceeds US\$50,000 through the issuance of 3,333,333 common shares.

On February 13, 2020 and March 20, 2020, the Company completed a private placement for total gross proceeds of \$64,000 through the issue of 4,266,667 units at a price of \$0.015 per unit. Each unit consisted of one common share of the Company and one full common share purchase warrant exercisable at \$0.05 for 2 years.

Share Capital				
	December 31, 2021		December 31, 2020	
	Number of shares	\$ Amount	Number of shares	\$ Amount
Balance, beginning of period	116,914,372	5,787,147	101,153,756	5,470,659
Shares issued from private placements	5,116,666	153,500	4,266,667	64,000
Shares issued from private placements	3,312,500	175,600	-	-
Shares issued from Reg A financing	6,300,000	121,557	3,333,333	65,880
Shares issued from debenture conversion	680,000	71,400	-	-
Shares pursuant to exercise of warrants and options	13,431,167	721,559	8,160,616	244,819
Shares issued for repayment of debentures and Loans payable	12,000,854	632,425	-	-
Fair value of warrants and options	-	184,725	-	-
Less share issue costs				
Fair value of warrants	-	-	-	(29,850)
Share issue costs	-	(17,111)	-	(28,361)
Balance, end of period	157,755,559	7,830,802	116,914,372	5,787,147

For a description of the outstanding warrants and stock options that are outstanding to purchase common shares of the Company, please refer to Note 11 - Share Capital, Note 12 – Warrant, and Note 13 – Stock Options of the annual consolidated financial statements.

F. 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.

	2021				2020			
	Q4 \$000's	Q3 \$000's	Q2 \$000's	Q1 \$000's	Q4 \$000's	Q3 \$000's	Q2 \$000's	Q1 \$000's
License fees	-	-	-	-	-	-	-	-
Other items	-	-	-	-	-	163	1,220	-
Net Loss for the period	(519)	(427)	(252)	(398)	(159)	1	1,191	(172)
Loss per share (0.00)	(0.005)	(0.005)	0.00	0.00	0.00	0.00	0.01	0.00

G. Fourth Quarter

The trend in increasing administrative and project related expenses continued through the fourth quarter as the Company continued to advance the project in Ecuador .

H. Off-Balance Sheet Arrangements

The Company had no off-balance sheet arrangements as of December 31, 2021.

I. Financial Instruments

The Company has not entered into any specialized financial arrangements to minimize its investment risk, currency risk or commodity risk.

J. 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.

K. 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.

COVID-19 Pandemic

The Company is subject to various market, political and regulatory constraints as a result of the COVID-19 situation and additional business and financial risks that may result therefrom. The duration of the COVID-19 outbreaks and the resultant travel restrictions, social distancing, Government response actions, business closures and disruptions, can all have an impact on the Issuer's operations and access to capital. There can be no assurance that the Issuer will not be impacted by adverse consequences that may be brought about by the COVID-19 pandemic on global financial markets, share prices and financial liquidity and that may severely limit the financing capital available to the Company. While it appears that the pandemic is continuing longer than might originally have been expected, adaptation to the new requirements of a pandemic affected world seems generally to be taking place. The suggestion of general availability of vaccines in Canada with a good vaccination rate, but very different around the world and, therefore, continued uncertainties, but with some surprisingly good economic recoveries.

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.

L. Related Party Transactions

Please refer to Note 7 of the annual consolidated financial statements for the year ended December 31, 2021.

M. Other MD&A Requirements

Additional information related to the Company is filed electronically on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com.