

# **ANNUAL INFORMATION FORM**

For the year ended December 31, 2021

March 31, 2022

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# DESCRIPTION

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## **PRELIMINARY NOTES**

## **Effective Date of Information**

All information in this Annual Information Form ("**AIF**") is as of December 31, 2021 unless otherwise indicated. In this AIF, unless the context otherwise requires, the terms "we", "us", "our", and similar terms as well as references to "Trevali", "Company" or "Group" refer to Trevali Mining Corporation and its direct and indirect subsidiaries.

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

All statements contained in this AIF that are not historical facts are "forward-looking information" within the meaning of the Canadian securities legislation and "forward-looking statements" within the meaning of Section 27A of the *United States Securities Act of 1933*, as amended, Section 21E of the *United States Exchange Act of 1934*, as amended, the *United States Private Securities Litigation Reform Act of 1995*, or in releases made by the United States Securities and Exchange Commission, all as may be amended from time to time that, among other things, involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In this AIF, forward-looking statements include, but are not limited to, statements with respect to the future price of metals, the estimation of mineral reserves and mineral resources, the realization of mineral reserve estimates, changes in mineral resources and conversion of mineral resources to proven and probable mineral reserves, mine plans, the timing and amount of estimated future production, metal grades, achieving projected recovery rates, anticipated production rates and mine life, recovery rates, operating efficiencies, costs and expenditures, including capital and operating costs, costs and timing of the development of new deposits, offtake obligations, targeted cost reductions, exploration and expansion potential and success of exploration activities, permitting and certification timelines, commodity prices, currency fluctuations, requirements for additional capital, government regulation of mining operations, environmental matters, anticipated liabilities regarding site closure, employee benefits, unanticipated reclamation expenses, title disputes or claims, limitations on insurance coverage, the timing and possible outcome of pending litigation, the goals, objectives and general expectations of management with respect to future operational and/or financial results, including, without limitation, an investment decision with respect to the RP2.0 expansion project, the implementation of the Company's improvement plans with respect to its tailings storage facilities, and other information that is based upon forecasts of future operational and/or financial results, estimates of amounts not yet determinable, and assumptions of management.

Any statements that express or involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, guidance, or future events or performance (often, but not always, identified by words or phrases such as "expects", "is expected", "is expecting", "budget", "scheduled", "forecasts", "anticipates", "believes", "plans", "projects", "estimates", "assumes", "intends", "strategy", "goals", "objectives", "potential", "possible" or variations thereof or stating that certain actions, events, conditions or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved, or the negative of any of these terms and similar expressions) are not statements of historical fact and may be forward-looking statements.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, if untrue, could cause actual results, performance or achievements to be materially different from projected results, performance or achievements expressed or implied by such forward-looking statements. Assumptions have been made regarding, among other things, present and future business strategies and the environment in which we will operate in the future, including commodity prices; anticipated costs and ability to achieve goals; the Company's ability to carry on its exploration and development activities; the



Company's ability to meet its obligations under property agreements; the timing and results of drilling programs; the discovery of mineral resources and mineral reserves on the Company's mineral properties; the timely receipt of required approvals and permits, including those approvals and permits required for successful project permitting; construction and operation of the Company's projects, including the Company's ability to continue operating; the costs of operating and exploration expenditures; the Company's ability to operate in a safe, efficient and effective manner; the Company's ability to obtain and retain financing as and when required and on reasonable terms; dilution and mining recovery assumptions; assumptions regarding stockpiles; the success of mining, processing, exploration and development activities; the accuracy of geological, mining and metallurgical estimates; no significant unanticipated operational or technical difficulties impacting the Company's operations; maintaining good relations with the communities where our mines are located; no significant events or changes impacting the Company relating to regulatory, environmental or health and safety matters; certain tax matters; and general economic conditions or conditions in the financial markets (including commodity prices, foreign exchange rates and inflation rates). Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used.

Forward-looking statements are subject to known and unknown risks, uncertainties and other important factors that may cause our actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, including but not limited to: risks related to actual results of current exploration activities; changes in project parameters as plans continue to be refined: risks related to the volatility of the future price of zinc, lead, silver and other metals and the anticipated sensitivity of our financial performance to such prices; currency fluctuations; general global economic conditions as may be impacted by events such as the ongoing novel coronavirus ("COVID-**19**") pandemic; inflation risks; operating and financial restrictions due to the Company's debt facilities; liquidity risk and compliance with debt covenants; the delay or failure to obtain required financing; taxation risks; exchange controls; changes in the Company's production outlook or discrepancies between actual and estimated production; shortages or increased prices for energy and other consumables; failure to replace mineral reserves or material changes in mineral reserves and mineral resources, grades, production or recovery rates; delays or failure to obtain or retain permits or governmental approvals; title risks: interest rate risks: risks associated with the Company's mineral assets held outside of Canada: political, legal and economic risks at foreign operations, including risks to personal safety and property related to social unrest and terrorist activity; unexpected regulatory changes at foreign operations; litigation risks and failure of the Company to comply with laws and regulations; opposition from community or indigenous groups; conflicts of interest among directors and officers of the Company; counterparty risk; reliance on key personnel; accidents, labour and employment disputes and other risks of the mining industry; actual or perceived damage to the Company's reputation; results and costs of current reclamation activities; operational risks associated with water availability; climate change related risks; seasonal conditions limiting the Company's ability to achieve production forecasts; limitations inherent in our insurance coverage; compliance with anti-corruption laws; cybersecurity risks, including risks relating to the compromise of the Company's operating systems; risks related to competition and joint venture operations as well as the Company's ability to integrate new acquisitions into our operations; risks related to underdeveloped infrastructure; actual results of current exploration activities; restrictions on operations; delays, suspensions or technical challenges associated with capital projects; failure of plant, equipment or processes to operate as anticipated; volatility of the trading price of the Company's shares; geotechnical failures resulting in temporary or permanent mine closures; risks associated with serious diseases; as well as those factors discussed in the section entitled "Risks Factors" in this AIF.

Although the Company has attempted to identify important factors that could affect the Company and may cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated, or intended. Forward-looking information contained herein is made as of the date of this AIF based upon the opinions and estimates of management on the date statements containing such forward-looking information are made, and the Company disclaims any obligation to update any forward-looking statements or forward-looking information, whether as a result of new information, estimates or opinions,



future events or results or otherwise, or to explain any material difference between subsequent actual events and such forward-looking statements, except to the extent required by applicable law. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

## **Currency and Exchange Rate Information**

We report our financial results and prepare our financial statements in United States dollars. Unless otherwise indicated, all references in this AIF to "**dollars**", "**US\$**", or to "**\$**" are to United States dollars. Trevali operates in various jurisdictions and makes references to Canadian dollars as "CAD" or "C\$", Namibian dollars as "NAD" and West African Franc as "XOF".

The following table sets forth the high and low exchange rates for one US dollar expressed in Canadian dollars for each period indicated, the average of the exchange rates for each period indicated and the exchange rate at the end of each such period, based upon the daily exchange rates provided by the Bank of Canada:

	2021	2020	2019
High	\$1.2928	\$1.4496	\$1.3638
Low	\$1.2048	\$1.2530	\$1.3006
Rate at end of period	\$1.2536	\$1.2732	\$1.3172
Average rate for period	\$1.2700	\$1.3326	\$1.3269

## **United States Dollars into Canadian Dollars**

# **Scientific and Technical Information**

Disclosure regarding our mineral properties, including with respect to Mineral Resource and Mineral Reserve estimates, in this AIF was prepared in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"), and the Canadian Institute of Mining, Metallurgy and Petroleum – *CIM Definition Standards on Mineral Resources and Mineral Reserves*, adopted by the CIM Council, as amended. NI 43-101 is a set of requirements developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. NI 43-101 differs significantly from the disclosure requirements of the Securities and Exchange Commission ("**SEC**") generally applicable to U.S. companies. For example, the terms "Mineral Reserve", "Proven Mineral Reserve", "Probable Mineral Reserve", "Mineral Resource", "Measured Mineral Resource", "Indicated Mineral Resource" and "Inferred Mineral Resource" are defined in NI 43-101. These definitions differ from the definitions in the disclosure requirements promulgated by the SEC. Accordingly, information contained in this AIF will not be comparable to similar information made public by U.S. companies reporting pursuant to SEC disclosure requirements.

Except where indicated, the disclosure contained in this AIF of a scientific or technical nature has been summarized or extracted from the NI 43-101 compliant technical reports referenced under the respective sections describing each of the Company's material mineral properties (collectively, the "**Technical Reports**"). See "*Mineral Properties*" in this AIF. Readers should consult these reports to obtain further particulars regarding the Company's material mineral properties. Readers are cautioned that the summary of technical information in this AIF should be read in the context of the qualifying statements, procedures



and accompanying discussion within the complete Technical Reports and the summary provided herein is qualified in its entirety by such Technical Reports. Capitalized and abbreviated mining terms appearing in the summaries under *"Mineral Properties"* and not otherwise defined herein shall have the meanings ascribed to such terms in the respective Technical Reports.

Information of a scientific or technical nature in this AIF arising since the date of the respective Technical Reports has been prepared under the supervision of Yan Bourassa (P.Geo.), Trevali's Vice President, Technical Services & Exploration and Eric Frazier (P. Eng), Trevali's Principal Engineer, Projects & Studies, each of whom is a "qualified person" under NI 43-101.

## **General Mining Industry Information**

Information contained in this AIF concerning the mining industry and general expectations concerning the mining industry are based on estimates prepared by the Company using data from publicly available industry sources as well as from market research and industry analysis and on assumptions based on data and knowledge of this industry which the Company believes to be reasonable. However, this data is inherently imprecise, although generally indicative of relative market positions, market shares and performance characteristics. While the Company is not aware of any misstatements regarding any industry data presented herein, the industries involve risks and uncertainties and are subject to change based on various factors.

## Non-IFRS Measures

This AIF refers to certain non-IFRS financial performance measures including C1 Cash Cost per pound and All-In-Sustaining-Cost per pound ("**AISC**"). These measures are not recognized under IFRS as they do not have any standardized meaning prescribed by IFRS and are therefore unlikely to be comparable to similar measures presented by other issuers. Management uses these measures internally to evaluate the underlying operating performance of the Company for the reporting periods presented. The use of these measures enables management to assess performance trends and to evaluate the results of the underlying business of the Company. We understand that certain investors, and others who follow the Company's performance, also assess performance in this way. We believe that these measures reflect our performance and are useful indicators of our expected performance in future periods. This data is intended to provide additional information and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

For more information and details regarding Non-IFRS Measures, readers should refer to "Use of Non-IFRS Financial Performance Measures" in the Company's most recent Management's Discussion and Analysis ("**MD&A**"), which information is hereby incorporated by reference herein. The MD&A is available on SEDAR at <u>www.sedar.com</u>.

## C1 Cash Cost per pound

This measures the estimated cash cost to produce a pound of payable zinc. This measure includes mine operating production expenses, such as mining, processing, administration, indirect charges (including surface maintenance and camp), and smelting, refining, and freight, distribution, royalties, and by-product metal revenues, divided by pounds of payable zinc produced. C1 Cash Cost per pound of payable zinc produced does not include depreciation, depletion, and amortization, reclamation expenses, capital sustaining and exploration expenses.

## AISC per pound

This measures the cash costs to produce a pound of payable zinc plus the capital sustaining costs to maintain the mine and mill. This measure includes the C1 Cash Cost per pound and sustaining capital costs divided by pounds of payable zinc produced. AISC per pound of zinc payable does not include depreciation,



depletion, and amortization, reclamation or exploration expenses. Sustaining capital expenditures are defined as those expenditures which do not increase payable mineral production at a mine site and excludes all expenditures at the Company's projects and certain expenditures at the Company's operating sites which are deemed expansionary in nature.

# **CORPORATE STRUCTURE**

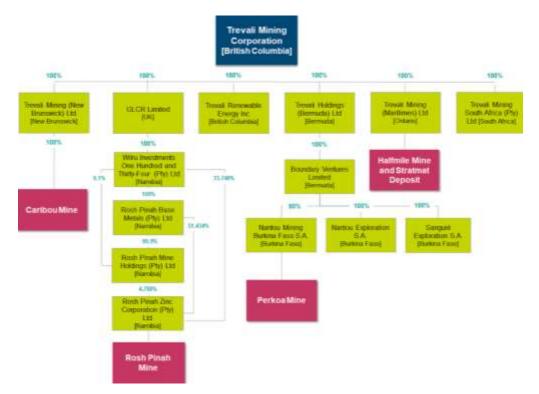
## Name, Address and Incorporation

The name of the Company is Trevali Mining Corporation. The Company's head office is located at 1900 – 999 West Hastings Street, Vancouver, British Columbia V6C 2W2, Canada. The Company's registered office is located at 595 Burrard Street, Suite 2600, Vancouver, British Columbia, V7X 1L3, Canada.

The Company was incorporated under the *Business Corporations Act, SBC 2002, c 57* (British Columbia) on June 16, 1964 as "Christina Resources Corp." On December 18, 1985, the Company changed its name to "Airborne Data Marketing Ltd." On December 3, 1986, the Company changed its name to "International Airborne Systems Company". On September 22, 1992, the Company changed its name to "AVNAV Technologies Inc." On December 31, 1993, the Company amalgamated with GWS Enterprises Inc. to form "Gateway Waste Systems Inc." On November 1, 1995, the Company changed its name to "Gateway Technologies Company". On July 6, 2006, the Company changed its name to "Trevali Resources Corp." and consolidated its share capital on a two for one basis. On April 7, 2011, the Company completed a plan of arrangement with Kria Resources Ltd. and changed its name to "Trevali Mining Corporation". On December 3, 2021, the Company consolidated its share capital on a ten for one basis.

## Intercorporate Relationships

The following diagram sets forth the Company's intercorporate relationships with its active subsidiaries, including the jurisdiction of incorporation or organization, and the Company's direct and indirect voting interest in each of these subsidiaries as at March 31, 2022:





# **DEVELOPMENT OF THE BUSINESS**

## **Our Business**

Trevali is a global base-metals mining company, headquartered in Vancouver, Canada. The bulk of Trevali's revenue is generated from zinc and lead concentrate production at its three operational assets: the 90%-owned Perkoa mine in Burkina Faso (the "**Perkoa Mine**"), the 90%-owned Rosh Pinah mine in Namibia (the "**Rosh Pinah Mine**"), and the wholly-owned Caribou mine in northern New Brunswick, Canada (the "**Caribou Mine**"). In addition, Trevali owns the Halfmile and Stratmat properties ("**Halfmile-Stratmat**") and the Restigouche deposit in New Brunswick, Canada. Trevali also owns an effective 44% interest in the Gergarub project in Namibia, as well as an option to acquire a 100% interest in the Heath Steele deposit located in New Brunswick, Canada.

The Company's growth strategy is focused on the exploration, development, operation and optimization of properties within its portfolio, as well as other mineral assets it may acquire that fit its strategic criteria. Trevali aims to be a responsible, top-tier operator of long-life, low-cost mines in stable pro-mining jurisdictions. Trevali is committed to socially responsible mining, working safely, ethically, and with integrity. Integrating responsible practices into its management systems, standards, and decision-making processes is essential to ensuring everyone and every community's long-term sustainability.

Trevali is a reporting issuer in all of the provinces and territories of Canada and its common shares (the "**Common Shares**") are listed on the Toronto Stock Exchange (the "**TSX**") (symbol TV), the OTCQX in the United States (symbol TREVF), the Lima Stock Exchange (symbol TV), and the Frankfurt Stock Exchange (symbol 4TI).

## **Our Strategy and Positioning**

Trevali's strategy focuses on optimizing production and reducing cost from our three operating mines through operational excellence, responsible capital allocation and exploration, thereby increasing net asset value per share and enhancing value for our shareholders and other stakeholders. We pursue this strategy with a priority on the safety of our employees and a fundamental responsibility to the environment and the communities in which we operate. Our vision is to be the world's most sustainable underground mining company focused on new economy metals preferred by investors for solid performance and by communities, partners and employees for mutual benefit and trust.

The positioning of our Company and steps taken during the last year to strengthen the business include:

- Enhancing portfolio and advancing organic growth projects Focused on advancing both mining and milling studies at each operation and discovering new mineral resources in proximity to existing mine infrastructure while advancing external growth opportunities. On August 17, 2021, the Company announced a positive feasibility study ("FS") for the Rosh Pinah Mine expansion project ("RP2.0") which presented a mine plan to increase the production capacity at Rosh Pinah by 86% and significantly reduce operating costs. An investment decision is anticipated by mid-2022.
- 2. Restarted the Caribou Mine and commenced studies to extend the mine life On January 15, 2021, the Company announced the planned restart of the Caribou Mine with a two-year production plan. The mine had been on a care and maintenance program since March 2020. In August 2021 the Company began the pilot testing of FLSmidth's Rapid Oxidation Leach technology at the Caribou Mine following successful bench scale testing earlier in the year. The program targets an improvement to zinc, lead, copper, gold, and silver metal recoveries with the potential to produce a precipitate or metal on site, which, if implemented, would lead to savings on transport and offsite treatment costs.



- **3.** Focus on return on capital In targeting long-term value creation, the Company looks for opportunities to deploy capital efficiently and prioritize those projects with the highest investment returns. On November 8, 2021 the Company announced the sale of the Santander Mine, with the transaction closing on December 3, 2021. The divestiture of the Santander Mine provided additional financial flexibility for the Company to reduce corporate debt and deploy capital towards the RP2.0 expansion project.
- **4.** Levered to zinc price Substantial zinc leverage with approximately 90% of the Company's revenue generated from zinc.
- 5. Strategic relationship with a global mining and zinc industry leader Trevali benefits from a strategic relationship with Glencore plc ("Glencore") as both a commercial counterparty and a supportive and aligned shareholder with a 26% equity interest in Trevali. Trevali also benefits from the considerable insight, perspective and relationships Glencore provides as one of the most significant global commodity companies.

Combined, these characteristics position Trevali for growth and value creation.

## **Three-Year History**

## Significant Developments

#### 2022 to Date

On March 31, 2022, the Company reported its Mineral Reserves and Mineral Resources estimates for each of the Perkoa Mine, the Rosh Pinah Mine, and the Caribou Mine, as well as certain of its exploration assets, effective December 31, 2021. On a consolidated basis, total Proven and Probable Mineral Reserves contained 22.12 million tonnes at 6.02% zinc, 1.39% lead and 28.02 g/t silver which amounted to 2.9 billion pounds of contained zinc, 676 million pounds of contained lead and 19.9 million ounces of silver. For additional information, refer to the news release entitled "*Trevali Reports 2021 Mineral Reserves and Resources Including a 50% Increase to Mineral Reserves at Rosh Pinah*" issued by the Company on March 31, 2022.

On February 25, 2022, the Company announced its financial and operational results for the year ended December 31, 2021. The Company achieved zinc production guidance and cost guidance by producing 316.2 million payable pounds of zinc at a C1 Cash Cost<sup>(1)</sup> of \$0.91 per pound and an AISC<sup>(2)</sup> of \$1.05 per pound.

On January 20, 2022, the Company announced the commencement of an early works program for the RP2.0 expansion project at Rosh Pinah and provided an update with respect to securing project financing for the RP2.0 project and refinancing both the amended and restated credit agreement with Trevali's existing syndicate of lenders (the "**Amended Revolving Credit Facility**") and the credit agreement with Glencore Canada Corporation, an affiliate of the Company's largest shareholder, Glencore, (the "**Glencore Facility**", together with the Amended Revolving Credit Facility, the "**Facilities**"), both maturing in September 2022.

## 2021

2021 was a mixed year for the Company. The Rosh Pinah Mine performed very well with satisfactory performance from the Perkoa Mine and the recently divested Santander Mine. Underground productivity was challenged at the Caribou Mine in the ramp-up and production was further impacted in Q3 2021 due

<sup>&</sup>lt;sup>1</sup> See "Non-IFRS Measures".

<sup>&</sup>lt;sup>2</sup> See "Non-IFRS Measures".



to the temporary suspension of mining in a localized area caused by ground conditions. Mine resequencing and productivity challenges persisted into Q4 2021. The Company also experienced ongoing issues related to COVID-19 which had an impact on the ability to operate and achieve production targets for the year. Zinc prices improved towards the end of the year while the Company benefited from lower zinc concentrate treatment charges. This allowed the Company to reduce its debt.

In January 2021, Trevali announced the planned restart of its Caribou operations, which had been placed on care and maintenance in March 2020, with mining activities resuming in February 2021 and the first payable zinc production delivered in March 2021. For additional information, refer to the news release entitled "*Trevali to Restart Caribou Mine with Improved Economics; Continues Studies on Longer Term Value Potential*" issued by the Company on January 15, 2021. The Company further reduced its exposure to commodity price fluctuations during the initial two-year plan by entering into a 21-month fixed-pricing arrangement with Glencore for 115 million pounds of payable zinc production from the Caribou mine, at an average price of \$1.25 per pound.

Jeane Hull was appointed as director to the Board of Directors (the "**Board**") effective February 1, 2021, bringing the Board membership to its full complement of eight members.

On April 7, 2021, the Company entered into a 15-year renewable energy power purchase agreement with Emerging Markets Energy Services Company ("**EMESCO**") for the supply of solar power to the Rosh Pinah Mine which would reduce the mine's greenhouse gas emissions by approximately 30%.

In June 2021, the Company published its third Sustainability Report covering new performance targets and disclosures. For additional information, refer to the news release entitled "*Trevali Publishes 2020 Sustainability Report*" issued by the Company on June 3, 2021.

Effective July 30, 2021, the Company entered into definitive agreements with Arrow Minerals Limited ("**Arrow Minerals**"), a West African gold exploration company with a principal focus on Burkina Faso, forming an exploration joint venture that grants the parties reciprocal exploration rights to each other's exploration permits in the highly prospective Boromo gold belt in Burkina Faso which is currently underexplored for base metals. These definitive agreements allow Arrow Minerals to perform gold exploration over the Trevali permits and a reciprocal arrangement for Trevali to undertake base metals exploration on Arrow Minerals' permits.

In August 2021 the Company announced the commencement of pilot plant testing of FLSmidth's Rapid Oxidative Leach Technology at Caribou. The program expands on previous laboratory test work and is aimed at demonstrating the potential to recover zinc, lead, copper, gold, and silver as a precipitate or metal and additional zinc and lead from the Caribou Mine's ore and mill tailings. If the new technology is implemented, it would lead to savings on transport and offsite treatment costs. For additional information, refer to the news release entitled "*Trevali Begins Pilot Testing of FLSmidth's Rapid Oxidative Leach Technology at Caribou*" issued by the Company on August 3, 2021.

Also in August 2021, the Company announced the positive results from RP2.0 expansion project at the Rosh Pinah Mine. An 86% increase in mill throughput is planned, with a positive improvement in operating costs, and smaller environmental footprint. For additional information, refer to the news release entitled *"Trevali Announces Positive Feasibility Study for Potential Rosh Pinah Expansion ("RP2.0")"* issued by the Company on August 17, 2021.

On December 3, 2021, the Company announced the completion of the sale of the Santander Mine and the closing of a 10 pre-consolidation for 1 post-consolidation Common Share consolidation. The sale of the Santander Mine was integral to the Company's focus on disciplined capital allocation and corporate debt reduction. For additional information, refer to the news releases entitled *"Trevali Announces Sale of Santander Mine and Share Consolidation"*, *"Trevali Announces Closing of Share Consolidation"* and



*"Trevali Completes Sale of Santander Mine"* issued by the Company on November 8, 2021, December 3, 2021 and December 3, 2021, respectively.

On December 16, 2021, the Company announced the resignation of Chief Operating Officer, David Schummer. Mr. Schummer, appointed Chief Operating Officer effective August 30, 2021, resigned for personal reasons.

## 2020

2020 was a challenging year with the Company having to navigate numerous emerging risks associated with the outbreak of COVID-19, which was declared a pandemic by the World Health Organisation on March 11, 2020, and which necessitated the adoption of early COVID-19 management practices that have been recognized by the governments in Peru, Burkina Faso and Namibia. The deterioration in the global zinc market, exacerbated by the challenges presented by COVID-19, combined with high concentrate treatment charges, rendered the operations at the Caribou Mine uneconomic during Q1 of 2020.

On March 3, 2020, the Company announced the departure of Gerbrand van Heerden as Chief Financial Officer and the appointment of Matthew Quinlan as Interim Chief Financial Officer. Effective September 1, 2020, Brendan Creaney replaced Mr. Quinlan as Interim Chief Financial Officer, which appointment was made permanent on December 10, 2020. Mr. Creaney joined the Company in August 2019 as Vice President, Investor Relations and had previously held several finance roles with Goldcorp from 2012 to 2019 in such functions as Corporate Development, Business Planning Studies and Projects, Capital Allocation, and Strategy.

Effective March 30, 2020, Jessica McDonald stepped down as a director of the Company, after having joined the Board in October 2017 and subsequently being appointed as Chair of the Board in March 2019. Jill Gardiner was appointed to the role of Chair of the Board, having first joined the Board in July 2019. Ricus Grimbeek, the President and Chief Executive Officer of the Company, was also appointed to the Board to fill the place vacated by Ms. McDonald's retirement.

On March 31, 2020, the Company entered into an amendment to its revolving credit facility whereby the availability of the facility was reduced in the short-term from \$275 million to \$125 million in exchange for the temporary waiver of the financial covenants, which waiver was ultimately extended until December 31, 2020, pursuant to a series of amending agreements. The facility amendment contained a number of terms and restrictions, including a restriction on dividends and distributions, acquisitions, disposition of assets as well as a requirement that the Company maintain a minimum level of liquidity. On August 6, 2020, the Company entered into the Amended Revolving Credit Facility with the syndicate of lenders for an up to \$150 million first lien secured revolving credit facility. Concurrent with this transaction, the Company also entered into the Glencore Facility which, together with the Amended Revolving Credit Facility, provided Trevali with up to \$45 million additional liquidity at the time.

In April 2020, and in response to the market conditions and economic uncertainty created by the COVID-19 pandemic, the Company decided to accelerate and expand the benefits under its T90 program which had been launched in November 2019 and targeted a reduction in AISC<sup>(3)</sup> to \$0.90 per payable pound of zinc by the beginning of 2022 through the achievement of annual sustainable efficiencies of \$50 million.

In May 2020, Trevali published its second Sustainability Report, setting targets to reduce water consumption and greenhouse gas emissions. For additional information, refer to the news release entitled *"Trevali Reports 2019 Sustainability Performance"* issued by the Company on May 28, 2020.

Effective June 26, 2020, the Company suspended mining and milling operations at the Santander Mine temporarily due to the identification of positive COVID-19 cases, with operations re-starting on July 15,

<sup>&</sup>lt;sup>3</sup> See "*Non-IFRS Measures*".



2020. For additional information, refer to the news release entitled "*Trevali Confirms Positive COVID-19 Cases at Santander and Temporarily Suspends Operations*" issued by the Company on June 26, 2020.

In August 2020, the Company announced a positive pre-feasibility study for the Rosh Pinah Mine expansion project, RP2.0, which presented a mine plan to increase production capacity at Rosh Pinah by 86% and significantly reduce operating costs. For additional information, refer to the news release entitled "*Trevali Announces Positive PFS For Rosh Pinah Mine Expansion ("RP2.0"); Increases Production Capacity by 86% and Significantly Reduces Operating Costs*" issued by the Company on August 25, 2020.

Effective September 1, 2020, Nick Popovic and Aline Cote were appointed to the Board of the Company, replacing Chris Eskdale and Dan Myerson as Glencore nominees.

In October 2020, the Company entered into zinc price forward swaps for approximately 25% of forecast zinc production for six months from October 1, 2020 to March 31, 2021 at an average price of \$1.11 per pound. In addition, in order to provide downside zinc price protection, zinc price put options for approximately 25% of forecast zinc production across the Group were entered into for the same six-month period at \$1.04 per pound. On October 9, 2020, the Company filed a preliminary short form base shelf prospectus related to the sale of up to C\$100.0 million in aggregate, in one or more series or issuances of Common Shares, debt securities, subscription receipts, share purchase contracts, warrants or units. The Company intended to use the net proceeds for general corporate and working capital purposes, including advancing work on the RP2.0 expansion project and its associated feasibility study, undertaking additional exploration work, continuing the study and potential restart of the Caribou operation, and repaying amounts of the Company's indebtedness.

On November 24, 2020, the Company entered into a fixed pricing arrangement pursuant to its existing offtake agreement with Glencore for 59.5 million pounds of zinc allocable to production at Perkoa and Rosh Pinah. The tenure of the arrangement was for a nine-month period covering April 2021 to December 2021 at a price of \$1.23 per pound and extended the existing hedging program which covered the period October 2020 to March 2021.

On December 2, 2020, the Company closed its marketed offering of 186,530,000 units at a price of C\$0.185 per unit for aggregate gross proceeds of \$26.6 million (C\$34.5 million), which included the exercise of the full amount of the over-allotment option of 24,330,000 units. Each unit comprised of one Common Share and one-half of one Common Share purchase warrant entitling the holder thereof to acquire one Common Share at a price of C\$0.23 until June 2, 2022. Glencore plc exercised its pre-emptive participation rights in the offering to purchase 49,000,000 units.

## 2019

2019 was a transformational year for the Company, highlighted by the hiring of Ricus Grimbeek as President and Chief Executive Officer on April 23, 2019, replacing Dr. Mark Cruise, who had founded Trevali and served as its Chief Executive Officer since 2008. A number of key senior management appointments were also made to support this transformation, including a new Chief Technical Officer and a new Chief Sustainability Officer (who subsequently left the Company).

In June 2019, the Company released its inaugural annual Sustainability Report, an important step in becoming more transparent in how the Company manages the elements of sustainability, and a key part of the Company's objective of becoming the world's most sustainable underground mining company.

2019 also saw further renewal of the Board, with Richard Williams being appointed to the Board in June 2019 and Jill Gardiner being elected at the annual general and special meeting of shareholders in July 2019, with Mike Hoffman and Tony Drescher retiring from the Board. In March 2019, Jessica McDonald was appointed as Chair of the Board, succeeding Mr. Hoffman.



In Q4 2019, the Company successfully completed the Rosh Pinah filtration and grinding project on schedule and budget, with the project expected to result in improved metallurgical recoveries, reduced processing times and reduced inventory levels.

# **DESCRIPTION OF THE BUSINESS**

## Selected Disclosure Regarding the Company and its Business in Burkina Faso

In addition to information set out elsewhere in this AIF, the disclosure under this heading "Selected Disclosure Regarding the Company and its Business in Burkina Faso" provides investors with selected summary information about the Company and its business in Burkina Faso, including Trevali's understanding of the Republic of Burkina Faso and applicable laws of Burkina Faso currently in force. Readers should also refer to the section entitled "*Risks Factors*" below for further information regarding the Company's operations in Burkina Faso.

## Government Organization

Burkina Faso's political history, like that of most West African countries, has swung between civil and military governments since it gained its independence from France in 1960. The current regime consisted of a democratically elected president, Mr. Roch Marc Christian Kabore, and an appointed Prime Minister and Council of Ministers. The National Independent Electoral Commission had announced incumbent President Roch Marc Christian Kabore's re-election in the presidential vote held on November 22, 2020, but he was subsequently deposed and resigned on January 24, 2022. The parliament, government and constitution were dissolved, but has since been restored following the appointment of Mr. Paul-Henri Sandaogo Damiba as interim President.

At the regional level, Burkina Faso is a member of the West African Monetary and Economic Union ("**WAEMU**") whose currency is the West African CFA Franc and a member of the Economic Community of West African States ("**ECOWAS**"). Burkina Faso also adheres to the Treaty on the Harmonization of Business Law in Africa ("**OHADA**").

## Currency

The official monetary unit of Burkina Faso is the West African CFA franc ("**XOF**"), which is currently fixed / pegged to the euro at the rate of 655.957 XOF per euro. There are no restrictions on the convertibility or transfer of funds.

## Mining Industry

In 2003, Burkina Faso significantly reformed its mining legislation to attract foreign investment, which resulted in a mining boom. Mining, particularly gold mining, now plays an important role in the economy of Burkina Faso with several major international companies taking part in exploration and mining activities.

## Mineral Rights and Laws

In Burkina Faso, the government owns the title to all mineral rights. Burkina Faso's legal system is based on the French civil law system and customary law. Mining in Burkina Faso is mainly regulated by Burkina Faso's Law No. 036-2015/CNT, which was approved by the transitional government and came into effect on June 26, 2015 (the "**2015 Burkina Faso Mining Code**"), which is completed by various decrees and ministry orders. The application decrees were completed in 2017 and the new 2015 Burkina Faso Mining Code is fully operational. Changes to the Mining Code include the introduction of a 1% levy on revenues derived from business in Burkina Faso to serve the development of local communities (the "**Local**")



**Development Mining Fund**"), the elimination of the reduced corporate tax rate, resulting in a tax increase from 17.5% to 27.5% and a priority dividend payable to the government of Burkina Faso.

The 2015 Burkina Faso Mining Code does, however, not apply to the operations of Nantou Mining Burkina Faso SA ("**Nantou Mining**") in Perkoa, although Nantou Mining has entered into an agreement with the Burkinabe government in January 2020 whereby Nantou Mining agreed to voluntarily contribute to the Local Development Mining Fund.

The version of the mining code applicable to the operations of Nantou Mining Burkina is the 2003 Burkina Faso Mining Code, under Law No. 31-2003/AN, dated May 8, 2003. The 2015 Burkina Faso Mining Code is only applicable to the operations of Nantou Mining insofar as its provisions do not contradict the fiscal and customs regimes stabilization clause included in the Perkoa Mining Convention described more fully below.

The Burkina Faso mining legislation provides that prior to the issuance of mineral rights a mining convention must be signed by the government of Burkina Faso and the future holder of the mineral right. The mining convention between Nantou Mining and the government of Burkina Faso, which was signed by the Minister of Mines of Burkina Faso on August 27, 2008 (the "**Perkoa Mining Convention**"), sets out the fiscal and legal terms with respect to the operation of the Perkoa Exploitation Permit (as defined below), including taxation rates applicable to the project, per the 2003 Burkina Faso Mining Code. The Perkoa Mining Convention is valid for 20 years commencing on the date of the grant of the Perkoa Exploitation Permit and may be renewed for subsequent periods of ten years, until the mining reserves have been depleted.

The Perkoa Mining Convention, signed under the 2003 Burkina Faso Mining Code, provides for the minimum exploration expenses to be incurred and the size of the interest of the government in the project if the property is brought into production, which is typically a 10% free carried interest that must be maintained when there is an increase in the capital of the exploitation company. The government also collects various taxes and duties on the imports of fuels, supplies, equipment, and outside services. In addition, there is a 3% net smelter royalty payable to the government on all base metal production in Burkina Faso, as well as a 1% levy to the Local Development Mining Fund (as described below). In the case of Nantou Mining, the Burkinabe government has a 10% free carried equity interest in Nantou Mining in accordance with the 2003 Burkina Faso Mining Code, with Trevali controlling the remaining 90%. The Perkoa Exploitation Permit, held by Nantou Mining, was granted on March 20, 2007 and formally grants Nantou Mining the rights to develop and operate the Perkoa Mine. It is scheduled to expire on March 20, 2027 and is eligible for renewal.

The Perkoa Exploitation Permit is surrounded by the Perkoa Exploration Permits (as defined herein), which are held by Nantou Exploration (as defined herein), which is indirectly owned 100% by Trevali. The 2003 Burkina Faso Mining Code gives the exploration permit holder the exclusive right to explore for the minerals requested on the surface and subsurface within the boundaries of the exploration permit. The exploration permit also gives the holder the exclusive right, at any time, to convert the exploration permit into a mining Exploitation Permit in accordance with the law. Exploration permits are valid for a period of three years from the date of issue and may be renewed for two more consecutive terms of three years each for a total of nine years; however, on the second renewal, at least 25% of the original area must be relinquished. The third renewal application for the Perkoa Exploration Permits in good standing. Should an Exploitation Permit for any portion of the Perkoa Exploration Permits be granted, the government will receive a 10% equity interest in the new exploitation company in accordance with the 2003 Burkina Faso Mining Code, and the Company will be required to enter into a new mining convention for the new mine.

The Perkoa Mining Convention guarantees stabilization of financial and customs regulations and rates during the period of the exploitation to reflect the rates in place at the date of signing. The 2003 Burkina Faso Mining Code states that no new taxes can be imposed with the exception of mining duties, mining



taxes and mining royalties. However, the title holder can benefit from any reductions of tax rates during the life of the exploitation permit.

# Selected Disclosure Regarding the Company and its Business in Namibia

In addition to information set out elsewhere in this AIF, the disclosure under this heading "Selected Disclosure Regarding the Company and its Business in Namibia" provides investors with selected summary information about the Company and its business in Namibia, including Trevali's understanding of the Republic of Namibia and applicable laws of Namibia currently in force. Readers should also refer to the section entitled "Risks Factors" below for further information regarding the Company's operations in Namibia.

## Government Organization

Namibia gained its independence from South Africa in 1990 and has a stable multi-party parliamentary democracy form of government. The Executive branch consists of an elected President with a five-year term (maximum of two terms) who is both the head of state and the head of the government. The President appoints the Prime Minister and the Cabinet. At the time of this AIF, the current President is Dr. Hage Geingob who was re-elected in November 2019.

#### Currency

The official monetary unit of Namibia is the Namibian dollar (NAD or N\$), which is currently fixed at the rate of 1 NAD per South African rand. Namibia is part of the Common Monetary Area of Southern Africa ("CMA").

#### Mining Industry

Mining contributes to approximately 10% of Namibia's Gross domestic product ("**GDP**") and is the largest single contributor to the economy. Namibia has various natural resources being exploited, including diamonds, uranium, copper, gold, lead, tin, lithium, cadmium, zinc, salt, and vanadium.

## Mineral Rights and Laws

In Namibia, all mineral rights to the property are vested in the government. The minerals industry in Namibia is administered by the Minister of the Namibian Ministry of Mines and Energy, assisted by the Mining Commissioner and the Minerals Board of Namibia. Mining in Namibia is mainly regulated by the Minerals (Prospecting and Mining) Act 33 of 1992 as amended in 2008 (the "**Namibia Minerals Act**"). This Act provides for six types of authorizations and permits:

- A Non-Exclusive Prospecting License ("**NEPL**") exploration authorization valid for six months, and which is non-renewable;
- A small-scale Mining Claims ("MC") authorization that it only available to Namibian citizens for artisanal mining and is valid for three years renewable indefinitely for two years at a time;
- A Reconnaissance License ("**RL**") authorization designed for regional exploration, mainly remotely sensing, exploration that is valid for six months that is non-renewable;
- An Exclusive Prospecting License ("**EPL**") exploration authorization valid for three years that may be renewed twice for two-year periods,
- A Mineral Deposit Retention License ("MDRL") authorization that allows an exploration company in certain circumstances to retain tenure on an EPL, ML or MC without mining obligations that is valid for five years, with two-year renewal periods; and



• A Mining License ("ML") exploitation permit valid for 25 years or the life of mine, with renewal valid for five-year periods.

There are also a number of other applications and permits that govern the transfers and joint ventures of licenses, export permits, and other matters.

The Namibia Minerals Act levies a royalty of 3% on the net sales of zinc production. A value added tax (VAT) of 15% applies to domestic goods and services and 16.5% to imported goods and services. A refund on the 15% VAT on domestic goods and services is available. The Income Tax Amendment Act 13 of 2015 introduced a 10% withholding tax on interest payable to non-resident lenders.

## **Other Information**

## Legal Rights in Foreign Jurisdictions

The Company has satisfied itself as to the Company's (or its subsidiaries') ownership and retention of its property interests, firstly by engaging local counsel to provide advice to it regarding the acquisition, ownership, and retention of its permits, property interests, and rights in respect of its material mineral properties, and secondly by direct communications with local government officials. The Company works with its legal counsel on an ongoing basis to ensure that all related matters are attended to on a timely basis.

The Company also relies on input and recommendations by qualified persons, who have completed reviews of the Perkoa Mine in Burkina Faso, and the Rosh Pinah Mine in Namibia, and through consultants who are engaged by the Company in connection with the Company's permitting, licensing, and regulatory approval application process, to confirm it has all material permits, business licenses, and other regulatory approvals needed to carry on business in jurisdictions of its material mineral properties. The Company also consults regularly with legal advisors in Burkina Faso, and Namibia, including to confirm that all applicable permitting requirements for its operations have been obtained and, from time to time, retains local legal advisors to provide updated title opinions, as appropriate.

## Foreign Corporate Structure

The Company's registered office is in Canada and its business in Burkina Faso, and Namibia is carried on through wholly-owned or majority-owned directly and indirectly held subsidiaries in Namibia, South Africa, England and Wales, Bermuda and Burkina Faso. Each of these subsidiaries maintains local offices, where corporate minute books and other books and records are maintained. The Board has effective control over all of its subsidiaries in and their respective material assets, including bank accounts, through its controlling ownership of these entities, with the exception of the Gergarub Project in Namibia, where the joint-venture partner has the controlling interest. In addition, as the sole controlling shareholder, the Company has the ability to appoint, direct, supervise, and remove all officers and directors of its subsidiaries with the exception of Rosh Pinah Zinc Corporation (Pty) Ltd ("**RPZC**") and Nantou Mining Burkina Faso S.A. ("**Nantou Mining**"). With respect to RPZC, Trevali has four directors appointed and the joint venture partners have three directors appointed. With respect to Nantou Mining, Trevali has three appointed directors, and the government of Burkina Faso has two directors.

## Corporate Governance

Many of the Company's directors and executive officers have significant experience conducting business in Canada, Burkina Faso, and Namibia, gained through their years of service to the Company in their respective roles or principal occupations, as applicable. Certain directors and executive officers have also travelled to Canada, Burkina Faso, and Namibia on several occasions for various purposes related to the Company's business, including meeting with government officials and representatives from banking and investment firms. Directors and executive officers of the Company visit the Company's operations as they



deem to be necessary, often several times a year, to properly manage the Company's business and meet with local management.

As a part of carrying out the responsibilities of their respective offices, it is necessary for the directors and executive officers of the Company to familiarize themselves with the laws, requirements and roles of governments, local business culture and practices, and any differences in banking systems and controls in and between jurisdictions in relation to the Company's foreign operations. Directors and executive officers become aware of these matters on an on-going basis through their skills, experience, education, knowledge, and a combination of written materials, meetings, site visits, legal and other professional advice, and other briefings and training, as appropriate.

Information is typically communicated to the Company's head office from its other locations of business through typical methods in the English language. There are, however, circumstances where communications and documents relating to the Company's business in foreign jurisdictions are received by the Company in the local language, typically Afrikaans in Namibia, and French in Burkina Faso. Items that are deemed material, including legal documents and communications from government officials, are translated into the English language.

#### **Products and Markets**

The Company's principal product is zinc, which is primarily used as an industrial metal. The Company also produces lead, silver, and minor gold and copper as by-products of zinc production. The annual average zinc LME price was \$1.36/lb in 2021 compared to \$1.03/lb 2020, while the average lead LME price was \$1.00/lb and the average silver LME price was \$25.17/oz, compared to \$0.83/lb and \$20.51/oz respectively in 2020.

The base metals sector has generally performed well through to the end of 2021, however, the pace of interest rate increases has heightened the concern about the direction of near-term price trends and added to the volatility into year-end. In our view, the overriding backdrop of an extended positive price cycle remains as global economic activity intensifies with infrastructure spending, pent-up demand growth and metal supply constraints. Although risks of higher energy prices, supply chain challenges and associated manufacturing and production shortages may result in operating cost pressure and price volatility, the post-pandemic economic environment is anticipated to be much more commodity intensive versus recent cycles. In effect, we believe that the global economy and various "green energy" initiatives have some catching up to do after the pandemic slowdown. These have positive implications for our business in our view. The ongoing structural changes provide the Company with many opportunities but also risks that will require careful management. The continuing global pandemic, and its uncertain trajectory, as well as strained supply chains were cited as key challenges for the year ahead.

In the early weeks of October 2021, the London Metals Exchange ("**LME**") cash zinc price rallied to \$1.74 per pound on the back of zinc smelter curtailments largely due to electricity cost pressure in Europe and power availability issues in China. Total exchange stocks rose into year end, at the equivalent of 7 days of global consumption, they remain very low by historical standards and do not provide much of a buffer against any further supply disruptions to smelter production.



## Sales and Refining

For the year ended December 31, 2021, production sold from the Perkoa Mine, the Rosh Pinah Mine, the Caribou Mine were as follows:

Payable Production Sold	Perkoa	Rosh Pinah	Caribou	Total
Zinc (million pounds)	147.6	74.6	38.0	304.1
Lead (million pounds)	0.0	15.7	13.0	33.5
Silver (thousand ounces)	0.0	148.9	358.6	507.5

Our revenues by-product category for the financial years ended December 31, 2021 and December 31, 2020 were as follows:

Product Revenue	<b>2021</b> <sup>(1)</sup>	2020
Zinc	89%	90%
Lead-Silver	11%	10%

Notes:

(1) The 2021 by-product revenues exclude the by-product revenues generated from the Santander Mine prior to its disposition by the Company.

The Company benefits from life-of-mine concentrate off-take agreements with Glencore for all concentrates from its current operations. Glencore also holds a right of first refusal for any future concentrate sales from the Company's other properties. Consequently, the Company does not presently foresee any issues with securing buyers for any future concentrate production.

## **Employees**

As of December 31, 2021, the Company had the following number of employees and contractors:

Location	Employees	Contractors
Perkoa	318	367
Rosh Pinah	404	188
Caribou	124	149
Corporate	44	3
Total	890	707

In 2021, the Company continued to build on its unified operating model, further embedding our functional platform across all operations through detailed analysis, streamlining and alignment of standards, procedures, and practices to ensure governance frameworks are in place across the Group.



Trevali also focused heavily on leadership development, inclusion, equity & diversity ("**IED**"), and integrated communications to better align our current practices with the Company's values and intended culture and promote our employer brand internally and externally.

# **Sustainability**

We believe that operating with sustainability integrated into the way we work is essential to successfully executing on our business strategy. Our achievements were recognized in 2021 by the Institutional Shareholders ("**ISS**"), when Trevali sustained a score of 1 (highest performance in our peer group) for our social performance and improved from a 3 to a 2 for our environmental performance, while retaining a score of 1 in governance in 2021.

We participated in the S&P Global Corporate Sustainability Assessment in the Metals and Mining industry for the third time, and once again improved our results from 45/100 to 50/100 which puts us in the 77th percentile. Eighty-one companies in this industry were assessed by S&P Global. While the best score is 83/100, the average score for companies that participated is 34/100.

In 2021, Trevali progressed the maturity of our management system that identifies and mitigates Environmental, Social and Governance risks and advances opportunities. These results have provided areas of focus and accountability addressing our key material risks through field verification and documented evidence and measures. Trevali joined the Mining Association of Canada ("**MAC**") at the end of 2019. The MAC "Towards Sustainable Mining" Protocols have been embedded into Trevali's management system and standards with the initial round of assessments conducted in 2021 for the Caribou Mine identifying opportunities with associated improvement plans that will be progressed in 2022. In addition, reporting against the MAC TSM Protocols is planned for all the mining operations in 2022.

Recording, managing and tracking, progress to targets, improvement actions, incidents, audits, inspections, risks, licenses and permitting obligations is governed by the Group Standards and managed through global online data platforms.

Trevali will publish its fourth sustainability report in the second quarter of 2022 (for the financial year ended December 31, 2021). This will contain our sustainability strategy and align to the Global Reporting Initiative ("**GRI**") and Sustainability Accounting Standards Board ("**SASB**") and provide connections to the 17-United Nations Sustainable Development Goals ("**SDGs**").

## Safety and Health

We believe that all employees have the right to a safe and healthy workplace. Continuous improvement is designed into the Trevali Safety, Health, Security, and Crisis and Emergency Management Standards and procedures as well as our Fatal Risk Controls, which collectively comprise a key portion of the management system. Our approach to security has improved in 2021, with a focus on improved intelligence gathering, and assessments to ensure readiness in the event of a serious security issue. We continue to inform our employees of the current threat levels, train our employees and contractors in the actions required in the event of a threatening situation, and continue to ensure our security providers are well versed in the Voluntary Principles on Security and Human Rights.

During 2021, we focused on measuring both leading and lagging safety key performance indicators. Our Total Recordable Injury Frequency<sup>(4)</sup> ("**TRIF**") rate increased from 4.5 in 2020 to 8.7 in 2021. Although this increase is disappointing, the severity of the injuries has been on the decline. We improved our visibility of significant incidents and learnings obtained through sharing key learnings across our business, using these learnings to improve our focus, with a sharp focus on controls to prevent incidents and associated injuries.

<sup>&</sup>lt;sup>4</sup> Total Recordable Injury Frequency is the number of fatalities, lost time injuries, substitute work, and other injuries requiring treatment by a medical professional per million hours worked.



Measuring and reporting of key control effectiveness has improved during the year and these leading indicators are providing insights into the gaps in our controls, process, and systems, identifying the controls areas requiring additional focus and/or changes. A clear distinction for incidents related to actual and potential consequences and impact types was introduced to trigger appropriate incident management strategies based on the potential level of harm. Detailed self-assessments against the ten Fatal Risk Controls Standards were conducted for each operation to provide a more detailed measure of control gaps and leading to associated improvement plans being developed for implementation in 2022.

We are continuing to strengthen our critical controls by measuring their effectiveness and using this data to enable response before an incident occurs. Aligned with the MAC Towards Sustainable Mining ("**TSM**") Framework Safety and Health, we are committed to providing safe and healthy workspaces, ensuring effective injury prevention and disability management programs, setting performance targets and risk management plans and reporting on the related metrics, establishing Board and senior management level accountability with respect to the Company's health and safety practices and performance, and also encouraging and supporting our business partners to implement the same.

## Environment and climate change

We aim to be responsible stewards of the natural resources that we touch. In 2021, we commenced the process of identifying the top three material environmental risks at all our operations, and the associated controls required to manage these risks to a tolerable level. Legal compliance is paramount at all our operations and in 2021 improvements were made to our legal compliance register which included tracking of all commitments from within each licence and/or approval to allow for measuring and reporting on commitment compliance. Further improvements allowing in-field verification is planned for 2022.

All permits and licences were maintained in 2021 with licences obtained for activities requiring authorization at the applicable operations. In 2021 we redefined our strategic priorities related to the environment with both short- and long-term goals and the measures for success defined. These measures will be rolled out to the operations in 2022 to ensure that the required actions and resources are allocated to achieve these goals. We developed an on-line water quality monitoring dashboard at the Caribou Mine to enable the daily tracking of water quality trends and manage compliance to approval to operate requirements. Focus on the improvement of hazardous waste storage and the regular disposal thereof was embedded as part of ongoing waste management practices for all operations.

We continued to develop baseline environmental data for the Group. We obtained our fourth set of data for greenhouse gas emissions balance for all of our operations, which will enable us to update and set short-term targets that are aligned with the objectives of the 2015 Paris Agreement on climate change.

We continue to evolve our climate change action plan and incorporate the result of a climate-related physical impacts risk assessment at Rosh Pinah into the feasibility study for the RP2.0 expansion project. For example, a power purchase agreement to provide solar power to our Rosh Pinah mine in Namibia was signed. This is a major step towards delivering on our sustainability commitment of reducing greenhouse gas emissions.

## Closure

Each operation has a closure plan in place that has been reviewed and estimated cost of closure updated in 2021. The estimates for closure are prepared by qualified individuals and reviewed annually as well as revised in line with the regulatory requirements in each jurisdiction or at the time a material change to the mine plan is considered. The Company's provision for future site closure is based on the level of known disturbance at the statement of financial position date, known legal requirements and estimates prepared by internal and third-party specialists. Plans include costs for stakeholder engagement and consent seeking consultation, earthworks, including land re-contouring and re-vegetation, environmental monitoring,



demolition and post-closure monitoring, and in some cases water treatment. The assumption used in the estimation of the provision are as follows:

	Undiscounted liability for closure (\$ Millions)	Pre-tax discount rate (%)	Inflation factor (%)	Present value of cash flow required on closure (\$ Millions)
Perkoa	13.7	6.5	3.8	13.7
Rosh Pinah	5.6	9.7	4.5	3.0
Caribou	36.7	1.4	1.6	28.9
Halfmile	0.6	1.8	1.9	0.6
Total	56.6	-	-	46.2

The following is a continuity schedule of the Company's estimated provisions:

	Year Ended December 31, 2021	Year Ended December 31, 2020
	2021 (\$ Millions)	2020 (\$ Millions)
Provision at beginning of the year	62.9	48.1
Accretion / Interest	1.6	1.2
Change in discount rate	(2.7)	3.5
Change in estimates	(0.2) <sup>(1)</sup>	9.7
Disposal of mine rehabilitation obligation <sup>(2)</sup>	(15.0)	-
Change in foreign exchange rates	(0.4)	0.4
End of the year	46.3	62.9

Notes:

(1) The large reduction in closure estimates is due to the removal of the Santander Mine from the financial closure provision.

(2) Consists of the removal of the Santander Mine from the financial closure provision.

## Tailings

Trevali is committed to the safe and responsible management of tailings during and post operating mine life. A voluntary, independent tailings storage facility ("**TSF**") assurance review was undertaken for each of the Trevali tailings storage facilities in 2019 and 2020, that assessed design, construction and modification, operation and maintenance, monitoring and governance. Risks were identified, and a Group-wide Dam Management Standard (aligned with the MAC TSM Protocol on Tailings and the Canadian Dam Standard) was developed and implemented to ensure best practice going forward. In 2019, Trevali responded



proactively to the "Investor Mining and Tailings Safety Initiative" by the Church of England and others to ensure that tailings risks were understood and disclosed to the market and this disclosure can be downloaded from our website at <u>https://trevali.com/sustainability/overview/</u>.

The improvement plans as identified in 2019 and 2020 continue to be implemented in 2022 at each of our operations with a plan to report for all our operations against the MAC TSM Protocols in 2022. Deloitte Touche Tohmatsu Limited ("**Deloitte**") was engaged to prepare a Management of Change workbook and assisted with the training and onboarding with respect to the Dam Management Standard during 2021 at each of the Rosh Pinah, Perkoa and Caribou Mines.

As of December 31, 2021, the Rosh Pinah Mine's TSF assurance project was 95% complete according to the project schedule and remains on track. Knight Piésold was appointed as Engineer of Record ("**EOR**") for the Rosh Pinah Mine and assisted with the drafting of the requisite technical documentation. Knight Piésold has further completed an internal audit against the requirements set out in the Dam Management Standard at the Rosh Pinah Mine. A proposal with a Scope of Work and schedule based on the audit findings is in the process of being drawn up, following which a responsibility assignment ("**RASCI**") matrix would be drafted in accordance with the Dam Management Standard, and the letter of appointment would be updated according to RASCI.

The expansion of the TSF at the Rosh Pinah Mine commenced in late 2021. The management of dust emissions remains key during the project to ensure the impact to the surrounding community are minimal.

As of December 31, 2021, the Perkoa Mine's TSF assurance project was 60% complete according to the project schedule. Epoch Resources was appointed as Engineer of Record ("**EOR**") for the Perkoa Mine and, together with Deloitte, had assisted with the roll-out of management of change training sessions with site management. Epoch Resources had further completed an internal audit against the requirements set out in the Dam Management Standard at the Perkoa Mine. A proposal is awaited from Epoch Resources on the implementation actions required, following which a RASCI matrix would be drawn up, the letter of appointment amended and the Perkoa Mine dam projects recorded in line with the Dam Management Standard. The tailings facilities at the Perkoa Mine underwent a Failure Mode Effects Analysis ("**FMEA**") with the Potential Failure Modes ("**PFM**") identified for the facilities. These PFM's are to be addressed in 2022.

As of December 31, 2021, the Caribou Mine's TSF assurance project was 55% complete according to the project schedule. Klohn Crippen Berger ("**KCB**") was appointed as Engineer of Record ("**EOR**") for the Caribou Mine and had assisted with the drafting of the requisite technical documentation as well as the completion of an internal audit against the requirements set out in the Dam Management Standard. A RASCI matrix has been drawn up in line with the Dam Management Standard and the management of change forms revised. The proposed revised actions and findings by KCB are currently being reviewed by the Company and approximately 90% of the RASCI matrix has been reviewed and signed-off in accordance with the Dam Management Standard. Next steps, following the acceptance of KCB's proposal, would be to implement the management of change for the Dam Management Standard, to record all Caribou Mine TSF projects in line with the Dam Management Standard and to amend the letter of appointment according to the RASCI.

The Caribou Mine is in the process of increasing the South Tributary Tailings Pond (**"STTP**") Dam Crest to allow for increased capacity of additional tailings storage until 2026. The STTP Dam Raise design is in accordance with Canadian Dam Association (**"CDA**") guideline and the MAC TSM Protocol to ensure that stringent engineering and management principles are applied.

## Community

We continue to build trusting relationships with communities. We seek to obtain Free, Prior and Informed Consent ("**FPIC**"), as recognized by the United Nations Declaration on the Rights of Indigenous Peoples



(UNDRIP). We embrace the complexity, diversity, cultural heritage, and customs of our employees as well as respecting those of the communities who live around us.

The Company made investments in community engagement and development, with activities primarily focused on education, health and social enterprise development. In 2021 Trevali received various approvals with community support allowing for additional works on tailing facilities, quarries and pipelines and the Company also received community approval for exploration activities around the Perkoa and Rosh Pinah Mines.

A Group Community Standard, which provides the management system to identify, mitigate and report risks and controls was implemented in August 2020. This included enhanced transparency obligations over meetings with the community and government, thereby mitigating governance risks, such as bribery or corruption. Trevali has partnered with Clear View Connects<sup>™</sup>, a platform that enables communities to report grievances and complaints anonymously.

# **MINERAL PROPERTIES**

As at December 31, 2021, the Company considered each of the Perkoa Mine, the Rosh Pinah Mine, and the Caribou Mine to be material mineral projects for the purposes of NI 43-101. In February 2021 and as described above, the Company re-commenced operations at the Caribou Mine, which had been on a care and maintenance program since March 2020. On November 8, 2021 the Company announced the sale of the Santander Mine, with the transaction closing on December 3, 2021. For additional information, refer to the news releases entitled "*Trevali Announces Sale of Santander Mine and Share Consolidation*", "*Trevali Announces Closing of Share Consolidation*" and "*Trevali Completes Sale of Santander Mine*" issued by the Company on November 8, 2021, December 3, 2021 and December 3, 2021, respectively.

Set forth below is certain scientific and technical information in relation to each of the above-mentioned mineral properties.

## **ROSH PINAH MINE**

The scientific and technical information included in the following section has been derived from or is based upon the technical report entitled "*Rosh Pinah Expansion "RP2.0" NI 43-101 Feasibility Study*" by AMC Consultants Pty Ltd dated August 17, 2021 (effective March 31, 2021) (the "**Rosh Pinah Feasibility Study**"). The Rosh Pinah Feasibility Study was prepared by Rodney Webster, Andrew Hall, Louise Lintvelt, Robin Welsh and Mo Molavi. Each of Messrs Webster, Hall, Welsh and Molavi and Ms Lintvelt is an independent "qualified person" under NI 43-101. Scientific and technical information below which is not included in the Rosh Pinah Feasibility Study has been reviewed and approved by Yan Bourassa (P.Geo), Vice President, Technical Services & Exploration of the Company and Eric Frazier (P. Eng), Trevali's Principal Engineer, Projects & Studies, each of whom is a "qualified person" under NI 43-101.

## Property Description, Location and Access

The Rosh Pinah Mine is an underground zinc-lead mine with an 1,800 to 2,000 tonne per day milling operation, which the Rosh Pinah Feasibility Study contemplates to increase to 3,600 tonnes per day which would achieve a throughput of 1.3 million metric tonnes per year. The mine is located in southwestern Namibia directly adjacent to the town of Rosh Pinah, where employees of the Rosh Pinah Mine reside, and where a number of private businesses are located. The town of Rosh Pinah is 800 kilometres south of Windhoek and 20 kilometres north of the Orange River, at the edge of the Namib Desert. The mine site is accessed by tarred road and the nearest commercial airport is located in the town of Oranjemund, approximately 105 kilometres southeast of Rosh Pinah via a paved road.



The Rosh Pinah Mine is owned by Rosh Pinah Zinc Corporation (Pty) Ltd. ("**RPZC**"). Trevali owns a 90% interest in RPZC and is operationally responsible for the management of RPZC, with the remainder held by PE Minerals (Namibia) (Proprietary) Limited ("**PE Minerals**"), Jaguar Investments Four (Proprietary) Limited ("**Jaguar**") and an Employee Empowerment Participation Scheme ("**EEPS**").

The Rosh Pinah Mine Mining Licence 39 ("**ML 39**") covers an area of 782 hectares, with an Accessory Works ("**AW**") area consisting of 4,433 hectares. ML 39 was granted by the Namibian Ministry of Mines and Energy on November 13, 1995 and subsequently renewed on December 2, 2020 for a term of 15 years with an expiry date of November 11, 2035. ML 39 requires payment of an annual fee, development of a works program, environmental compliance, commitment to seek local suppliers for fuel and lubricants, approval of product take-off agreements, and payment of taxes by permanent employees in Namibia. ML 39 and the AW are hereinafter referred to as "**Rosh Pinah**".

Rosh Pinah is mainly located on government land (with government-owned surface rights) and thus no surface rights agreements are required; however, the property overlaps onto three farms, Namuskluft 88, Spitskop III and Spitskop Wes 128, where ancillary surface rights are in place but are currently being renegotiated. RPZC has sufficient surface rights to cover the sites required for all project buildings and fixed installations for the life of mine. All permits required to operate the Rosh Pinah Mine are currently in place and the Company is not aware of any undisclosed environmental liabilities on the property.

Mine production is subject to royalties at 3% of net market value payable to the Namibian government and 3% of net market value payable to PE Minerals, the current holder of ML 39.

Other than as described above, the Company is not aware of any rights, agreements, or encumbrances to which Rosh Pinah is subject that would adversely affect the value of the property or Trevali's ownership.

RPZC also holds Exclusive Prospecting Licence 2616 ("**EPL 2616**"), which allows for exploration of base, rare and precious metals. EPL 2616 initially covered an area of 188 square kilometres and overlaps onto Spitskop farm. EPL 2616 expired on November 30, 2019 and was renewed in December 2019, a 25% surface area reduction was applied to the permit which now covers an area of 150.6 square kilometres.

Trevali has an effective 44% interest in Gergarub Exploration and Mining (Pty) Ltd (the "Gergarub project"), a joint venture with the Vedanta Resources-owned Skorpion Zinc mine which has a 51% interest. The Gergarub project holds Mineral Deposit Retention Licence 2616 ("MDRL 2616"), which covers an area of 691 hectares (6.9 square kilometres) and is located within EPL 2616.

## History

The Rosh Pinah Mine has been in operation since 1969, excluding a short period during the 1990s when it was placed under care and maintenance. In 1964, mineral rights at Rosh Pinah were held by Moly Copper Mining and Prospecting Co. (SWA) Pty Ltd. ("**Moly Copper**"). Iscor Ltd. South Africa ("**Iscor South Africa**") decided to explore the Rosh Pinah deposit and drilling commenced in 1965. Thereafter, sufficient reserves were proven to develop a mine and an operating company, Imcor Zinc, Pty Ltd was formed between Iscor and Moly Copper. Preparatory work and mine development commenced during 1967, with ore production commencing in May 1969.

Since commencing mining operations in 1969 to the end of 2021, a total of approximately 29.8 million tonnes have been mined from the various orebodies at Rosh Pinah. The average mine production over the last 20 years is approximately 653,000 tonnes of ore per annum.



## Geological Setting, Mineralization and Deposit Types

The Rosh Pinah Mine is hosted by the Rosh Pinah Formation (Hilda Subgroup of the Port Nolloth Group), forming part of the Neoproterozoic Gariep Terrane deposited onto a Palaeo-Mesoproterozoic basement of granite gneisses and supracrustal sequences.

The base metal mineralization at the Rosh Pinah Mine are contained within the approximately 30-metrethick mineralized sequence locally termed Ore Equivalent Horizon ("**OEH**") which consists of felsic volcanic sequences such as rhyolite domes and volcano-sedimentary sequences formed of volcaniclastic, arkoses and deeper argillitic beddings. In the Rosh Pinah area, the Rosh Pinah Formation has been shown to be at least 1,250 metres thick.

The primary mineralization type of economic interest at the Rosh Pinah Mine is a silicified, grey to dark grey, fine-grained and laminated unit locally called microquartzite mineralization which consists of alternating millimetre to centimetre wide bands of sulphide exhalites (sphalerite, pyrite and galena + minor chalcopyrite), part of which was carbonatized with associated remobilization and enrichment of sulphides. The secondary mineralization style encountered at Rosh Pinah is referred to as carbonate ore. This mineralization style is generally characterized by higher zinc and lead values with a higher economic value and can locally occur as massive sulphide lenses. The argiillite mineralization would be similarly derived but is diluted with background benthonic argiillite.

The Rosh Pinah deposit is believed to be a VMS deposit located in the vicinity of numerous rhyolitic domes with potentially reworked and deformed sedimentary-exhalative style mineralization further away from the volcanic domes along the sedimentary sequences. The deposit is a tier one Zn-Pb-Ag Mine, which has been in continuous production since 1969; however, the deposit has never been fully delineated and remains open along strike and at depth along the Western Flank of the Rosh Pinah fold. The Rosh Pinah deposit is composed of five main centres of mineralization, located at regular intervals, largely along the same folded horizons. Of these centres, the Western Orefield is the largest discovered to date and is the current focus of mining activities The Western Orefield extends continuously over a strike length of approximately 2 kilometre and is the most extensive orebody at Rosh Pinah, the orebody width varies from 20 metres to 70 metres and has been defined down to a depth of approximately 1,000 metres below the topographic surface.

## Exploration

Since the discovery of the Rosh Pinah Mine, continued in-mine exploration has played a significant role in extending the life of the mine. The discovery of the Western Orefield orebody in 2008 has increased Mineral Reserves and extended the mine life of the Rosh Pinah deposit.

The 2021 underground exploration and infill drilling programs targeted Mineral Resource conversion at depth along the Western Flank of the Rosh Pinah fold at the Western Orefield deposit and in the nose of the fold at depth at the AAB deposit and Eastern Orefield. Deeper exploration drilling also targeted the definition of new Mineral Resources at both the Western Orefield and the AAB deposit.



## Drilling

Rosh Pinah mine's drilling statistics for 2021 and for the project as at December 31, 2021 are presented below:

Rosh Pinah	2021 Drillholes	2021 metres	Total Drillholes	Total metres
Surface Exploration	11	5,629	931	170,978
UG Exploration	62	14,484	3,216	423,278
UG Infill Drilling	53	4,447	6,801	266,278
Total	126	24,560	10,948	860,354

## Mine Exploration – Western Orefield and AAB Exploration

The 2021 drilling program at the Eastern Orefield, Western Orefield and AAB deposit was designed to test the down plunge continuation of the Western limb and the nose of the Rosh Pinah fold, but also to define new Inferred Mineral Resources at depth. The results at the Western Orefield demonstrate the continuity and consistency of the mineralization from this deposit, where several broad mineralized intervals were intercepted.

The Western Orefield is the northernmost centre of mineralization at Rosh Pinah and the majority of the 2021 in-mine exploration and underground infill drilling focused mainly on that orebody, as well as the AAB deposit and Eastern Orefield. Drilling in the nose of the Rosh Pinah fold at the AAB deposit and the Eastern Orefield returned significant mineralized intercepts where several zones of mineralization were intersected, leading to portions of the Inferred Mineral Resources being converted to Indicated Mineral Resources.

## **Regional Exploration**

Ground Fluxgate EM surveys were conducted along the northern extension of the Western Orefield on the Rosh Pinah-Gergarub corridor and also east of the Rosh Pinah Mine to test the ground east of a regional fault that dissects the Eastern Flank of the Rosh Pinah fold. Along strike of the Western Orefield deposit to the North, holes were drilled at the Omuramba and Bakoven anomalies. The drilling was successful in following the continuity of the ore horizon to the North and intersected mineralized mudstone and rhyolite flows. Three holes also tested the northern extensions of the WF3 and intersected the Ore Equivalent Horizon.

## Rosh Pinah 2022 Exploration Outlook

The 2022 exploration program will follow-up on the success of the 2020 and 2021 exploration programs with the continuation of the ground Fluxgate EM surveys along the Rosh Pinah-Gergarub corridor and in the Northern portion of the exploration concession to test the ground East of the Skorpion Zinc mine. The drilling programs will continue to test the northern extension of the Western Orefield along strike and start to drill test EM anomalies along both the Western and Eastern flanks of the Rosh Pinah fold along strike.

## Sampling, Analysis and Data Verification

Regional exploration surface drillholes are drilled using HQ-sized core (63.5-millimetre diameter core) for overburden and weathered zones and NQ-sized core (47.6-millimetre diameter core) in bedrocks. Surface exploration is conducted by contractors while all underground exploration and infill drilling is carried out by



an in-house drilling crew. Underground exploration drill holes are drilled at NQ-sized core with the infill drilling being drilled at BQ-sized core, with recovery for all core sizes generally being above 95%.

Logging, sampling and analysis procedures comply with current QA/QC procedures and NI 43-101 requirements. Logging and sampling methodologies and procedures are documented, routinely updated, and maintained by the exploration department.

Drill core is logged on site by a geologist for lithological, structural, and geotechnical (core recovery, rock quality designation ("**RQD**"), and rock mass rating) information. A geo-data geologist supervises the database, which has set validation specifications for populated data.

Drill core is cut and sampled onsite at Rosh Pinah. Half-core samples are prepared using a specialized core saw utilizing fresh water. One half of the core is stored with the rest of the core and the other half is sent to the laboratory for analysis. Tertiary/production drill core is wholly sampled.

Samples are packaged at the core shed and registered into the Laboratory Information Management System ("LIMS") by assistants in the Mineral Resource Management Department, then dispatched daily to the Rosh Pinah Mine Laboratory ("RPML") located on the mine site. On arrival, samples are checked, sorted, bar coded, and activated in the LIMS.

Although the internal RPML is not internationally certified, QA/QC procedures have been performed systematically at Rosh Pinah Mine since 2009 and all exploration samples are sent to an independent accredited facility. Standard QA/QC procedures for both the Rosh Pinah mine laboratory and the external laboratory include the submission of blanks, duplicate samples, and certified reference material. Typically, one blank, standard and duplicate sample is inserted for every 18<sup>th</sup> sample batch to measure precision, accuracy, and bias in the sampling and analytical process. For the RPML, duplicates are retrieved by the assaying laboratory personnel after the sample has been crushed, basically representing a separate split. Duplicates are taken to quantify precision and any bias introduced after the parent sample was duplicated (i.e., during milling, digestion and analysis). Sample duplication is also conducted to ensure and demonstrate analytical repeatability.

Check assays of pulverized pulps are performed by a second lab and generally represent 5% to 10% of the entire sample database. Comparisons and reconciliation between original and check assays are done routinely during drilling, and systematically before any resource estimation exercise.

Sample custody is ensured on-site by continuous inventorying and monitoring of drill core. Once samples are prepared, using the methodologies described above, they are inventoried, individually bagged, tagged, and sealed in larger bags for transport to the assay lab. Audits of the assaying labs are performed occasionally.

The Mineral Resource cut-off grade for the Rosh Pinah Mine is 4% zinc equivalent.

## Mineral Processing and Metallurgical Testing

Since 2013, twenty metallurgical test work programs for the Rosh Pinah Mine were completed by various laboratories around the globe. Comminution testing focused on material from the Western Ore Fields which began to be processed in increasing volume in 2016 and is projected to be the predominant source of future feed, while flotation testing evaluated the anticipated feed blend from the various zones.

Testing completed for the "RP2.0" expansion project and the Rosh Pinah Feasibility Study concluded that the Bond ball work index for the tested material ranged from 10.2 kWh/t to 18.2 kWh/t, with the breccia and carbonate material classified as medium and the microquartzite classified as medium-hard. SAG discharge Bond ball mill work index of the ore was in the 56<sup>th</sup> percentile of the SAGDesign database, although significant variability in the results were observed between the softer carbonate and harder microquartzite.



Flotation testing completed in 2019 demonstrated that recovery of zinc and silver improved as the grind size decreased. Ore is currently ground to a P80 grind size of 150 µm whereas evaluation of the test results showed a grind size of 90 µm provided a good balance of improved recovery and capital payback. Test work also indicated that plant performance would improve with the introduction of a Jameson cleaner scalper cell to treat the zinc rougher concentrates, reducing the rougher flotation feed density to 35% solids, and the addition of a zinc cleaner scavenger circuit. These optimization opportunities have been incorporated into the Rosh Pinah Feasibility Study which contemplates upgrades to the primary crusher, the installation of a new single stage SAG mill circuit, the addition of a Jameson zinc cleaner scalper cell and various other circuit changes to increase the plant throughput capacity to 1.3 million tonnes per year and improve metal recovery.

## Mineral Resource and Mineral Reserve Estimates

			Grade			Metal	
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (MI bs)	Ag (K oz)
Measured	10.84	7.34	1.87	28.30	1,755	447	9,865
Indicated	9.10	7.42	1.79	27.80	1,488	359	8,132
Measured & Indicated	19.94	7.38	1.83	27.71	3,244	805	17,764
Inferred	0.78	8.09	1.41	47.36	139	24	1,183

The table below shows the Mineral Resource Estimates for the Rosh Pinah Mine as at December 31, 2021:

Notes:

(1) All Mineral Resources have been estimated in accordance with the CIM Definition Standards. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Numbers may not add up due to rounding. The Mineral Resource is shown at 100% ownership, Trevali holds a 90% joint venture interest in the Rosh Pinah Mine.

(2) The Rosh Pinah Feasibility Study is the current technical report for the Rosh Pinah Mine.

(3) The Rosh Pinah Underground Mine Mineral Resource estimate is reported based on a cut-off grade of 4% zinc equivalent.

(4) The Rosh Pinah Underground Mine Mineral Resource estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

The table below shows the Mineral Reserve Estimates for the Rosh Pinah Mine as at December 31, 2021:

		Grade			Metal		
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (M lbs)	Ag (K oz)
Proven	7.50	5.64	1.29	20.10	933	213	4,844
Probable	9.25	5.90	1.24	19.45	1,202	253	5,781
Proven & Probable	16.74	5.78	1.26	19.74	2,135	466	10,625



Notes:

- (1) All Mineral Reserves have been estimated in accordance with the CIM Definition Standards. Numbers may not add due to rounding. The Mineral Reserve is shown at 100% ownership, Trevali holds a 90% joint venture interest in the Rosh Pinah Mine.
- (2) The Rosh Pinah Feasibility Study is the current technical report for the Rosh Pinah Mine.
- (3) The Rosh Pinah Underground Mine Mineral Reserve estimate is reported based on planned stopes with a net smelter return cut-off value of \$50/tonne, with average metal prices of: \$1.17/lb zinc, \$1.00/lb lead and \$24.13/oz silver.
- (4) The Rosh Pinah Underground Mine Mineral Reserve estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

#### Mining Operations

The Rosh Pinah Mine has been in continuous operation since 1969 and underground mining methods are well established. The mine's orebodies are accessed via multiple declines. All mining is mechanized using drill rigs, scooptrams, and underground haulage trucks. Waste is hauled via declines and placed in previously mined stopes. Ore is dumped into an ore pass feeding a grizzly and primary crusher and is subsequently conveyed to the surface process plant.

Mining is done by longhole open stoping. Extraction of stopes starts on the upper levels and proceeds down dip. No backfill is used in the mine and sill or rib pillars are left where required for geomechanical purposes.

Annual mine production is typically 600,000 to 700,000 tonnes of ore from three different mining areas supplying a blend of ore types to the processing plant, and the Rosh Pinah Feasibility Study anticipates an increase in ore production to 1.3 million tonnes per annum. The blending is carried out to manage the levels of silica and iron which detrimentally impact recovery of zinc and lead, as well as to maintain a constant zinc and lead grade feed.

## Processing and Recovery Operations

The process plant at the Rosh Pinah Mine includes crushing, screening, and grinding followed by lead/zinc flotation and filtering to produce separate lead and zinc concentrates.

The run of mine ore is crushed in a primary crushing station, located underground from where it is conveyed into the beneficiation plant through a series of conveyor belts for further crushing, screening, and grinding. From the mill feed stockpiles, the ball mill is fed at a solids feed rate of 85 to 90 tonnes per hour which is also expected to increase under the Rosh Pinah Feasibility Study. The milling circuit has two stages of cyclone classification in closed circuit with the mill to produce the lead flotation feed. A third stage of cyclones dewaters the flotation feed slurry to an optimal density.

The product from the milling circuit is sent to a conditioner where frother is added before it passes on to four rougher tank cells. The concentrate from the roughers is sent to the lead regrind circuit which comprises a high-rate thickener, three stirred media detritors and a product tank. The product from the regrind circuit is sent to a first cleaner bank cell. The concentrate from the cleaner bank cell is sent to the lead column cell and the tails is recycled back to the conditioner. The rougher tails go to two scavenger tank cells. Tails from the lead column cell is recycled back to the first cleaner and the final concentrate sent to the lead concentrate thickener and belt filter for dewatering. The final lead concentrate from the belt filter is discharged onto a drying floor, where it is dried and stockpiled until loaded onto trucks for dispatch to the port of Lüderitz.

The underflow of the intermediate thickeners is fed to two zinc conditioners in series. From the conditioners it is fed to a rougher tank cell which has its concentrate sent to the zinc regrind circuit. The regrind circuit consist of a high rate thickener, a stirred media detritor and a product tank. The product from the regrind circuit is fed to a cleaner cell. The rougher tails are sent to a series of four scavenger tank cells. The concentrate from the cleaner cell feeds the final zinc column which in turn produces the final zinc



concentrate which is sent to the zinc thickener and filter press for dewatering. The final zinc concentrate from the filter press is discharged onto a drying floor, where it is further dried and stockpiled until being loaded onto trucks for dispatch to the port of Lüderitz.

The tails from the cleaner cell is combined with that of the rougher tails that feed the scavenger cells. The final column tails and the scavenger concentrate are both recycled back to the conditioners. The scavenger tails are sent to the tailings surge sump from which it is pumped to the TSF.

In 2021, the Rosh Pinah operation achieved average recoveries of 85.8% for zinc, 71.2% for lead, and 45.8% for silver.

## Infrastructure, Permitting and Compliance Activities

The Rosh Pinah Mine underground contains access ramps with a primary crusher and surface ventilation. A 2000 tonne per day ball mill with various flotation circuits comprises the process plant. There is a water storage dam and a TSF. Engineering workshops, administration offices, a supply chain warehouse and a laboratory to service the mine operations are all within the accessory works area.

Mine electrical power is directly supplied from NamPower, the national power utility company of Namibia, through its grid system. Water is supplied by the Namibia Water Corporation Ltd (NamWater) from the Orange River. Mining in Namibia is mainly regulated by the Namibia Minerals (Prospecting and Mining) Act 33 of 1992 ("**Namibia Minerals Act**"). An Environmental Impact Assessment ("**EIA**") study has been furnished to the Ministry of Environment in line with the requirements of this Act. All permits are current as per the requirements of the Environmental Management Act 7 of 2007 ("**Environmental Act**"), which came into force in 2012. The Namibia Minerals Act provides that the holder of a mineral license must take all steps to the satisfaction of the Minister to remedy any damage caused by any mining activities. A TSF expansion commenced in 2021, with anticipated completion in 2022. In line with conserving biodiversity, endangered plant species were identified and relocated prior to commencement of the TSF expansion project.

The Rosh Pinah Mine is managed through the Trevali Group Management Standards. In addition, in 2021 Rosh Pinah underwent a third-party Surveillance Audit for ISO 14001: 2015 Environmental Management System and ISO 45001:2018 Occupational Health and Safety Management System. The results of the audit reported that the management systems are fully effective and fulfil the requirements of the applied standard(s), and further recommended the maintenance of the existing certificates.

The ISO 45001:2018 certificate is valid until July 17, 2022, and the ISO 14001:2015 certificate is valid until August 1, 2023. Regular water, dust, noise and air monitoring occurred and annual evaluations of environmental performance through compliance audits were undertaken both internally and by an independent consultant in 2021.

The Rosh Pinah town is primarily a mining community built for employees. A 50/50 joint-venture company called RoshSkor was established by Trevali Rosh Pinah Zinc Corporation ("**RPZC**") and the Skorpion Zinc mine in 2001 to manage and operate the town as a private municipality. The Tutungeni township is also supported by RoshSkor and is located outside the Rosh Pinah town. Any profits made by RoshSkor are reinvested into the community. RoshSkor is responsible for the implementation of the municipal services and includes required infrastructure projects, such as providing sewage treatment, electricity, potable water, waste removal, and waste segregation, which are funded by both mines. Community development projects are led by OBIB, a local non-for-profit organization, with board members including RPZC, RoshSkor and Skorpion Zinc, and a representative from the local business community. OBIB provides programs that include training and implication of needlework, leather works, weaving carpets and other sustainability projects.

RPZC, Skorpion Zinc, and parent representatives sit on the school board that includes the management of



both the pre-primary, primary and secondary education within the community.

The Sidadi Clinic is also manged by a joint venture entity, Rosh Pinah Health Care, with members including RPZC and Skorpion Zinc and is currently providing medical, occupational health and general physician services to a broader clientele enabling a more self-sustainable medical clinic business.

## **Capital and Operating Costs**

Results for production, operating costs and sustaining capital for the Rosh Pinah mine for 2021 and 2020 are summarized below on a 100% basis:

		2021	2020
Zinc Payable Production	(million pounds)	76.1	85.6
Lead Payable Production	(million pounds)	21.0	18.2
Silver Payable Production	(thousand ounces)	188	225
C1 Cash Cost <sup>(1)</sup>	(\$/lb Zn)	0.78	0.70
All-In Sustaining Cost <sup>(2)</sup>	(\$/lb Zn)	1.06	0.86
Sustaining Capital	(\$millions)	21.2	13.9

Notes:

(1) See "Non-IFRS Measures".

(2) See "Non-IFRS Measures".

## PERKOA MINE

The scientific and technical information included in the following section has been derived from or is based upon the technical report entitled "*Technical Report on the Perkoa Mine, Burkina Faso*" by Roscoe Postle Associates Inc. and dated April 12, 2018 (effective December 31, 2017) (the "**Perkoa Technical Report**"), prepared under the supervision of Torben Jensen, Ian T. Blakley, Tracey Jacquemin, and Avakash A. Patel. Each of Messrs. Jensen, Blakley and Patel is an independent "qualified person" under NI 43-101. Ms. Jacquemin is a "qualified person" under NI 43-101 but is not considered independent of the Company as she was an employee of the Company at the time of the drafting of the Perkoa Technical Report. Scientific and technical information below which is not included in the Perkoa Technical Report has been reviewed and approved by Yan Bourassa (P.Geo), Vice President, Technical Services & Exploration of the Company and Eric Frazier (P. Eng), Principal Engineer, Projects & Studies, each of whom is a qualified person under NI 43-101.

## Property Description, Location and Access

The Perkoa Mine is located in the Sanguié Province, approximately 120 kilometres west of the capital city of Ouagadougou, Burkina Faso. Driving time from Ouagadougou is approximately 2.5 hours along paved roads, except for the last 7 kilometres, which are on graded laterite road. The project is located about 35 kilometres northwest of Koudougou, the country's third largest town, and is linked by road to the neighbouring states of Mali, Côte d'Ivoire, Ghana, Niger, Benin, and Togo and by rail to Abidjan, the capital of Côte d'Ivoire.

Trevali is the indirect owner of 90% of the share capital of Nantou Mining Burkina Faso S.A. ("**Nantou Mining**"), the entity that owns the Perkoa Mine. The Perkoa Mine consists of one exploitation permit (the



"**Perkoa Exploitation Permit**"), which contains the Perkoa main zone deposit (the "**Perkoa deposit**") and the Perkoa Exploration Permits, all located on contiguous ground. The exploitation and exploration permits comprising the Perkoa Mine are subject to the 2003 Burkina Faso Mining Code.

The Perkoa Exploitation Permit was granted on March 20, 2007, and formally grants Nantou Mining the rights to develop and operate the Perkoa Mine. It is scheduled to expire on March 20, 2027. The total area of the Perkoa Exploitation Permit is 6.24 square kilometres, and the permit is of sufficient size for the mining operations. Trevali indirectly holds 90% of the share capital of Nantou Mining while the government of Burkina Faso holds 10%, in accordance with the 2003 Burkina Faso Mining Code. This 10% government participation must be maintained when there is an increase in the capital of Nantou Mining. The government also collects various taxes and duties on the imports of fuels, supplies, equipment, and outside services.

The Perkoa Mining Convention between Nantou Mining and the government of Burkina Faso was signed by the Minister of Mines of Burkina Faso on August 27, 2008 and sets out the fiscal and legal terms with respect to the operation of the Perkoa Exploitation Permit, including taxation rates applicable to the project as per the 2003 Burkina Faso Mining Code. The Perkoa Mining Convention is valid for 20 years commencing on the date of the grant of the Perkoa Exploitation Permit and may be renewed for subsequent periods of ten years, until the mining reserves have been depleted.

The Perkoa Exploitation Permits were surrounded by the Poa exploration permit and the Guido exploration permit which covered a total area of 231.83 square kilometres. The Poa and Guido exploration permits were originally granted to Blackthorn Resources Limited ("Blackthorn") on July 10, 2007 and were subsequently transferred to Nantou Exploration on March 2, 2015. An exceptional renewal application for the Perkoa Exploration Permits was approved on October 26, 2017 and backdated to July 10, 2016. The Perkoa Exploration Permits were valid until July 10, 2019 and were no longer able to be renewed. On July 11, 2019, the Perkoa Exploration Permits were immediately reapplied for under Sanguie Exploration and renamed Kikio and Semapoun exploration permits, covering a total area of 234.9 square kilometres, and the applications were granted on June 2, 2020. Three new exploration permits, namely Viveo exploration permit, Kordie exploration permit and Pilimpikou exploration permit, which cover a total area of 570.8 square kilometres to the northeast of Perkoa were granted to Nantou Exploration on July 19, 2019 for Viveo and Pilimpikou and on June 2, 2020 for Kordie. All three concessions have been granted for an initial term of 3 years, with the option of 2 renewals for 3 years each. Viveo, Pilimpikou, Kikio, Kordie and Semapoun are collectively, the "Perkoa Exploration Permits" and cover a total area of 805.4 square kilometres. The 2003 Burkina Faso Mining Code gives the exploration permit holder the exclusive right to explore for the minerals requested on the surface and subsurface within the boundaries of the exploration permit. The Perkoa Exploration Permits are held by Nantou Exploration S.A. ("Nantou Exploration") and Sanguie Exploration S.A. ("Sanguie Exploration"), which are both owned 100% by Trevali. Should an exploitation permit for any portion of the Perkoa Exploration Permits be granted, the government shall automatically receive a 10% interest in the new exploitation company that would need to be established. A new mining convention would have to be negotiated in accordance with the new mining code of 2015, currently not applicable to Nantou Mining, and which would entitle the government to purchase an additional equity interest.

Effective July 30, 2021, the Company entered into definitive agreements with Arrow Minerals Limited ("**Arrow Minerals**"), a West African gold exploration company with a principal focus on Burkina Faso, forming an exploration joint venture that grants the parties reciprocal exploration rights to each other's exploration permits in the highly prospective Boromo gold belt in Burkina Faso which is currently underexplored for base metals. These definitive agreements allow Arrow Minerals to perform gold exploration over the Trevali permits and a reciprocal arrangement for Trevali to undertake base metals exploration on Arrow Minerals' permits.

Nantou Mining has all required permits to conduct the work on the property and the Perkoa Exploitation Permit is of sufficient size for the mining operations. Surface rights in the area of the Perkoa Exploitation Permit belong to the government of Burkina Faso. Utilization of the surface rights is granted by the Perkoa Exploitation Permit under the condition that the current users are properly compensated. All the taxes



relating to Nantou's Mining Rights have been paid to date and the concession is in good standing. The Company is not aware of any undisclosed environmental liabilities on the property. The contiguous Exploitation and Exploration Permits that cover the Perkoa Mine are herein referred to as "**Perkoa**".

Other than as described above, the Company is not aware of any rights, agreements or encumbrances to which Perkoa is subject that would adversely affect the value of the property or Trevali's ownership.

## History

The Perkoa area has been explored by a number of companies since 1979. The initial exploration was undertaken between 1979 and 1982 by *Bureau des Mines et de la Geologie de Burkina* ("**BUMIGEB**"), the Burkina Faso state-run geological research and mining company, as part of a wider United Nations Development Program research program. This was followed by further exploration by La Société Minière et Métallurgique de Peñarroya and BUMIGEB, Boliden AB, Billiton plc (now BHP plc) and Metorex (Pty) Limited, before AIM Resources Ltd. ("**AIM Resources**"), which subsequently changed its name to Blackthorn, took over the project in 2005.

Between 2005 and 2008, AIM Resources completed drilling for exploration and metallurgical test work and produced a Bankable Feasibility Study in December 2005 ("**Perkoa BFS**") that was completed by Snowden Mining Industry Consultants (see below under "*Mineral Processing and Metallurgical Testing*").

In March 2007, AIM Resources was awarded the Perkoa Exploitation Permit and commenced construction of a 525,000 tonne per annum mining operation based upon the Perkoa BFS. In July 2008, construction was halted and Perkoa was placed on a care and maintenance program due to declining zinc prices.

In late 2010, a joint venture between Blackthorn (39.9%) and Glencore (50.1%) was formed and construction resumed in December 2010 with the first delivery of zinc concentrate occurring in early 2013. In May 2014, Blackthorn and Glencore reached an agreement whereby Glencore increased its interest to 90%. In 2017, Trevali acquired Glencore's 90% interest in Perkoa.

## Geological Setting, Mineralization and Deposit Types

The Perkoa deposit lies in a felsic to intermediary series of volcanic and volcaniclastic rocks, within the Paleoproterozoic Birimian Supergroup of West Africa. The prospective Birimian-aged rocks in Burkina Faso are the same sequences that host major gold deposits in Burkina Faso and in the neighbouring countries of Ghana and Mali. The Birimian Supergroup of West Africa is renowned for their gold mineralization; however, known occurrences of base metals are scarce. The Perkoa deposit represents the only significant zinc-silver massive sulphide mineralization discovered in the Birimian to date and it is also the first zinc-silver massive sulphide mineralization discovered in this region. Only zinc is being recovered at the Perkoa Mine.

The Perkoa deposit has been classified as a volcanogenic massive sulphide ("**VMS**") deposit. VMS deposits are lenses and sheets of massive sulphide that form from seafloor hydrothermal systems where metal rich fluids precipitate on (exhalative) or near the seafloor (sub-seafloor replacement.). The Perkoa mineralization occurs as a series of stacked, northeast-southwest striking tabular VMS lenses hosted, and separated by, tuffaceous material that has been overturned with an average dip of approximately 70°. The deposit is unusual for its high concentrations of zinc and barium mineralization, and relatively low levels of lead and copper. Mineralization occurs within two continuous VMS lenses, the main Perkoa lens and the Hanging Wall lens. The main lens outcrops on surface and extends to a depth of approximately 620 metres below the topographic surface, characterized by a strike length that varies between 300 and 470 metres with a width that varies between 5 metres to 25 metres. The Hanging Wall lens extends from approximately 100 metres below the topographic surface down to a depth of approximately 820 metres with a strike extension that varies between 250 metres to 350 metres. Thickness of the Hanging Wall lens is narrower than the Main lens, varying from 5 metres to 15 metres.



## Exploration

The areas covered by the Exploration Permits, as well as other areas along the Perkoa Mine Horizon, are considered highly prospective for base metal mineralization. Perkoa is a VMS deposit, a style of mineralisation which usually occurs in multiple syn-volcanic mounds. The exploration programs conducted along the Boromo belt by Trevali are targeting more VMS style mineralization using a combination of ground Fluxgate Electromagnetic ("EM") surveys, laterite and saprolite geochemistry and diamond drilling.

## Drilling

As at December 31, 2021, the Perkoa drill hole database contained 624 holes, totalling 137,481 metres, from 176 surface and 448 underground diamond core holes. In addition, there are 56 geotechnical drill holes totalling 1,488 metres. Approximately 23,000 metres of drilling was completed prior to 2005 by previous operators. Perkoa mine's drilling statistics for 2021 as at December 31, 2021 are presented below:

Perkoa	2021 Drillholes	2021 Drillholes 2021 metres		Total metres
Surface Exploration	23	8,954	176	61,963
UG Exploration	1	326	46	21,049
UG Infill Drilling	45	5,833	402	54,470
Total	69	15,113	624	137,482

## 2021 Perkoa In-Mine Exploration

During 2021, the underground infill drilling program targeted Inferred and Indicated Mineral Resources in the lower levels of the Hanging Wall lens between depths of 600 metres and 800 metres to upgrade the Mineral Resources respectively to Measured and Indicated levels.

The mineralization at Perkoa is closed off at depth for both the Main and Hanging Wall lenses. The 2021 underground exploration drilling program targeted new zones of mineralization in the hanging wall of both ore zones currently in production. A total of 798.5 metres of underground exploration drilling was conducted along 4 holes in 2021, with one exploration hole and three infill holes extended to provide exploration information. Most holes were collared in the footwall of the Main Perkoa lens and drilled past the Hanging Wall lens. A new mineralized VMS horizon was discovered in 2019 with the underground exploration program, referred to as the T3 horizon. The 2021 surface drilling to followed up on the previous T3 intercepts continued with the completion of a two-hole program. The holes were targeting step-out drilling along strike and down plunge from the previous intercepts to try and expand on the currently defined T3 Zone. Both holes intersected the altered volcaniclastic horizon that hosts the T3 Zone, but only the down plunge extension hole intersected a narrow-mineralized horizon. The presence of strong syn-volcanic alteration in both holes is an indication that the T3 horizon is extensive and that more exploration is needed to fully test the zone. The four underground exploration drill holes all intercepted the T3 horizon with narrow lengths between 0.4 and 3.8 metres, see table below. The horizon has been defined over a strike length of approximately 400 metres and down to a depth of approximately 1,300 metres below the topographic surface. The horizon is characterized by massive to semi-massive, fine grained sphalerite and pyrite dominant VMS mineralization with textures similar to the Main and Hanging Wall lenses over widths varying from 1 to 3 metres.



Hole ID	From	То	Length (m)	Zn %	Pb %	Ag g/t	Au g/t
PU473	234.97	235.70	0.73	2.46	0.84	21.50	0.05
PU477	299.76	300.65	0.89	3.50	0.05	9.46	0.05
PU480	231.54	235.35	3.81	10.67	0.96	58.02	0.11
incl.	233.30	233.83	0.53	25.20	1.11	77.10	0.12
PUX027	284.93	285.30	0.37	26.50	>10%	36.80	0.18
plus	290.15	290.45	0.30	6.53	0.11	12.05	0.12

Hole ID	x	Y	z	Azimuth	Dip	Length
PU480	543,309	1,368,138	-306	346	-49	244
PU473	543,309	1,368,139	-306	14	-34	299
PU477	543,308	1,368,138	-306	2	-51	425
PUX027	543,308	1,368,137	-306	312	-54	326

Located directly North and along strike of the T3 Horizon, four holes were drilled on the anomaly targeting a combination of electromagnetic ("**EM**") anomalies and surface geochemistry located between 300 – 500 metres North of the T3 horizon. The second hole drilled at the gap anomaly intersected a narrow massive volcanogenic massive sulphide ("**VMS**") horizon made of mostly pyrrhotite suggesting that the T3 Horizon extends another 300 metres to the North of the current T3 drilling. Given the narrow nature of the 2021 drilling intercepts encountered so far during the first three quarters, the decision was made to suspend the drilling programs until the underground ramp is deep enough to test the T3 horizon at depths deeper than 1,000 metres below surface. Drilling will resume in Q1 2022 once the ramp has reached the deepest level which will provide better drilling angles at depth.

## 2021 Perkoa Regional Exploration

The Regional exploration included ground fluxgate electro-magnetic ("**EM**") surveys and drill testing these targets. The targets drilled in 2021 were Aswe (4 holes, 1,187 metres), AF2 (2 holes, 1,065 metres), L2T1 (2 holes, 943 metres), Semapoun (2 holes, 905 metres) Granite Curve (3 holes, 456 metres) and Guido East (1 hole 641 metres). No significant mineralized intercepts were returned, but Quartz-Sericite-Pyrite alteration typically related to VMS deposits was intercepted at L2T1 and AF2, both requiring further investigation. At Semapoun and Granite Curve the drilling results indicate that the geophysical targets are related to graphitic shales and contact metamorphism respectively and are no longer regarded as prospective, at Aswe the anomaly is unexplained, and alteration intercepted is related to surficial leaching /deep weathering processes.

Exploration activities also commenced with the Arrow Minerals Joint Venture with the initial collection of BLEG stream sediment samples on the Viveo, Kordie and Pilimpikou concessions by Arrow Minerals and



and the commencement of RC drilling on the Semapoun permit with 1,529 holes and 3,056 metres completed by December 31, 2021.

## Perkoa 2022 Exploration Outlook

The planned 2022 exploration program will be a continuation of the previous exploration programs at Perkoa with drilling targeting the T3 horizon along strike to the Southeast, a total of 6,000 metres has been planned for the T3 horizon exploration program. Regionally, a 4,000 metres program has been planned to drill test EM anomalies defined by the 2021 geophysical programs East of the Perkoa Mine.

Further regional exploration work will continue in 2022 on the Boromo belt with the Arrow JV. An airborne magnetic survey has been planned over the Viveo, Kordie and Pilimpikou concessions as well as a soil geochemistry program to follow-up on the BLEG stream program.

## Sampling, Analysis and Data Verification

Drill core is delivered to the surface core processing facility by the drilling contractor. Core is carefully logged with geological and geotechnical information being recorded by visual determination and estimations. Specific Gravity ("**SG**") measurements for every sample are recorded on site at Perkoa by weighing in air and water. Blind selected samples have been sent to a third-party laboratory for validation of SG measurements. Core is photographed in a wet state under natural light.

NQ core is split into half along the marked axial planes using a diamond saw. A geologist samples half of the split core in interval limits of 0.25 to 1.5 metres. Samples do not cross lithologies. The sampled core pieces are packed in new small sample plastic bags and tagged with duplicate labelled sample tickets. The geologist ensures that the Quality Assurance / Quality Control ("QA/QC") processes are followed during sample submission.

From 2013 to 2017, core samples were sent to SGS Ouagadougou for crushing and pulverizing, and the pulps were then sent to SGS South Africa for analysis. A decision was made in early 2017 to change the analytical laboratory from SGS South Africa to SGS Canada to facilitate improved sample turn-around times. Following an in-country sample preparation laboratory review held in August 2017, the laboratory was changed to ALS, an independent laboratory. All new assays are now prepared (crushed and dried) at ALS in Ouagadougou prior to being sent to ALS in Vancouver for analysis.

ALS has internal QA/QC procedures to ensure the results are accurate. The onsite Perkoa Mine laboratory analyses are used only for mine production sampling (channel samples, face samples, stockpile samples) and for process plant sampling utilizing X-ray florescence (XRF) spectroscopy. Plant metallurgical samples, which arrive in liquid state, are kept separate from geology samples at all stages of preparation and analysis. This laboratory is not certified, and assays are not used in the Mineral Resource estimate. However, the Perkoa Mine Laboratory's XRF assays are used to determine concentrate grades. Composite samples are sent to Alfred H. Knight International Ltd. for independent confirmation.

No information is available on the sample preparation, assay laboratory, or QA/QC for the pre-2005 drill holes. Samples collected by Blackthorn from 2008 to 2011 were analyzed by ALS in Vancouver, Canada after sample preparation in Ouagadougou, Burkina Faso. The first channel and face samples collected onsite on mining levels 70 to 130 were all analyzed by ALS in Vancouver, Canada after sample preparation in Ouagadougou, Burkina Faso. All samples assayed thereafter for channel and face samples were analyzed at the onsite mine laboratory by pressed pellet XRF analysis.

QA/QC procedures are performed systematically at the mine. Blank and standard samples are systematically inserted on a regular sample batch interval at the rate of every 25 samples and are routinely evaluated when results are received. SGS also inserted a suite of internal laboratory blanks and certified reference material standards at a frequency of approximately 14%. The commercial geochemical analytical



laboratories in Burkina Faso and South Africa, and more recently Vancouver, comply with international standards for specific registered tests for the minerals industry and follow strict, industry recognized, QA/QC protocols. Audits of the assaying labs are performed occasionally.

Drill and mine samples are handled and transported only by the Perkoa Mine personnel or contractors. Core samples are conveyed to Ouagadougou by Perkoa transportation personnel or by courier. Pulp sample transport is the responsibility of ALS who relies on commercial carriers. Assay results are sent electronically to the Drill Database Administrator and are also accessible on the ALS Webtrieve system which is securely accessed via the internet. A 5% zinc cut-off grade is used for calculation of composite intervals.

#### Mineral Processing and Metallurgical Testing

The Perkoa deposit is amenable to conventional sulphide flotation, as determined by lab scale testing conducted in 1987, 1998 and 2005 by prior operators prior to mine construction. The main sulphide constituents are sphalerite, pyrite, pyrrhotite and barite with trace quantities of quartz, chlorite and muscovite. The silicates are liberated from the sulphides at a coarse crush size. The sphalerite is liberated from the iron sulphides at a relatively coarse grind of 65% passing 75 microns.

Based on Bond Work Index test work conducted as part of the 2005 Perkoa BFS, the orebody can be classified as soft, with the mining waste being harder. Variability testwork has shown that some areas within the orebody respond better to flotation than others; however, the relative proportions of "good" and "poor" ores have not been quantified. Test work was based on the entire bulk composite that was made up from the samples and included these poor response ores and therefore reflects an "average" response.

In the 2005 Perkoa BFS, the flotation response of the ore was generally good, and a simple rougher stage is required to make good zinc recoveries greater than 95% at concentrate grades greater than 50% zinc. It is, however, necessary to have a relatively low percentage of solids in the slurry fed to the flotation plant to minimize the interaction of gangue with the fast-floating sphalerite. Test work completed in 2017 at XPS Materials Testing Laboratory in Sudbury, Ontario, indicated that iron sulphide zonation within the orebody and specifically areas with an increased pyrrhotite content could negatively impact recovery and concentrate grade.

#### Mineral Resource and Mineral Reserve Estimates

		Grade			Metal		
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (MI bs)	Ag (K oz)
Measured	1.51	12.72	-	-	424	-	-
Indicated	1.20	9.48	-	-	251	-	-
Measured & Indicated	2.71	11.29	-	-	675	-	-
Inferred	0.47	8.51	-	-	88	-	-

The table below shows the Mineral Resource Estimates for the Perkoa Mine as at December 31, 2021:

Notes:

(1) All Mineral Resources have been estimated in accordance with the CIM Definition Standards. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Numbers



may not add up due to rounding. The Mineral Resource is shown at 100% ownership, Trevali holds a 90% joint venture interest in the Perkoa Mine.

- (2) The Perkoa Technical Report is the current technical report for the Perkoa Mine.
- (3) The Perkoa Underground Mine Mineral Resource estimate is reported based on a cut-off grade of 5% zinc equivalent.
- (4) The Perkoa Underground Mine Mineral Resource estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

The table below shows the Mineral Reserve Estimates for the Perkoa Mine as at December 31, 2021:

		Grade		Metal			
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (M lbs)	Ag (K oz)
Proven	0.73	11.31	-	-	181	-	-
Probable	0.23	9.45	-	-	48	-	-
Proven & Probable	0.96	10.86	-	-	229	-	-

Notes:

(1) All Mineral Reserves have been estimated in accordance with the CIM Definition Standards. Numbers may not add due to rounding. The Mineral Reserve is shown at 100% ownership, Trevali holds a 90% joint venture interest in the Perkoa Mine.

(2) The Perkoa Technical Report is the current technical report for the Perkoa Mine.

(3) The Perkoa Underground Mine Mineral Reserve estimate is reported based on planned stopes with a net smelter return cutoff value of \$90/tonne, with an average zinc price of \$1.39 per pound.

(4) The Perkoa Underground Mine Mineral Reserve estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

#### **Mining Operations**

The Perkoa Mine is now an underground operation, however, a small open pit was mined to reach near surface material during initial start-up to increase plant throughput as the underground mine ramped up production. The open pit was closed in early 2014. For the underground mine, the mining operations are carried out by a mining contractor, which supplies manpower and equipment. Nantou Mining personnel provide geological and engineering services.

Longhole stoping is being used as the primary extraction method. There are several variations on this mining method employed such as longitudinal and transverse, with both bottom-up and top-down mining sequences. The exact method chosen is dependent on the orebody geometry. Stopes are backfilled either with cemented rock fill ("**CRF**") or waste rock.

#### **Processing and Recovery Operations**

The process plant at the Perkoa Mine is a conventional sulphide flotation plant capable of processing ore at a rate between 1,800 and 2,100 tonnes per day. The process plant includes crushing, screening, and grinding, followed by zinc flotation and filtering to produce a zinc concentrate. The process plant originally included a lead recovery circuit, which has been reconfigured to increase capacity in the zinc recovery circuit due to higher zinc head grades. Zinc concentrates are trucked 1,200 kilometres to the port of Abidjan, Côte d'Ivoire, for shipping under a life of mine off-take agreement with Glencore. In 2021, the Perkoa operation achieved an average zinc recovery of 89.6%.



### Infrastructure, Permitting and Compliance Activities

Existing surface and underground infrastructure at the Perkoa Mine include an 1,800 to 2,100 tonne per day process plant, a decline and a series of ramp-connected levels, a laboratory, various administrative, workshop, and warehouse buildings and a camp for non-local personnel. Energy for all areas of the mine is produced by self-managed generators, which provides for energy security. Water for the process plant is supplied by pipeline from Seboun dam, 18 kilometres to the northeast of the mine. Water for domestic use at the camp is pumped from three boreholes located on the mine site.

Environmental audits must be carried out in accordance with Article 4 of Decree No. 2013-055 of May 2, 2013. The Group Environment Standard provides the thresholds and practices that allow adherence to best global practices. Regular monitoring and evaluation of environmental performance is undertaken through compliance audits is undertaken by the regulator. A formal audit third party Environmental and Tailing Storage Facility (**"TSF**") audit process was completed and the majority of findings addressed in 2021.

The Perkoa Mine has areas of waste disposal including a TSF, waste treatment facilities and a "scats" stockpile that generate both general and hazardous waste. The mine currently has a TSF licensed by the Ministry of Environment that comprises three areas. At the present the TSF1 has been filled and is ready for closure and rehabilitation and TSF2 has three phases. Phase 1 and Phase 2 were completed in 2020, with the construction of Phase 3 completed in 2021.

Stakeholder engagement is managed through a tripartite committee, comprised of representatives from Nantou Mining, the local communities, and the local administrative authorities. The Perkoa Mine has a procedure in place, signed by Nantou Mining and the Youth Committee on June 12, 2015, to use local unskilled labour and to favour local labour. In general, the Perkoa Mine has maintained a strong relationship with the 14 villages that exist around the mine and all the traditional annual sacrifices were completed with the financial support of Trevali.

In 2021, Perkoa Mine fully paid its funding contributions into the Local Development Mining Fund for the period January to September 2021. The payments for in the period October to December 2021 are expected to be paid in the first quarter of 2022. The Perkoa Mine is also up-to-date with its payment in the previously established rehabilitation fund account held with the Central Bank of Burkina Faso. The vocational training centre of Réo is fully funded by Trevali and it has achieved a success rate of 92% at the final national exam. The Company had already completed the construction of a youth centre, two grammar schools in the Perkoa and Pao villages, an equipped a literacy centre, and housing with piped potable water, the Perkoa Health and Social Promotion Centre, water boreholes for community use, a literacy program, and a vocational training centre.

The Perkoa HIV/AIDS committee has conducted many communication activities, blood screening, hepatitis vaccination campaign on behalf of the local community and a food stuffs (rice and millet) distribution to vulnerable people. Some of the Perkoa contractors have supported these HIV/AIDS initiatives by contributing financially. In 2021, the National Council for the fight against HIV/AIDS awarded Trevali with the first prize for its role in the fight against HIV/AIDS.

The Perkoa operation is protected by security fencing and access control systems. A crew of national police force is permanently on site to reinforce the private security team provided by a local service provider. Trevali security employees and the contractors are trained in the Voluntary Principles on Security and Human Rights, with refresher training provided in 2021. Trevali also continues to participate with the MAC working group on security, which enables intelligence sharing.

Given the escalation of the threat and frequency of terrorist events in Burkina Faso and surrounding countries, in 2021 Trevali undertook third party assessments against the current security threat level, controls and planning aspects, that resulted in a number of risk management activities and included increased intelligence services, peer reviews, and an updated Trigger Action Response Plan ("**TARP**"). The



TARP outlines various scenarios that could occur and then defines specific actions that Trevali will take if a certain "trigger(s)" occurs. Trevali remains in close contact with various government agencies, the communities, and outreach bodies to monitor the risks and enable efficient and timely response.

### **Capital and Operating Costs**

Results for production, operating costs and sustaining capital for the Perkoa Mine for 2021 and 2020 are summarized below on a 100% basis:

		2021	2020
Zinc Payable production	(million pounds)	155.0	150.0
C1 Cash Cost <sup>(1)</sup>	(\$/lb zinc)	0.96	0.95
All-In Sustaining Cost <sup>(2)</sup>	(\$/lb zinc)	1.03	1.05
Sustaining Capital	(\$millions)	8.2	11.2

Notes:

(1) See "Non-IFRS Measures".

(2) See "Non-IFRS Measures".

### **CARIBOU MINE**

The scientific and technical information included in the following section has been derived from or is based upon the technical report entitled "*Technical Report on the Caribou Mine, Bathurst, New Brunswick, Canada*" by Roscoe Postle Associates Inc. dated May 31, 2018 (effective December 31, 2017) (the "**Caribou Technical Report**"), prepared under the supervision of Torben Jensen, Ian T. Blakley, Tracey Jacquemin and Shaun C. Woods. Each of Messrs. Jensen and Blakley is an independent "qualified person" under NI 43-101. Ms. Jacquemin and Mr. Woods are each a "qualified person" under NI 43-101 but are not deemed independent of the Company as Ms. Jacquemin was an employee of the Company at the time of the drafting of the Caribou Technical Report and Mr. Woods is still employed by the Company. Scientific and technical information below which is not included in the Caribou Technical Report has been reviewed and approved by Yan Bourassa (P.Geo), Vice President, Technical Services & Exploration of the Company and Eric Frazier (P. Eng), Trevali's Principal Engineer, Projects & Studies, each of whom is a "qualified person" under NI 43-101.

#### **Property Description, Location and Access**

The Caribou Mine is located in Restigouche County in the province of New Brunswick, Canada, approximately 55 kilometres west of the coastal community of Bathurst. The property is accessed by paved highway and then by a four-kilometre gravel road to the main mine infrastructure.

The Caribou Property is 100% owned by Trevali and consists of mining lease ML 246, mineral claim 1773, industrial surface lease No. SIML2271 and freehold lands known as PID 50072032. ML 246 covers an area of 3,105.7 hectares and contains the Caribou Mine. The mining lease has a 20-year term and expires on October 27, 2028. Mineral claim 1773, also known as the Woodside Brook, covers a total area of approximately 826 hectares. Annual assessment work is required to renew mineral claim 1773. Industrial surface lease No. SIML2271 covers approximately 90 hectares, which includes the TSF area, has a 20-year term and is set to expire on May 31, 2026. The mining lease that covers the Caribou Mine is hereinafter referred to as "**Caribou**".

Caribou is subject to two royalties or royalty-type taxes with differing methods of calculation:



- A 2% provincial royalty of the annual net revenue generated by the mining operation, which is equal to the gross revenue derived from mine output and commodity hedging less allowable transportation, costs for outputs sold, refining, smelting, and milling costs, and processing allowances; and
- A 16% provincial net profits tax on annual net profits exceeding C\$100,000. Net profit is calculated as the mine's gross revenues less allowable costs, specified allowances for depreciation, financing expenses, processing, eligible exploration expenditures, as well as the 2% provincial royalty paid. The net profits tax may be further reduced by tax credits related to eligible process research expenditures and exploration expenditures using advanced exploration technologies.

The Company has formal surface access agreements in place and the Caribou Mine site is a fully permitted facility that allows for mining and milling under the existing Certificate of Approval. The addition of a copper circuit to produce a copper concentrate has been reviewed and a Certificate of Determination to proceed was issued to the Company.

### History

The Caribou Mine has been previously developed and mined by different owners, employing a variety of mining methods.

Early exploration work at Caribou in 1954 by Anaconda Canada Exploration Ltd. ("**Anaconda**") included an airborne EM survey over the property. Anaconda carried out preliminary surface mapping and exploration work in 1955 and began drilling the deposit in 1956. In 1959, Anaconda excavated a 380-metre long 2.4 metre by 2.7 metre adit to obtain a bulk sample of the mineralization. In 1965, Anaconda extended the adit to cover the entire deposit and discovered the supergene copper gossan by excavating a ventilation raise through the oxidized zone.

The mine began production from an open pit on the oxidized zone in 1970 and in 1971 mining continued in the sulphide body accessed from a ramp. Production ended in December of 1971. Anaconda initiated a second phase of production in 1973 and production ceased in November of 1974 and the project was placed on care and maintenance.

In 1980, Anaconda re-initiated exploration on the property and carried out a deep drilling program to test the continuity of the Caribou zone at depth. Anaconda also carried out limited test mining and processing that concluded with 25,400 tonnes of plant feed being milled at the Brunswick mine plant. In 1983, Anaconda built a gold-silver heap leach facility and processed 61,500 tonnes, producing 106,000 ounces of silver and 8,100 ounces of gold.

The project was transferred to the East West Caribou Mining Company Limited ("**East West**") in 1986. Between 1986 and 1988, East West initiated pre-production construction that included underground development and the construction of a concentrator on the property. East West re-initiated production at Caribou in 1990 and shortly after, the mine was shut down due to various operating problems.

In 1990, Breakwater Resources Ltd. ("**Breakwater**") acquired East West and briefly re-opened the mine producing 728,400 tonnes. The mine was closed in 1990 due to poor metallurgical recoveries. Metallurgical test work performed by Lakefield Research in 1994 demonstrated that lead and zinc concentrates could be produced with significantly higher recoveries than had been achieved in the past.

In 1996, Breakwater began construction of a new mill at Caribou and carried out surface exploration work on the property including the re-estimation of the Mineral Resources. Breakwater carried out soil and stream sediment sampling and magnetic and induced polarization geophysical surveys. Breakwater also drilled eight diamond drill boreholes totalling 2,659 metres. The drilling program was successful in identifying massive sulphide lenses at depth and production was re-initiated in July of 1997. In 1998, Breakwater drilled



an additional five boreholes for 1,664 metres. Production was stopped again in August 1998 after having produced 586,598 tonnes grading 6.32% zinc and 2.93% lead and the mine was placed on care and maintenance.

From 1999 to 2000, Breakwater undertook several engineering studies to determine the feasibility of reopening the Caribou Mine. Mineralogical and metallurgical studies were carried out at Lakefield Research, preliminary engineering review of the modifications required to the concentrator, as well as detailed engineering reviews of critical environmental projects, were also carried out.

In 2006, the property was acquired by Blue Note Metals Inc., who re-opened the mine in 2007 but ceased production in 2008 after mining about 517,000 tonnes. In 2009, Maple Minerals Corporation acquired Caribou from bankruptcy. On November 2, 2012, Trevali gained control of Caribou through the acquisition of Maple Minerals Corporation.

#### Geological Setting, Mineralization and Deposit Types

The Bathurst Mining Camp occupies a roughly circular area of approximately 70 kilometres diameter in the Miramichi Highlands of northern New Brunswick. The area boasts some 46 mineral deposits with defined tonnage and another hundred mineral occurrences, all hosted by Cambro-Ordovician rocks that were deposited in an ensialic back-arc basin.

The volcanogenic massive sulphide deposits in the Bathurst Mining Camp formed in a sediment-covered back-arc continental rift during periods when the basin was stratified with a lower anoxic water-column. The basin was subsequently intensely deformed and metamorphosed during multiple collisional events related to east-dipping subduction of the basin. The rocks in the Bathurst Mining Camp are divided into five groups: the Miramichi, Tetagouche, California Lake, Sheephouse Brook, and Fournier groups, which are largely in tectonic contact with one another. The lower part of each group is dominated by felsic volcanic rocks and the upper part by mafic volcanic rocks, which are overlain by carbonaceous shale and pelagic chert. The basalts are both tholeiitic and alkalic and show a progression from enriched, fractionated continental tholeiites to alkali basalts to more primitive, mantle-derived midocean ridge, tholeiitic pillow basalts. Most massive sulphide deposits of the Bathurst Mining Camp are associated with felsic volcanic rocks in each group.

The Caribou deposit is a VMS deposit, is located in the northern part of the Bathurst Mining Camp and occurs in the core of a synformal structure that plunges steeply (80°-85°) to the north. The Caribou deposit is a VMS typical of the Bathurst Mining Camp but is sufficiently distinct from the Brunswick type to warrant a subtype designation (Caribou type) within the Bathurst Mining Camp. Unlike the Brunswick-12 deposit, which is hosted by the Tetagouche Group, the Caribou deposit occurs in the California Lake Group near the base of a felsic volcanic rock sequence that comprises part of the Spruce Lake Formation. The Spruce Lake Formation volcanic rocks are petrologically and geochemically distinct from those of the Tetagouche Group. Furthermore, the Caribou deposit is not associated with the Algoma-type carbonate-oxide-silicate iron formation that overlies and is lateral to the Brunswick-12 and Heath Steele deposits.

Mineralization within the Caribou deposit is composed of seven *en échelon* lenses striking parallel to the Caribou fold numbered 10 to 80 that are zoned mineralogically and chemically from a copper-rich vent-proximal facies (vent complex) near the bottom and western part of each lens, to a lead-zinc-rich vent-distal facies (bedded sulphides) near the top and eastern part of each lens. The zones typically consist of 90% sulphides, mainly pyrite, sphalerite, galena and chalcopyrite. The main gangue minerals are magnetite, siderite, stilpnomelane, quartz and chlorite. Lenses 10, 20, 30, 70, and 80 occur on the north limb of the Caribou fold while lenses 40 and 60 are mostly on the eastern limb of the fold. Individual lenses vary in thickness between a few metres to approximately 30 metres and extend over 1,000 metres along strike on the North Limb. Lenses on the Eastern Limb pinch at a depth of approximately 800 metres below the topographic surface while lenses along the North limb have been drilled to a depth of approximately 1,000 metres and are still open at depth.



### Exploration

AeroVision Mag-Drone magnetometer surveys were conducted on the Halfmile Lake Central and California Lake Mineral Claims as part of the required exploration work commitments to maintain the claims in good standing. The analysis and interpretation of the results aimed at providing a better understanding of the structural geology and stratigraphy are still in progress and will continue in 2022.

### Drilling

No exploration or infill drilling was conducted at Caribou following the decision to restart the Caribou Mine in February 2021.

Caribou	2021 Drillholes	2021 metres	Total Drillholes	Total metres
Surface Exploration	0	0	97	49,192
UG Exploration	0	0	86	19,582
UG Infill Drilling	0	0	1,463	104,410
Total	0	0	1,646	173,184

Caribou mine's drilling statistics for the project as of December 31, 2021 are presented in the table below:

### New Brunswick 2022 Exploration Outlook

The 2022 exploration program in the Bathurst Mining Camp will be focusing primarily on data compilation, analysis of regional databases and targets generation. Several limited field programs are planned to maintain the mineral claims in good standing. At Caribou, no major drilling programs have been planned for 2022, but infill and Mineral Resource conversion programs may be undertaken from underground below the current workings.

### Sampling, Analysis and Data Verification

No information is available on the sample preparation and security for the historical data collected by previous owners of the property. Drilling and data collection at Caribou since Trevali's acquisition of project adheres to "Trevali's Drilling—Logging and Sampling Procedures for Drill Core".

Drill and mine samples are handled and transported only by the Caribou Mine personnel or contractors to ensure their security. Drill core is transported in core boxes directly from the drill rigs to the onsite core logging facility for processing. All geotechnical and geological logging personnel utilize a site-specific hierarchical coding system designed to ensure continuity of the logging parameters for the duration of the exploration programs, helping to maintain order, quality, and completeness of data collection. All drill core is marked by the site geologist and is logged, digitally photographed, and bulk density is measured prior to cutting and sampling.

While the relevant sample batch is being prepared, samples are securely stored on site in a lockable, purpose-built sample dispatch area. Samples are then delivered to the on-site lab preparation area that is operated by the Company. As part of the QA/QC program, control samples are added, which includes field duplicates (quartered core) at an approximate rate of 1 in 20, certified reference materials at an approximate rate of 1 in 20, and certified blank material at a rate of approximately 1 in 40.



Samples are shipped to an independent laboratory, Bureau Veritas Minerals Laboratories, in Timmins, Ontario, then forwarded to Vancouver, British Columbia for assay. SGS and BVML's quality systems comply with the requirements for the International Standards ISO 17025 with CAN-P-1579 designation. Analytical accuracy and precision are monitored by the analysis of reagent blanks, reference material and replicate samples. Quality control is further assured by the use of international and in-house standards.

The Mineral Resource cut-off grade for the Caribou Mine is 5% zinc equivalent.

### Mineral Processing and Metallurgical Testing

Metallurgical performance and design criteria for the rehabilitated Caribou processing plant outlined in the Caribou Technical Report was based upon the operating history of the plant, metallurgical test work results available from previous operations, and extensive laboratory test work programs. This work included the addition of a new copper flotation circuit design to recover copper from the lead circuit tailings. The Company continues to focus on zinc and lead recoveries and, as of the date hereof, the copper circuit is not being utilized.

Inclusive of downtime, the mill can operate at an average throughput rate of approximately 2,800 tonnes per day to achieve a throughput of 1.03 million dry metric tonnes per year. Actual recoveries and process plant throughput are slightly below design level ranges specified in the Caribou Technical Report. The Company has completed a number of operational initiatives that have significantly improved process plant performance in order to consistently achieve design levels and it is anticipated that further optimization efforts will result in additional efficiencies going forward.

Ongoing studies to evaluate the potential of process Caribou feed and tailings material using FLSmidth's Rapid Oxidative Leach ("**ROL**") technology commenced in August 2021 and are currently underway. The program expands on previous laboratory test work and aims to demonstrate the potential to recover zinc, lead, copper, gold, and silver as a precipitate or metal and additional zinc and lead from the Caribou Mine's ore and mill tailings. For additional information, refer to the news release entitled "*Trevali Begins Pilot Testing of FLSmidth's Rapid Oxidative Leach Technology at Caribou*" issued by the Company on August 3, 2021.

#### Mineral Resource and Mineral Reserve Estimates

		Grade			Metal		
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (MI bs)	Ag (K oz)
Measured	6.82	6.55	2.44	71.49	984	367	15,664
Indicated	4.91	6.31	2.49	75.03	683	270	11,846
Measured & Indicated	11.73	6.45	2.46	72.97	1,667	636	27,510
Inferred	2.61	5.68	2.40	72.61	327	138	6,099

The table below shows the Mineral Resource Estimates for the Caribou Mine as at December 31, 2021:

Notes:

(1) All Mineral Resources have been estimated in accordance with the CIM Definition Standards. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Numbers may not add up due to rounding.

(2) The Caribou Technical Report is the current technical report for the Caribou Mine.



(3) The Caribou Underground Mine Mineral Resource estimate is reported based on a cut-off grade of 5% zinc equivalent.
(4) The Caribou Underground Mine Mineral Resource estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

		Grade			Metal		
Category	Quantity (Mt)	Zn (%)	Pb (%)	Ag (g/t)	Zn (M lbs)	Pb (M lbs)	Ag (K oz)
Proven	1.75	6.13	2.21	65.92	236	85	3,707
Probable	2.66	5.67	2.14	65.39	332	125	5,584
Proven & Probable	4.41	5.85	2.17	65.60	568	211	9,291

The table below shows the Mineral Reserve Estimates for the Caribou Mine as at December 31, 2021:

Notes:

(1) All Mineral Reserves have been estimated in accordance with the CIM Definition Standards. Numbers may not add due to rounding.

(2) The Caribou Technical Report is the current technical report for the Caribou Mine.

(3) The Caribou Underground Mine Mineral Reserve estimate is reported based on optimized stopes designed on an incremental net smelter return cut-off value of \$80/tonne with average metal prices of: \$1.25/lb zinc, \$1.00/lb lead and \$25.00/oz silver.

(4) The Caribou Underground Mine Mineral Reserve estimate has been prepared by Trevali's Technical department with an effective date of December 31, 2021, under the supervision of and approved by Yan Bourassa (P.Geo.), a Qualified Person as defined in NI 43-101. Mr. Bourassa is Vice President, Technical Services & Exploration of the Company and accordingly, is not independent.

#### **Mining Operations**

Trevali commenced underground mining at the Caribou Mine in 2015 and commercial production was declared effective July 1, 2016.

The Caribou deposit begins at surface and extends below surface and remains open for expansion as evidenced by exploration drilling encountering mineralization to depths of approximately 770 metres below surface (approximately 350 metres outside of the defined mineral resource). Access to the underground mine is by a connected dual ramp system from portals in the upper 100 metres of the mine and a single ramp system between 100 and 425 metres. A dual ramp system has been developed in the lower portion of the mine below 425 metres in order to provide improved ventilation distribution and equipment flow.

Modified Avoca has been the main mining method, supplemented by uphole retreat for partial sill pillar recovery. Modified Avoca stopes employ unconsolidated waste rock and surface stockpiled waste rock as backfill. Underground haul trucks transport the mined material through the underground ramp system and out of the mine through the old conveyor portal, where surface stockpile pads, crusher and the process plant are located.

The deterioration in the global zinc market, exacerbated by the continued challenges presented by COVID-19 and combined with high concentrate treatment charges, led to a decision to place the Caribou Mine on a care and maintenance program on March 26, 2020, in order to preserve the value of the mineral resource and mine assets. The mine has since been restarted, with mining operations resuming in February 2021 and first payable production delivered in March 2021.



### Processing and Recovery Operations

The process plant at Caribou is a conventional milling and sulphide flotation plant with a 3,000 tonne per day nameplate capacity. The process plant includes crushing, screening, grinding, regrinding, and zinc, and lead flotation and filtering circuits to produce zinc, and lead concentrates. Concentrate production is stockpiled onsite prior to shipping and sale to Glencore. The zinc concentrate is transported by rail to Valleyfield, Quebec for further processing while the lead concentrate is trucked to the port at Belledune, New Brunswick, where it is subsequently shipped to designated smelters for processing. In 2021, the Caribou operation achieved average recoveries of 78.3% for zinc, 61.6% for lead and 34.2% for silver.

#### Infrastructure, Permitting and Compliance Activities

Existing infrastructure at the Caribou Mine includes access ramp portals, a shaft for services, surface ventilation equipment, a 3,000 tonne per day nameplate capacity mill, flotation circuits, a mine water treatment plant and sludge ponds, a TSF, and various office and workshop buildings. The mine has a connection to Energie New Brunswick Power's electrical power grid and an onsite diesel generator which provides emergency back-up power, if required.

Water quality non-conformances to the Approval to Operate conditions remain a challenge particularly during Spring Freshet, however, a better understanding of the chemistry driving the balance between metals and pH and working closely with the regulator has allowed for the identification and consideration of more targeted actions.

The Caribou Mine received a letter of Direction on September 21, 2016 from Environment Canada and Climate Change ("**ECCC**") based on acutely lethal results of fish toxicity tests conducted on water samples collected in May 2015 and June 2016 of water run off flowing into Forty Mile Brook. The samples were collected upstream of the Fire Pond and at the outflow of the Fire Pond. These results showed that the water flowing was deleterious to fish as defined by the *Fisheries Act*. Caribou is continuously implementing measures to prevent or mitigate such deleterious substances from entering into Forty Mile Brook, working closely with the New Brunswick Department of Energy and Natural Resources and providing the ECCC with regular updates.

The Caribou Mine is a fully permitted facility that allows for mining and milling under its existing Approval to Operate that was renewed in 2021 with current expiry date May 13, 2026. The mine is in material compliance with all applicable regulatory requirements. In 2021, the company progressed approvals to construct a raise to the current TSF, also known as the South Tributary Tailings Pond ("**STTP**") allowing enough deposition capacity for the life of mine plan. The Approval to Construct the Caribou Mine STTP Main Dam Raise Preparation Work was issued October 15, 2021.

On January 31, 2013, Trevali entered into a Limited Environmental Liability Agreement with the province of New Brunswick, whereby the province would accept the environmental liability associated with historic operations at Caribou. The current cash security on file with the New Brunswick Department of Energy and Natural Resources totalled \$3.9 million by December 31, 2021. Additionally, as per Trevali's Approval to Operate as of December 31, 2021, I-11464 (Cond. 19b), additional \$5.2 and \$2.5 million reclamation bonds have been posted with the New Brunswick Ministry of Energy & Natural Resources and the New Brunswick Department of Environment respectively. As at December 31, 2021, the Company has recorded a provision for environmental rehabilitation, mine closure and reclamation activities for Caribou of \$36.7 million, which it expects to settle during the course of mining and during closure.

In May 2011, previous owners of the Half Mile deposit entered into a Cooperation Agreement with the Mi'kmaq First Nation bands. In 2017, a second Cooperation Agreement with the Mi'kmaq bands was signed with in relation to the Caribou mine. Trevali assumed accountability for operating in line with the intent of both Cooperation Agreements. A full-time Indigenous Benefits Coordinator role was funded, and who



provides a conduit between the Mi'kmaq First Nation bands and who facilitated opportunities including training, scholarships and purchasing and supply opportunities.

### **Capital and Operating Costs**

Results for production, operating costs, and sustaining capital for the Caribou mine for 2021 and 2020 are summarized below:

		2021	2020
Zinc Payable Production	(million pounds)	40.6	15.4
Lead Payable Production	(million pounds)	13.4	5.0
Silver Payable Production	(thousand ounces)	359	116
C1 Cash Cost <sup>(1)</sup>	(\$/lb Zn)	0.86	1.42
All-In Sustaining Cost <sup>(2)</sup>	(\$/lb Zn)	1.16	1.71
Sustaining Capital	(\$millions)	8.2	2.9

Notes:

(1) See "Non-IFRS Measures".

(2) See "Non-IFRS Measures".

### **RISK FACTORS**

Trevali is subject to a number of risks and uncertainties due to the nature of our business, including financing, exploration, development and operating of mining properties. Investors should carefully consider the risks and uncertainties described below before making a decision to invest in Common Shares of the Company. The risks and uncertainties described below could have a material adverse effect on the Company's business, financial condition or results of operations, which could result in a decline in the trading price of the Common Shares and the loss of some or all of your investment in the Company. There can be no assurance that the Company will be able to effectively control or address these or other risks that may affect its business. There may also be additional risks and uncertainties not currently known by the Company, or that the Company currently deems immaterial, that could impair the Company's operations.

#### Global economic conditions may adversely affect the Company's growth and profitability.

Global markets continue to experience a high level of price and volume volatility, which has been accelerated in light of the COVID-19 pandemic. This volatility and uncertainty impacts many industries, including the base metals mining industry. Some of the key impacts of these conditions include contraction in credit markets resulting in a widening of credit risk, devaluations, high volatility in global equity, commodity, foreign exchange and base and precious metal markets, and a lack of market confidence and liquidity. A sustained slowdown in the financial markets or other economic conditions, including, but not limited to, sovereign debt and government solvency conditions, consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect the Company's growth and profitability. More specifically, a global credit/liquidity crisis brought about or exacerbated by the COVID-19 pandemic could impact the cost and availability of financing and the Company's overall liquidity; recessionary pressures could adversely impact demand for the Company's production; volatile energy, commodity and consumables prices could impact the Company's production costs; and the devaluation



and volatility of global stock markets could impact the valuation of the Company's equity and other securities.

### The volatility of the price of zinc, lead, silver and other metals could have a negative impact on the Company's current and future operations.

The Company's principal products are zinc, lead, and silver with minor gold and copper production. Even if commercial quantities of mineral deposits are discovered by the Company, there is no guarantee that a profitable market will continue for the sale of the metals produced. The price of the Common Shares, the Company's financial results, and the Company's exploration, development and mining activities in the future may be materially adversely affected by declines in the price of zinc, lead, silver, gold and copper. Zinc, lead, silver, gold and copper prices fluctuate widely and are affected by numerous factors beyond the Company's control, such as the sale or purchase of metals by various central banks and financial institutions, interest rates, exchange rates, inflation or deflation, fluctuation in the value of the United States dollar and foreign currencies, global and regional supply and demand, and the political and economic conditions of major metals-producing and metals-consuming countries throughout the world.

A slowdown in the financial markets or other economic conditions, including but not limited to consumer spending, employment rates, business conditions, inflation, fuel and energy costs, consumer debt levels, lack of available credit, the state of the financial markets, interest rates and tax rates, may adversely affect the Company's growth and profitability. Future economic shocks may be precipitated by a number of causes, world health pandemics, a significant rise or significant decrease in the price of oil and other commodities, the volatility of metal prices, geopolitical instability, terrorism, the devaluation and volatility of global stock markets and natural disasters. Any sudden or rapid destabilization of global economic conditions could impact the Company's ability to obtain equity or debt financing in the future on terms favourable to the Company or at all. In such an event, the Company's operations and financial condition could be adversely impacted.

Also, if Mineral Reserve calculations and life of mine plans are required to be revised using significantly lower commodity prices, this could result in material write-downs of the Company's investment in mining properties and increased reclamation and closure charges.

In addition to adversely affecting the Company's Mineral Resource and Mineral Reserve estimates and financial condition, declining metal prices can impact operations by requiring a reassessment of the feasibility of a particular project. As a result of any reassessment, the Company may determine that it is not feasible to continue commercial production at some or all of its current projects. Even if a project is ultimately determined to be economically viable, the need to conduct such a reassessment may cause substantial delays and/or may interrupt operations until the reassessment can be completed, which may have a material adverse effect on the results of operations and financial condition.

# The business of exploration for minerals and mining requires significant infrastructure. Infrastructure in some of the jurisdictions in which the Company operates may be underdeveloped, which could have an adverse effect on the Company.

The Company's mining, processing, development, and exploration activities depend, to one degree or another on adequate infrastructure, such as reliable roads, bridges, power sources and water supply, the maintenance and management of which lie beyond the control of the Company. The loss of such infrastructure, even temporarily, could potentially materially adversely affect the Company's operations, revenues, and financial condition.

Trevali's operations in Namibia and Burkina Faso depend on adequate infrastructure, which is underdeveloped in certain parts of West Africa, and the uninterrupted flow of materials, supplies, and services. Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. The lack of availability on acceptable terms or the delay in the availability of any



one or more of these items could prevent or delay exploitation and/or development of the Company's projects. If adequate infrastructure is not available in a timely manner, there can be no assurance that the continued development of the Company's projects will be commenced or completed on a timely basis, if at all, or that the resulting operations will achieve the anticipated production volume, or that construction costs and ongoing operating costs will not be higher than anticipated. In addition, unusual or infrequent weather phenomena, sabotage or other interference in the maintenance or provision of such infrastructure, or any interruption to the procurement of equipment or the flow of materials, supplies and services could adversely affect the Company's business, financial condition and results of operations.

### The Company may be unable to identify opportunities to grow its business, and it may be unsuccessful in integrating new businesses and assets that it may acquire in the future.

As part of the Company's business strategy, it has sought and will continue to seek new operating, development and exploration opportunities in the mining industry. In pursuit of such opportunities, the Company may fail to select appropriate acquisition candidates or negotiate acceptable arrangements, including arrangements to finance acquisitions or integrate the acquired businesses into its business. The Company cannot provide assurance that it can complete any acquisition or business arrangement that it pursues, or is pursuing, on favourable terms, if at all, or that any acquisitions or business arrangements completed will ultimately benefit its business. Further, any acquisition the Company makes will require a significant amount of time and attention of its management, as well as resources that otherwise could be spent on the operation and development of its existing business.

Any future acquisitions would be accompanied by risks, such as a significant decline in the relevant metal price after the Company commits to complete an acquisition on certain terms; the quality of the mineral deposit acquired proving to be lower than expected; the difficulty of assimilating the operations and personnel of any acquired companies; loss of key personnel; higher than anticipated costs; the potential disruption of its ongoing business; the inability of management to realize anticipated synergies and maximize its financial and strategic position; the failure to maintain uniform standards, controls, procedures and policies; and the potential for unknown or unanticipated liabilities associated with acquired assets and businesses, including tax, environmental or other liabilities. There can be no assurance that any business or assets acquired in the future will prove to be profitable, that the Company will be able to integrate the acquired businesses or assets successfully or that the Company will identify all potential liabilities during the course of due diligence. Any of these factors could have a material adverse effect on its business, expansion, results of operations, and financial condition.

## The trading price of the Company's shares may be volatile, subject to large fluctuations over short periods, and may increase or decrease in response to a number of events and factors, some of which are outside of the Company's ability to control.

Share prices for many companies in the mineral exploration and mining industries may experience wide fluctuations that are often unrelated to the operations, underlying asset values or prospects of the companies themselves. These factors may include:

- the price of zinc and other metals;
- operating performance and the performance of competitors and other similar companies;
- exploration results from mineral properties;
- the public's reaction to news releases, other public announcements, and filings with the various securities regulatory authorities;
- changes in earnings estimates or recommendations by research analysts;
- changes in general economic conditions, including prevailing interest rates;
- the arrival or departure of key personnel; and



• acquisitions, strategic alliances or joint ventures involving a company or its competitors.

The market price of the Company's shares is affected by many variables, many of which are not directly related to the Company's success and are therefore not within the Company's control, including other developments that affect the market for all resource sector shares, the breadth of the public market for the Company's shares, and the attractiveness of alternative investments. The effect of these and other factors on the market price of the Company's shares on the exchanges in which the Company trades has historically made the Company's share price volatile and suggests that the Company's share price will continue to be volatile in the future.

### *Epidemics, pandemics or other public health crises, including COVID-19, could adversely affect our operations.*

The Company is exposed to diseases and pandemics like malaria, dengue, Zika, other flu like viruses (e.g. avian, swine), HIV and Ebola. Such pandemics and diseases represent a serious threat to maintaining a skilled workforce in the mining industry in Africa is a major healthcare challenge for the Company. The outbreak of diseases and pandemics, such as COVID-19, could have a material adverse effect on global economic conditions which may adversely impact our business and results of operations and the operations of our suppliers, contractors and service providers, and the demand for our production. The COVID-19 pandemic resulted in mass production shutdowns and supply chain disruptions due to temporary closure of businesses in affected areas, port closures and other preventative and/or restrictive measures taken by governments. Should the COVID-19 pandemic affect the workforce at any of our operations, the Company may see a decline in workforce availability, and may also face difficulties securing transportation of supplies and equipment essential to its mining operations. As a result, the Company's exploration, development and production plans could be suspended or delayed. Governments in a number of countries where the Company has operations, including Canada, Burkina Faso and Namibia, have taken steps to curtail the spread of COVID-19, including the formal declaration of a state of emergency, the introduction of curfews, guarantines and other measures to restrict the movement of individuals and goods, including the closing of borders to international travel. It is uncertain what similar or more severe measures may be enacted in future, or the effect that any such measures may have on our business and results of operations.

The spread of COVID-19 globally could also have a material adverse effect on the regional economies in which we operate, could continue to negatively impact stock markets, including the trading price of our shares, could adversely impact our ability to raise capital, could cause continued interest rate volatility and movements that could make obtaining financing more challenging or more expensive, and could result in any operations affected by COVID-19 becoming subject to quarantine. Despite recent positive vaccine developments, the ongoing evolution of the development and distribution of effective vaccines and the emergence of variants with increased resistance to vaccines continue to raise uncertainty. These uncertainties arise from the inability to predict the duration and severity of the outbreak, the timing and extent of global COVID-19 pandemic is unknown, it is anticipated that the economic impact of the pandemic may continue to cause supply chain disruptions, and increased government regulations, all of which may negatively impact the Company's business and financial condition.

# Financial projections rely on estimates of future production and costs that may not be reliable and could have a negative impact on the Company's future cash flows, business, results of operations and financial condition.

The Company prepares estimates of future production, cash costs and capital costs of production for its operations, and any such information is forward-looking. The Company cannot give any assurance that it will achieve its production estimates. The failure of the Company to achieve its production estimates could have a material and adverse effect on future cash flows, profitability, results of operations, and financial condition.



The Company's actual production and costs of production may vary from its estimates for a variety of reasons, including: actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; short-term operating factors such as the need for sequential development of ore bodies and the processing of new or different ore grades from those planned; mine failures, slope failures or equipment failures; industrial accidents; natural phenomena such as inclement weather conditions, floods, droughts, rock slides and earthquakes; encountering unusual or unexpected geological conditions; changes in power costs and potential power shortages; shortages of principal supplies needed for operation, including explosives, fuels, chemical reagents, water, equipment parts and lubricants; labour shortages or strikes; civil disobedience and protests; geopolitical disruptions and restrictions or regulations imposed by government agencies or other changes in the regulatory environments. Such occurrences could result in damage to mineral properties, interruptions in production, delays in the construction and commissioning of mining projects, injury or death to persons, damage to property of the Company or others, monetary losses and legal liabilities. These factors may cause a mineral deposit that has been mined profitably in the past to become unprofitable, forcing the Company to cease production.

### Mineral Resource and Mineral Reserve estimates are based on interpretation and assumptions and may yield less mineral production under actual conditions than is currently estimated.

The Company's Mineral Resource and Mineral Reserve estimates are estimates only and no assurance can be given that any particular level of recovery of metals will in fact be realized. There can also be no assurance that an identified mineral deposit will ever qualify as a commercially mineable (or viable) orebody that can be economically exploited. Additionally, no assurance can be given that the anticipated tonnages and grades will be achieved or that the indicated level of recovery will be realized. These estimates may require adjustments or downward revisions based upon further exploration or development work or actual production experience.

Estimates of Mineral Reserves and Mineral Resources can also be affected by such factors as environmental permitting regulations and requirements, weather, environmental factors, unforeseen technical difficulties, unusual or unexpected geological formations and work interruptions. In addition, the grade of ore ultimately mined may differ dramatically from that indicated by results of drilling, sampling and other similar examinations. Short-term factors relating to Mineral Reserves and Mineral Resources, such as the need for orderly development of ore bodies or the processing of new or different grades, may also have an adverse effect on mining operations and on the results of operations.

Mineral Reserves and Mineral Resources are reported as general indicators of mine life. Mineral Reserves and Mineral Resources should not be interpreted as assurances of mine life or of the profitability of current or future operations. There is a degree of uncertainty attributable to the calculation and estimation of Mineral Reserves and Mineral Resources and corresponding grades being mined or dedicated to future production. Until ore is actually mined and processed, Mineral Reserves and grades must be considered as estimates only.

In addition, the quantity of Mineral Reserves and Mineral Resources may vary depending on metal prices. Extended declines in market prices for zinc, lead, silver, and copper may render portions of the Company's mineralization uneconomic and result in reduced reported mineralization. Any material change in Mineral Reserves and Mineral Resources tonnes or grades may affect the economic viability of the Company's projects.

### There are security risks associated with the Company's operations in Burkina Faso that may have a material adverse effect on its operations.

The Perkoa Mine is located in Burkina Faso. On January 24, 2022, the local military announced that it had seized power of the country, had detained the President and other high-ranking government officials, and had suspended the country's constitution. Since that time, the military government has restored certain constitutional rights, but the situation remains unpredictable and volatile. To date, the Company's



operations have not been impacted by the recent events in Burkina Faso, however, to the extent that instability and volatility persist, the Company's operations, ability to hire and retain qualified personnel and access to sources of capital may be impaired.

Additionally, criminal and terrorist activities in the region, or the perception that activities are likely, may disrupt the Company's operations, hamper the Company's ability to hire and retain qualified personnel and impair the Company's access to sources of capital. Incidences of armed criminal activities have been reported by other companies with operations in Burkina Faso. Moreover, both the French and Canadian government authorities have issued advisories to avoid travel to Burkina Faso due to the volatile security situation and threat to terrorism. Kidnap and attack risks are particularly high in northern, central, and eastern Burkina Faso, where gold mining companies are increasingly being targeted, particularly along access roads to sites.

Risk factors associated with conducting business in the region include risks related to personnel safety and asset security. Risks may include, but are not limited to, kidnappings of employees and contractors, exposure of employees and contractors to local crime related activity and disturbances, supply chain disruption, and damage or theft of Company or personal assets including disruption to concentrate shipments. The effect of these factors cannot be accurately predicted and may result in serious adverse consequences including personal injuries or death, property damage or theft, limiting or disrupting operations, restricting the movement of funds, impairing contractual rights, and causing the Company to suspend or shutdown operations. Although the Company has developed processes and procedures to manage these risks, there is no assurance that these measures will be successful, and a failure to maintain the security of personnel, contractors and assets could have a material adverse effect on the Company's financial condition and results of operations.

# Property interests and exploration activities in Burkina Faso are subject to political, economic and other uncertainties, and situations may arise that could have a material adverse effect on the Company's business.

As the government of Burkina Faso continues to struggle with deficits and a depressed economy, the gold mining sector has increasing been targeted as a source of revenue. The government of Burkina Faso is continually assessing and/or revising the terms under which mining companies may extract resources in their country, and unilateral renegotiations by the government of Burkina Faso against one company may affect all companies in the country. The risk of re-assessment or revisions to the terms of the Company's mining rights may additionally be heightened as a result of the recent governmental instability in Burkina Faso as a result of the military's replacement of the former government in January 2022. Burkina Faso's status as a developing country may also make it more difficult for the Company to obtain required financing for its projects.

The new mining code adopted by Burkina Faso in July 2015 introduced changes to the mining legislation, including changes affecting taxation, licensing, the requirement to pay a preferred dividend to the government, requirements for employments of local personnel or contractors and other benefits to be provided to local residents. The trend in resource nationalism could have a material adverse impact on the Company.

Furthermore, the Company requires consultants and employees to work in Burkina Faso to carry out its planned exploration and development programs. It may be difficult, from time, to time to find or hire qualified people in the mineral exploration industry who are situated in Burkina Faso, or to obtain all of the necessary services or expertise in Burkina Faso, or to conduct operations on its projects at reasonable rates. If qualified people and services or expertise cannot be obtained in Burkina Faso, the Company may need to seek and obtain those services from service providers located outside of Burkina Faso which could result in delays and higher costs to the Company.



### Interest rates may increase and may adversely affect the Company's growth and profitability.

Globally, central banks have indicated that they intend to implement increases to the interest rate charged to commercial banks in the short term to combat inflationary pressures. An increase in interest rates could result in a significant increase in the amount that the Company pays to service debt, resulting in a reduced amount available to fund its activities, and could negatively impact the market price of the Company's shares and/or the price of zinc, lead, silver and other metals, which could have a material adverse effect on the Company's operations and/or financial condition.

### Failure to obtain or retain permits would adversely affect the Company's results of operations, development work and financial condition.

The operations of the Company, including various aspects of exploration, development and expansion of projects, require receipt and maintenance of licenses and permits from various governmental authorities. Failure or delay in obtaining or maintaining required permits and licenses could result in injunctions, fines, suspension or revocation of permits and other penalties, or result in interruption of production, exploration or development. In order to maintain mining licenses, exploration licenses, mining concessions and other similar mining claims in good standing, concession holders must advance their projects efficiently, including by obtaining the necessary permits prior to stipulated deadlines. The Company has implemented plans to obtain all necessary permits prior to the relevant deadlines. While the Company is confident in its ability to meet all required deadlines or milestones to maintain its concessions in good standing, there is risk that the relevant permitting and licensing authorities will not respond in a timely manner. If these deadlines are not met, the Company believes that extensions to deadlines for obtaining the required approvals and permits could be negotiated so that the concessions would remain in good standing. However, there is no guarantee that the Company will be able to obtain the approvals and permits as planned or, if unable to meet such deadlines, that negotiations for an extension will be successful in order to maintain its concessions in good standing.

In addition to meeting the requirements necessary to obtain permits and approvals, permits may be invalidated if the applicable regulatory authority is legally challenged that it did not lawfully issue such permits and approvals. Changes in applicable laws and regulations or changes in their enforcement or regulatory interpretation could negatively impact current or planned exploration and development activities or any other projects with which the Company becomes involved. The ability of the Company to obtain and maintain permits and approvals and to successfully develop and operate mines may be adversely affected by real or perceived impacts associated with its activities that affect the environment and human health and safety at its development projects and operations and in the surrounding communities. The real or perceived impacts of the activities of other mining companies may also adversely affect the Company's ability to obtain and maintain permits and approvals. The Company is uncertain as to whether all necessary permits will be maintained on acceptable terms or in a timely manner.

### Exploration, development and production at the Company's mining operations are dependent upon the efforts of its key personnel.

The nature of the Company's business requires specialized skills and knowledge. The Company operates large mining operations in Canada, Burkina Faso, and Namibia that requires technical expertise in the areas of geology, engineering, mine planning, metallurgical processing, mine operations and environmental compliance. The Company's success is heavily dependent on its key personnel and on the ability to motivate, retain and attract highly skilled employees. The Company anticipates that as it expands its existing production and brings additional properties into production, and as the Company acquires additional mineral rights, the Company may experience significant growth in its operations. This growth may create new positions and responsibilities for management personnel. The Company and other companies in the mining industry compete for personnel and the Company is not always able to fill positions in a timely manner. If the Company is unable to attract and retain qualified personnel or fails to establish adequate succession planning strategies, the Company's operations could be adversely affected. The



Company does not carry key-man life insurance with respect to its executives.

### Emerging climate change regulations could result in significant costs and climate change may result in risks to the Company's mining operations.

Governments are moving to introduce climate change legislation and treaties at the international, national, state, provincial and local levels. Regulations relating to emission levels (such as carbon taxes) and energy efficiency are becoming more stringent. While some of the costs associated with reducing emissions may be offset by increasing energy efficiency and technological innovation, if the current regulatory trend continues, the Company expects that this could result in increased costs at its operations.

In addition, the physical risks of climate change may also have an adverse effect on the Company's operations. These physical risks include changes in rainfall rates, rising sea levels, reduced water availability, higher temperatures, increased snowpack and extreme weather events. Such events could materially disrupt the Company's operations if they affect its project sites, impact local infrastructure or threaten the health and safety of the Company's employees and contractors and there can be no assurances that the Company will be able to predict, respond to, measure, monitor or manage the risks posed as a result of climate change factors. Climate-related risks could also result in shifts in demand for certain commodities, including precious metals. The Company's own operations are exposed to climate-related risks as a result of geographical location. The Company has sought to reduce its environmental footprint and located its operations in appropriate facilities; however, the Company's operations may be adversely affected by climate change factors. Therefore, such an event could result in material economic harm to the Company.

The occurrence of any climate change violation or enforcement action may have an adverse impact on the Company's operations, the Company's reputation and could adversely affect the Company's results of operations. In addition, there may be pre-existing environmental hazards or hazards caused by third parties which the Company or property owners are not aware at present, and which could impair the commercial success, levels of production and continued feasibility and project development and mining operations on these properties.

### Failure of the Company to comply with laws and regulations could negatively impact current or planned mining activities and exploration and developmental activities.

As a publicly traded company, the Company is subject to numerous laws, including, without limitation, corporate and securities laws, compliance with which is both very time consuming and costly. The failure to comply with any of these laws, individually or in the aggregate, could have a material adverse effect on the Company, which could cause a significant decline in the price of the Company's shares. The number of laws that the Company and its local operations must comply with, in a number of continents and jurisdictions, increases the risks of non-compliance.

The Company's mining, exploration and development activities are also subject to extensive laws and regulations concerning the environment, employee health and safety, employment standards, waste disposal, mine development, mine operation, mine closure and reclamation, and other matters. Activities required to achieve full compliance can be costly and involve extended timelines. Future changes in applicable laws and regulations or changes in their enforcement or regulatory interpretation could negatively affect current or planned mining, exploration and developmental activities on the projects in which the Company is, or may become, involved. Any failure to comply with applicable laws and regulations or to obtain or maintain permits, even if inadvertent, could result in the interruption of mining, exploration and developmental operations or in material fines, penalties, clean-up costs, damages, and the loss of key permits or approvals. While the Company has taken great care to ensure full compliance with its legal obligations, there can be no assurance that the Company has been, or will be, in full compliance with all of these laws and regulations, or with all permits and approvals that it is required to have.



Furthermore, laws applicable to the Company constantly change and the Company's continued compliance with changing requirements is both time consuming and costly. Adding to the significant costs of compliance with laws is the Company's desire to meet a high standard of corporate governance. The Company's continued efforts to comply with numerous changing laws and adhere to a high standard of corporate governance have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

### The Company's directors and officers may have interests that conflict with the Company's interests.

The directors of Trevali are nominated or appointed on the strength of their experience and the specific skills and expertise they can bring to the establishment and execution of the Company's strategy and the enhancement of stakeholder value. Certain directors and officers of the Company are, and may continue to be, involved in the mining and mineral exploration industry through their direct and indirect participation in corporations, partnerships or joint ventures that are potential competitors of the Company. Situations may arise in connection with potential acquisitions or opportunities where the other interests of these directors and officers may conflict with the interests of the Company. Directors and officers of the Company with conflicts of interest will be subject to, and follow the procedures set out in, applicable corporate and securities legislation, regulation, rules and policies.

As of the date hereof, Aline Cote and Nick Popovic, directors of the Company, are members of the senior management team at Glencore International AG (for the purposes of this paragraph, "**Glencore**"). Glencore is a significant shareholder of the Company, owning approximately 26% of the Company's issued and outstanding Common Shares. Glencore is also a lender to the Company pursuant to the Glencore Facility (as described above under the heading "*Three-Year History – Significant Developments – 2020*"). In addition, through off-take agreements, Glencore has agreed to purchase all the concentrates from Caribou, Rosh Pinah and Perkoa and has entered into an Investor Rights and Governance Agreement with the Company that provides Glencore with certain board nomination rights, anti-dilution rights and enhanced consultation rights relating to the business of the Company. As a result, Ms. Cote and Mr. Popovic have a conflict of interest with respect to the Company's contracts and other dealings with Glencore, which, with respect to matters considered by the Board regarding its contracts and dealings with Glencore, will generally require them to disclose such conflict of interest and abstain from voting on such matters.

### The Company's critical operating systems may be compromised.

Cyber threats have evolved in severity, frequency and sophistication in recent years, and target entities are no longer primarily from the financial or retail sectors. Cybersecurity risk is increasingly difficult to identify and quantify and cannot be fully mitigated because of the rapid evolving nature of the threats, targets and consequences. Persons engaging in cybercrime may target corruption of systems or data, or theft of sensitive data. While the Company invests in robust security systems to detect and block inappropriate or illegal access to the Company's key systems, including supervisory control and data acquisition operating systems at the Company's operations, and regularly reviews policies, procedures and protocols to ensure data and system integrity, there can be no assurance that critical systems will not be inadvertently or intentionally breached and compromised. This may result in business interruption losses, equipment damage, or loss of critical or sensitive information.

The Company's risk of experiencing a cybersecurity incident has increased as the number, intensity, and sophistication of attempted attacks and intrusions have increased globally.

Although the Company makes significant efforts to maintain the security and integrity of its information technology systems, there can be no assurance that those efforts and measures will be able to prevent all cybersecurity incidents. A cybersecurity incident could have various negative implications for the Company, including the following:



- a disruption of the Company's business operations and lost revenues;
- unauthorized access to, destruction, loss, theft, misappropriation, or release of, proprietary, confidential, sensitive, or otherwise valuable information of the Company or its customers or employees, which could be used for disruptive or otherwise harmful purposes;
- damage to the Company's reputation with its customers, partners, suppliers, investors and the general public;
- a disruption to the proper functioning of the Company's information technology systems;
- an expenditure of significant resources in remediation costs;
- investigations by regulatory agencies or litigation, claims and liability for breach of contract, damages or other penalties;
- inability to process customer transactions or service customers; and/or
- disruptions to inventory management.

The Company continuously seeks to achieve improvements and enhancements on its existing security controls, policy enforcement mechanisms, management oversight and monitoring systems to prevent, detect and address potential threats. The Company has a global Information Security Leader focused on developing and improving the Company's information security program. The Company also has an independent outsourced Cyber Security Operations Centre ("SOC") that monitors for cyber security incidents to proactively defend against cybersecurity incidents. Additionally, our security team is involved in the procurement process and reviews all software, hardware and cloud-based contracts to be entered into by the Company to ensure privacy and cybersecurity elements are addressed. The Company requires that its cloud-service providers obtain a Service Organization Control type 2 report annually for the Company's review. The Company currently self-insures for cybersecurity incidents. The occurrence of a significant self-insured loss or claim, or a greater number of these losses than anticipated, could have a material adverse impact on the Company. Our risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As a result, cybersecurity and the continued development and enhancement of controls, processes and practices designed to protect systems, computers, software, data and networks from attack, damage or unauthorized access remain a priority.

# The Company's Facilities contain a number of covenants that impose significant operating and financial restrictions on the Company and may limit its ability to engage in acts that may be in the Company's long-term best interest.

The terms of the Facilities each require the Company to satisfy various affirmative and negative covenants and to meet certain financial ratios and tests. The covenants include, without limitation, restrictions on its ability to: incur additional indebtedness; pay dividends or make other distributions or repurchase or redeem its capital stock; prepay, redeem or repurchase certain debt; make loans and investments; sell, transfer or otherwise dispose of assets; incur or permit to exist certain liens; enter into transactions with affiliates; enter into agreements restricting its subsidiaries' ability to pay dividends; and, consolidate, amalgamate, merge or sell all or substantially all of the Company's assets. Trevali and certain of its subsidiaries have granted guarantees, general security agreements and deeds of trust in order to grant security over all present and after acquired property in favour of the administrative agent under the Amended Revolving Credit Facility (on a first-lien basis) and in favour of Glencore (on a second-lien basis). The Company can provide no assurances that in the future, it will not be limited in its ability to respond to changes in its business or competitive activities or be restricted in its ability to engage in mergers, acquisitions or dispositions of assets. The Company's failure to comply with covenants in the Facilities could result in an event of default that, if not cured or waived, could result in a cross-default under other debt instruments and the acceleration of all its debt. Furthermore, a failure to comply with these covenants could materially and adversely affect the Company's business, financial condition and results of operations, ability to meet its payment obligations under its debt, and the price of the Common Shares.



# The Company is exposed to long-term liquidity risk through the excess of financial obligations due over available assets at any point in time. It is also possible that the Company may not be able to obtain the external financing necessary to continue its exploration and development activities on its properties.

In light of the current prices of the Company's principal commodities and forecasts for such prices through the remainder of 2022, the Company expects that it will be required to draw on its Amended Revolving Credit Facility, or seek other sources of equity or debt finance, in order to ensure availability of sufficient resources to meet its committed and budgeted expenditures for the next twelve months. Additional funds may be required should commodity prices weaken beyond current levels or the U.S. dollar depreciates significantly.

The ability of the Company to continue the exploration and development of its property interests may be dependent upon its ability to maintain or increase revenues from its existing production and planned expansions, and potentially raise significant additional financing thereafter. In addition, the Company's ability to undertake the RP 2.0 expansion project will depend on the Company receiving adequate financing for the RP 2.0 expansion project.

The sources of external financing that the Company may use for these purposes may include project debt, subordinated debt, stream financing, joint ventures, production sharing arrangements, sale of assets, corporate debt, or equity offerings, or some combination of these or other means. There is no assurance that the financing alternative chosen by the Company will be available to the Company, on favourable terms or at all. Depending on the alternative chosen, the Company may have less control over the management of its projects. There is no assurance that the Company will successfully increase revenues from existing and expanded production. Should the Company not be able to obtain such financing and increase its revenues, it may become unable to acquire and retain its exploration properties and carry out exploration and development on such properties, and its title interests in such properties may be adversely affected or lost entirely. In the case of the RP 2.0 expansion project, in the event that the Company does not receive adequate financing for the project, the Company may be required to abandon the project, to alter the scope and extent of the project or to make other changes to the Company's business in order to allow the Company to finance the project from internal cash balances.

#### The Company is subject to currency fluctuations that may adversely affect its financial position.

The Company is subject to currency risks. The Company's functional currency is the US dollar, and its mining operations and interests are located in Canada, Burkina Faso, and Namibia, with additional development stage assets located in Canada and Namibia. Zinc, lead, silver, gold and copper are sold in US dollars and the Company's costs are incurred principally in US dollars, Canadian dollars, Namibian dollars, South African rands, West African CFA francs, and euros. The appreciation of non-US dollar currencies against the US dollar can increase the cost of zinc, lead, silver, gold and copper production and capital expenditures in US dollar terms. The Company also holds cash and cash equivalents that are denominated in foreign currencies that are subject to currency risk. The Company is further exposed to currency risk through non-monetary assets and liabilities of entities whose taxable profit or tax loss are denominated in foreign currencies.

### The Company may be unable to maintain or increase annual production, and changes in the production outlook will have an effect on the Company's cash flow from operations.

Although the Company's activities are primarily directed towards mining operations, its activities also include the exploration for, and development of, mineral deposits. The Company must continually replace and expand Mineral Reserves depleted by production to maintain production levels over the long term. The Company's ability to maintain or expand production will depend on its ability to expand known ore bodies, locate new deposits, make acquisitions or bring new mines into production.



Material changes in Mineral Reserves and Mineral Resources, grades, production or recovery rates may affect the economic viability of projects. There is a risk that depletion of Mineral Reserves will not be offset by discoveries, acquisitions, or the conversion of Mineral Resources into Mineral Reserves. The mineral base of Trevali's operations may decline if reserves are mined without adequate replacement and the Company may not be able to sustain production beyond the current mine lives, based on current production rates. Notwithstanding the Company's expertise and track record in this area, exploration is highly speculative in nature. Trevali's exploration projects involve many risks and are frequently unsuccessful. Once a site with mineralization is discovered, it may take several years from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. The Company can provide no assurance that it will be able to maintain or increase its annual production, bring new mines into production or expand the Mineral Reserves and Mineral Resources at existing mines.

A decrease in the amount of, or a change in the timing of the production outlook for, or in the prices realized for, metals of the Company, particularly in relation to the production of zinc, lead and silver, will directly affect the amount and timing of the Company's cash flow from operations. The actual effect of such a decrease on the Company's cash flow from operations would depend on the timing of any changes in production and on actual prices and costs. Any change in the timing of these projected cash flows that would occur due to production shortfalls, delays in receiving permits, delays in construction, delays in commissioning the mines or labour disruptions would, in turn, result in delays in receipt of such cash flows and in using such cash to fund capital expenditures, including capital for the Company's development projects, in the future. Any such financing requirements could adversely affect the Company's ability to access capital markets in the future to meet any external financing requirements or increase its debt financing costs.

# Mining has inherent risks and is subject to conditions or events beyond the Company's control, which could have a material adverse effect on its business and which conditions and events may not be insurable.

Mineral production, exploration and development involve risks, which even a combination of experience. knowledge and careful evaluation may not be able to overcome. Operations in which the Company has a direct or indirect interest will be subject to hazards and risks beyond the Company's control and normally incidental to exploration, development and production of minerals, any of which could result in work stoppages, damage to or destruction of property, loss of life and environmental damage. Fires, power outages, labour disruptions, flooding, explosions, cave-ins, landslides, ground or stope failures, tailings dam failures and other geotechnical instabilities and the inability to obtain suitable or adequate machinery, equipment or labour are other risks involved in the operation of mines and the conduct of exploration programs. Substantial expenditures are required to establish reserves through drilling, to develop metallurgical processes, to develop the mining and processing facilities and infrastructure at any site chosen for mining. Although substantial benefits may be derived from the discovery of a major mineralized deposit, no assurance can be given that minerals will be discovered in sufficient quantities to justify commercial operations or that funds required for development can be obtained on a timely basis. The economics of developing mineral properties is affected by many factors including the cost of operations, variations of the grade of ore mined, fluctuations in the price of minerals produced, costs of processing equipment and such other factors as government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals and environmental protection. In addition, the grade of mineralization ultimately mined may differ from that indicated by drilling results and such differences could be material. Short-term factors, such as the need for orderly development of mineralized bodies or the processing of new or different grades, may have an adverse effect on mining operations and on the results of operations. There can be no assurance that minerals recovered in small scale laboratory tests will be duplicated in large scale tests under on-site conditions or in production scale operations. Material changes in geological resources, grades, stripping ratios or recovery rates may affect the economic viability of projects. The Company may not carry sufficient insurance for such risks. The uncertain nature of these risks is such that liabilities might exceed any insurance policy limits, the liabilities and hazards might not be insurable, or the Company might not elect to insure itself against such liabilities due to high



premium costs or other factors. Such liabilities may have a materially adverse effect upon the Company's financial condition.

The Company is concentrated in the zinc mining industry, and accordingly, its profitability is most sensitive to changes in the overall condition of this industry. Furthermore, any adverse condition affecting mining, processing conditions, expansion plans, or ongoing permitting activities at any of the Company's operating mines could have a material adverse effect on the Company's financial performance and results of operations.

#### There are additional political, legal and economic risks at foreign operations.

Trevali's exploration and development activities and production operations in foreign countries, including its mines in Namibia and Burkina Faso, are subject to various levels of political, economic and other risks and uncertainties that could negatively impact Trevali's operations and financial condition. These risks and uncertainties vary significantly from country to country and include, but are not limited to, the existence or possibility of terrorism; hostage taking; military repression; extreme fluctuations in currency exchange rates; high rates of inflation: labour unrest: the risks of war or civil unrest; coups and counter coups; expropriation and nationalization; uncertainty as to the outcome of any litigation in foreign jurisdictions; uncertainty as to enforcement of local laws; arbitrary changes in law or policy, environmental controls and permitting; restrictions on the use of land and natural resources; renegotiation or nullification of existing government orders, concessions, licenses, permits and/or contracts; delays in obtaining permits or licences; illegal mining; sabotage, theft, robbery, vandalism, lack of civil services such as utilities (electricity and water), hospitals, ambulances, police departments and fire departments; disease and other potential endemic health issues; changes in taxation policies; difficulty obtaining key equipment or key components; restrictions on foreign exchange and repatriation; corruption; bribery; inadequate infrastructure; unstable legal systems; changing political conditions; changes in mining and social policies; opposition to mining; limits on foreign ownership; inadequate controls against modern slavery and child labour; social unrest on account of poverty or unequal income distribution; economic empowerment legislation; currency controls and governmental regulations that favour or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction or require equity participation by local citizens; income repatriation and capital recovery; import and export restrictions; and other risks arising out of foreign sovereignty issues. The Company may also be exposed to situations or persons that may pose security threats to personnel and facilities. The occurrence of any of these events may have a material adverse effect on the Company's business, financial condition or results of operations.

Trevali's mineral exploration and mining activities may be affected in varying degrees by political instability and governmental legislation and regulations relating to foreign investment and the mining industry. In particular, Burkina Faso has experienced varying degrees of civil unrest (See "*There are security risks associated with the Company's operations in Burkina Faso that may have a material adverse effect on its operations*" below). Threats or instability in a country caused by political events including elections, change in government, changes in personnel or legislative bodies, foreign relations or military control present serious political and social risk and instability causing interruptions to the flow of business negotiations and influencing relationships with government officials. Changes in policy or law may have a material adverse effect on the Company's business, financial condition or results of operations.

Failure to comply with applicable laws, regulations, and permitting requirements may result in enforcement actions thereunder, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed, and may include corrective measures requiring capital expenditures, installation of additional equipment, or remedial actions.

In the event of a dispute arising from the Company's activities, the Company may be subject to the exclusive jurisdiction of courts or arbitral proceedings outside of North America or may not be successful in subjecting persons to the jurisdiction of courts in North America, either of which could unexpectedly and adversely affect the outcome of a dispute. The courts in these foreign jurisdictions may offer less certainty as to the



judicial outcome or a more protracted judicial process than is the case in North America. Enforcement of laws in foreign jurisdictions may depend on and be subject to the interpretation placed upon such laws by the relevant local authority, and such authority may adopt an interpretation of an aspect of local law which differs from the advice that has been given to Trevali by local lawyers or even previously by the relevant local authority itself. Thus, there can be no assurance that contracts, joint ventures, licenses, license applications or other legal arrangements will not be adversely affected by the actions of government authorities and the effectiveness of and enforcement of such arrangements.

# Property interests and exploration activities in Namibia are subject to political, economic and other uncertainties, and situations may arise that could have a material adverse effect on the Company's business.

The Namibian economy is highly dependent on the mining sector, as well as foreign imports, including fuel. These factors make the Namibian economy particularly vulnerable to adverse commodity price fluctuations, which could have a material adverse effect on the Company's business.

In addition, Namibia is a member of the Southern African Customs Union ("**SACU**"), which provides for a common external tariff and guarantees free movement of goods between its member states, and a high proportion of Namibia's trade is conducted with SACU members. While the Namibian government is highly dependent on SACU revenue, Namibia's share of such revenue is expected to decline in the foreseeable future, as a result of which the Namibian government may seek to introduce additional taxes or increase current tax rates. The introduction of additional taxes or any increase in current tax rates could have a material adverse effect on the Company.

In 2015, the Namibian Cabinet approved the New Equitable Economic Empowerment Framework, which was then translated into a draft bill, the National Equitable Economic Empowerment Bill ("**NEEEB**" or the "**Bill**"), following nationwide stakeholder consultations. NEEEB has been revised on several occasions and consultations are ongoing to finalize the revised draft Bill. The Bill calls for the equitable allocation, ownership and management of Namibia's resources among 'empowerment beneficiaries', which refers to Namibians who were disadvantaged according to their race either socially, economically or educationally, by colonial and apartheid laws, policies and practices before 21 March 1990. Once enacted, the NEEEB will form the basis for draft legislation concerning empowerment measures in Namibia, similar to the black economic empowerment legislation enacted in South Africa.

In August 2016, the Namibian parliament passed a new investment law termed the Namibia Investment Promotion Act ("**NIPA**") which has yet to come into force following substantial amendments that were made to it after industry stakeholders raised concerns about the possible negative impacts on investment in Namibia. Although the date of enactment is uncertain, if enacted in its current form, NIPA would materially change the legal basis on which foreign investments are to be made, maintained and withdrawn from Namibia. In essence, the law provides not only for reservation of certain businesses to Namibians, but also requires the approval of the Minister of Industrialisation, Trade and SME Development (the "**Minister**") prior to making an investment, when expanding an investment and when disinvesting, on a discretionary basis. NIPA would also abolish the recourse of foreign investors to international tribunals by requiring any disputes be exclusively dealt with under Namibian law and by the Namibian courts. In the absence of regulations or guidelines with respect to the approval process, the Minister will have unfettered discretion to determine what type of foreign investments, disinvestments or changes to current investments would be allowed, and it not currently possible to determine the extent to which NIPA will affect the Company.

In Namibia, due to high levels of unemployment, and restrictive immigration policies applied by the Namibian Ministry of Home Affairs, it may be difficult for the Company to obtain employment permits for skilled personnel that may be required in exploration or mining operations. In addition, Namibia suffers from high levels of poverty. Although the Namibian government spends a significant proportion on education, education initiatives and programs may take time to take effect. Currently, a significant proportion of the Namibian workforce can be classified as unskilled or semi-skilled labourers, as a result of which it may be



difficult for employers to find skilled personnel for specialized tasks. Shortages of suitably qualified personnel in Namibia could have a material adverse effect on the Company's business, financial condition and results of operations.

Namibia's status as a developing country may also make it more difficult for the Company to obtain required financing for its projects. Although resource-based businesses have a long history in Namibia and to date have not been adversely impacted by unreasonable or arbitrary government action, there can be no assurance that the Company's business, operations and affairs will not be materially adversely affected by unreasonable or arbitrary adversely affected by unreasonable or arbitrary applications of Namibian laws and regulations or changes in the political and economic status of Namibia.

### The use of derivative instruments involves certain inherent risks including credit risk, market liquidity risk and unrealized mark-to-market risk.

The Company has entered into hedging contracts in respect of a material amount of its forecasted zinc production. The Company uses these contracts to manage the risks associated with, among other things, mineral price volatility. The use of these contracts involves certain inherent risks including: (a) the risk of default on amounts owing to the Company by the counterparties with which the Company has entered into such transactions; and (b) the risk that, in respect of certain derivative products, an adverse change in market prices for commodities will result in the Company incurring an unrealized mark-to-market loss in respect of such contracts. In the event that such any such risks materialize, the Company's future cash flows, profitability, results of operations and financial condition could be materially and adversely affected.

### The Company is subject to taxation in multiple jurisdictions and changes to the taxation laws of such jurisdictions could have a material adverse effect on its profitability.

The Company has operations and conducts business in multiple jurisdictions and is subject to the taxation laws of those jurisdictions. The Company may be subject to review, audit and assessment in the ordinary course, the outcome of which could result in penalties imposed or higher taxes being payable, any of which could have a material adverse effect on the Company. These taxation laws are complicated and subject to change. The introduction of new tax laws, regulations or rules, or changes to, or differing interpretation of, or application of, existing tax laws, regulations or rules in any of the countries in which the Company's operations or business is located, could result in an increase in the Company's taxes, or other governmental charges, royalties, duties or impositions, or an unreasonable delay in the refund of certain taxes owing to the Company. No assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development. Taxes may also adversely affect the Company's ability to repatriate earnings and otherwise deploy its assets.

#### There are inflation-related risks in emerging markets.

The Company's activities and results of operations may also be adversely affected by the effects of rapid inflation in the general price level of goods and services in emerging markets. Namibia and Burkina Faso have experienced fluctuating rates of inflation for many years. There can be no assurance that any governmental action will be taken to control inflationary or deflationary situations or that any such action will be effective. Future governmental action may trigger inflationary or deflationary cycles or otherwise contribute to economic uncertainty. Additionally, changes in inflation or deflation rates and governmental actions taken in response to such changes may affect currency values. Any such events or changes could have a material adverse effect on the Company's results of operations and financial condition.

#### Exchange controls may restrict the Company's ability to repatriate earnings.

From time to time, emerging market countries in which the Company operates or has interests have adopted measures to restrict the availability of the local currency or the repatriation of capital across



borders. These measures are typically imposed by governments and/or central banks during times of local economic instability to prevent the removal of capital or the sudden devaluation of local currencies or to maintain in-country foreign currency reserves.

These measures can have a number of negative effects on the Company's operations. For example, exchange controls reduce the quantum of immediately available capital that the Company could otherwise deploy for investment opportunities or the payment of expenses. As a result, the Company may be required to use other sources of funds for these objectives which may result in increased financing costs. In addition, measures that restrict the availability of the local currency or impose a requirement to operate in the local currency may create practical difficulties for the Company.

Namibia is part of the Common Monetary Area of Southern Africa ("**CMA**"). Exchange controls in the CMA require that dividends, loans, repayment of loans and payment of all invoices to parties outside the CMA by companies registered in the CMA receive prior approval. The controls, as they relate to Namibia, are applied by the Bank of Namibia. There can be no assurance that the Company will obtain the requisite approvals in the future to repay loans or pay invoices to parties outside the CMA, including the Company's subsidiaries not resident in the CMA. Thus, exchange controls may restrict the Company from repatriating funds and using those funds for other purposes.

### Defects in title could have a material and adverse effect on the Company's results of operations and financial condition.

Although the Company has taken steps to verify the title to the mineral properties in which it has, or has a right to acquire, an interest in accordance with industry, these procedures do not guarantee title (whether of the Company or of any underlying vendor(s) from whom the Company may be acquiring its interest). Accordingly, the properties may be subject to prior unregistered liens, agreements, transfers or claims, including indigenous land claims, and title may be affected by, among other things, undetected defects. The Company can provide no assurances that there are no title defects affecting its properties. In addition, the Company may be unable to operate its properties as permitted or to enforce its rights with respect to the properties.

The process of acquiring exploration concessions involves an application process (which can be quite lengthy) and, until title to an exploration concession is actually granted, there can be no assurance that an exploration concession which has been applied for will be granted (especially as it is not always possible to determine if there are prior applications over the same ground) or on a timeline that the Company believes to be reasonable.

### Shortages, or increases in prices, of energy and other consumables can adversely affect the Company's results of operations.

The Company is dependent on various commodities (such as diesel fuel, electricity, steel and concrete), labour and equipment (including parts) to conduct its mining operations and development projects. A shortage of such input commodities, labour or equipment or a significant increase of their cost could have a material adverse effect on the Company's ability to carry out its operations and development projects and therefore limit or increase the cost of production.

The Company is also dependent on access to and supply of water and electricity to carry out its mining operations, and such access and supply may not be readily available. Market prices of input commodities can be subject to volatile price movements which can be material, occur over short periods of time and are affected by factors that are beyond the Company's control, including global and regional supply and demand, political and economic conditions, and applicable regulatory regimes. If the costs of certain input commodities consumed or otherwise used in connection with the Company's operations and development projects were to increase significantly, and remain at such levels for a substantial period, the Company may determine that it is not economically feasible to continue commercial production at some or all of its



operations or the development of some or all of its current projects, which could have an adverse impact on the Company's financial performance and results of operations.

# The Company's current and future operations are subject to a risk that one or more groups of indigenous people may oppose continued operation, further development, or new development of the Company's projects and mines.

The Company operates in some areas presently or previously inhabited or used by indigenous peoples. Trevali puts a priority on being a responsible corporate citizen and takes considerable care to develop productive relationships with a range of stakeholders in every community where it operates. In the case of indigenous peoples, the Company's presence can trigger various international and national laws, codes, resolutions, conventions, guidelines, and imposing obligations on government and companies to respect the rights of indigenous people. These may include a mandate that government consult with communities surrounding the Company's projects and mines regarding actions affecting local stakeholders, prior to granting mining rights, permits, amendments or authorizations to the Company. Consultation and other rights of indigenous people may require accommodations, including undertakings regarding employment, royalty payments and other matters. While the Company is respectful of these obligations, this may affect the Company's ability to acquire, within a reasonable time frame, effective mineral titles in jurisdictions in which indigenous title is claimed and may affect the timetable and costs of development of mineral properties in these jurisdictions. The obligations of government and private parties under the various international and national laws pertaining to indigenous people continue to evolve and be defined. There can be no assurance that the Company's relations with any indigenous group will remain amicable. If a dispute were to arise, it might result in reduced access to properties or a delay in operations. The current and future operations are subject to a risk that one or more groups of indigenous people may oppose continued operation, further development, or new development of the Company's projects or operations. Such opposition may be directed through legal or administrative proceedings or expressed in manifestations such as protests, roadblocks or other forms of public expression against the Company's activities. Opposition by indigenous people to the Company's operations may require modification of or preclude operation or development of the properties or may require the Company to enter into agreements with indigenous people with respect to the properties.

### The Company's relationship with local communities may affect the Company's existing operations and development projects.

The Company's relationships with the communities in which it operates are critical to ensure the future success of its existing operations and the construction and development of its projects. Trevali puts a priority on being a responsible corporate citizen and takes considerable care to develop productive relationships with a range of stakeholders in every community where it operates. However, these and other community stakeholders may impact the Company's ability to explore, develop or operate its mining properties. In certain circumstances, consultation with such stakeholders may be required and the outcome may affect the Company's ability to explore, develop or operate its mining properties. The Company provides significant economic and social benefits to its host communities and countries, which facilitates broad stakeholder support for the Company's operations and projects. There is no guarantee that local residents will support the Company's operations or projects. If a dispute were to arise, it might result in reduced access to the properties or a delay in operations.

### The Company does not have direct ownership or possession rights to use the surface of the lands for certain mineral tenures.

Although the Company acquires the rights to some or all of the minerals in the ground subject to the tenures that it acquires, or has a right to acquire, in most cases it does not thereby acquire any rights to, or ownership of, the surface to the areas covered by its mineral tenures. In such cases, applicable mining laws usually provide for rights of access to the surface for the purpose of carrying on mining activities, however, the enforcement of such rights can be costly and time consuming. In areas where there are no existing



surface rights holders, this does not usually cause a problem, as there are no impediments to surface access. However, in areas where there are local populations or landowners (as with many of the Company's properties), it is necessary, as a practical matter, to negotiate surface access. There can be no guarantee that, despite having the right at law to access the surface and carry on mining activities, the Company will be able to negotiate a satisfactory agreement with any such existing landowners/occupiers for such access, and therefore it may be unable to carry out mining activities. In addition, in circumstances where such access is denied, or no agreement can be reached, the Company may need to rely on the assistance of local officials or the courts in such jurisdiction.

While the Company has formal surface access agreements in place for its Caribou, Rosh Pinah and Perkoa properties, from time to time, a land possessor may dispute the Company's surface access rights, and as a result the Company may be barred from its legal occupation rights. Surface access issues have the potential to result in the delay of planned operations and exploration programs, and these delays may be significant.

### Actual costs of reclamation are uncertain, and higher than expected costs could negatively impact the results of operations and financial position.

Land reclamation requirements are generally required to return landforms and biodiversity to their predisturbance state and to manage hazardous and non-hazardous waste generated during operations. Community and regulatory engagement are often required before a final landform design is approved. Reclamation costs are uncertain and planned expenditures and provisions may differ from the actual expenditures required. If the Company is required to carry out unanticipated reclamation work, its financial position could be adversely affected.

### The Company is subject to water management regulations, and its operations are dependent on water availability.

A key operational risk is the availability of sufficient water supplies to support mining operations. Large volumes of water are used in the extraction and processing of minerals and metals. Conversely, other properties of the Company are located in areas that have many competing demands water and access to sufficient supplies will need to be negotiated by the Company. The Company may not be able to secure the water necessary to conduct its activities as planned. The Company will strive to ensure that its activities do not adversely impact community water sources. Future operations and activities may require that water resources be provided to communities at the Company's expense.

Water is an integral requirement for exploration, development and production facilities on mineral properties and the Company's ability to obtain a secure supply of water at a reasonable cost depends on many factors, including global and regional supply and demand, political and economic conditions, problems that can affect local supplies, delivery, and relevant regulatory regimes.

The water collection, treatment, and disposal operations at the Company's mines are subject to substantial regulation and involve significant environmental risks. If collection or management systems fail, overflow or do not operate properly, untreated water or other contaminants could spill onto nearby properties or into nearby streams and rivers, causing damage to persons or property, injury to aquatic life and economic damages. Environmental and regulatory authorities in the jurisdictions in which the Company operates conduct periodic or annual inspections of the Company's projects. As a result of these inspections, the Company is from time to time required to modify its water management program, complete additional monitoring work or take remedial actions with respect to the Company's operations as it pertains to water management. Liabilities resulting from damage, regulatory orders or demands, or similar, could adversely and materially affect the Company's business, results of operations and financial condition. Moreover, in the event that the Company is deemed liable for any damage caused by overflow, the Company's losses or consequences of regulatory action might not be covered by insurance policies.



Even a temporary interruption of water could adversely affect an operation. An increase in prices could negatively affect the Company's business, financial condition and results of operations. Establishing such water infrastructure for the Company's development projects will, in any event, require significant resources, identification of adequate sources of raw materials and supplies and necessary cooperation from national and regional governments, none of which can be assured. There is no guarantee that the Company will secure water rights going forward or on terms reasonable to the Company.

# Litigation could be brought against the Company and the resolution of legal proceedings or disputes may have a material adverse effect on the Company's future cash flows, results of operations or financial condition.

The Company could be subject to legal claims and/or complaints and disputes with other parties that result in litigation, including unexpected environmental remediation costs, arising out of the normal course of business. The results of litigation cannot be predicted with certainty. The costs of defending and settling litigation can be significant, even for claims that have no merit. There is a risk that if such claims are determined adversely to the Company, they could have a material adverse effect on the Company's financial performance, cash flow, and results of operations.

### The Company's revenue from sale of its concentrates is derived from a single customer.

The Company derives its revenue from a single customer, Glencore, who is the sole and exclusive purchaser of 100% of the concentrates produced from the Company's current operations and has a right of first refusal for future concentrate sales produced from any additional properties or assets that the Company may acquire in future. Though the Company does not need to secure future purchasers for its concentrate, any failure to comply with the terms of, or default under, the concentrate off-take agreements could jeopardize the Company's future revenues and could materially and adversely affect the Company's business, financial condition and results of operations.

#### The business of the Company is dependent on good labour and employment relations.

Competition for skilled employees in the resource sector results in employee turnover at the Company's operations and a need to constantly recruit and train new employees. This competition for qualified employees occasionally results in workforce shortages, which can often be supplemented with more costly contract labour. As technology evolves and automation increases, the skill mix required also changes and the Company may not be able to attract the required capabilities for new ways of working, or re-skill those skills sets that will be changed in the future. Relations between the Company and its employees may be impacted by changes in labour relations which may be introduced by, among others, employee groups, unions, and the relevant governmental authorities in whose jurisdictions the Company carries on business.

A portion of the workforces at the Caribou mine and the Rosh Pinah mine are unionized. In October 2017, the Company successfully negotiated a five-year agreement with the United Steelworkers Union for the mill and surface hourly employees at the Caribou mine which will need to be renegotiated or extended in October 2022. All underground hourly employees and site salaried employees have been engaged in the non-union workplace contracts. In March 2021, the Company successfully concluded negotiations on a three-year agreement with the unionized workforce at the Rosh Pinah mine.

Changes in employment legislation or otherwise in the Company's relationship with the Company's employees, including as a result of the need to renew or renegotiate employment or union contracts, may result in higher ongoing labour costs, employee turnover, strikes, lockouts or other work stoppages, any of which could have a higher material adverse effect on the Company's business, results of operations and financial condition.



#### The Company may not have sufficient insurance coverage.

The mining industry is subject to significant risks that could result in damage to, or destruction of, mineral properties or producing facilities, personal injury or death, environmental damage, delays in mining, monetary losses, and possible legal liability.

The Company's insurance does not cover all risks that may result in loss or damages and may not be adequate to reimburse the Company for all losses sustained. In particular, the Company does not have coverage for certain environmental losses or certain types of earthquake damage. The occurrence of losses or damage not covered by insurance could have a material and adverse effect on the Company's cash flows, results of operation, and financial condition.

In the course of exploration, development, and production of mineral properties, certain risks and, in particular, unexpected or unusual geological operating conditions, including cave-ins, fires, flooding and earthquakes may occur. It is not always possible to fully insure against such risks and the Company may decide not to take out insurance against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the securities of the Company.

### Any failure to strictly comply with anti-corruption laws could have a material adverse effect on the Company's reputation and results of operations.

The Canadian Corruption of Foreign Public Officials Act, the U.S. Foreign Corrupt Practices Act and antibribery laws in other jurisdictions prohibit companies and their intermediaries from making improper payments for the purposes of obtaining or retaining business or other commercial advantage. The Company's policies mandate compliance with these anti-bribery laws, which often carry substantial penalties. The Company operates in jurisdictions that have experienced governmental and private sector corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with certain local customs and practices. There can be no assurances that the Company's internal control policies and procedures will always protect it from reckless or other inappropriate acts committed by the Company's affiliates, employees or agents. Violations of these laws, or allegations of such violations, could have a material adverse effect on the Company's business, financial position and results of operations.

### Failure to strictly comply with Canada's Extractive Sector Transparency Measures Act could have a material adverse effect on our reputation and results of operations.

The Canadian Extractive Sector Transparency Measures Act ("**ESTMA**"), which became effective June 1, 2015, requires public disclosure of payments to governments by mining and oil and gas companies engaged in the commercial development of oil, gas and minerals who are either publicly listed in Canada or with business or assets in Canada. Mandatory annual reporting is required for extractive companies with respect to payments made to foreign and domestic governments at all levels, including entities established by two or more governments, and indigenous groups. ESTMA requires reporting on the payments of any taxes, royalties, fees, production entitlements, bonuses, dividends, infrastructure improvement payments, and any other prescribed payment over C\$100,000. Failure to report, false reporting or structuring payments to avoid reporting may result in fines of up to C\$250,000 (which may be concurrent). We commenced ESTMA reporting in 2017. If we become subject to an enforcement action or in violation of ESTMA, this may result in significant penalties, fines and/or sanctions imposed on us resulting in a material adverse effect on our reputation.



### The Company is in competition with other mining companies that have greater resources and experience.

The mining industry is competitive in all of its business phases. The Company competes with numerous companies that have experience and financial resources significantly in excess of those of the Company, in the search for: attractive mineral properties; qualified technical expertise, operational experience, service providers, and labour; equipment and suppliers; and capital for the purpose of financing development of mineral properties. As a result of this competition, the Company may be unable to maintain or acquire attractive mining properties, recruit or retain qualified people, or acquire the capital necessary to fund its operations and develop its properties on terms it considers acceptable, or at all. Consequently, the Company's competitive disadvantages could have materially adverse effects on the Company's, operations, revenues, and financial condition.

### As a result of social media and other internet-based applications, companies today are at a much greater risk of losing control over how they are perceived.

Damage to the Company's reputation can be the result of the actual or perceived occurrence of any number of events, and could include any negative publicity, whether true or not. Although the Company puts priority on responsible operations and corporate citizenship and places a great emphasis on protecting its image and reputation, it does not ultimately have direct control over how it is perceived by others. Reputation loss may lead to increased challenges in developing and maintaining community relations, decreased investor confidence, and act as an impediment to the Company's overall ability to advance its projects, thereby having a material adverse impact on financial performance, cash flows, and growth prospects.

#### There can be no assurance that dividends will be paid in the future.

The Company has never paid dividends since its incorporation. Payment of any future dividends will be at the discretion of the Board after taking into account many factors, including the Company's operating results, financial condition, comparability of the dividend yield to peer companies and current and anticipated cash needs. There can be no assurance that dividends will be paid in the future.

### DIVIDENDS

The Company has not paid any dividends on the Common Shares since its incorporation. The Company does not anticipate declaring or paying any dividends on the Common Shares in the near future, although it reserves the right to pay dividends if and when it is determined to be advisable by the Board. As a result, shareholders will have to rely on capital appreciation, if any, to earn a return on investment in the Common Shares in the near future. The payment of future cash dividends, if any, will be reviewed periodically by the Board and will depend upon, among other things, conditions then existing including earnings, financial condition and capital requirements, restrictions in financing agreements, business opportunities and conditions and other factors.

### **DESCRIPTION OF CAPITAL STRUCTURE**

#### **Common Shares**

The Company is authorized to issue an unlimited number of Common Shares. On December 3, 2021 a share consolidation (the "**Consolidation**") was completed on the basis of one post-Consolidation Common Share for every ten pre-Consolidation Common Shares. The Consolidation reduced the number of Common Shares issued and outstanding from 989,464,731 Common Shares to 98,946,187 Common Shares as at December 31, 2021. The Common Shares commenced trading on the Toronto Stock Exchange (the "**TSX**") on a post-Consolidation basis on the opening of trading on December 6, 2021. The exercise or conversion price and the number of shares issuable under the Company's outstanding stock options and convertible



instruments were proportionately adjusted upon completion of the Consolidation. All information relating to issued and outstanding Common Shares, share options and warrants, and per share amounts in this AIF have been adjusted retrospectively to reflect the Consolidation.

Each Common Share entitles the holder thereof to one vote per Common Share at all meetings of shareholders. All of the Common Shares issued rank equally as to dividends, voting rights and distribution of assets on winding-up or liquidation. Shareholders have no pre-emptive rights, nor any right to convert their Common Shares into other securities. There are no existing indentures or agreements affecting the rights of shareholders other than the Notice of Articles and Articles of the Company.

#### Warrants

The Company issued 93,265,000 warrants pursuant to a prospectus supplement dated November 25, 2020 to the Company's short form base shelf prospectus dated November 19, 2020 as part of a marketed offering of 186,530,000 units (each, a "Unit") at a price of C\$0.185 per Unit. Each Unit comprised of one Common Share and one-half Common Share purchase warrant and entitles the holder thereof to acquire one Common Share at a price of C\$0.23 (the "Exercise Price") at any time prior to 4:00 p.m. (PDT) on June 2, 2022. After giving effect to the Consolidation, ten warrants are exercisable into one post-Consolidated Common Share at an Exercise Price of \$2.30 per Common Share with an expiry date of June 2, 2022. As at the date of this AIF, 98,000 of the warrants have been exercised. For further information, readers are referred to the Warrant Indenture filed under the Company's profile on the SEDAR website at www.sedar.com on December 2, 2020.

### **MARKET FOR SECURITIES**

The Common Shares are listed and posted for trading on the TSX under the symbol "TV". The following table sets forth the reported high and low prices and the trading volume of the Common Shares on the TSX for the 12-month period ended December 31, 2021:

Month	High (C\$)	Low (C\$)	Volume
January	2.70	1.80	5,272,356
February	2.35	1.90	3,992,287
March	2.05	1.60	3,106,602
April	2.15	1.85	2,204,265
Мау	2.75	2.05	5,072,238
June	2.70	2.10	1,890,758
July	2.30	2.05	1,054,811
August	2.30	1.60	1,902,852
September	2.05	1.65	3,116,589
October	2.70	1.70	7,334,132
November	2.30	1.60	2,707,468



Month	High (C\$)	Low (C\$)	Volume
December	1.79	1.32	3,467,366

### **DIRECTORS AND OFFICERS**

As of the date of this AIF, the directors of the Company are as set out in the following table:

Director Name and Place of Residence	Position(s) Held	Principal Occupation During the Last Five Years	Director Since
RICUS GRIMBEEK <sup>(4)(5)</sup> British Columbia, Canada	President, Chief Executive Officer and Director	President and Chief Executive Officer of the Company (since April 2019); Chief Operating Officer of Vale Base Metals North Atlantic (February 2018 to April 2019); Chief Technology Officer of South32 Limited (April 2017 to October 2017); President and Chief Operating Officer, Australia Region of South32 Limited (December 2014 to March 2017).	March 30, 2020
JILL GARDINER <sup>(1)(2)(3)</sup> British Columbia, Canada	Chair of the Board	Corporate Director currently serving on the Boards of Directors of Capital Power Corporation and Hochschild Mining, plc. Previous chair of the Board of Directors of Turquoise Hill Resources Ltd. and member of the Boards of Capstone Mining Corp., Parkbridge Lifestyle Communities Inc., Timber Investments Ltd., SilverBirch Hotels & Resorts LP, and a number of non-profit organizations.	July 31, 2019
RUSSELL BALL <sup>(1)(2)(4)</sup> British Columbia, Canada	Director	Managing Director at QDBS Resources Inc.; Chief Executive Officer and director of Calibre Mining Corp. (October 2019 – February 2021); Executive Vice President, Chief Financial Officer and Corporate Development of Goldcorp Inc. (March 2016 to October 2017); Executive Vice President, Capital Projects, Strategy and Corporate Development of Goldcorp Inc. (December 2014 to March 2016).	October 11, 2017
ALINE COTE <sup>(5)</sup> Quebec, Canada	Director	Co-Head of Zinc Industrial Assets of Glencore International AG; Previous Exploration geologist for Noranda Inc; Project management and technical services roles under Xstrata plc and Glencore	September 1, 2020



Director Name and Place of Residence	Position(s) Held	Principal Occupation During the Last Five Years	Director Since
JEANE HULL <sup>(2)(4)(5)</sup> South Dakota, USA	Director	Corporate director currently serving on the Boards of Directors of Epiroc AB and Interfor Corporation; previous Chief Operating Officer for Rio Tinto plc at the Kennecott Utah Copper Mine; Executive Vice President and Chief Technical Officer of Peabody Energy Corporation; numerous management engineering and operations positions with Rio Tinto and affiliates; Mobil Mining and Minerals.	February 1, 2021
DAN ISSEROW <sup>(1)(2)(3)</sup> British Columbia, Canada	Director	Chief Executive Officer of Glass 3 Enterprises Ltd. (October 2019 to present); President and Chief Financial Officer of Silica Ventures Inc. (since July 2017); Business consultant (2012 to present).	October 11, 2017
NICK POPOVIC Zug, Switzerland	Director	Currently the Head of Marketing and co- Industrial Lead (Zinc Smelters) for Glencore; Previously Zinc and Lead Concentrates and Metals trader of Glencore International A.G.	September 1, 2020
RICHARD WILLIAMS (1)(3)(4) Ontario, Canada	Director	Corporate director currently serving on the Boards of Directors of Bunker Hill Mining Corp. and Canada's Vimy Foundation; Executive Envoy to Tanzania of Barrick Gold Corporation (February 2017 to November 2018); Chief Operating Officer of Barrick Gold Corporation (September 2015 to February 2018); Chief of Staff of Barrick Gold Corporation (August 2014 to September 2015).	June 4, 2019

Notes:

(1) (2) Member of the Audit Committee.

Member of the People and Culture Committee.

Member of the Corporate Governance and Nominating Committee.

(3) (4) Member of the Health, Safety, Environment and Community Committee.

(5) Member of the Exploration and Technical Committee.

All of the Company's directors serve until the next annual meeting of shareholders or until such director's successor is duly elected or appointed.

The below table sets out the executive officers of the Company as at the date of this AIF (in addition to Ricus Grimbeek, the Company's President and Chief Executive Officer, who is included in the table above):



Officer Name and Place of Residence	Position(s) Held	Principal Occupation During the Last Five Years
YAN BOURASSA Ontario, Canada	Vice President, Technical Services & Exploration	Vice President, Technical Services & Exploration (since January 2021); Vice President, Exploration & Mineral Resources of the Company (July 2018 – January 2021); Vice President, Geology at Roxgold Inc. (July 2016 to July 2018); Director, Business Development at Golden Star Resources Ltd. (May 2011 to June 2016); Exploration Manager, Africa at Golden Star Resources Ltd. (January 2008 – May 2011).
BRENDAN CREANEY British Columbia, Canada	Chief Financial Officer	Chief Financial Officer (since December 2020), Vice President, Investor Relations of the Company (August 2019 – December 2020); Director, Corporate Development and Value Assurance at Goldcorp (November 2016 – May 2019) and various progressive roles at Goldcorp (2012 – 2019).
<b>DEREK DU PREEZ</b> British Columbia, Canada	Chief Technical Officer and Interim Chief Operating Officer	Chief Technical Officer (since January 2021), Chief Technology Officer (since July 2019) and Interim Chief Operating Officer of the Company (between April 2020 to August 2021; December 2021 to date); Principal Consultant at AMC Consultants (April 2019 to July 2019); Director, Digital Transformation of Vale Base Metals North Atlantic (September 2018 to April 2019); Manager, Digital Delivery Centre and Manager, Technology & Improvement of South32 Limited (September 2015 to July 2018); Various progressive roles with BHP Billiton (2012 to September 2015).
JEFF ERDMAN British Columbia	Vice President, Risk & Assurance	Vice President, Risk and Assurance (since September 2021); Vice President, Risk Management at Finning International Inc. (December 2012 to September 2020).
<b>TOM MEYER</b> British Columbia	Vice President, Corporate Development	Vice President, Corporate Development ( <u>since</u> September 2021); Senior Analyst, Corporate Development (March 2021 to August 2021); 16 years' prior experience as consultant to the mining industry.
<b>STEVEN MOLNAR</b> British Columbia, Canada	Chief Legal Officer and Corporate Secretary	Chief Legal Officer and Corporate Secretary of the Company (since July 2018); Lawyer at McCarthy Tétrault LLP (February 2014 to July 2018).
DANIEL SCHNURRENBERGER British Columbia, Canada	Vice President, Finance	Vice President, Finance (since January 2020); Head of Group Finance of the Company (since May 2018); Glencore's corporate finance department (2011 to 2018).



Officer Name and Place of Residence	Position(s) Held	Principal Occupation During the Last Five Years
JOANNE THOMOPOULOS British Columbia, Canada	Chief People Officer	Chief People Officer of the Company (since October 2018); Director, Human Resources at BC Hydro (January 2008 to October 2018)
RICHARD WEISHAUPT Saskatchewan, Canada	Vice President, Health, Safety, Environment & Security	Vice President, Health, Safety, Environment and Security (since January 2021); Group Lead, Health Safety and Security of the Company (November 2019 to January 2021); Manager, HS Ontario and Manitoba Operations at Vale (September 2018 to November 2019); Manager, HSE VPO at Agrium (July 2015 to September 2018)

### **Director and Executive Officer Biographies**

### Ricus Grimbeek, President, Chief Executive Officer and Director

Mr Grimbeek is an\_experienced mine operator with three decades of progressive experience in the mining industry, with a proven track record working at all levels of the business. Before joining Trevali Mr. Grimbeek was Chief Operating Officer for Vale Base Metals North Atlantic, was previously President and Chief Operating Officer of South32 Australia and held prior leadership roles with Aluminium Australia, BHP Billiton and Lonmin Platinum. Mr Grimbeek holds a Bachelor of Engineering (Mining) from the University of Pretoria, has completed the Management Development Program from the University of Orange Free State, and holds and Advanced Certificate in Mine Ventilation from the Chamber of Mines.

#### Jill Gardiner, Chair of the Board

Ms. Gardiner is a professional corporate director. Previously she spent over 20 years in the investment banking industry, most recently as Managing Director and Regional Head, British Columbia, for RBC Capital Markets. In her various roles in corporate finance, mergers and acquisitions, and debt capital markets she provided strategic advice to, and helped raise capital for, numerous corporations with a focus on commodity-related, infrastructure and diversified industries. She served as Head of the Forest Products Group and Head of the Pipelines & Utilities Group. Ms. Gardiner was formerly Senior Project Manager at the Ontario Energy Board and a lecturer at the University of Victoria in corporate finance and human resource management. Ms. Gardiner currently serves as Chair of the Board of Directors of Capital Power Corporation and serves as a director on the Board of Directors of Hochschild Mining, plc. She previously served as chair of the Board of Directors of Turquoise Hill Resources Ltd. and as a member of the Boards of Capstone Mining Corp., Parkbridge Lifestyle Communities Inc., Timber Investments Ltd., SilverBirch Hotels & Resorts LP, and a number of non-profit organizations, including the ARC Foundation, the Banff Centre, the Vancouver Art Gallery and the Southern Alberta Institute of Technology. Ms. Gardiner holds a Bachelor of Science and a Master of Business Administration, both from Queen's University.

#### Russell Ball, Director

Mr. Ball is the Managing Director at QDBS Resources Inc. and Chair of the Board of Directors of CopperBank Resources Corporation (CSE: CBK). Mr. Ball was the Chief Executive Officer and a director of Calibre Mining Corp. from October 2019 to February 2021, and previously served as Executive Chair of Calibre. Prior to that, Mr. Ball was Executive Vice President, Chief Financial Officer and Corporate Development of Goldcorp Inc. from March 2016 until October 2017. He initially joined Goldcorp Inc. in 2013, serving as Executive Vice President of Capital Projects, Strategy and Corporate Development, including



oversight of primary growth projects. Prior to his role with Goldcorp Inc., Mr. Ball served in varying capacities for Newmont Mining Corporation, including Strategic and Business Planning, culminating with his appointment as Executive Vice President and Chief Financial Officer. Mr. Ball qualified as both a Chartered Accountant from the Institute of Chartered Accountants of South Africa and a Certified Public Accountant in the USA.

#### Aline Cote, Director

Ms. Cote is Co-Head of Zinc Industrial Assets of Glencore International AG. She began her career as an exploration geologist for Noranda Inc. and transitioned thereafter into project management and technical services roles under Xstrata plc and Glencore. Ms. Cote holds a bachelor's degree in Science (Geology) from the University of Quebec (1998), post graduate training in Geology at Laurentian University (2000) and an MBA from the University of Quebec (2008).

#### Jeane Hull, Director

Ms. Hull has over 35 years of operational leadership and engineering experience, most notably holding the positions of Chief Operating Officer for Rio Tinto plc at the Kennecott Utah Copper Mine and Executive Vice President and Chief Technical Officer of Peabody Energy Corporation. Ms. Hull has also held numerous management engineering and operations positions with Rio Tinto and affiliates. Prior to joining Rio Tinto, she held positions with Mobil Mining and Minerals, and has additional engineering, environmental and regulatory affairs experience in the public and private sector. Ms. Hull is currently a director of Epiroc AB and Interfor Corporation, and also serves on the Advisory Board for South Dakota School of Mines and Technology. A retired Registered Professional Engineer, Ms. Hull holds a Bachelor of Science (Civil Eng.) from South Dakota School of Mines and Technology and a Master of Business Administration degree from Nova Southeastern University.

#### Dan Isserow, Director

Mr. Isserow has financial and business operations leadership experience and a successful track record of growing organizations across various business sectors, including introducing the Nando's restaurant franchise to Canada and serving as its President and CEO from 1993 to 2012. Mr. Isserow is currently the Chief Financial Officer of Glass 3 Enterprises Ltd. and the Co-Founder, President and Chief Financial Officer of Silica Enterprises. Both Glass 3 Enterprises and Silica Enterprises provide a full-service supply and sourcing solution for architectural glass requirements in Canada and the United States. Mr. Isserow is a Chartered Accountant from the Institute of Chartered Accountants of South Africa and has completed the ICD Directors' Education Program.

#### Nick Popovic, Director

Mr. Popovic joined Glencore International A.G. in January 1992 as a Zinc and Lead Concentrates and Metals trader and was appointed Head of Marketing and co-Industrial Lead (Zinc Smelters) for Glencore in 2020. He currently also serves as Chair of the Board of Directors of Kazzinc Holdings and is a board member of Compañia Minera Volcan SAA and Recylex SA, said companies all being engaged in the extraction and production of zinc, lead, copper and precious metals. He graduated in economics at Cambridge University before starting a career in commodities in 1992 with Glencore (previously Marc Rich & Co. AG). He held postings in the UK, Russia, Kazakhstan and Switzerland, covering trading, production and managerial roles at both Glencore and its subsidiary companies. Commodities covered during almost three decades in the business in both production and marketing have been zinc, lead, copper and precious metals.

#### Richard Williams, Director

Mr. Williams is a corporate director currently serving on the Boards of Directors of Bunker Hill Mining Corp.



and Canada's Vimy Foundation, a charity with a mission to preserve and promote Canada's First World War legacy, and London's Mine and Money Conference. He is the former Chief Operating Officer at Barrick Gold Company and Barrick's Executive Envoy to Tanzania (2014 to 2018). He has also served as Chief Executive Officer of the Afghan Gold and Minerals Company (2010 to 2014) and as a non-executive director of Gem Diamonds Limited, listed on the London Stock Exchange (2018 to 2015). In addition to his mining experience, Mr. Williams served as the Commanding Officer of the British Army's Special Forces Regiment, the SAS. He has an MBA from Cranfield University, a Master's Degree in Security Studies from Kings College London, and a Bachelor of Science in Economics from University College London.

#### Yan Bourassa, Vice President, Technical Services & Exploration

Mr. Bourassa joined the Company in July 2018 as Vice President, Exploration & Mineral Resources and was appointed as Vice President, Technical Services & Exploration in January 2021. He has extensive experience in resource estimation/disclosure and a strong background in operations and exploration, having previously worked as Vice President, Geology at Roxgold Inc. from July 2016 to July 2018, and as Director of Business Development at Golden Star Resources Ltd. from May 2011 to June 2016 (and as Exploration Manager – Africa for that company from January 2008 to May 2011). Mr. Bourassa holds a Master of Science in Geology from the Université du Québec à Montréal and is a member of the Association of Professional Geoscientists of Ontario.

#### Brendan Creaney, Chief Financial Officer

Mr. Creaney joined the company in August 2019 as Vice President, Investor Relations and was appointed as Interim Chief Financial Officer on September 1, 2020 which appointment was made permanent on December 10, 2020. Previously he was Director, Corporate Development and Value Assurance at Goldcorp from November 2016 to May 2019 and held various positions prior to that at Goldcorp since May 2012.in functions such as Studies and Projects, Capital Allocation, and Strategy. Mr. Creaney also held roles at Barrick Gold Corporation and Novagold Resources. In these various roles he gained extensive experience in finance, technical studies, and mergers and acquisitions, including; leading due diligence teams, the development and review of business cases and valuations, the development and control of projects, and the administration of corporate strategy. He holds a Master of Business Administration specializing in Finance from the University of Manchester and a Bachelors degree in Political Science from the University of Victoria.

#### Derek du Preez, Chief Technical Officer and Interim Chief Operating Officer

Mr. Du Preez joined the Company as Chief Technology Officer in July 2019 and assumed accountability as Chief Operating Officer effective April 6, 2020 until August 30, 2021, and again from December 16, 2021 upon the departure of Trevali's Chief Operating Officer. He became Chief Technical Officer in January 2021 and has over 25 years of experience working in operational and technical roles at some of the world's largest and most complex mining operations, leading major transformation programs and providing strong strategic guidance and technical expertise in relation to feasibility, planning and turnaround strategies to ensure optimal value for the business. Before joining Trevali, Mr. Du Preez was Principal Consultant at AMC Consultants. Prior to that he held the position of Director, Digital Transformation, North Atlantic at Vale Canada and Head of Digital Delivery Centre at South32, as well as a progression of operational roles at BHP Billiton. He holds a Bachelor of Engineering Technology and Mechanical Engineer's Certificate of Competency from South Africa, is a Technologist Member of the Institute of Engineers Australia in the Mechanical College, and has completed a Management Development Program through the University of the Witwatersrand.

#### Jeff Erdman, Vice President, Risk and Assurance

Mr. Erdman joined the Company as Head of Risk and Assurance on a consulting basis in March 2021 and became Vice President, Risk and Assurance in September 2021. Prior to joining the Company, Mr. Erdman



was the Vice President, Risk Management at Finning International Inc. from December 2012 to September 2020 and a partner in Deloitte's Risk and Assurance Service practice from 2005 to 2012. He has extensive experience in audit, enterprise risk management, and governance. Mr. Erdman holds a Bachelor of Arts (Economics) degree from the University of British Columbia. Mr. Erdman is qualified as a Certified Public Accountant, Chartered Accountant (CPA, CA) in British Columbia, a Certified Internal Auditor (CIA) and a Certified Information System Security Professional (CISSP).

#### Tom Meyer, Vice President, Corporate Development

Mr. Meyer joined the Company as Senior Analyst, Corporate Development in March 2021 and became Vice President, Corporate Development in September 2021. Prior to joining the Company, Mr. Meyer was a consultant to the mining industry. He has over 16 years' experience in capital markets with extensive experience in base metals and minerals equity research. Mr. Meyer holds B.A.Sc. and M.A.Sc degrees from the University of Toronto and an Master of Business Administration from McMaster University. He is a Chartered Financial Analyst and a Registered Professional Engineer in the Province of Ontario.

#### Steven Molnar, Chief Legal Officer & Corporate Secretary

Mr. Molnar joined the Company as its General Counsel and Corporate Secretary in July 2018 and became Chief Legal Officer in July 2019. Prior to joining the Company, Mr. Molnar practiced corporate and securities law at McCarthy Tétrault from February 2014 to July 2018 and at Heenan Blaikie LLP from October 2010 to January 2014. He has extensive experience advising on a variety of matters and transactions including with respect to corporate governance, regulatory compliance and public company reporting obligations, mergers, acquisitions and dispositions, equity and debt financings, and joint ventures and other commercial arrangements in the resource industry. Mr. Molnar holds a Juris Doctor from Osgoode Hall Law School and a Bachelor of Arts (First Class Honours) from Simon Fraser University. He is called to the bar in both British Columbia and Ontario.

#### Daniel Schnurrenberger, Vice President, Finance

Mr. Schnurrenberger joined the Company in May 2018 as Head of Group Finance and became Vice President, Finance in January 2020. Prior to joining the Company, Mr. Schnurrenberger worked at Glencore's corporate finance department from 2011 to 2018 and was Senior Manager at Deloitte from 2003 to 2011. Mr. Schnurrenberger holds a Bachelor of Commerce degree from Sauder School of Business. Mr. Schnurrenberger is a qualified Chartered Professional Accountant in good standing, registered with the Chartered Professional Accountants of British Columbia, Canada.

#### Joanne Thomopoulos, Chief People Officer

Ms. Thomopoulos joined the Company in October 2018 as Vice President, Human Resources Strategy and became Chief People Officer in July 2019. Previously, she was Director of Human Resources at BC Hydro from January 2008 to October 2018 and Senior HR Manager at the British Columbia Lottery and Gaming Corporation from October 2003 to January 2008. In these various roles she has led executive compensation programs, senior leadership succession planning and large-scale workforce redesign projects, developed performance management and talent development frameworks that align with future of work principles, and provided strategic advice on mergers, acquisitions and integrations. Ms. Thomopoulos holds a Chartered Professional in Human Resources Designation, Strategic Human Resources Management Graduate Certification, Advanced Certification in Management and a Diploma in Criminal Justice. She is also a Certified Coach and a Facilitator for Kouzes and Posner's Leadership Practices.

#### Richard Weishaupt, Vice President, Health, Safety, Environment & Security

Mr. Weishaupt joined the Company as its Group Lead, Health Safety and Security in November 2019 and was appointed as Vice President, Health, Safety, Environment and Security in January 2021. Prior to joining



the Company, Mr. Weishaupt held various operational and functional roles with Vale, Agrium, Stantec, BHP, and Kennecott. He has extensive experience leading project, production and health, safety, environment, and community teams to meet aggressive business, operational and project objectives. He brings a strategic approach to leading and developing people, risk management, operational excellence, and problem resolution. Mr. Weishaupt has a Diploma of Technology (Mining), and various other designations, including Six Sigma Black Belt Accreditation, ISO 14001 Internal Auditor, and in Crisis and Emergency Management.

## **Common Share Ownership**

As of the date of this AIF, the directors and executive officers of the Company, as a group, beneficially own, directly or indirectly, or exercise control or direction over an aggregate of 59,900 Common Shares, which together represent approximately 0.06% of the Company's issued and outstanding Common Shares.

#### **Cease Trade Orders, Bankruptcies, Penalties or Sanctions**

To the knowledge of the Company, after reasonable enquiry, no director or executive officer of the Company is, as at the date of this AIF, or has been within the last ten years, a director, chief executive officer or chief financial officer of any company (including the Company) that:

- (a) was subject to a cease trade order, an order similar to a cease trade order, or an order that denied the relevant company access to any exemption under applicable securities legislation, and which in all cases was in effect for a period of more than 30 consecutive days (an "Order"), which Order was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer of such company; or
- (b) was subject to an Order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer of such company.

To the knowledge of the Company, after reasonable enquiry, other than as set forth below, no director or executive officer of the Company or any shareholder holding a sufficient number of Common Shares to affect materially the control of the Company:

- (a) is, as at the date of this AIF, or has been within the last ten years, a director or executive officer of any company (including the Company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets;
- (b) has, within the last ten years, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or become subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold his assets;
- (c) has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (d) has been subject to any penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision regarding the Company.



Russell Ball was a director of Molycorp, Inc. ("**Molycorp**") from March 2010 until August 2016. In June 2015, Molycorp filed a voluntary petition for relief under chapter 11 of title 11 of the United States Code in the United States Bankruptcy Court for the District of Delaware. On November 3, 2016, Molycorp announced that it filed a joint plan of reorganization with the US Bankruptcy Court for the District of Delaware that proposed an emergence from chapter 11 protection and on August 31, 2016, Molycorp announced that such plan of reorganization became effective and Molycorp emerged from chapter 11 protection.

Mr. Ball was also a director of Lydian International Limited ("Lydian") from June 2018 until his resignation on March 12, 2020. On December 23, 2019, Lydian filed a petition for protection under the *Companies' Creditors Arrangement Act* ("CCAA"), which was granted to Lydian and its direct and indirect wholly-owned subsidiaries Lydian Canada Ventures Corporation and Lydian U.K. Corporation Limited. A stay was also granted against certain other subsidiaries of Lydian. The supervising court has granted an extension of protection under the CCAA until April 30, 2020.

Jeane Hull was the Executive Vice President and Chief Technical Officer of Peabody Energy Corporation ("**Peabody**") from April 2011 until her retirement on July 31, 2015. Peabody filed for Chapter 11 bankruptcy protection on April 13, 2016 and emerged from Chapter 11 protection on April 2, 2017.

Ms. Hull was also a director of Cloud Peak Energy Inc. ("**Cloud Peak**") from July 6, 2016 to October 24, 2019. Cloud Peak filed for Chapter 11 bankruptcy protection on May 10, 2019 and received court approval for its plan to exit bankruptcy on December 5, 2019.

#### **Conflicts of Interest**

Most of the Company's directors and/or officers are also directors, officers, employees or consultants of other companies that are engaged in the business of acquiring, developing and exploiting natural resource properties. Such associations may give rise to conflicts of interest from time to time. As a result, opportunities provided to a director of the Company may not be made available to the Company, but rather may be offered to a company with competing interests. The directors of the Company are required by law to act honestly and in good faith with a view to the best interests of the Company, to disclose any personal interest which they may have in any project or opportunity of the Company, and to abstain from voting on such matters.

Aline Cote and Nick Popovic, both directors of the Company, are members of the senior management team at Glencore. Glencore is a significant shareholder of the Company, owning approximately 26% of the issued and outstanding Common Shares, and is also a lender to the Company pursuant to the Glencore Facility (as described above under the heading "*Three-Year History – Significant Developments – 2020*"). In addition, through off-take agreements, Glencore has agreed to purchase all concentrates from the Company's Caribou, Rosh Pinah, and Perkoa mine operations. As part of the Investor Rights and Governance Agreement, Glencore has been granted certain board nomination rights, enhanced consultation rights relating to the business of the Company, and the right to participate in future equity offerings by the Company to maintain its pro rata ownership in Trevali.

The directors and executive officers of the Company are aware of the existence of laws governing the accountability of directors and officers for corporate opportunity and requiring disclosure by the directors of conflicts of interests and the Company will rely upon such laws in respect of any directors' and officers' conflicts of interest or in respect of any breaches of duty by any of its directors and executive officers.



# LEGAL PROCEEDINGS AND REGULATORY ACTIONS

#### Legal Proceedings

The Company and its properties are not subject to any material legal proceeding, nor does the Company know of any such material legal proceedings to be contemplated.

#### **Regulatory Actions**

Except as disclosed below, the Company has not: (a) had any penalties or sanctions imposed against it by a court relating to securities legislation or by a securities regulatory authority during the financial year ended December 31, 2021; (b) had any other penalties or sanctions imposed against it by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision; or (c) entered into any settlement agreement with a court relating to securities legislation or with a securities regulatory authority during the financial year ended December 31, 2021.

On January 26, 2016, Trevali Caribou received a "Notice of Intent to Issue a Direction Pursuant to the Fisheries Act", dated January 19, 2016 (the "**Notice of Intent**"). The Notice of Intent listed a number of measures that must be in place to protect fish and fish habitat. Trevali has a limited environmental liability agreement with the Province of New Brunswick. Trevali and the province worked together to develop and implement an action plan to mitigate environmental risks associated with water run-off and contamination. Actions were undertaken in 2021 and will continue until contamination risks are mitigated.

On June 1, 2018 Trevali Caribou received a written warning from Environment and Climate Change Canada for contravention of subsection 36(3) of the Fisheries Act and the Metal Mining Effluent Regulations pursuant to the Fisheries Act. The contravention was for exceeding the allowable zinc concentration of grab and acute lethality samples collected at the Polishing Pond Discharge over multiple days in May 2018. Trevali increased the throughput of our wastewater treatment plant and zinc levels in discharge water returned to within allowable limits. The Inspector letter stated that "*The document is not a finding of guilt or civil liability and is not an administrative adjudication*", and the Company continues to take actions to monitor and manage discharge and work with applicable regulators in this regard.

## **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

Except as disclosed below, none of the directors or executive officers of the Company, or persons or companies that beneficially own, or control or direct, directly or indirectly, more than 10% of the outstanding Common Shares, or any associate or affiliate of any of the foregoing, has any material interest, direct or indirect, in any transactions in which the Company has participated since January 1, 2017, which has materially affected or is reasonably expected to materially affect the Company.

Aline Cote and Nick Popovic, directors of the Company, are members of the senior management team at Glencore. Glencore is a significant shareholder of the Company, owning approximately 26% of the Company's issued and outstanding Common Shares. Glencore is also a lender to the Company pursuant to the Glencore Facility (as described above under the heading "*Three-Year History – Significant Developments – 2020*"). In addition, through off-take agreements, Glencore has agreed to purchase all the concentrates from Caribou, Rosh Pinah and Perkoa and has entered into an Investor Rights and Governance Agreement with the Company that provides Glencore with certain board nomination rights, anti-dilution rights and enhanced consultation rights relating to the business of the Company.



## TRANSFER AGENTS AND REGISTRARS

The transfer agent and registrar of the Common Shares is Computershare Investor Services Inc. at its offices in Vancouver, British Columbia at 3rd Floor, 510 Burrard Street, Vancouver, British Columbia V6C 3B9.

### MATERIAL CONTRACTS

The following are contracts that are material to the Company that were entered into either (i) during the financial year ended December 31, 2021; or (ii) prior to January 1, 2021 that are still in effect, other than contracts entered into in the ordinary course of business:

- (a) Investor Rights and Governance Agreement dated August 31, 2017 between the Company and Glencore International AG;
- (b) Second Amended and Restated Credit Agreement dated August 6, 2020 between the Company and the Bank of Nova Scotia, HSBC Bank Canada, Société Générale, Bank of Montreal, the Toronto-Dominion Bank, National Bank of Canada and ING Capital;
- (c) Credit agreement dated August 6, 2020 between the Company and Glencore Canada Corporation; and
- (d) Warrant Indenture providing for the issuance of warrants dated December 2, 2020 between the Company and Computershare Trust Company of Canada.

Copies of the above material contracts have been filed under the Company's profile on the SEDAR website at <u>www.sedar.com</u> and may be obtained from the Company upon request.

## **INTERESTS OF EXPERTS**

#### **Qualified Persons Under NI 43-101**

The authors of the Technical Reports are listed elsewhere in this AIF.

To the best of the Company's knowledge, none of the qualified persons has received or will receive any registered or beneficial interests, direct or indirect, in any securities or other property of the Company or of any of the Company's associates or affiliates in connection with the preparation or certification of any statement, report or valuation prepared by such person. To the knowledge of the Company, none of the experts so named (or any of the designated professionals thereof) held securities of the Company representing more than 1% of all issued and outstanding securities of any class as at the date of the statement, report or valuation in question.

#### **Auditors**

The Company's auditors are PricewaterhouseCoopers LLP, Chartered Professional Accountants, who have prepared an independent auditor's report dated February 24, 2022 in respect of the Company's consolidated financial statements as at and for the years ended December 31, 2021 and December 31, 2020. PricewaterhouseCoopers LLP has advised that they are independent with respect to the Company within the meaning of the Chartered Professional Accountants of British Columbia Code of Professional Conduct.



## AUDIT COMMITTEE

#### Audit Committee's Charter

The charter of the Company's Audit Committee, which was revied and updated by the Board in November 2021, is reproduced as Exhibit "A" to this AIF.

#### **Composition of Audit Committee**

The Audit Committee is comprised of Russell Ball, Jill Gardiner, Dan Isserow and Richard Williams, all of whom are independent directors of the Company within the meaning of National Instrument 52-110 - Audit *Committees* ("**NI 52-110**"). The Chair of the Audit Committee is Mr. Ball. All members of the Audit Committee are financially literate. The members of the Audit Committee are elected by the Board at its first meeting following each annual shareholders' meeting to serve one-year terms and are permitted to serve an unlimited number of consecutive terms.

#### **Relevant Education and Experience**

In addition to each member's general business experience, the education and experience of each Audit Committee member that is relevant to the performance of his responsibilities as an Audit Committee member is as follows:

**Russell Ball (Chair)** – Mr. Ball qualified as both a Chartered Accountant from the Institute of Chartered Accountants of South Africa and a Certified Public Accountant in the USA. Mr. Ball is the Managing Director at QDBS Resources Inc. and Chair of the Board of Directors of CopperBank Resources Corp. (CSE: CBK). Mr. Ball was the Chief Executive Officer and a director of Calibre Mining Corp. from October 2019 to February 2021 and previously served as Executive Chair of Calibre. Prior to that, Mr. Ball was Executive Vice President, Capital Projects, Strategy and Corporate Development of Goldcorp Inc., from March 2016 until October 2017. He initially joined Goldcorp Inc. in 2013, serving as Executive Vice President of Capital Projects. Prior to his role with Goldcorp Inc., Mr. Ball served in varying capacities for Newmont Mining Corporation, including Strategic and Business Planning, culminating with his appointment as Executive Vice President and Chief Financial Officer.

*Jill Gardiner* – Ms. Gardiner holds a Bachelor of Science and a Master of Business Administration, both from Queen's University. She is a professional corporate director and previously spent over 20 years in the investment banking industry, most recently as Managing Director and Regional Head, British Columbia, for RBC Capital Markets. In her various roles in corporate finance, mergers and acquisitions, and debt capital markets she provided strategic advice to, and helped raise capital for, numerous corporations with a focus on commodity-related, infrastructure and diversified industries.

**Dan Isserow** – Mr. Isserow is a Chartered Accountant from the Institute of Chartered Accountants of South Africa and has completed the ICD Directors' Education Program. He has financial and business operations leadership experience and a successful track record of growing organizations across various business sectors. He is currently the Chief Executive Financial Officer of Glass 3 Enterprises Ltd. and the Co-Founder, President and Chief Financial Officer of Silica Enterprises. Both Glass 3 Enterprises and Silica Enterprises provide a full-service supply and sourcing solution for architectural glass requirements in Canada and the United States.

**Richard Williams** – Mr. Williams is a former Chief Operating Officer at Barrick Gold Corporation and Barrick's Executive Envoy to Tanzania (2014 to 2018). He has also served as Chief Executive Officer of the Afghan Gold and Minerals Company (2010 to 2014) and as a non-executive director of Gem Diamonds Limited, listed on the London Stock Exchange (2018 to 2015). He has an MBA from Cranfield University, a



Master's Degree in Security Studies from Kings College London, and a Bachelor of Science in Economics from University College London.

#### **Reliance on Certain Exemptions**

Except as disclosed below, at no time since the commencement of the Company's most recently completed financial year has the Company relied on any of the exemptions contained in NI 52-110.

#### Audit Committee Oversight

At no time since the commencement of the Company's most recently completed financial year was a recommendation of the Audit Committee to nominate or compensate an external auditor not adopted by the Board.

#### **Pre-Approval Policies and Procedures**

Pursuant to the terms of the Audit Committee Charter, the Audit Committee must review all non-audit services to be provided to the Company by the external auditor.

#### External Auditor Service Fees (By Category)

The aggregate fees billed by the Company's external auditors in each of the last two financial years for audit fees are as follows in Canadian dollars:

Financial Year Ended	Audit Fees	Audit-Related Fees <sup>(1)</sup>	Tax Fees <sup>(2)</sup>	All Other Fees <sup>(3)</sup>
2021	446,798	71,102	54,198	-
2020	476,250	118,500	101,250	-

Notes:

(1) Fees charged for assurance and related services reasonably related to the performance of an audit or review of the Company's financial statements, and not included under "Audit Fees".

(2) Fees charged for tax compliance, tax due diligence report, tax advice and tax planning services.

(3) Fees for services other than disclosed in any other column.

# ADDITIONAL INFORMATION

Additional information relating to the Company may be found under the Company's profile on SEDAR at <u>www.sedar.com</u>. Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities and securities authorized for issuance under equity compensation plans is contained in the Company's management information circular dated April 1, 2021. Additional financial information is provided in the Company's audited consolidated financial statements and management's discussion and analysis for the financial year ended December 31, 2021.



Exhibit "A"

# TREVALI MINING CORPORATION (the "Company")

## AUDIT COMMITTEE CHARTER

#### I. PURPOSE

Senior management, as overseen by the Board of Directors (the "**Board**") of the Company, has the primary responsibility for the Company's financial reporting, accounting systems and internal controls. The Audit Committee (the "**Committee**") is a committee of the Board established to assist the Board in fulfilling its oversight responsibilities relating to:

- 1. the Company's accounting and financial reporting processes and systems of internal accounting and financial controls;
- 2. the timelines, quality and integrity of the Company's financial statements;
- 3. the Company's compliance with legal and regulatory requirements as they relate to accounting and financial controls and anti-corruption and bribery issues;
- 4. the independence and performance of the Company's external auditor; and
- 5. the organizational independence of the lead internal auditor and internal audit function.

#### II. COMPOSITION, PROCEDURES AND ORGANIZATION

- A. The Board shall appoint the members and the Chair of the Committee each year for a term of one year and may at any time remove or replace any member of the Committee and may fill any vacancy in the Committee. Committee members may serve any number of consecutive terms.
- B. The position description for the Chair of the Committee is attached as Schedule "A" to this Charter.
- C. The Committee shall consist of at least three members of the Board, all of whom shall be independent in accordance with the securities laws, rules, regulations and guidelines of all applicable securities regulatory authorities, including without limitation the securities commissions in each of the provinces and territories of Canada and the stock exchanges on which the Company's securities are listed, including without limitation the Toronto Stock Exchange, subject to any exemptions provided thereunder.
- D. All members of the Committee shall be, in the determination of the Board, "financially literate", as that term is defined by National Instrument 52-110 Audit Committees, as amended from time to time. Further, at least one member of the Committee shall have experience as a certified public accountant, chief financial officer or corporate controller of similar experience, or demonstrably meaningful experience overseeing such functions as a senior executive officer.
- E. No member of the Committee may serve on the audit committee of more than three public companies in total (or four in the case of a director with demonstrable financial expertise as determined by the Corporate Governance and Nominating Committee) without the prior approval of the Board.



- F. The Chair of the Committee shall, in consultation with other members of the Committee, management and the external auditor, as necessary, establish the agenda for the Committee's meetings. The agenda and information concerning the business to be conducted at each Committee meeting shall be communicated to the members of the Committee sufficiently in advance of each meeting to permit meaningful review and discussion.
- G. The Committee shall have the power, authority and discretion delegated to it by the Board, which shall not include the power to change the membership of, or fill vacancies in, the Committee.
- H. Notice of every meeting of the Committee shall be given to the external auditor, who shall be entitled to attend and be heard thereat.
- I. The external and internal auditor shall be entitled to communicate directly with the Chair of the Committee.
- J. The Committee shall conform to the regulations which may from time to time be imposed upon it by the Board. The Board shall have the power at any time to revoke or override the authority given to, or acts done by, the Committee except as to acts done before such revocation or act of overriding.
- K. At the invitation of the Committee Chair, one or more officers, employees, consultants or advisors of the Company may, or if required by the Committee, shall, attend a meeting of the Committee.
- L. The Committee shall meet as often as required to fulfil its duties and at least four times each year on such dates and at such locations as determined by the Chair of the Committee.
- M. The Committee shall hold an in-camera meeting, at which management and any non-independent directors are not present, with the external and internal auditor in conjunction with each quarterly meeting.
- N. The Chief Financial Officer (the "**CFO**") shall be available to advise the Committee, shall receive notice of all meetings of the Committee and may attend meetings at the invitation of the Committee Chair.
- O. The quorum for meetings shall be a majority of the members of the Committee, present in person or by telephone or other telecommunication device that permits all persons participating in the meeting to speak and to hear each other. Questions arising shall be determined by a majority of votes of the members of the Committee present, and in the case of an equality of votes, the Chair shall not have a second or casting vote.
- P. The Committee shall keep regular minutes of its meetings and record all material matters and shall cause such minutes to be recorded in the books kept for that purpose.
- Q. A resolution approved in writing by all of the members of the Committee shall be valid and effective as if it had been passed at a duly called meeting. Such resolution shall be filed with the minutes of the proceedings of the Committee and shall be effective on the date stated thereon or on the latest date stated in any counterpart.
- R. The Committee shall have unrestricted and unfettered access to all Company facilities, personnel and documents and to the Company's external and internal auditor and legal counsel and shall be provided with the resources necessary to carry out its responsibilities.



#### III. DUTIES AND RESPONSIBILITIES

Without limitation to the foregoing, the following are the primary duties and responsibilities of the Committee:

- A. Financial Information
  - 1. make the following recommendations to the Board:
    - the external auditor to be nominated for the purpose of preparing or issuing an auditor's report and performing other audit, review or attest services for the Company; and
    - (b) the compensation of the external auditor;
  - 2. review the external auditor's proposed audit plan, including:
    - (a) the auditor's engagement letter;
    - (b) the reasonableness of the estimated audit fees;
    - (c) the scope of the audit, including materiality, locations to be visited, audit reports required, areas of audit risk, timetable, deadlines and coordination with the internal financial team and key deliverables;
    - (d) reliance and testing of internal controls and internal audit;
    - (e) involvement of other firms or branches of the external auditor; and
    - (f) the external auditor's resources scheduled for executing the plan;
  - 3. review the results of the external audit, including:
    - (a) the post-audit management letter, together with management's response thereto;
    - (b) the form of the audit report;
    - (c) any other related audit engagements;
    - (d) non-audit services performed by the external auditor;
    - (e) resolution of any disagreements between management and the external auditor regarding financial reporting;
    - (f) assessment of the auditor's performance; and
    - (g) meeting with the external auditor to discuss pertinent matters, including the quality of accounting personnel;
  - 4. review all public disclosure of the Company's financial information before the Company publicly discloses such information;



- 5. review the annual and quarterly financial statements and related matters, and recommend their approval to the Board after discussing with management matters such as the selection of accounting policies, major accounting judgements, accruals and estimates;
- 6. review all public disclosure containing audited or unaudited financial information before release, including any prospectus, annual information form, annual report, interim report, management's discussion and analysis (the "**MD&A**") and press releases which contain financial information about the Company;
- B. External Auditor
  - 1. direct the external auditor's examinations to particular areas;
  - 2. request the external auditor to undertake special examinations (e.g., review compliance with conflict of interest policies);
  - 3. review control weaknesses identified by the external auditor, together with management's response thereto;
  - 4. approve as applicable, non-audit services from the external auditor including a review of fees for external audit services and non-audit services from an independence perspective;
  - 5. review and approve the Company's hiring policies regarding partners, employees and former partners and employees of the present and former external auditors of the Company.
- C. Internal Auditor
  - 1. review the activities, resources and organization structure of the internal audit function and ensure no unjustified restrictions or limitations are made;
  - 2. participate in the appointment, promotion or dismissal of the lead internal auditor;
  - 3. participate in the annual performance and compensation review of the lead internal auditor;
  - 4. review the effectiveness and independence of the internal audit function;
  - 5. ensure the internal audit's significant findings and recommendations are received, discussed and appropriately acted on by management;
  - 6. review and approve the scope and proposed annual internal audit plan, resourcing plan and financial budget to ensure that they adequately address key areas of risk and that there is appropriate coordination with the Committee and the external auditor;
  - 7. annually review the Internal Audit Charter and approve any material amendments, as required; and
  - 8. review periodic reports from internal audit addressing, among other things:
    - (a) progress on the Internal Audit Plan, including any significant changes to it;
    - (b) significant internal audit findings, including issues as to the adequacy of internal control over financial reporting and any procedures implemented in light of



significant control deficiencies; and

- (c) any significant internal fraud issues.
- D. Interim Financial Statements
  - 1. obtain reasonable assurance on the process for preparing reliable quarterly interim financial statements from discussions with management and, where appropriate, reports from the external auditor;
  - 2. review, or engage the external auditor to review, the quarterly interim financial statements;
  - 3. obtain reasonable assurance from management and satisfy itself that adequate procedures are in place for the review of the Company's public disclosure of audited and unaudited financial information and periodically assess the adequacy of those procedures;
- E. Internal Controls and Risk Management
  - 1. establish procedures for:
    - (a) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters; and
    - (b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting practices;
  - 2. obtain reasonable assurance from discussions with, and/or reports from, management, and reports from the external auditor that the Company's accounting systems are reliable and that the prescribed internal controls are operating effectively;
  - 3. review the appointments of the CFO and key financial executives;
  - 4. review the processes that support the Chief Executive Officer's (the "**CEO**") and the CFO's certification regarding internal controls over financial reporting ("**ICFR**") and be satisfied that they constitute a reasonable approach and are diligently performed;
  - 5. review all design or operational weaknesses in ICFR identified in these processes that could have a material impact on the accuracy and adequacy of the Company's financial reporting;
  - 6. review how management assessed each weakness, and decided on whether it should be disclosed in the MD&A or not;
  - 7. review the completeness and accuracy of the disclosures provided in the MD&A;
  - review, with advice from the external auditor and legal counsel as necessary, the proposed course of action for the CEO and the CFO signing of the certificates and consultation with the appropriate securities regulators when unremedied ICFR design weaknesses are disclosed in the MD&A;
  - 9. in consultation with the Company's CFO, establish standards and procedures with respect to the investment of the Company's idle funds;



- 10. review and approve disclosed remediation plans;
- 11. review and approve related party transactions;
- F. Anti-Bribery and Anti-Corruption
  - 1. discuss the principal anti-bribery and anti-corruption risks in the Company's business activities and provide oversight of appropriate systems to manage such risk;
  - 2. through the receipt of regular reports by management, review and monitor the anti-bribery and anti-corruption policies and activities of the Company on behalf of the Board to ensure compliance with applicable laws, legislation and policies as they relate to anti-corruption and anti-bribery issues;
  - 3. receive and review reports from management on any non-compliance with the anticorruption or anti-bribery policies of the Company;
  - 4. in the event of the occurrence of a corruption or bribery incident, receive and review, without delay, a report from management detailing the nature of the incident. Such report is to be made to the Committee in its entirety, and the Committee will immediately inform the Board at large, which will review the incident and ask the Company's Disclosure Committee to determine the Company's disclosure obligations; and
  - 5. in conjunction with the Board, periodically conduct an internal audit for compliance with the various elements of the Company's anti-bribery and anti-corruption compliance program and test for substantive compliance. This audit may also include the use of an external auditor that specializes in anti-corruption audits.

#### IV. GENERAL

- A. The Committee, when it considers it necessary or advisable, may retain, at the Company's expense, outside consultants or advisors to assist or advise the Committee independently on any matter within its mandate. The Committee shall, in consultation with management, have the sole authority to retain and terminate any such consultants or advisors, including the authority to approve the fees and other retention terms for such persons.
- B. In addition to the foregoing, the Committee will:
  - 1. assess the Committee's performance of the duties specified in this Charter and report its findings to the Board;
  - 2. report to the Board following each meeting of the Committee on the major discussions and decisions made by the Committee;
  - 3. review and assess the adequacy of this Charter annually and recommend any proposed changes to the Board; and
  - 4. perform such other duties as may be assigned to the Committee by the Board from time to time or as may be required by applicable stock exchanges, regulatory authorities or legislation.
- C. The Company is party to an Investor Rights and Governance Agreement (the "**IRG Agreement**") with Glencore International AG ("**Glencore**"), pursuant to which Glencore has certain rights, including, without limitation, with respect to nomination of directors and appointments to committees



of the Board. As per the IRG Agreement, if any provision of this Charter conflicts with any provision of the IRG Agreement, the IRG Agreement shall prevail.

- D. The function of the Committee is one of oversight. While the Committee has the duties and responsibilities set forth in this Charter, members of the Committee are not employees of the Company and are entitled to rely on the integrity of the Company's management. The Committee's responsibilities are set out in Section III of this Charter. Therefore, it is the duty of the Company's management and not the duty of the Committee to:
  - 1. ensure that the Company complies with its financial reporting, accounting systems and internal controls;
  - 2. ensure that the Company complies with laws, regulations or other obligations; and
  - 3. take any action or assume any responsibility for any violation of such laws, regulations or other obligations or otherwise take any remedial action connected therewith.



#### SCHEDULE "A"

# TREVALI MINING CORPORATION (the "Company")

# POSITION DESCRIPTION FOR THE CHAIR OF THE AUDIT COMMITTEE

#### I. PURPOSE

The Chair of the Audit Committee (the "**Committee**") of the Board of Directors (the "**Board**") of the Company shall be an independent Director who is elected by the Board to act as the leader of the Committee in assisting the Board in fulfilling its financial reporting and control responsibilities to the shareholders of the Company.

#### II. WHO MAY BE CHAIR

- A. The Chair will be selected from amongst the independent Directors of the Company who have a sufficient level of financial sophistication and experience in dealing with financial issues to ensure the leadership and effectiveness of the Committee.
- B. The Chair will be selected annually at the organizational meeting of the Board, and will serve for a one-year term.

#### III. RESPONSIBILITIES

Without limitation to the foregoing, the following are the primary responsibilities of the Chair:

- 1. chair all meetings of the Committee in a manner that promotes meaningful discussion;
- 2. ensure adherence to the Committee's Charter and that the adequacy of the Committee's Charter is reviewed annually;
- 3. together with the Chair of the Board, the Chief Financial Officer and the Company's external auditor, create and monitor a work plan for the Committee;
- 4. provide leadership to the Committee to enhance the Committee's effectiveness;
- 5. provide information to the Board relative to the Committee's issues and initiatives and review and submit to the Board an appraisal of the Company's independent auditor and any internal auditing functions;
- 6. ensure that the Committee works as a cohesive team with open communication, as well as open lines of communication among the independent auditor, financial and senior management and the Board for financial and control matters;
- 7. ensure that the resources available to the Committee are adequate to support its work and to resolve issues in a timely manner;
- 8. ensure that the Committee serves as an independent and objective party to monitor the Company's financial reporting processes and internal control systems, as well as to monitor the relationship between the Company and the independent auditor to ensure independence;



- 9. ensure that procedures are in place to assess the audit activities of the independent auditor and internal audit functions;
- 10. ensure that procedures are in place to review the Company's public disclosure of financial information and assess the adequacy of such procedures periodically;
- 11. ensure clear hiring policies are put in place for partners and employees of the external auditor;
- 12. ensure procedures are in place for dealing with complaints received by the Company regarding accounting, internal controls and auditing matters, and for employees to submit confidential anonymous concerns regarding questionable accounting or auditing matters; and
- 13. management of the Committee, including:
  - (a) adopting procedures to ensure that the Committee can conduct its work effectively and efficiently, including Committee structure and composition, scheduling, and management of meetings;
  - (b) preparing the agenda for the Committee meetings and ensuring pre-meeting material is distributed in a timely manner and is appropriate in terms of relevance, format and detail;
  - (c) ensuring Committee meetings are appropriate in terms of frequency, length and content;
  - (d) obtaining and reviewing the annual report from the independent auditor with the Committee, and arranging meetings with the external auditor and financial management of the Company to review the scope of the proposed audit for the current year, its staffing and the audit procedures to be used;
  - (e) overseeing the Committee's participation in the Company's accounting and financial reporting processes and the audits of its financial statements;
  - (f) ensuring that the Committee reviews all of the Company's financial information disclosure before it is publicly disclosed;
  - (g) ensuring that the external auditor reports directly to the Committee, as representatives of the Company's shareholders; and
  - (h) annually reviewing with the Committee its own performance.