



# lundin mining

## Annual Information Form

For the Year Ended December 31, 2020

March 29, 2021

Eagle Mine, U.S.A.

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## DEFINITIONS

In this Annual Information Form all units are presented in accordance with the International System of Units (i.e., metric) unless otherwise noted. Abbreviations are as defined below unless the context otherwise indicates:

**2022 Notes** means the Company's 7.7875% senior secured notes in the aggregate principal amount of \$450 million due 2022, which were repaid in full on November 21, 2018.

**Ag** means silver.

**AIF** means this Annual Information Form.

**Altius** means Altius Minerals Ltd.

**BHR** or **BHR Partners** means BHR Newwood Investment Management Limited, a British Virgin Islands company.

**Board** or **Board of Directors** means the board of directors of the Company.

**Bureau Veritas** means the publicly listed company involved in testing, inspection and certification services.

**Candelaria** or **Candelaria Mine** or **Candelaria Copper Mining Complex** means the open pit and underground mines and related infrastructure located near Copiapó in the Atacama Province, Region III of Chile owned by Minera Candelaria and Minera Ojos del Salado.

**Candelaria 2030 EIA** means the EIA entitled "Candelaria 2030 - Project Operational Continuity", which was submitted to the environmental authorities in September 2013 and approved on July 23, 2015.

**Candelaria Report** means the NI 43-101 technical report entitled "Technical Report for the Candelaria Copper Mining Complex, Atacama Region, Region III, Chile" dated effective November 28, 2018 prepared for Lundin Mining by Glen Cole, P.Geo., Benny Zhang, P.Eng., John Nilsson, P.Eng., Adrian Dance, P.Eng., and Cameron C. Scott, P.Eng., each of whom is a Qualified Person.

**Candelaria Stream Agreement** means the purchase and sale agreement dated October 6, 2014 among the Company, LMC Bermuda Ltd., Franco-Nevada and Franco-Nevada (Barbados) Corporation and as amended on November 4, 2016 and June 20, 2017.

**Cash costs** means the costs of mining, milling and concentrating, onsite administration and general expenses, property and production royalties not related to revenues or profits, metal concentrate treatment charges, and freight and marketing costs less the net value of by-product credits. Cash costs are a non-GAAP financial measure. See "Introduction – Non-GAAP Performance Measures".

**CBCA** means the *Canada Business Corporations Act*.

**CCAA** means *Companies' Creditors Arrangement Act*.

**Chapada** or **Chapada Mine** means the copper-gold mine located in northern Goiás State, Brazil, approximately 320 km north of the state capital of Goiania owned by MMIC.

**Chapada Purchase Agreement** means the share and loan purchase agreement dated April 15, 2019, as amended July 5, 2019, among Yamana, Yamana International Holdings Coöperatie U.A., Lundin Mining Corporation and LMC Netherlands Holdings B.V.

**Chapada Report** means the NI 43-101 technical report entitled “Technical Report on the Chapada Mine, Goiás State, Brazil” dated effective June 30, 2019 prepared for Lundin Mining by Chester M. Moore, P.Eng., Hugo M. Miranda, ChMC(RM), Andrew P. Hampton, M.Sc., P.Eng., and David G. Ritchie, M.Eng., P.Eng., each of whom is a Qualified Person.

**CIM** means the Canadian Institute of Mining, Metallurgy and Petroleum.

**CIM Standards** means the definitions adopted by the CIM Council on May 10, 2014, which are utilized by the Canadian Securities Administrators in NI 43-101.

**CMOC** means China Molybdenum Co., Ltd.

**Company** or **Lundin Mining** means Lundin Mining Corporation, and where applicable, includes its subsidiaries.

**Credit Agreement** means the third amended and restated credit agreement dated August 28, 2019, between the Company and a banking syndicate comprised of The Bank of Nova Scotia, ING Capital LLC, Bank of Montreal, The Toronto-Dominion Bank, Bank of America, N.A., Canada Branch, Skandinaviska Enskilda Banken AB (publ) and Royal Bank of Canada.

**Cu** means copper.

**DRC** means Democratic Republic of the Congo.

**Eagle** or **Eagle Mine** means the Eagle nickel and copper mine located in the Upper Peninsula of Michigan, USA, in Michigamme Township, Marquette County.

**Eagle East** means the high-grade massive and semi-massive nickel-copper sulfide mineralization approximately 2 km east and 600 m below the Eagle deposit.

**Eagle Report** means the NI 43-101 technical report entitled “NI 43-101 Technical Report on the Eagle Mine, Michigan, USA” dated April 26, 2017, prepared for Lundin Mining by Graham G. Clow, P.Eng., Normand L. Lecuyer, P.Eng., David W. Rennie, P.Eng., and Brenna J.Y. Scholey, P.Eng., each of whom is a Qualified Person.

**EDM** means Empresa de Desenvolvimento Mineiro, SA.

**EIA** means an Environmental Impact Study.

**EuroZinc** means EuroZinc Mining Corporation, which was acquired by the Company on October 31, 2006 and subsequently amalgamated with the Company effective November 30, 2006.

**Feasibility Study** is as defined by CIM and contained in the CIM Standards.

**Freeport** means Freeport-McMoRan Inc., a US-based international mining company, which owns the majority of Freeport Cobalt and owned the majority interest in TF Holdings to November 16, 2016 and was indirectly the majority owner and operator of TFM and, where applicable, includes its subsidiaries to November 16, 2016.

**Franco-Nevada** means Franco-Nevada Corporation.

**Freeport Cobalt** means the Company’s joint venture with Freeport which, prior to the sale in December 2019 of its cobalt refinery related assets and related cobalt cathode precursor business, operated a large-scale cobalt chemical refinery located in Kokkola, Finland and related sales and marketing companies. As of December 2019, the joint venture continues to operate certain fine powders, chemicals, catalyst, ceramics and pigments businesses.

**Gécamines** means La Générale des Carrières et des Mines, the government of the DRC state mining company.

**G&A** means general and administrative.

**ha** means hectare.

**IFRS** means International Financial Reporting Standards.

**INCO** means INCO Ltda.

**Indenture** means the indenture dated October 27, 2014 between the Company and U.S. Bank National Association, as trustee.

**IOCG** means iron oxide copper gold.

**km** means kilometer.

**LOM** means life of mine.

**Lundin DRC Holdings Ltd.** means a Bermuda company indirectly owned by the Company that owned 30% of TF Holdings and was disposed of in April 2017.

**m** means meter.

**mamsl** means meters above mean sea level and is a standard metric measurement in meters of vertical distance (height, elevation or altitude) of a location in reference to a historic mean sea level taken as a vertical datum.

**Mandate** means the Company's audit committee mandate.

**MCP** means mine closure plan.

**MD&A** means Management's Discussion and Analysis of results of operations and financial condition of the Company.

**Minera Candelaria** or **CCMC** means Compañía Contractual Minera Candelaria.

**Minera Ojos del Salado** or **CCMO** means Compañía Contractual Minera Ojos del Salado.

**Mineral Reserves** are defined under the CIM Standards as set out under "*Introduction – CIM Definition Standards*".

**Mineral Resources** are defined under the CIM Standards as set out under "*Introduction – CIM Definition Standards*".

**MIRA** means mineral inventory range analysis.

**mm** means millimeter.

**MMIC** means Mineração Maracá Indústria e Comércio S/A.

**Modifying Factors** are defined under the CIM Standards as set out under "*Introduction – CIM Definition Standards*".

**Mtpa** means million tonnes per annum.

**NCIB** means the Company's Normal Course Issuer Bid.

**Neves-Corvo** or **Neves-Corvo Mine** means the copper and zinc mine situated approximately 220 km southeast of Lisbon in the Alentejo district of southern Portugal.

**Neves-Corvo Report** means the NI 43-101 technical report entitled "NI 43-101 Technical Report for the Neves-Corvo Mine, Portugal" dated June 23, 2017 prepared for Lundin Mining by Richard Ellis, B.Sc., M.Sc. (MCSM), CGeol, EurGeol, FGS, and Phil Newall, B.Sc. (ARSM), PhD (ACSM), C.Eng., FIMMM, each of whom is a Qualified Person.

**Ni** means nickel.

**NI 43-101** means National Instrument 43-101 "*Standards for Disclosure for Mineral Projects*" adopted by the Canadian Securities Administrators.

**NI 52-110** means National Instrument 52-110 "*Audit Committees*" adopted by the Canadian Securities Administrators.

**North Australia** means North Limited of Australia.

**NSR** means net smelter return.

**Ojos Mine** means the Santos and Alcaparrosa underground mines and related infrastructure owned by Minera Ojos del Salado and forming part of the Candelaria Copper Mining Complex.

**Order** means (i) a cease trade order; (ii) an order similar to a cease trade order; or (iii) an order that denied the relevant company access to any exemption under securities legislation that was in effect for a period of more than 30 consecutive days.

**oz** means one troy ounce weighing 31.10348 grams.

**PAC** means Pedro Aguirre Cerde, a processing plant located at Candelaria.

**Pb** means lead.

**PGM** means platinum group metals.

**Phelps Dodge** means Phelps Dodge Corporation, a copper mining company which was acquired by Freeport in 2007.

**Preliminary Economic Assessment** means a preliminary economic assessment as defined in NI 43-101.

**QA/QC** means the combination of quality assurance, the process or set of processes used to measure and assure the quality of a product, and quality control, the process of ensuring products and services meet consumer expectations.

**QEMSCAN™** means Quantitative Evaluation of Minerals by SCANNing electron microscopy.

**Qualified Person** means a qualified person as defined in NI 43-101.

**RBI** means RB Energy Inc.

**Rio Tinto** means the Rio Tinto Group.

**SAG** means semi-autogenous grinding.

**Sandstorm** means Sandstorm Gold Ltd.

**SEDAR** means the System for Electronic Document Analysis and Retrieval.

**SERNAGEOMIN** means Chile's Servicio Nacional de Geología y Minería.

**SG** means specific gravity.

**Sirocco** means Sirocco Mining Inc.

**Sn** means tin.

**Somincor** means Sociedade Mineira de Neves-Corvo, S.A. (Portugal), a wholly-owned indirect subsidiary of the Company that owns the Neves-Corvo Mine located in Portugal.

**Stock Purchase Agreement** means the definitive stock purchase agreement dated October 6, 2014 between the Company and a subsidiary of Freeport for the purchase of Candelaria from Freeport which was completed on November 3, 2014.

**Stock Purchase Agreement – BHR** means the definitive stock purchase agreement dated November 15, 2016 between the Company, Tenke Holdings Ltd. and BHR for the sale of the Company's indirect interest in TF Holdings.

**Sumitomo** means Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation and, where applicable, includes their subsidiaries.

**TC/RC** means Treatment Charge (TC) and Refining Charge (RC).

**Technical Reports** means the Candelaria Report, Chapada Report, Eagle Report, Neves-Corvo Report and Zinkgruvan Report.

**Tenke** or **Tenke Fungurume** or **Tenke Fungurume Mine** means the Tenke Fungurume copper and cobalt mine located in the southeast region of the DRC (formerly, Katanga Province), which was disposed of by the Company during 2017.

**TF Holdings** means TF Holdings Limited (formerly, Lundin Holdings Ltd.), a Bermuda company now owned by CMOC International DRC Holding Ltd., a wholly-owned subsidiary of CMOC, which owns a controlling 80% interest in TFM.

**TFM** means Tenke Fungurume Mining SA, a Congolese company that owns the Tenke Fungurume Mine.

**tpa** means tonnes per annum.

**tpd** means tonnes per day.

**TSF** means tailings storage facility.

**TSX** means the Toronto Stock Exchange.

**TSX-V** means the TSX Venture Exchange.

**Umicore** means Umicore N.V.

**US** means the United States.

**Vieille-Montagne** means the Société des Mines et Fonderies de Zinc de la Vieille-Montagne, which was merged into Union Minière group and subsequently merged into Umicore.

**Wheaton PMC** means Wheaton Precious Metals Corporation (formerly Silver Wheaton Corp. and Silverstone Resources Corp.).

**Yamana** means Yamana Gold Inc.

**ZEP or Zinc Expansion Project** means the construction project at Neves-Corvo to increase zinc mining and processing capacity to approximately 2.5 Mtpa generating an average of 150,000 tpa of zinc in concentrate over 10 years.

**Zinkgruvan or Zinkgruvan Mine** means the Zinkgruvan zinc and lead mine located approximately 250 km southwest of Stockholm in south-central Sweden.

**Zinkgruvan Report** means the NI 43-101 technical report entitled "NI 43-101 Technical Report for the Zinkgruvan Mine, Sweden" dated November 30, 2017 prepared for Lundin Mining by Richard Ellis, B.Sc., M.Sc. (MCSM), C.Geol, EurGeol, FGS, Philip King, B.Sc., C.Eng., FIMMM, and Tim Daffern, B.Eng., C.Eng., MBA, FIMMM, FAusIMM, MSME, MCIM, ACSM, each of whom is a Qualified Person.

**ZMAB** means Zinkgruvan Mining AB, a 100% indirect subsidiary of the Company.

**Zn** means zinc.



**CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION**

*Certain of the statements made and information contained herein is “forward-looking information” within the meaning of applicable Canadian securities laws. All statements other than statements of historical facts included in this document constitute forward-looking information, including but not limited to statements regarding the Company’s plans, prospects and business strategies; the Company’s guidance on the timing and amount of future production and its expectations regarding the results of operations; expected costs; permitting requirements and timelines; timing and possible outcome of pending litigation; the results of any Preliminary Economic Assessment, Feasibility Study, or Mineral Resource and Mineral Reserve estimations, life of mine estimates, and mine and mine closure plans; anticipated market prices of metals, currency exchange rates, and interest rates; the development and implementation of the Company’s Responsible Mining Management System; the Company’s ability to comply with contractual and permitting or other regulatory requirements; anticipated exploration and development activities at the Company’s projects; and the Company’s integration of acquisitions and any anticipated benefits thereof. Words such as “believe”, “expect”, “anticipate”, “contemplate”, “target”, “plan”, “goal”, “aim”, “intend”, “continue”, “budget”, “estimate”, “may”, “will”, “can”, “could”, “should”, “schedule” and similar expressions identify forward-looking statements.*

*Forward-looking information is necessarily based upon various estimates and assumptions including, without limitation, the expectations and beliefs of management, including that the Company can access financing, appropriate equipment and sufficient labor; assumed and future price of copper, nickel, zinc, gold and other metals; anticipated costs; ability to achieve goals; the prompt and effective integration of acquisitions; that the political environment in which the Company operates will continue to support the development and operation of mining projects; and assumptions related to the factors set forth below. While these factors and assumptions are considered reasonable by Lundin Mining as at the date of this document in light of management’s experience and perception of current conditions and expected developments, these statements are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements and undue reliance should not be placed on such statements and information. Such factors include, but are not limited to: risks inherent in mining including but not limited to risks to the environment, industrial accidents, catastrophic equipment failures, unusual or unexpected geological formations or unstable ground conditions, and natural phenomena such as earthquakes, flooding or unusually severe weather; uninsurable risks; global financial conditions and inflation; changes in the Company’s share price, and volatility in the equity markets in general; volatility and fluctuations in metal and commodity prices; the threat associated with outbreaks of viruses and infectious diseases, including the COVID-19 virus; changing taxation regimes; reliance on a single asset; delays or the inability to obtain, retain or comply with permits; risks related to negative publicity with respect to the Company or the mining industry in general; health and safety risks; exploration, development or mining results not being consistent with the Company’s expectations; unavailable or inaccessible infrastructure and risks related to ageing infrastructure; actual ore mined and/or metal recoveries varying from Mineral Resource and Mineral Reserve estimates, estimates of grade, tonnage, dilution, mine plans and metallurgical and other characteristics; risks associated with the estimation of Mineral Resources and Mineral Reserves and the geology, grade and continuity of mineral deposits including but not limited to models relating thereto; ore processing efficiency; community and stakeholder opposition; information technology and cybersecurity risks; potential for the allegation of fraud and corruption involving the Company, its customers, suppliers or employees, or the allegation of improper or discriminatory employment practices, or human rights violations; regulatory investigations, enforcement, sanctions and/or related or other litigation; uncertain political and economic environments, including in Brazil and Chile; risks associated with the structural stability of waste rock dumps or tailings storage facilities; estimates of future production and operations; estimates of operating, cash and all-in sustaining cost estimates; civil disruption in Chile; the potential for and effects of labor disputes or other unanticipated difficulties with or shortages of labor or interruptions in production; risks related to the environmental regulation and environmental impact of the Company’s operations and products and management thereof; exchange rate fluctuations; reliance on third parties and consultants in foreign jurisdictions; climate change; risks relating to attracting and retaining of highly skilled employees; compliance with environmental, health and safety laws; counterparty and credit risks and customer concentration; litigation; risks inherent in and/or associated with operating in foreign countries and emerging markets; risks related to mine closure activities and closed and historical sites; changes in laws, regulations or policies including but not limited to those related to mining regimes, permitting and approvals, environmental and tailings management, labor, trade relations, and transportation; internal controls; challenges or defects in title; the estimation of asset carrying values; historical environmental liabilities and ongoing reclamation obligations; the price and availability of key operating supplies or services; competition; indebtedness; compliance with foreign laws; existence of significant shareholders; liquidity risks and limited financial resources; funding requirements and availability of financing; enforcing legal rights in foreign jurisdictions; dilution; risks relating to dividends; risks associated with acquisitions and related integration efforts, including the ability to achieve anticipated benefits, unanticipated difficulties or expenditures relating to integration and diversion of management time on integration; activist shareholders and proxy solicitation matters; and other risks and uncertainties, including but not limited to those described in the “Risk and Uncertainties” section of this AIF and the “Managing Risks” section of the Company’s MD&A for the year ended December 31, 2020, which are available on SEDAR at [www.sedar.com](http://www.sedar.com) under the Company’s profile. All of the forward-looking statements made in this document are qualified by these cautionary statements. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated, forecast or intended and readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking information. Accordingly, there can be no assurance that forward-looking information will prove to be accurate and forward-looking information is not a guarantee of future performance. Readers are advised not to place undue reliance on forward-looking information. The forward-looking information contained herein speaks only as of the date of this document. The Company disclaims any intention or obligation to update or revise forward-looking information or to explain any material difference between such and subsequent actual events, except as required by applicable law.*

# Introduction

## Date of Information

All information in this AIF is as of December 31, 2020 unless otherwise indicated.

## Currency

The Company reports its financial results and prepares its financial statements in US dollars. All currency amounts in this AIF are expressed in US dollars, unless otherwise indicated. The period-end US dollar exchange rates for the Company's principal operating currencies and for the Canadian dollar were as follows:

<b>As at December 31<sup>(1)</sup></b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
Brazilian real (BRL)	5.1967	4.0307	n/a
Canadian dollar (C\$)	1.2732	1.2988	1.3642
Chilean Peso (CLP)	710.95	748.74	694.77
Euro (€)	0.8149	0.8902	0.8734
Swedish krona (SEK)	8.1886	9.3171	8.9710

(1) Data sourced from Bloomberg.

## Financial Information

Unless otherwise noted, financial information is presented in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board as outlined in Part 1 of the Handbook of the Chartered Professional Accountants of Canada and include some amounts that are based on management's estimates and judgement.

## Technical Information

Where Mineral Resources are stated alongside Mineral Reserves, those Mineral Resources are inclusive of, and not in addition to, the stated Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimates of Mineral Reserves and Mineral Resources discussed in this AIF may be affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing and other relevant issues. The Company's current Technical Reports, which are available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com), contain further details regarding Mineral Reserve and Mineral Resource estimates, classification, reporting parameters, key assumptions and risks for each of the Company's material mineral properties.

Unless otherwise stated, the scientific and technical information in this AIF has been reviewed and approved by Mr. Stephen Gatley, Vice President, Technical Services of Lundin Mining and Mr. Graham Greenway, Group Resource Geologist of Lundin Mining. Each is a "Qualified Person" under NI 43-101. Messrs. Gatley and Greenway are not independent of Lundin Mining for purposes of NI 43-101 as they are employees of Lundin Mining.

## CIM Definition Standards

In this AIF, the definitions of Proven and Probable Mineral Reserves and Measured, Indicated and Inferred Mineral Resources are those used by Canadian Securities Administrators and conform to the definitions utilized by the CIM in the CIM Standards. The Mineral Reserves and Mineral Resources estimations for the Candelaria, Chapada, Eagle, Neves-Corvo and Zinkgruvan Mines have been prepared in accordance with the CIM Standards that are incorporated by reference in NI 43-101. The following definitions are reproduced from the CIM Standards:

A “**Mineral Resource**” is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An “**Inferred Mineral Resource**” is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An “**Indicated Mineral Resource**” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors (as defined below) in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A “**Measured Mineral Resource**” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

A “**Mineral Reserve**” is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a pre-feasibility study or feasibility study.

A “**Probable Mineral Reserve**” is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A “**Proven Mineral Reserve**” is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

For the purposes of the CIM Definition Standards, “**Modifying Factors**” are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

**Non-GAAP Performance Measures**

The Company uses certain performance measures in its analysis. These performance measures have no meaning within generally accepted accounting principles under IFRS as issued by the International Accounting Standards Board and, therefore, amounts presented may not be comparable to similar data presented by other mining companies. 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. The following are non-GAAP measures that the Company uses as key performance indicators: net debt, cash cost per pound, all-in sustaining costs per pound, sustaining and expansionary capital expenditures, adjusted EBITDA, adjusted earnings, adjusted earnings per share, adjusted operating cash flow and adjusted operating cash flow per share. For a description and reconciliation of non-GAAP measures, please refer to Lundin Mining's MD&A which is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

**Other**

The Company's website is provided herein for informational purposes only. Information contained on the Company's website should not be deemed to be incorporated by reference herein.

# Corporate Structure

## Name, Address and Incorporation

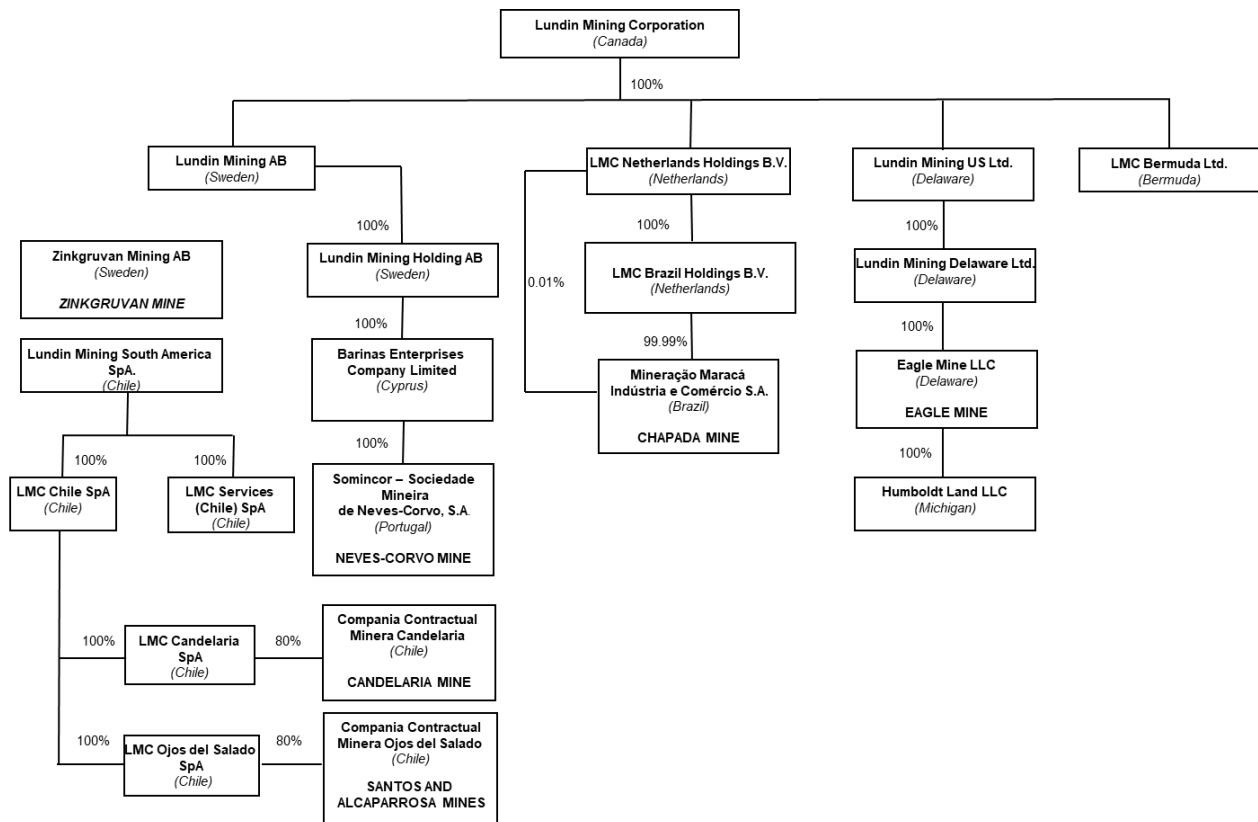
Lundin Mining was incorporated by Articles of Incorporation on September 9, 1994, under the CBCA as “South Atlantic Diamonds Corp.” and subsequently changed its name to “South Atlantic Resources Ltd.” on July 30, 1996, and to “South Atlantic Ventures Ltd.” on March 25, 2002. The Company changed its name to “Lundin Mining Corporation” on August 12, 2004.

The Company amalgamated with EuroZinc effective November 30, 2006 and with Tenke Mining Corp. effective July 31, 2007.

The Company’s registered and records office and corporate head office is located at 150 King Street West, Suite 2200, Toronto, Ontario, Canada M5H 1J9.

## Inter-Corporate Relationships

A significant portion of the Company’s business is carried on through its various subsidiaries. The following chart illustrates the Company’s material subsidiaries, including their respective jurisdiction of incorporation and the percentage of votes attaching to all voting securities of each subsidiary that are beneficially owned, controlled or directed, directly or indirectly, by the Company as at December 31, 2020:



# General Development of the Business

## Three Year History

### Recent Developments Subsequent to 2020

- In January 2021, ZEP construction activities were officially restarted.
- On February 18, 2021, the Company declared a 50% increase in its cash dividend, to C\$0.06 per share paid quarterly, compared to the quarterly dividend paid in 2020. The Company also announced the appointment of Mr. Jack Lundin and Ms. Karen Poniachik as directors to the Board.
- Risks related to the global COVID-19 pandemic continue in 2021 and include additional waves of outbreak and more virulent strains of the virus across multiple jurisdictions. While the Company has been able to successfully mitigate the impact of these risks to date, the unpredictability of the virus, its impacts, and the required responses may adversely affect the Company's business and the market price of the Company's securities.

### 2020

- On February 20, 2020, the Company declared a 33% increase in its cash dividend, to C\$0.04 per share paid quarterly, compared to the quarterly dividend paid in 2019.
- On March 15, 2020, major construction and commissioning activities for ZEP were suspended in order to reduce the COVID-19 risks on the local communities, employees and contractors. Zinc production and capital cost guidance was withdrawn for Neves-Corvo.
- On May 11, 2020, Mr. William Rand retired as a director of the Company's Board of Directors and Mr. Ashley Heppenstall was elected to the Board and was appointed Lead Director.
- On September 8, 2020, the Company reported its Mineral Resource and Mineral Reserve estimates as at June 30, 2020. On a consolidated and attributable basis, estimated contained metal in the Proven and Probable Mineral Reserve categories totaled 5,518 kt of copper, 3,123 kt of zinc, 100 kt of nickel, 936 kt of lead and 6.9 million oz of gold. See Schedule A attached to this AIF for further information.
- On September 25, 2020, the Company reported a fatal accident at its Neves-Corvo Mine. The incident occurred during underground mining operations. No other personnel were injured in the incident.
- On September 27, 2020, the Company announced that processing activities had been interrupted at the Chapada Mine due to a power outage which damaged all four mill motors; full year production, cash costs and capital expenditure guidance were withdrawn. Operations resumed at a reduced capacity in early October and returned to full production in December 2020.
- On October 7, 2020, the Company reported that mediation with Candelaria's Mine Workers Union ended without an agreement and the workers commenced strike action. Subsequently, on October 20, 2020, negotiations with the Candelaria AOS Union failed to reach an agreement and this union also commenced strike action. With both unions on strike, the Company undertook an orderly shutdown of operations and withdrew its production and cash cost guidance for 2020 for Candelaria pending resolution of the labour actions.
- In late November 2020, the Company announced ratifications of new collective agreements with the striking unions as well as two additional unions that had collective agreements with approaching expiry dates.
- On December 4, 2020, the Company announced that it had renewed its NCIB which allows the Company to purchase up to 63,682,170 common shares over a period of twelve months

commencing on December 9, 2020. The NCIB will expire no later than December 8, 2021. As of the date of this AIF, the Company has not purchased any common shares under the NCIB.

## 2019

- On July 5, 2019, pursuant to the Chapada Purchase Agreement, Lundin Mining acquired a 100% ownership stake in MMIC, which owns the Chapada copper-gold mine located in Brazil from Yamana. Total cash consideration paid by the Company was \$783 million, consisting of a base purchase price of \$800 million less \$17 million of working capital adjustments. The purchase price was funded by cash on hand and the Company's revolving credit facility. Contingent consideration includes a 2.0% NSR royalty on future gold production from the Suruca gold deposit and \$100 million on potential construction of a pyrite roaster. In addition, the Company is responsible for contingent consideration of up to \$125 million over five years if certain gold price thresholds are met.
- On August 28, 2019, the Company entered into the Credit Agreement in order to (i) increase its secured revolving credit facility (the "**Credit Facility**") to \$800 million with a \$200 million accordion option, (ii) reduce the cost of borrowing, (iii) increase the term to August 2023, from October 2022, and (iv) increase the available permitted indebtedness and lien allowances. The amended Credit Facility bears interest on US dollar denominated drawn funds at rates of LIBOR + 1.75% to LIBOR + 2.75% depending upon the Company's net leverage ratio, reduced from LIBOR + 1.875% to LIBOR + 3.00% previously.
- On September 5, 2019, the Company reported its Mineral Resource and Mineral Reserve estimates as at June 30, 2019.
- On October 10, 2019, the Company filed an initial Technical Report for the Chapada Mine. The Chapada Report was filed in order to support the previous disclosure of the Chapada Mineral Resource and Mineral Reserve estimates as a result of the acquisition of the Chapada Mine.
- On December 2, 2019, the Company announced that Freeport Cobalt, the Company's joint venture with Freeport-McMoRan Inc. sold its cobalt refinery in Kokkola, Finland and related cobalt cathode precursor business to Umicore for cash consideration of approximately \$200 million, including net working capital of approximately \$50 million at closing, of which Lundin Mining received 30% of the proceeds. The joint venture retained Freeport Cobalt's fine powders, chemicals, catalyst, ceramics and pigments businesses. During the year, Lundin Mining received \$114 million in funds distributed by the joint venture, including the attributable proceeds of the transaction.
- On December 5, 2019, the Company announced that the TSX had accepted notice of the Company's intention to renew its NCIB. The approval allowed the Company to purchase up to 63,797,653 common shares of the Company over a period of twelve months commencing on December 9, 2019. The NCIB expired on December 8, 2020 and the Company purchased 1,990,300 common shares through open market transactions at a weighted average price of approximately C\$6.49 per common share. All shares purchased under the NCIB were cancelled.

## 2018

- On April 26, 2018, pursuant to the 2022 Notes Indenture, the Company issued a tender to purchase the \$450 million aggregate principal amount of 2022 Notes at par plus accrued interest. A principal amount of \$10.8 million was tendered and accepted.
- On July 16, 2018, the Company announced its intention to make an offer to acquire all of the issued and outstanding shares of Nevsun Resources Ltd. ("**Nevsun**") for C\$4.75 per Nevsun share in cash. The bid, which was formally commenced on July 26, 2018, expired on November 9, 2018 in accordance with its terms and no shares were taken up.
- On July 25, 2018, the Company announced that Paul Conibear, President and Chief Executive Officer, would retire by the end of the year and that following the Board's succession planning process, Marie Inkster, Senior Vice-President and Chief Financial Officer was selected to assume the role of



President and Chief Executive Officer upon his retirement. Mr. Conibear's retirement and the appointment of Ms Inkster occurred on September 30, 2018.

- On September 6, 2018, the Company reported its Mineral Resource and Mineral Reserve estimates as at June 30, 2018.
- On October 1, 2018, the Company announced the appointment of Jinhee Magie, previously Lundin Mining's Vice President of Finance, as Senior Vice President and Chief Financial Officer and Peter Rockandel as Senior Vice President, Corporate Development and Investor Relations.
- On October 22, 2018, the Company issued a notice for early redemption of the remaining 2022 Notes in accordance with the Indenture. It was also announced that the Company had executed an amending agreement to its revolving Credit Facility that increased the Credit Facility to \$550 million with a \$50 million accordion option, reducing the costs of borrowing and extending the term to October 2022, from June 2020.
- On November 21, 2018, the redemption of all the outstanding 2022 Notes was completed at a redemption price of 103.94% of the principal amount plus accrued and unpaid interest.
- On November 28, 2018 the Company filed an updated Technical Report for the Candelaria Copper Mining Complex in Chile.
- On December 4, 2018, the Company announced that the TSX accepted notice of the Company's intention to commence a NCIB. The approval allowed the Company to purchase up to 63,718,842 common shares of the Company over a period of twelve months commencing on December 7, 2018. The NCIB expired on December 6, 2019 and the Company purchased 3,894,062 common shares through open market transactions at a weighted average price of approximately C\$6.68 per common share. All shares purchased under the NCIB were cancelled.



## Description of the Business

Lundin Mining is a diversified Canadian base metals mining company with operations in Brazil, Chile, Portugal, Sweden and the United States, primarily producing copper, zinc, gold and nickel.

### Principal Products and Operations

Lundin Mining's current principal products and sources of sales are copper, zinc and nickel concentrates from Candelaria, Chapada, Eagle, Neves-Corvo, and Zinkgruvan, with copper concentrates from Candelaria and Chapada containing significant gold content. Information related to Lundin Mining's segmented information is set forth in Note 24 to the annual consolidated financial statements for the year ended December 31, 2020 and the MD&A for the year ended December 31, 2020, which discuss each operation that is separately defined as a segment. Both documents are filed on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

Production from operations was as follows:

<b>Contained metal in concentrate</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
Copper (t) <sup>(1)</sup>	230,781	235,498	199,630
Zinc (t)	142,744	151,515	152,041
Gold (oz) <sup>(1)</sup>	163,000	142,000	78,000
Nickel (t)	16,718	13,494	17,573

*(1) Reflects results from Chapada for the period of Lundin Mining's ownership, as well as 100% Candelaria production.*

### Employees

As of December 31, 2020, Lundin Mining had a total of approximately 4,288 employees and 5,788 contract employees located primarily in Canada, Brazil, Chile, Portugal, Sweden and the United States for a total equivalent full-time employment of 10,076 people. The Company's success at mining and marketing its minerals is reliant on the services of key employees and contractors, as well as the development and continued relationships with certain third parties, including geologists, engineers, metallurgists and other personnel with specialized skill and knowledge. There remains demand for highly skilled, experienced and diverse workers in our industry. See "Risks and Uncertainties" below.

### Foreign Operations

The Company currently owns, among other interests, 80% of the Candelaria Mine in Chile, 100% of the Chapada Mine in Brazil, 100% of the Eagle Mine in the U.S., 100% of the Neves-Corvo Mine in Portugal and 100% of the Zinkgruvan Mine in Sweden. Candelaria, Chapada, Eagle, Neves-Corvo and Zinkgruvan made up approximately 55%, 22%, 8%, 14% and 1% respectively, of the Company's 2020 copper production. Candelaria and Chapada made up approximately 47% and 53%, respectively, of the Company's 2020 gold production. Neves-Corvo and Zinkgruvan made up approximately 48% and 52%, respectively, of the Company's 2020 zinc production. Eagle made up 100% of the Company's 2020 nickel production. The Company's operations are exposed to various levels of political, economic and other risks and uncertainties. These risks and uncertainties vary from country to country. Future development and operations may be affected in varying degrees by such factors as government regulations (or changes thereto) with respect to restrictions on production, export controls, import restrictions, such as restrictions applicable to, among other things, equipment, services and supplies, taxes, expropriation of property, repatriation of profits, environmental legislation, land use, water use, surface land access, land claims of local people and mine safety. The effect of these factors cannot be accurately predicted. See "Risks and Uncertainties" below.

## Environmental Protection Requirements

The Company's mining, exploration and development activities are subject to various levels of federal, provincial, state and local laws and regulations relating to the protection of the environment, including requirements for closure and reclamation of mining properties. The Company's total liability for reclamation and other closure provisions at December 31, 2020 was \$444 million. Reclamation payments for the year ended December 31, 2020 were \$3 million. See "*Responsible Mining*" below and the disclosure regarding environmental matters under the respective descriptions of the Company's material mineral properties herein for further details regarding environmental matters.

## Responsible Mining

Lundin Mining has adopted a responsible mining approach to managing health, safety, environment and communities (HSEC). This approach integrates HSEC considerations into all aspects of the business throughout all stages of the mining life-cycle.

Our Responsible Mining Policy (RMP) establishes the HSEC principles and commitments that guide the Company's approach to responsibly operating and managing the Company's business. These principles address key elements of responsible mining that include health and safety, environmental stewardship, social performance, economic contribution, compliance, and governance. The RMP was first issued in 2015 and was most recently updated in 2018.

The commitments established by the RMP are operationalized through the implementation of a Responsible Mining Management System (RMMS) standard. This standard sets specific HSEC management system requirements which are applicable to all Lundin Mining operations. The RMMS requirements are further supported through the issuance of specific technical standards that address key operational activities and risks such as community engagement, air quality, closure planning, fatality prevention, water management and tailings stewardship.

For the purpose of assurance, management regularly monitors, audits and reviews operational HSEC activities and performance against internal and external requirements. The Company publicly reports on HSEC performance against objectives and targets.

For additional information on Lundin Mining's RMP, RMMS and responsible mining performance, please consult the most recent Sustainability Report which is available on the Company's website at [www.lundinmining.com](http://www.lundinmining.com). The Company's non-financial disclosures are reported annually in its Sustainability Report in accordance with the Global Reporting Initiative (GRI) framework. More specifically, externally assured climate-related information is disclosed through the CDP (formerly Carbon Disclosure Project), Climate Change and Forestry programs, aligned with the Task Force on Climate-related Financial Disclosures (TCFD).

## Competitive Conditions

The Company competes with numerous other companies and individuals in the search for and the acquisition of financially attractive mineral properties. Lundin Mining's ability to acquire mineral properties in the future will depend not only on its ability to develop its present properties, but also on its ability to select and acquire suitable producing properties or prospects for development or exploration. In addition, Lundin Mining also competes with other companies when sourcing goods and services and supplies used in connection with mining operations, as well as for skilled experienced workers. See "*Risks and Uncertainties*".

## Description of Properties

Lundin Mining's material mineral properties are Candelaria, Chapada, Eagle, Neves-Corvo and Zinkgruvan. The following summaries below are derived, in part, from the Technical Reports. The information below in this section has been prepared by Mr. Stephen Gatley, Vice President, Technical Services of the Company and Mr. Graham Greenway, Group Resource Geologist of the Company, each of whom is a Qualified Person. For more detailed information in respect of Lundin Mining's material mineral properties, refer to the Technical Reports.

*Certain information presented in each of the following sections describing the Company's material mineral properties, including, but not limited to, Mineral Resource and Mineral Reserve estimates, as well as cost and production forecasts, is forward looking information and such information is expressly qualified by the "Cautionary Statement on Forward-Looking Information". See "Cautionary Statement on Forward-Looking Information" and "Risks and Uncertainties".*

### A. CANDELARIA MINE

The Candelaria Mine is located in Chile and is owned by Lundin Mining (80%) and Sumitomo (20%). The scientific and technical information in the following section has been derived, in part, from the Candelaria Report. The Candelaria Report is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

#### i. Project Description, Location and Access

The Candelaria Copper Mining Complex comprises two adjacent copper mining operations, Candelaria and Ojos del Salado, which produce copper concentrates from open pit and underground mines. Candelaria is an open pit and underground mine providing copper ore to an on-site flotation concentrator with a nominal processing capacity of 75,000 tpd. Ojos del Salado comprises two underground mines: Santos and Alcaparrosa. The Santos Mine provides copper ore to the PAC processing plant with a capacity of 3,800 tpd. The remainder of the ore extracted from the Santos and Alcaparrosa Mines is treated at the Candelaria processing plant.

Candelaria is located in Chile's Atacama Region, at an elevation of approximately 650 masl approximately 20 km south of the city of Copiapó and 650 km north of Santiago. The properties are easily accessed using the public road system. Employees and contractors are primarily from the Atacama region. Copiapó is a modern city with regular services and a population of approximately 160,000. The regional Atacama airport is serviced by daily commercial flights from Santiago and other destinations.

The mineral concentrate products from the two processing plants are transported by road to a domestic smelter in Chile or to Candelaria's concentrate storage facility and marine terminal at Punta Padrones, which is located approximately 110 km from the mining complex, on the Pacific coast, and adjacent to the community of Caldera. Punta Padrones port is also the site of a desalination plant that Candelaria built in 2013 to supply it with process water via a dedicated pipeline.

The Candelaria property within the Candelaria District comprises 214 mining exploitation concessions (approximately 6,023 ha) and 30 mining exploration concessions (approximately 6,680 ha). The Ojos del Salado property comprises 196 mining exploitation concessions (approximately 9,305 ha) and 67 mining exploration concessions (approximately 11,050 ha). The tenements are free of material mortgages, encumbrances, prohibitions, injunctions, and litigation. The tenements containing the active and future mining activities are not affected by material royalties. Exploration concessions have a duration of two years and the titleholder must pay a fee of approximately \$1.60 per hectare to the Chilean Treasury. At the end of this period, the concessions may: (i) be renewed as an exploration concession for two additional years in which case at least 50% of the surface area must be renounced, or (ii) be converted, totally or partially, into exploitation concessions. Exploitation concessions are of indefinite duration and an annual fee is payable to the Chilean Treasury of approximately \$8 per hectare.

On October 6, 2014 (and as amended on November 4, 2016, June 20, 2017 and August 27, 2020), the Company, LMC Bermuda Ltd., Franco-Nevada and Franco-Nevada (Barbados) Corporation entered into the Candelaria Stream Agreement to sell to Franco-Nevada a gold and silver stream from Candelaria for an upfront deposit of

\$648 million. In addition to the upfront deposit, Franco-Nevada will make ongoing payments upon delivery of the stream. See “Material Contracts”.

## **ii. History**

The Candelaria sulfide deposit was discovered by Phelps Dodge in 1987. A Feasibility Study was completed in 1990 and, following approval by the Chilean government, construction started in October of 1992. Sumitomo acquired a 20% stake in the property in 1992. Production commenced in early 1995.

In 2007, property ownership changed when Freeport acquired Phelps Dodge.

During 2011, a pipeline was completed to bring water from a nearby sewage treatment facility to the Candelaria Mine. A desalination plant at the port of Caldera was built and commissioned in 2013 at a capacity of 500 litres per second.

The Ojos del Salado complex has been in production since 1929, with processing taking place at the PAC plant. Phelps Dodge became sole owner of Ojos del Salado and the Santos Mine and PAC plant in 1985. The PAC plant’s current capacity is 3,800 tpd. Sumitomo acquired its 20% interest in Minera Ojos del Salado in 2005.

In early 1996, production from the Alcaparrosa underground mine commenced.

Between October 1998 and 2004, the Santos, Alcaparrosa and PAC plant operations were suspended due to the weak copper price environment.

In November 2014, Lundin Mining acquired Freeport’s interest in the Candelaria Copper Mining Complex.

In 2015, the Candelaria 2030 EIA, including the new Los Diques tailings management facility, received environmental approval from Chilean regulators. Construction of Los Diques commenced in 2016 after the receipt of the major construction permits. Construction continued throughout 2017 and first tailings were placed during the first quarter of 2018.

During 2018, exploration success led to the first declaration of Mineral Resources and Mineral Reserves on the Española deposit. In 2019, first ore was produced from the new South Sector of the Candelaria underground mine.

In February 2020, the Company submitted an Environmental Impact Assessment which, if accepted, will provide flexibility to expand and extend the mine operating life to at least 2040.

Candelaria has been a significant producer of copper since the mid-1990s. In the last four years, annual payable copper and gold metal in concentrates sold varied between 123 kilotonnes and 179 kilotonnes, and 73,000 oz and 100,000 oz, respectively.

## **iii. Geological Setting, Mineralization and Deposit Type**

The Candelaria sulfide deposit is located at the boundary between the Coastal Cordillera and the Copiapó Precordillera. The Coastal Cordillera of Chañaral and Copiapó is composed of Permian to Lower Cretaceous intrusions within a basement of metasedimentary rocks of Devonian to Carboniferous age. Volcanic, volcanoclastic, and marine carbonate rocks represent intra- and back-arc sequences that were deposited during the early to mid-Cretaceous period.

The Candelaria, Santos, and Alcaparrosa Mines are located in the district of Punta del Cobre. The polymetallic sulfide deposits are hosted in volcanic rocks of the Punta del Cobre Formation. Polymetallic sulfide deposits in the Punta del Cobre district are located to the east of the main branches of the Atacama fault zone, a subduction-linked strike-slip fault system stretching over 1,000 km along the Chilean coast and active at least since the

Jurassic period. The dominant structural elements of the Punta del Cobre area are the northeast-trending Tierra Amarilla Anticlinorium, a southeast verging fold-and-thrust system, and a series of north-northwest to northwest-trending high-angle faults.

The copper-gold sulfide mineralization found at the Candelaria Copper Mining Complex, which is generally referred to as IOCG mineralization, is located within the thermal aureole of the Lower Cretaceous magmatic arc plutonic suite in the Candelaria-Punta del Cobre district. Depending on lithology and the structural setting, the polymetallic sulfide mineralization can occur as veins, hydrothermal breccias, replacement mantos, and calcic skarns within andesite and tuff units. Commonly the mineralization is hosted in the tuff, lower andesite, or "*albitoforo*" field units of the Punta del Cobre Formation. There are also some localized controls to mineralization in the form of faults, breccias, veins, and foliation. Candelaria has become an exploration model for Andean-type IOCG deposits that display close relationships to the plutonic complexes and broadly coeval fault systems.

The main mineralized body at the Candelaria Mine is up to 400 m thick in its central part and thins towards the edges. In east-west sections, the mineralization has a lenticular, downward concave shape with a steep eastern limb and a shallowly dipping western limb. The shape of the mineralized body in north-south section is irregular. In plan view, the extent of the mineralization in Candelaria is approximately 1,400 m by 4,000 m. The mineralized body was folded after its formation. The north-northeast-trending fold axis corresponds to the Tierra Amarilla Anticline.

In the Santos Mine, three styles of mineralization are observed: veins, mantos, and breccia bodies. An important vein in the Santos Mine is the Isabel Vein, which has a northwest striking orientation, and extends over 1 km in length and between 4 m and 30 m in width. Manto-type mineralization occurs as tabular bodies located at two sedimentary horizons located in the floor and roof of the "*albitoforo*". The manto mineralization is characterized by variable iron contents with magnetite common in the north and deeper areas, and specular hematite in the south. Mineralization occurs within breccia bodies, which are typically contained within the "*albitoforo*" and lower andesite units and the mineralization generally forms steeply west-dipping and north-northwest- to northwest-striking bodies.

Mineralization at the Alcaparrosa Mine principally occurs as mantos that trend to the northeast and dip to the west. Ore mineralogy consists of chalcopyrite, pyrite, and magnetite, with trace pyrrhotite, molybdenite, and arsenopyrite. Mineralization at the Alcaparrosa Mine also occurs as veinlets defining dense stockwork, breccias as well as fine dissemination in biotite meta-andesites. High-grade bodies are also found in massive veins striking north-northwest, north, and east.

In the Española project area, mineralization occurs within mantos hosted mainly in a brown garnet skarn, and in lesser proportions within silica hornfels. Chalcopyrite is the primary copper sulfide mineral found as clusters and in disseminated form, commonly associated with brown garnet porphyroblasts. Near the surface and down to a depth of approximately 70 m, the mineralization is oxidized, characterized by the presence of chrysocolla, malachite, native copper, diogenite and bornite.

#### **iv. Exploration**

Ongoing exploration is conducted by Candelaria with the primary purpose of supporting mining and increasing estimated Mineral Resources and Mineral Reserves available for mining. Exploration is focused on the known mantos, veins, and breccia masses in proximity to existing underground infrastructure. Historically, this strategy has proven very effective in defining new estimated Mineral Resources and Mineral Reserves available for underground mining. Much of the exploration is conducted from underground, requiring significant underground development to provide adequate drilling stations. Regional exploration is also undertaken on the large properties surrounding the mines identifying targets and defining new areas with Mineral Resource potential. All existing exploration information has been compiled into a comprehensive 3D model improving evaluation, prioritization and the cost effectiveness of future exploration efforts.

From 2010 to December 2020, more than \$253 million was invested in exploration primarily in the proximity of the Candelaria open pit, the Española project area, and at the three underground mines. This exploration has resulted in a significant expansion of the Mineral Resource and Mineral Reserve estimates of the underground mines and contributed to the extension of their LOM.

#### **v. Drilling**

Mineral Resources are estimated based on information obtained from surface and underground drill holes. In 2020, a total of 89 holes were drilled in Candelaria underground (North and South sectors). There were also 12 underground holes drilled at the Santos Mine and 16 holes drilled from surface at Santos for exploration. Up to six drill rigs were employed during the year and a total of 38,023 m was drilled for exploration purposes. Additionally, a total of 2,392 m was drilled for geomechanical studies in 15 holes. The drilling and sampling procedures used are consistent with generally recognized industry best practices.

Exploration drilling in 2020 in the underground North and South sectors of Candelaria continued to intersect extensions of the mineralization. The 2020 drill program in Candelaria North was focused on the far north sector to enable future mine planning. The Santos surface drilling program confirmed the extension of mineralization along veins in the southern portion of the deposit, while the underground drilling in the Santos Mine confirmed the continuation of the sub-vertical orebody in the north.

#### **vi. Sampling, Analysis and Data Verification**

Analytical samples informing the Candelaria open pit Mineral Resources were prepared and assayed at the Candelaria mine site. Analytical samples informing the Ojos del Salado Mineral Resource estimates were formerly prepared and assayed by Intertek in Paipote, Chile, an independent laboratory.

Since 2018, the Candelaria and Ojos del Salado drilling samples have been sent to the Geolaquim laboratory, an independent laboratory in Paipote, and the Candelaria laboratory used as an umpire laboratory. SG is measured systematically every 2 m over the full sample interval.

All drilling assay samples are collected by a contractor under the direct supervision of a mine geologist. Samples from Candelaria are processed at the mine site and transported to the Geolaquim laboratory. Samples from Ojos del Salado are also transported directly from the property to the Geolaquim laboratory in Paipote. In each case, established procedures were used to ensure the security of samples during transportation between the drill rig and the laboratories. Quality assurance procedures, data verification and assay protocols used in connection with drilling and sampling conform to industry accepted quality control methods.

The analytical quality control program implemented at Candelaria and Ojos del Salado includes the use of control samples (coarse and pulp duplicate samples and reference material samples) inserted within all batches submitted for assaying.

Since 2016, exploration data are managed through an acQuire database, which includes quality control management features for sample coordinates from borehole surveys and data management tools. Sample numbering and labelling is controlled through acQuire, including insertion of quality control samples and consignment notes to the primary laboratories. Analytical results are received electronically and managed through acQuire with quality control filters. Samples outside defined limits are rejected by acQuire and flagged for further investigation. The acQuire system includes features for reporting analytical results and preparing bias charts and time series plots.

#### **vii. Mineral Processing and Metallurgical Testing**

The Candelaria Copper Mining Complex maintains regular metallurgical testing programs that are incorporated with historical testing results and mill performance into a statistical model to predict and improve the complex's processing performance in terms of mill throughput, metal recovery to concentrate, and final concentrate grade.



Metallurgical tests are executed in a number of specialized commercial facilities and in the in-house metallurgical development laboratory. Testing includes rock hardness classification, mineralogy using QEMSCAN™ technology and bench scale flotation testing that is correlated with industrial scale performance in order to predict mill throughput and metallurgical performance. A similar but less intense program is underway for the PAC plant.

New metallurgical tests were initiated in late 2016 as part of a Feasibility Study to evaluate potential throughput increases at the Candelaria mill. The material tested was a blend of ore considered representative of future feedstock. Test work included SAG and ball mill pilot testing, specific SAG design tests, bench scale flotation kinetic modelling and automated scanning electron microscopy. Results and analysis from this test work program were evaluated using the Ausenco Ausgrind methodology to improve confidence in the estimated throughput for the LOM plan.

In parallel with the mill expansion study, a number of process initiatives commenced focusing on debottlenecking and improving the existing facilities. As a part of these initiatives, further variability test work programs were initiated. The Mine-to-Mill study evaluated potential improvements in primary crusher feed size from blasting (both underground and the open pit) and the effect on overall comminution specific energy. This was combined with on-going geo-metallurgical initiatives to characterize different geological zones, adding to the existing ore hardness and rougher flotation response databases by incorporating more underground sections data and replacing the reliance on SPI tests for SAG milling power calculations with the established JKTech methodology.

The Candelaria Mill Optimization Project (CMOP), which was completed in 2020, included upgrades in grinding, classification and flotation circuit capacity.

#### **viii. Mineral Resource and Mineral Reserve Estimates**

The Mineral Resources at the Candelaria Copper Mining Complex are estimated from core drilling information stored in a secure central database and were evaluated using a geostatistical block modelling approach. Separate models were prepared for the Candelaria open pit mine and Candelaria underground (South sector) and the three underground mines (Candelaria North sector, Santos, and Alcaparrosa) using slightly different methodologies and assumptions.

The open pit Mineral Reserve estimates for both Candelaria and Española are based on a mine plan and open pit designs developed using modifying parameters including metal prices, metal recovery based on performance of the processing plant, actual operating and sustaining capital cost estimates based on the production schedule and equipment requirements. Open pit optimizations are carried out using Minesight® and Datamine software.

Underground Mineral Reserve estimates at Candelaria underground (North and South sectors), Alcaparrosa and Santos are based on mine plans and designs developed using modifying parameters including metal prices, metal recovery based on performance of the processing plant, actual operating and sustaining capital cost estimates based on the production schedule and equipment requirements. Stope layouts, mining sequence and development plans are developed using Deswik software with Stope Optimizer and MineSight® for detailed design and operational refinements.

Factors which may affect the Mineral Resource and Mineral Reserve estimates include: dilution and mining recovery, metal prices, smelter, refining and shipping terms, metallurgical performance, geotechnical characteristics of the rock mass, capital and operating cost estimates, and the likelihood of obtaining land title, required permits and environmental, social and legal licenses. To the extent such factors are within the control of, or capable of influence, by the Company, these factors are managed through industry accepted practices and procedures and well as maintaining an engaged and constructive dialogue with the local communities and government authorities.

Details of the June 30, 2020 Mineral Resource and Mineral Reserve estimate for the Candelaria Copper Mining Complex are included in Schedule A, attached to this AIF.

## **ix. Mining Operations**

The Candelaria and Española open pits will operate with an overall mining rate of approximately 308,000 tpd for the next ten years. As the final waste stripping is completed, the overall mining rate will decline. A stockpile strategy has been developed to maximize the grade of material going to the processing facility. Direct milling ore will average 0.65% Cu from Candelaria and 0.43% Cu from Española. Lower grade stockpile ore will be recovered to meet the plant capacity as required. The mine currently operates five electric shovels, approximately 52 haulage trucks, eight production drills, and a fleet of support equipment. A major mine re-capitalization program has been largely completed and has seen the original rope shovels replaced with new hydraulic units and the majority of the truck fleet changed for latest generation Caterpillar 793F trucks. Similar upgrades have been completed to the mine's service and ancillary vehicle fleet.

The Candelaria open pit was designed to be mined in several phases of development. As of June 2020, four phases of development remain in the LOM plan (Phases 10 to 13). The overall strip ratio is 2.3:1 including ore delivered to stockpiles. The total in-pit waste is 880 Mt and the LOM of the open pit mine is 16 years. The Española total in-pit waste is 131 Mt and the overall life estimated is 11 years.

The Candelaria underground (North and South Sectors) is expected to produce over 5.1 Mt of ore per year from 2021 until the end of the life of the mine. Access and infrastructure development to the South sector commenced in 2017 with first ore mined in 2019. Underground trucks with 60-tonne capacity have been introduced to replace the existing contractor operated fleet in both sectors. The estimated average grade of the Candelaria underground ore is 0.83% Cu.

The Alcaparrosa underground mine produces approximately 1.6 Mt of ore per year with an average grade of 0.83% Cu. The Santos underground mine produces approximately 1.9 Mt of ore per year with an estimated average grade of 0.90% Cu over the remaining LOM. The three underground mines utilize a sublevel stoping mining method for ore extraction. This method is ideal for relatively large, vertical, as well as thick deposits with favorable and stable host rock. The stopes range in sizes from 100,000 tonnes to 1 million tonnes of ore and material is extracted at rates of 1,000 tpd up to 3,000 tpd, depending on the number of draw points and the broken ore flow characteristics.

All open pit pushbacks and associated pit slopes are geotechnically evaluated by independent experts to validate the design parameters. Similarly, underground stoping areas are evaluated for overall stability.

## **x. Processing and Recovery Operations**

Minera Candelaria and Minera Ojos del Salado manage and operate two processing plants. The Candelaria processing plant receives ore from the open pit and Candelaria, Alcaparrosa and Santos underground mines. It has a nominal capacity of 75,000 tpd. The PAC processing plant receives ore from the Santos underground mine and has a design capacity of 3,800 tpd.

The Candelaria processing plant flowsheet is conventional, comprising two parallel process lines for grinding and flotation followed by common final concentrate filtration and shipping of bulk copper concentrates. Run of mine ore is trucked to a primary gyratory crusher, which then feeds via a stockpile the two parallel SAG mill – ball mill grinding circuits with pebble extraction, crushing and milling of the crushed pebbles.

The secondary ball mills cyclone overflow constitutes feed to two parallel rougher flotation banks. Rougher concentrate is reground prior to two-stage cleaning in column flotation cells. Final flotation copper concentrate with gold and silver by-product metals is thickened, filtered with ceramic disc filters, and stored on site. Final flotation tails are conventionally thickened and disposed in the new Los Diques tailings management facility. The historical processing performance of Candelaria from 2000 through 2020 has average metallurgical recoveries of 94% for copper, 74% for gold, and 83% for silver.



A Feasibility Study was undertaken in 2017 to evaluate potential debottlenecking expansions of the main Candelaria processing plant, to add approximately 15% to 20% throughput capacity. The expansion of the plant has not been advanced, but a number of process improvement initiatives, highlighted during the study, have been completed. These included upgrades to the primary crusher motor, ball mill repowering, cyclone and cyclone feed pump capacity upgrades. The forecast cumulative impact of these upgrades was to deliver an additional 4,000 tpd of throughput and 1.7% copper recovery.

The PAC concentrator has been in operation since 1929 and upgraded several times to the current capacity of 3,800 tpd. The PAC concentrator flowsheet comprises a conventional three-stage crushing plant. The grinding circuit has three closed-circuit ball mills operating in parallel. The ball mills cyclone overflow constitutes feed to the rougher flotation bank. Rougher concentrates are reground prior to cleaning in a column cell with the tailings scavenged with conventional mechanical flotation cells. Final concentrate is thickened and filtered using a ceramic disc filter. Final flotation tailings from the PAC plant are pumped to the Los Diques tailings storage facilities at the Candelaria site.

Copper concentrates containing precious metals, from both plants, are sold on contract to local smelters or trucked to the Punta Padrones port, near Caldera, for export to overseas smelters. Demand for copper concentrates produced by the Candelaria Copper Mining Complex is strong as they have very low content of critical elements such as lead, arsenic, antimony, bismuth, and mercury which make them good base feed for smelters.

Candelaria Copper Mining Complex has an agreement with a third-party company to process Candelaria's flotation tailings to produce a magnetite concentrate and this produces an additional source of by-product revenue subject to favorable iron ore prices.

#### **xi. Infrastructure, Permitting and Compliance Activities**

The mines of the Candelaria Copper Mining Complex receive electrical power through long-term contracts with AES Gener S.A., a local energy company. The main water supply comes from a desalination plant, which was commissioned in 2013 and is located adjacent to the Punta Padrones port facility. Copper concentrate is sold on contract to local smelters or is shipped by road to the Punta Padrones port facility and from there by ship to various smelters around the world. The desalination plant and the Punta Padrones port are owned by Minera Candelaria.

A new TSF, known as Los Diques, commenced operation in 2018 replacing the original Candelaria TSF. The Los Diques TSF, approved as a key part of the Candelaria 2030 EIA, is located to the southwest of the open pit and plant sites and has a designed capacity of approximately 600 million tonnes. The main impoundment of the TSF is constructed from rockfill using the downstream method. The TSF now receives the full flotation tailings from the Candelaria and PAC processing plants. Future phases of the Los Diques TSF have been initiated ahead of schedule, taking advantage of synergies with the original project and the availability of mine waste from the open pit. The original Candelaria TSF is now inactive.

Chile has established a comprehensive regulatory framework for mining and other industrial activities, dating from the mid-1990's that has been updated several times since then. Although the Candelaria and Ojos del Salado facilities were permitted and developed prior to the modern framework being in place, both hold numerous environmental approvals stemming from modifications to the original developments and are compliant with current regulatory requirements. In addition, the two companies hold more than 1,000 permits for construction and operation of the mining and milling facilities, and related infrastructure. Candelaria is operating under the Candelaria 2030 EIA approved by the environmental authorities in July 2015.

On February 26, 2020, the Company submitted an Environmental Impact Assessment which, if accepted, will include an extension to the mine life, expanded underground mining production, development of the La Española satellite deposit and other mine optimization initiatives. The Environmental Impact Assessment is currently under review with the authorities, the timing of which has been impacted by the COVID-19 pandemic and will

continue through 2021 and possibly into 2022; however, the Company's current authorization to mine extends through 2030 so no material impact is anticipated by this delay.

The Alcaparrosa Mine received environmental approval in 1996 with subsequent amendments, most recently an EIA to support the extension of the mine operation through 2022. A routine permit renewal was submitted in December 2020 and is under review with by the relevant authorities.

The Santos Mine technical sectorial permit application was submitted to the agency on September 30, 2020 as planned and approval is expected in the fourth quarter of 2021.

The Health, Safety and Environmental Management Systems at Candelaria and Ojos del Salado are currently certified under the international OHSAS-18001 and ISO-14001 (2015) standards. The environmental management systems that fall under ISO-14001 were last certified in March 2018 and were recertified in the first quarter of 2021. The health and safety management systems that fall under OHSAS-18001 were last certified in March 2018, and a surveillance audit was conducted during the second half of 2020 to maintain that certification. The current OHSAS-18001 certification is expected to be converted to an ISO-45001 certification during 2021. The site is also preparing for certification of ISO-50001, Energy Management Systems, in March 2021.

Separate MCPs are in place for Candelaria and Ojos del Salado and both have been approved by SERNAGEOMIN. These plans are updated periodically, at a minimum of every five years, and include financial guarantees pursuant to local regulations. A final report indicating completion of obligations identified in the San Esteban closure plan was approved in 2020 under new Chilean regulations.

The social performance team engages with numerous stakeholders, primarily in the communities nearest the mine and port facilities, namely Tierra Amarilla, Caldera and Copiapó. Community offices are located in each of these municipalities; engagement occurs throughout the year and is focused on managing social impacts, risks and opportunities specific to each community. The team bases its activities on a 5-year social performance strategic plan and systems, which reflect best practice and international standards in stakeholder engagement, grievance procedures, risk management and community investment.

**xii. Capital and Operating Costs**

As previously reported in the Company's management's discussion and analysis for the year ended December 31, 2020 (the "MD&A"), total forecast Candelaria cash costs for 2021 are tabulated below using a forecast US dollar/CLP exchange rate of 675. Forecast cash costs for 2021 are \$1.35/lb Cu.

<b>Candelaria (\$/lb Cu)<sup>(1)(2)(3)</sup></b>	<b>2021 Forecast</b>
Mining costs	0.65
Milling costs	0.50
G&A and other costs	0.25
TC/RCs	0.20
By-product credit, net of TC/RCs	(0.25)
<b>Cash cost per payable pound of copper</b>	<b>1.35</b>

(1) Includes the impact of the Candelaria Stream Agreement but excludes any allocation of upfront cash received under that agreement, and capitalized stripping costs.

(2) Cash costs are based on various assumptions and estimates, including but not limited to: production volumes, commodity prices, foreign exchange rates, TC/RCs and operating costs.

(3) 68% of Candelaria's total gold and silver production are subject to the Candelaria Stream Agreement and as such cash costs are calculated based on receipt of approximately \$416/oz and \$4.16/oz, respectively, on gold and silver sales in the year.

As previously reported in the Company's MD&A, total forecast capital expenditures for Candelaria in 2021 are tabulated below. Forecast capital expenditure for underground horizontal and vertical development, supporting infrastructure and equipment is \$80 million and that for ongoing development of the Los Diques TSF is \$35 million.

The Company capitalizes waste stripping costs when experienced strip ratios are above the average planned strip ratio for each open pit phase under development. During the production phase of the Candelaria open pit mine, waste stripping costs, which provide probable future economic benefits and improved access to the orebody are capitalized to mineral properties.

<b>Candelaria</b>	<b>Unit</b>	<b>2021 Forecast</b>
Underground development & equipment	\$M	80.0
Los Diques TSF	\$M	35.0
Other sustaining	\$M	70.0
<b>Total</b>	<b>\$M</b>	<b>185.0</b>
<b>Capitalized waste stripping</b>	<b>\$M</b>	<b>160.0</b>
<b>Total</b>	<b>\$M</b>	<b>345.0</b>

### **xiii. Exploration, Development and Production**

The 2021, exploration drill program at the Candelaria Mining Complex is forecast to total 40,800 m and the infill program 21,000 m for a combined total of 61,800 m. A total of 550 m of exploration tunneling is also planned for the year. Drilling will focus on targeting lateral extensions of near-mine mineralization, with the objective of generating additional Mineral Resources and Mineral Reserves in open pit and underground mines.

Included within the total exploration drill program of 40,800 m, is a district exploration program, which is planned to be 4,500 m in 2021 with an emphasis on the long-term development of high potential mineralization occurrences.

Total exploration expenditure in 2021 is forecast at approximately \$14.0 million.

In 2020, the Candelaria Copper Mining Complex produced 126,702 tonnes of copper and approximately 76,000 ounces of gold in concentrate (100% basis). As previously reported in the Company's MD&A, for 2021, forecast production is as tabulated below.

<b>Candelaria (100%)</b>	<b>Unit</b>	<b>2021 Forecast</b>
Copper production	'000 Tonnes	172 – 182
Gold production <sup>(1)</sup>	'000 Ounces	95 – 100

*(1) 68% of Candelaria's total gold and silver production is subject to the Candelaria Stream Agreement.*

The current forecast LOM of the Candelaria open pit and stockpiles is to 2044, the Española open pit is to 2034 while the underground mines, Candelaria (North and South sectors), Alcaparrosa and Santos, have mine LOMs to 2043, 2029 and 2029, respectively.

## **B. CHAPADA MINE**

The Chapada Mine is located in Goiás State, Brazil and is owned and operated by MMIC, which is a 100% indirect subsidiary of Lundin Mining. The scientific and technical information in the following section has been derived, in part, from the Chapada Report. The Chapada Report is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

### **i. Project Description, Location and Access**

Chapada is located in northern Goiás State, Brazil, approximately 320 km north of the state capital of Goiania and 270 km northwest of the national capital of Brasilia. Chapada comprises the Chapada copper-gold mine, the nearby Suruca gold deposit located six kilometers northeast of Chapada and several nearby exploration concessions.

The mining and processing operations at Chapada produce copper concentrates (with significant gold by-products) from open pit mining. The open pit mines provide copper/gold ore to an on-site flotation concentrator with a nominal processing capacity of 24.0 Mtpa. The mineral concentrate product from the processing plant is transported by road to the port of Vitoria in the state of Espirito Santo from where it is shipped to destinations in Europe and the Far East. The Suruca gold deposit is not yet in production.

Access to Chapada is via the paved BR-153 highway from Brasilia to Campinorte and then via the GO-485 highway to the town of Alto Horizonte, which lies between the Chapada and Suruca deposits. An airport, suitable for small aircraft with an 800 m long airstrip is located close to Alto Horizonte.

Chapada is divided into 36 mining and exploration concessions totaling 45,944 ha and held in the name of MMIC. The Chapada mine is currently hosted on three mining concessions totaling 3,830 ha with a further three concessions, totaling 1,116 ha, currently in an application process. The Suruca deposit is hosted on a single mining concession totaling 846 ha. MMIC also holds 29 exploration concessions in the area that total approximately 40,153 ha.

MMIC holds all of the surface rights in the area of the Chapada Mine, which incorporates all of the locations of buildings, fixed installations, waste dumps, and tailing disposal facilities in the current mine plan. Lundin Mining is of the opinion that it can acquire the right to dispose of waste rock and tailings on additional surface property, if and when required.

Chapada is not subject to any rights, agreements or encumbrances which could adversely affect the value of the property or Lundin Mining's ownership interest. Gold production from Suruca is subject to a 2% net smelter return royalty payable by MMIC.

The Company is subject to separate copper purchase agreements related to the Chapada Mine's copper production with each of Sandstorm and Altius. Pursuant to these copper purchase agreements (which were transferred to the Company as part of its acquisition of the Chapada Mine from Yamana), each of Sandstorm and Altius have agreed to purchase specified amounts of copper from the Company for the life of the Chapada Mine in exchange for ongoing payments for each pound of copper received equal to 30% of the spot price per pound of copper.

### **ii. History**

The Chapada deposit was discovered in 1973 by INCO during a regional program of stream sediment sampling. Follow-up work by INCO was conducted in 1974 and 1975 including detailed stream sediment surveys, soil geochemistry, geophysics, trenching, and broadly spaced drilling.

As there are few outcrops in the mine area due to laterite-saprolite cover, the deposit definition required extensive diamond drill exploration. Development drilling of the deposit occurred in several campaigns from 1976 through 1996 by INCO, Parsons-Eluma, Eluma- Noranda, Santa Elina, and Santa Elina-Echo Bay.

Yamana purchased Chapada in 2003 and commenced construction of the current mine in late 2004. First commercial production of copper concentrates (with significant gold by-products) occurred in early 2007 from a mine and mill with a nominal 16.0 Mtpa capacity. Numerous plant expansion and debottlenecking projects were completed by Yamana increasing the throughput capacity to its current 24.0 Mtpa.

In July 2019, Lundin acquired Chapada from Yamana. The total material processed from the start of production up to the end of December 2020 is 277.9 Mt grading 0.37% Cu and 0.31 g/t Au.

### **iii. Geological Setting, Mineralization and Deposit Type**

The Chapada and Suruca deposits are located in the Eastern Belt of the Mara Rosa Volcano-sedimentary sequence. The Eastern Belt in the vicinity of the mine comprises a thick package of amphibolites succeeded by volcanic and volcanoclastic rocks overlying metasedimentary rocks.

The copper-gold deposit at Chapada comprises products of hydrothermal alteration of the copper-gold porphyry system. Alteration styles include biotitization, sericitization, argillitization, and propylitization. The primary copper-gold mineralization at Chapada is epigenetic. Copper is principally present as chalcopyrite with minor amounts of bornite. Fine grained gold is closely associated with the sulfide mineralization and was likely to be contemporaneous with the copper. Other district targets include mineralization styles associated with skarn alteration.

The gold at Suruca is related to folded quartz vein/veinlets with sericitic and biotite alteration, rather than high sulfide concentrations. The second generation of quartz veins/veinlets with sulfides (sphalerite + galena + pyrite), carbonates, and epidote also host gold, which is related to zinc. Mineralization predominately pre-dates deformation, so the gold (Suruca) and copper-gold (Suruca SW) are associated with skarn features, however, some structurally controlled features are also observed.

### **iv. Exploration**

As there are few outcrops in the mine area due to the 30 m thick laterite-saprolite cover, exploration has consisted mainly of drilling. Various drill campaigns have been completed since the mine was acquired by Yamana recognizing that porphyry copper-gold deposits worldwide tend to occur in clusters. The drill campaigns were designed to discover additional deposits in the vicinity of the original mine and to test for possible extensions of known resources. To achieve these objectives, in 2008, regional geological mapping and detailed geological mapping of the open pit were carried out and a geological model of the mine area prepared.

Drilling campaigns from 2008 were successful in discovering extensions to the north east and south west of the main Chapada mineralization including the discovery of Corpo Sul. In 2014, the Sucupira deposit was discovered close to the main Chapada deposit with similar mineralogical features and some holes with average grades above 0.7% CuEq. In 2018, the Baru NE mineralization was discovered close to the plant facilities and the Santa Cruz mineralization was outlined as a southern extension of Corpo Sul.

During 2020, drilling focused on many near mine targets in Chapada (Buriti, Buriti North, Jatoba, Santa Cruz, Chapada NW and SW) proving extensions to known mineralization, and upgrading Mineral Resource classifications. Some district targets were also drilled during the year.

Exploration work at Suruca started in 2008 with geological mapping, chip sampling and shallow drilling followed by a geophysical program in 2009. Drilling in 2009 discovered the deposit and it was largely delineated and infilled in 2010. No exploration was carried out between 2011 and 2015, but in 2016 extensive drilling was carried out in the oxide mineralization to define a Measured Mineral Resource. In 2017, the Suruca SW mineralization was

discovered exhibiting similar geological features to the Chapada deposit and drilling continued in 2018 focusing on strike and down dip extensions. During 2020, the objective was to delineate the copper-gold mineralization to the south west of Suruca.

A regional exploration program has also been in place at Chapada since 2014 working on district scale targets. Several targets were identified and have been methodically drill tested since that time.

Following the acquisition of Chapada by Lundin Mining in July 2019, a MIRA exercise was undertaken. This process identified several high-potential targets of a similar mineralization style in the near mine and regional areas that were prioritized for drilling in 2020. Since the acquisition in 2019, a significant increase in near-mine exploration work has occurred, and in 2020 expenditure totaled approximately \$5 million. Exploration expense for 2021 is estimated at \$8.0 million and contemplates 60,000 m of drilling.

#### **v. Drilling**

Drilling at Chapada and within the district (excluding Suruca) commenced in 2008 and to year end 2020 comprised a total of 1,526 holes for 307,170 m. Drilling has delineated the main deposits at a spacing of 100 m by 100 m, with a tighter 50 m pattern in the central portions.

During 2020, a total of 30,538 m has been drilled at Chapada in 178 drill holes, where approximately 17,700 m were drilled in Buriti, Buriti North and Jatoba to support Indicated Mineral Resources estimation (100 by 100 m spacing). Additionally, almost 9,000 m was drilled in the Santa Cruz area, focused on extending the known mineralization and delineating higher grade trends. In the Chapada district targets, 48 holes were drilled totaling 9,227 m.

To year end, 2020, 1,051 holes have been drilled for an aggregate total of 87,211 m at Suruca. Initial drill programs focused on delineation by infill drilling at 200 m by 200 m and 100 m by 100 m spacings. In 2016, an extensive drill program was completed to convert Indicated Mineral Resource estimates (100 m by 50 m) to Measured (35 m by 35 m). During 2020, drilling was carried out in the copper-gold Suruca SW portion, where 2,047 m were drilled in 14 holes.

#### **vi. Sampling, Analysis and Data Verification**

Upon arrival of the core at the core logging facility, the hole is checked and marked for lithological contacts. Samples are marked down the entire length of the hole at one or two meter intervals, adjusted for lithological contacts.

Samples are sawn in half with an electric diamond blade core saw and sampled prior to logging. The samples are placed in a numbered plastic bag along with a paper sample tag and sealed. Sample weight is approximately 3.5 kg. Six to eight samples are placed in a larger plastic bag, loaded onto a truck owned and driven by a locally based transport company to the ALS Chemex laboratory sample preparation facility in Goiania, Goiás.

All samples are analyzed by fire assay (gold) or four acid digestion (copper), both with an atomic absorption spectroscopy (AAS) finish by ALS Chemex Lima, Peru, accredited by the Standards Council of Canada ISO 17025:2005, and the secondary laboratory SGS GEOSOL, Vespasiano, Brazil accredited by ISO 9001:2008, both independent laboratories.

The collection and analysis of assay and QA/QC data at Chapada meets standard industry practice and the assay results within the database are considered suitable for use in a Mineral Resource estimate.

#### **vii. Mineral Processing and Metallurgical Testing**

A significant amount of process test work was completed for the development of the Chapada flowsheet. The metallurgical test work included mineralogical studies, grinding and Bond Work Index tests, flotation recovery



studies and thickener settling tests. Tests and design work indicated that a concentrate grade of 28.0% Cu was achievable with acceptable recoveries of both copper and gold.

Subsequent to the mine commissioning in 2007, further test work was completed. Initially this focused on increasing the plant throughput capacity and improving the grinding circuit. Ore characterization studies and plant surveys were completed allowing the development of a calibrated model of the plant performance. Following this work, the power draw of the existing mills, both SAG and ball, were adjusted to operate under increased power draw providing the additional energy required for fragmentation. This has allowed the plant to increase capacity to 24.0 Mtpa while still achieving acceptable flotation performance. Further ore characterization studies are ongoing to better model the increasingly competent future ore sources.

More recently, Woodgrove has conducted pilot plant studies for improvement of the flotation circuit, calculating the new plant mass balance, metallurgical recoveries of copper and gold and provided cost estimates for new flotation equipment. An expansion project was designed in three different phases, two of which have been completed. Phase 1 in 2017 included the installation of two Staged Flotation Reactors (“SFR”), cleaner scalpers and four SFR cleaner scavengers. Phase 2 in 2019 included the installation of six Direct Flotation Reactors, as re-scavengers, consisting of two rows of three reactors operating in parallel. This equipment was installed and commissioned in 2019. Phase 3, which has yet to be approved, includes a full expansion flowsheet with the addition of a third bank of roughers, two more cleaner scalpers, the installation of new cleaner stage flotation cells as well as the installation of a second vertical regrind mill in parallel with the current mill and finally the removal of the flotation column from the flowsheet.

At Suruca, separate test work programs were initiated for the oxide and sulfide samples. MMIC managed and supervised all metallurgical test work programs. In April 2017, Kappes, Cassidy & Associates (“KCA”) completed an updated test work program to evaluate a dynamic heap leach process including head analysis, agglomeration and compaction test work, and column leach test work. The updated KCA test work program confirmed the amenability of Suruca ore to cyanide leaching and recommended further compaction test work.

#### **viii. Mineral Resource and Mineral Reserve Estimates**

The Chapada Mineral Resource estimate is based on open pit mining scenarios and is constrained by optimized pit shells, which are based on a copper and gold NSR cut-off value. Mineral Resource estimates are prepared using industry standard methods and provide an acceptable representation of the deposit.

Chapada personnel develop mineralization and lithology wireframes, including refinements, using Leapfrog Geo software. Block models are generated in Maptek Vulcan measuring ten meters in each direction for Chapada (Baru, Baruzinho, Cava Central, Cava Norte, Corpo Sul, Sucupira and SW Mina) and five meters in each direction for the Suruca deposits. Block grades are estimated using Ordinary Kriging in areas where sufficient composites are available to produce reliable variograms. In the absence of reliable variograms, block estimates are performed using inverse distance to the third power.

Classification for Chapada, Suruca Sulfide, and Suruca SW is based on a 50 m by 50 m drill pattern for the Measured Mineral Resources, 100 m by 100 m drill pattern for Indicated, and 200 m by 200 m drill pattern for Inferred. For Suruca Oxide, classification is based on a 35 m by 35 m drill pattern for Measured Mineral Resources, 100 m by 50 m drill pattern for Indicated, and 200 m by 200 m drill pattern for Inferred.

Using the reported Mineral Resources, open pit mine designs, production schedules and adequate Modifying Factors to account for mining dilution and ore recovery, the Chapada mine technical team estimate the Mineral Reserves. Based on this, the Measured and Indicated Mineral Resources within the final pit designs at Chapada are classified as Proven and Probable Mineral Reserves.

Factors which may affect the Mineral Resource and Mineral Reserve estimates include: dilution and mining recovery, metal prices, smelter, refining and shipping terms, metallurgical performance, geotechnical characteristics of the rock mass, capital and operating cost estimates, and the likelihood of obtaining land title,

required permits and environmental, social and legal licenses. To the extent such factors are within the control of or capable of influence by the Company, these factors are managed through industry accepted practices and procedures and well as maintaining an engaged and constructive dialogue with the local communities and government authorities.

Details of the June 30, 2020 Mineral Resource and Mineral Reserve estimate for Chapada are included in Schedule A, attached to this AIF.

#### **ix. Mining Operations**

Chapada is a traditional open pit truck and shovel operation that has been in continuous operation since 2007. Production is currently entirely from Chapada, with three open pits in operation: Corpo Principal, Cava Norte, and Corpo Sul. These pits are planned to eventually join into a single pit and extraction of the Sucupira deposit is planned as an additional series of pushbacks.

The Chapada open pit has a current ultimate design dimensions of approximately 8 km along strike, up to 1.5 km wide, and 380 m deep.

Mine operations are carried out with a fleet of rigid frame haul trucks combined with a variety of diesel-powered hydraulic excavators and front-end loaders as the primary loading equipment. A fleet of large diesel-powered blast hole rigs are employed for production drilling. Blasting is required for all rock types except for unconsolidated material at surface.

The Suruca open pit mining area includes Suruca Oxide and Suruca Sulfide gold Mineral Reserves. The Suruca deposit is located approximately 7 km northeast of the Chapada open pit and final pit dimensions will be approximately 2 km along strike and approximately 1 km wide.

The Chapada LOM plan is based on the Mineral Reserves and a processing rate 24.0 Mtpa with the ore stockpile to be processed intermittently throughout the mine life. The current mine life is 24 years plus an additional eight years at the end of the mine life for processing the remainder of the ore stockpile.

#### **x. Processing and Recovery Operations**

The Chapada concentrator is designed to process copper sulfide ore at a nominal rate of 65,000 tpd for a total of 24.0 Mtpa. Ore is delivered from the mine by haul truck to one of two parallel lines of primary crushers. The first line consists of a primary gyratory crusher located adjacent to the pit. The discharge of the gyratory crusher is then conveyed to the feed bin of an MMD Sizer for secondary crushing. The second system consists of a Metso jaw crusher. Product from both crushing lines is transferred to the crushed ore stockpile. In 2020, copper and gold recoveries averaged 86.2% and 59.7% respectively and the average concentrate grades were 23.6% Cu and 12.8 g/t Au.

In late September 2020, processing activities were interrupted when the protection system at the operation's main electrical substation failed after the restoration of power following an outage, damaging all four SAG and ball mill motors. The operations progressively restored processing capacity, returning to full throughput in mid-December 2020.

Ore from the crushed ore stockpile is passed to a primary grinding circuit comprising a SAG and ball mill, with pebble crushing, that can be operated in either closed or open circuit. Ground cyclone classified material is passed to a rougher cleaner flotation circuit with concentrate regrind taking place in a Metso Vertimill. The scalper SFR cells along with the final cleaner column flotation cell supply concentrate to a conventional thickener and then a Larox filter press. The pressure filter reduces the concentrate moisture to approximately 8% before discharging it to a stockpile below. The concentrate is then loaded onto trucks and transported to the port of Vitoria for shipping.



Flotation tailings are pumped to the TSF, located to the north of the plant site using a two-stage pumping system and water from the tailings basin is recirculated back to the plant. Water percolating through the dam is pumped into the reservoir by a seepage pump circuit.

In 2018, a study and basic engineering report were commissioned, which combined the information gained from several studies regarding process plant upgrading, optimization and, ultimately, the expansion of the processing facilities from the current 24.0 Mtpa to approximately 32.0 Mtpa. This expansion has not been advanced but options for mine and mill expansions are being evaluated in parallel with the significantly increased exploration efforts. These expansion options will include the need to relocate some elements of the processing plant and site infrastructure in order to mine the Sucupira mineralization.

For Suruca, run of mine ore, which consists of oxide and sulfide mineralization, will be processed separately; the oxide ore will be processed using conventional heap leaching technology, and the sulfide ore will be processed in the existing concentrator after some modifications.

#### **xi. Infrastructure, Permitting and Compliance Activities**

Chapada has all the necessary infrastructure for a large open pit mine including truck shop, truck wash facility, warehouse, fuel storage and distribution facility, explosives storage and magazine sites, electrical power distribution and substations. The mine has stockpile areas for high-grade and low-grade ore and waste dumps. Mine and mill infrastructure, including core storage, office buildings, assay laboratory, and maintenance shops, is in place.

The mine is connected to the National Electric Grid through a privately owned 84 km long 230 kV transmission line connected to the CELG electric substation at the city of Itapaci, Goiás. The current power demand at Chapada is 46.5 MW.

Process water is returned from the TSF and held in a water reservoir adjacent to the process plant before use. Additional fresh water supplies for processing can be drawn from the nearby Rio dos Bois, if required.

The Chapada TSF is located to the immediate north of the plant site and consists of three dams: Main Dam, Dike II, and Dike III. The Main Dam starter dam was constructed from compacted local borrow material and has been subsequently raised, with Dike III, by the centerline construction method using the cyclone tailings to raise the downstream portion of the dam. Dike II is a water retention dam and is raised using local borrow materials, also by the centerline method. In 2020, the Main Dam had a crest elevation at 376 m. The crest has an average width of ten meters and is approximately five kilometers in length. All Dikes were constructed with foundation drains and Dike II is also equipped with a vertical chimney drain.

The original TSF design was for an ultimate crest elevation up to 382 m, with the tallest segment of the dam being 54 m with a base elevation of 328 m at the downstream toe. In 2020, a permit application was submitted requesting approval for the 382 m dam raise. This request will continue to be reviewed by the authorities in 2021.

To contain tailings for the LOM, the existing tailings facility is planned to be raised up to an elevation of 398 m, with a maximum proposed dam height of 70 m. The proposed TSF expansion will be constructed with the same cyclone sand dam and centerline methodology (Main Dike and Dike III). Since tailings are not being deposited from Dike II and it is a water retention dam, it will be raised using local borrow material also by the centerline method.

Environmental management and monitoring programs have been developed and are implemented for Chapada. The mine monitors surface and groundwater water quality, effluent water quality, meteorological inputs, erosion processes, geochemical characteristics of waste material, air quality, flora, terrestrial and aquatic fauna, environmental compensation areas and remediated areas.

Chapada develops environmental control reports, most recently on an annual basis, which are submitted for regulatory review.

A portion of the waste rock at the mine is Potentially Acid Generating (“**PAG**”). Accordingly, the mine operation segregates Non-Acid Generating waste from PAG waste and employs strategic placement of the PAG waste. Static testing results are incorporated in the geologic block model to aid in waste management planning. Seepage from the tailings dams and waste rock dumps is sampled regularly. Contact water collected from the mineral processing plant area is recirculated for operational use. Surface water from the waste rock piles evaporates, infiltrates and is released into the environment.

MMIC holds the mining rights related to the Chapada Mine, having succeeded and incorporated Mineração Alonte Ltda. on May 14, 1998. Mineração Alonte had succeeded Mineração Serras do Leste Ltda., in 1994.

The Environmental Impact Study and corresponding Environmental Impact Report were submitted in December 1996 to the former FEMAGO, currently the State Secretariat of the Environment – SEMARH – in accordance with the National Environmental Council (CONAMA) Resolution 001/86, Goiás State Environmental Agency (FEMAGO) Directives and the State Council for the Environment, along with preliminary and installation license applications. Preliminary license No. 013/99 was issued to MMIC, along with requisite installation licenses issued under No. 171/2001. The Preliminary license was renewed in June 2000 and its registration number was updated to 009/2000. The installation license was renewed in July 2006 and its registration number was updated to 287/2006.

The operating license was obtained on November 20, 2006, and renewed on September 29, 2008, with additional renewal intervals as per the terms of the regulating body. The most recent renewal was obtained in August 2012 carrying a valid term to 2022 as per process 20027/2009. Currently, this license is being updated, to consolidate several expansion/construction permits with corresponding requirements into a single instrument (Unification License). Draft conditions were received in October 2020 and should be agreed with Goiás Secretary of State for Environment and Sustainable Development (SEMAD) in 2021. In addition, an installation license for the southwest pit was received in the first quarter of 2021.

Chapada Mine’s health and safety management system is currently OHSAS 18001 certified, which is expected to be converted to ISO 45001 in 2021. The ISO 45001 certification audit will be conducted by Bureau Veritas and is planned to be completed during the first half of 2021. Chapada has a valid mine closure plan, which is updated periodically. The closure plan is submitted every five years to the State Environmental Agency with the next version expected to be submitted following final approval of the Unification License.

Chapada demonstrates strong integration with the local community through stakeholder engagement, a grievance mechanism and direct investment. The primary sources of investment are through taxation, local jobs, procurement, and community investments.

In 2018, Chapada voluntarily partnered with the Commonwealth Scientific Industrial Research Organization based out of Australia to incorporate a Social License to Operate (SLO) index. The SLO is intended to benchmark efforts made to integrate social performance and continued engagement with the local community. During 2019, follow up reporting indicates that Chapada continues to be accepted by the local community and is responding to feedback on improvements.

**xii. Capital and Operating Costs**

As previously reported in the Company's MD&A, total forecast Chapada cash costs for 2021 are tabulated below using a forecast US dollar/BRL exchange rate of 4.75. Unit operating costs for 2021 are forecast to be \$1.10/lb Cu, assuming a gold by-product credit price of \$1,700/oz.

<b>Chapada (\$/lb Cu)<sup>(1)(2)</sup></b>	<b>2021 Forecast</b>
Mining costs	0.85
Milling costs	0.65
G&A and other costs	0.55
TC/RCs	0.20
By-product credit, net of TC/RCs	(1.15)
<b>Cash cost per payable pound of copper</b>	<b>1.10</b>

(1) Cash costs are calculated on a by-product basis and do not include the effects of copper stream agreements.

(2) Cash costs are based on various assumptions and estimates, including but not limited to: production volumes, commodity prices, foreign exchange rates, TC/RCs and operating costs.

As previously reported in the Company's MD&A, total forecast capital expenditures for Chapada for 2021 are tabulated below. Sustaining capital expenditures include \$10 million for mine equipment and \$15 million for raising the TSF and water management systems. Also included are amounts for discretionary exploration land acquisitions which will be dependent on the availability of desired areas and whether agreements can be reached with owners.

<b>Chapada</b>	<b>Unit</b>	<b>2021 Forecast</b>
Mobile equipment	\$M	10.0
TSF and water management	\$M	15.0
Other sustaining	\$M	20.0
Capitalized stripping	\$M	20.0
<b>Total</b>	<b>\$M</b>	<b>65.0</b>

The Company capitalizes waste stripping costs when experienced strip ratios are above the average planned strip ratio for each area of the open pit under development. During the production phase waste stripping costs, which provide probable future economic benefits and improved access to the orebody, are capitalized to mineral properties.

**xiii. Exploration, Development and Production**

During 2021, the planned exploration program at Chapada is expected to total 60,000 m of diamond drilling. Following the acquisition of Chapada, Lundin Mining undertook an exploration targeting review and proposed a significant increase in exploration expenditures in the first three years, largely focused on near mine targets. Forecast expenditures in 2021 will be approximately \$8.0 million. The 2021 program will focus on drilling, geophysics and a structural geology study.

In 2020, Chapada produced 50,038 tonnes of copper and approximately 87,000 ounces of gold in concentrate. As previously reported in the Company's MD&A, for 2021 production is forecast as tabulated below.

<b>Chapada</b>	<b>Unit</b>	<b>2021 Forecast</b>
Copper production	'000 Tonnes	48 – 53
Gold production	'000 Ounces	75 – 80

The current forecast LOM of the Chapada open pit and stockpiles is to 2052. The Suruca Oxides have a potential 6 year LOM while the Suruca Sulfides have a LOM of 7 years.

## **C. EAGLE MINE**

The Eagle Mine is located in Michigamme Township within Marquette County in the Upper Peninsula of Michigan, U.S.A. Eagle Mine, including Eagle East, is 100% owned by Lundin Mining. The scientific and technical information in the following section has been derived, in part, from the Eagle Report. The Eagle Report is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

### **i. Project Description, Location and Access**

The property is on the watershed divide of the Yellow Dog River and Salmon Trout River. The closest community to the mine site is Big Bay, 24 km from the property by road. Big Bay is an unincorporated community within Powell Township, Marquette County and has limited services. The closest full-service community is Marquette, approximately 53 km by road from the property. Marquette provides a regional airport, rail and shipping facilities, and a full range of commercial services.

The Humboldt mill property, a former iron ore processing facility, occupying approximately 142 ha, is located approximately 61 km west of Marquette, Michigan. The facility is located in the township of Humboldt, Marquette County, Michigan. Ore from the Eagle Mine is trucked approximately 105 km to the Humboldt mill for processing.

Road access to the mine property is by means of paved roads from the communities of Big Bay to the east, and Marquette to the south. The Humboldt mill is located close to the main U.S. Route 41.

The surface of the Eagle Mine is on Company owned property and property leased from the State of Michigan. The surface lease is valid until July 2023 but is extendable by production and reclamation/post closure monitoring requirements. The land on which the Humboldt mill is located is held by the Company through a series of deeds. The Eagle and Eagle East mineral deposits are covered by both state and private mineral leases with the Mineral Resource estimates split approximately 50:50 between them. The state leases expire in July 2023 but are extendable by production, while the private leases have various expiry dates that are extendable by continued payments or production. Eagle Mine has obligations under state and private royalty agreements ranging from 1.0% to 7.0%.

### **ii. History**

The Eagle deposit was first drilled in 2002 as part of a nickel exploration program commenced by Rio Tinto in 2000. Subsequent to further drilling, an initial Mineral Resource was estimated in early 2004.

Following further drilling, feasibility studies, and the receipt of all relevant permits Rio Tinto began construction of the Eagle Mine site in 2010 and began underground development in September 2011. The re-construction work at the Humboldt mill also commenced in 2011.

In July 2013, Lundin Mining acquired the Eagle Mine project from Rio Tinto and accelerated construction activities. Construction was completed in mid-2014 and commercial production of nickel and copper concentrates was achieved in November of 2014.

In July 2015, the discovery of high-grade Ni-Cu mineralization at Eagle East was announced and in June 2016, an Inferred Mineral Resource estimate was released, and a Preliminary Economic Assessment published. Access ramp development was commenced at this time. In April 2017, the results of the Eagle East Feasibility Study were released, and a Mineral Reserve estimate was reported for the first time. First ore from Eagle East was extracted at the end of September 2019 and is currently being mined along with the Eagle deposit, according to the Eagle mine plan.

### **iii. Geological Setting, Mineralization and Deposit Type**

Eagle and Eagle East are part of the same ultramafic intrusive system that hosts high-grade primary magmatic Ni/Cu sulfide mineralization. These intrusions are related to the feeder system for the Keweenawan flood basalts, a Large Igneous Province resulting from mantle-tapping extension during the Midcontinent Rift. Mineralization styles are similar at Eagle and Eagle East, consisting of intrusions of mineralized peridotite with concentrations of sulfide mineralization, mostly within the intrusion, resulting in the accumulation of semi-massive sulfide, and a central core zone of massive sulfide.

The Eagle and Eagle East peridotite intrusions are hosted in Paleoproterozoic metasediments of the Baraga Basin, which rest unconformably on the Archean basement rocks. These sediments are assigned to the Upper Fossum Creek Unit and are mainly composed of an upper siltstone sequence with fine grained turbiditic greywacke sandstone interbeds. The principal host rocks are near-vertical dykes of pyroxene to peridotite composition, which strike in an east-west direction.

Eagle East is located deeper than the Eagle deposit and lies approximately 840 m to 990 m below surface. The host sediments encountered in the surroundings of the Eagle East mineralized zone are mainly siltstones with low proportions of sandstone interbeds. Bedding and foliation are the main structural features present in the sediments and represent the weakest planar orientation found.

Two types of potentially economic mineralization are found in the Eagle and Eagle East deposits: semi-massive sulfides and massive sulfides. The sulfide bodies are tabular, pipe-like, or irregular in shape and, although complexly interrelated, are broadly concordant with the host ultramafic. Contacts between the massive and semi-massive sulfides are relatively sharp. Massive sulfides are observed to extend outward of the host dykes, into the sedimentary country rock where they form flat-lying sills.

Most of the nickel is in pentlandite with a small portion in millerite group minerals and secondary violarite. The majority of pentlandite occurs in granular form with less than 1% to 2% as flame or exsolution lamellae. Copper is primarily in chalcopyrite with lesser secondary cubanite. The distribution of PGMs, gold, and cobalt is still poorly understood; however, assay and metallurgical test correlations indicate that the cobalt is associated with the pyrrhotite/pentlandite. PGMs and gold appear to be related to late-stage veining/intrusion and tend to be most abundant in areas with chalcopyrite enrichment. With the exception of cobalt, Eagle East is significantly higher in grade for both precious and base metals than Eagle. Average nickel and copper grade estimates are in the order of 60% higher at Eagle East compared to Eagle.

### **iv. Exploration**

Exploration activities at Eagle have included geological mapping, geochemistry (indicator mineral sampling and Mobile Metal Ion (MMI) studies from basal tills, dyke litho-geochemistry, sulfur isotope studies, QEMSCAN™ studies), and geophysics (airborne, surface, and underground borehole resistivity and gravity). The main and most successful exploration tool has been diamond drilling in combination with a very robust and predictive deposit model.

The mineralization is directly related to small, conduit style ultramafic intrusions. Using the conduit model, the mineralized peridotite conduit at Eagle East was followed to depth with directional drilling, to a location where the conduit flattened to horizontal and high metal tenor sulfide droplets had settled at the base of the conduit, forming the Eagle East deposit. Upon fully testing the extent of the Eagle and Eagle East peridotites, no additional favorable intrusions were identified.

Surface exploration was halted in late August of 2019. Exploration office closure and reclamation activities were completed in the fourth quarter of 2020.

**v. Drilling**

In 2020, underground drilling was conducted at Eagle East, and included 3,516 m in 15 infill holes focused on the West Extension zone of the intrusion, as well as 4,137 m in 23 step out holes testing the extent of the intrusion further west.

**vi. Sampling, Analysis and Data Verification**

The entire Mineral Resource estimate at Eagle and Eagle East is based on drill core samples.

Eagle follows documented protocols for core handling and sample preparation. The sampling takes place at both an exploration facility in Negaunee, and at the Eagle Mine site. Surface drill holes are split using a diamond saw, while for underground holes the entire core is sampled. In strongly mineralized intervals, quarter-core metallurgical samples are taken. The metallurgical samples are not used in Mineral Resource estimation.

Standardized protocols of QA/QC sample insertion using certified reference material, blanks, and duplicates have been used throughout the history of the Eagle project to monitor the quality of the sampling process and assay results. Standards are inserted every tenth sample, blanks also every tenth sample as well as after noticeably high-grade samples. Duplicates are taken every tenth sample, offset by four or five from the nearest standard.

Prior to 2003, drill core samples were shipped to ALS in Reno, Nevada, an independent laboratory, for crushing, splitting, and pulverization. From 2004 to 2015, samples were prepped for analysis at ALS in Thunder Bay, Ontario, an independent laboratory, and from 2015 onwards, some of the samples have been sent to Minerals Processing Corporation (MPC), located in Carney, Michigan, an independent laboratory. From 2018 onwards, underground drill samples were shipped to ALS in Thunder Bay for full sample preparation and analysis.

Sample preparation takes place at either the ALS laboratory in Thunder Bay, Ontario, or at MPC. Both facilities have standard procedures and quality controls for sample preparation to ensure compliance with industry and client standards. Pulps are sent to the ALS laboratory in Vancouver, British Columbia for analysis. Samples are analyzed for multi-elements, oxides and SG.

In each case, established procedures were used to ensure the security of samples during transportation between the drill rig and the laboratories. Quality assurance procedures, data verification and assay protocols used in connection with drilling and sampling conform to industry accepted quality control methods.

**vii. Mineral Processing and Metallurgical Testing**

Eagle maintains regular metallurgical testing programs that are incorporated with historical testing results and mill performance into a statistical model to predict and improve the complex's processing performance in terms of mill throughput, metal recovery to concentrates, and final concentrate grades. Metallurgical tests are executed in a number of specialized in-house and commercial facilities. Testing includes work index determination, mineralogy using optical and QEMSCAN™ technology and bench scale flotation testing that is correlated with industrial scale performance in order to predict mill throughput and metallurgical performance.

Metallurgical test work was conducted on the Eagle East sulfide mineralization to confirm the applicability of the Humboldt mill process flowsheet for grinding, flotation and metal recovery. This test work, which was carried out on and off site consisted of mineralogical analyses, batch grinding and flotation testing and locked cycle testing. The test work indicated that the Eagle East mineralization could be successfully treated in the Humboldt mill.

**viii. Mineral Resource and Mineral Reserve Estimates**

Mineral Resources at Eagle are estimated using 3D block modelling with Maptek Vulcan® mining software. Mineral Resources at Eagle East are estimated using Leapfrog Edge software. Grades and density values were estimated using the Ordinary Kriging method for both deposits.

The Eagle and Eagle East Mineral Reserves are estimated from the Mineral Resources by designing stopes and sill layouts using Deswik Stope Optimizer software. A separate NSR cut-off is applied to the two orebodies together with dilution and mining recovery factors.

Factors which may affect the Mineral Resources and Mineral Reserve estimates include: dilution and mining recovery, metal prices, smelter, refining and shipping terms, metallurgical performance, geotechnical characteristics of the rock mass, capital and operating cost estimates, and the likelihood of obtaining land title, required permits and environmental, social and legal licenses.

Details of the June 30, 2020 Mineral Resource and Mineral Reserve estimate for Eagle and Eagle East are included in Schedule A, attached to this AIF.

#### **ix. Mining Operations**

Eagle is a relatively shallow underground mine with access gained via a surface ramp that also serves as the route for waste, ore and backfill haulage. The mine employs transverse bench-and-fill stoping with mining in an up-dip primary secondary sequence. Backfilling is undertaken using cemented and uncemented rockfill. The bench and fill mining method with backfill was selected as it provides the advantages of bulk mining, while maintaining a degree of selectivity and flexibility for the high value, variable and generally competent Eagle mineralization. Two ventilation shafts are in place, with the downcast shaft also equipped for emergency egress. Ore from the mine is stored in a covered coarse ore stockpile facility prior to transport by road 105 km to the Humboldt mill site.

Eagle East is accessed by a ramp from the bottom of the Eagle Mine, with the mine services and infrastructure extended from Eagle. Eagle East required no new surface infrastructure and uses the cut and fill, and long-hole stoping mining methods. Ore, waste and backfill are hauled through the ramp in conventional mine trucks.

#### **x. Processing and Recovery Operations**

The Humboldt mill is a former iron ore processing plant that has been converted for processing Eagle ore. From a covered coarse ore storage facility, the ore is processed using a conventional three stage crushing and single stage ball milling process followed by differential flotation to produce separate nickel and copper concentrates. Metallurgical recoveries of nickel and copper average 84% and 97% respectively. Tailings from the plant are deposited sub-aqueously in the adjacent former Humboldt iron ore open pit. No modifications to the process plant were necessary for the treatment of the Eagle East ore, which is blended with that from Eagle over the remaining LOM.

Nickel and copper concentrates are stored in a covered concentrate building on site prior to being transported via rail car direct to smelter facilities within North America.

#### **xi. Infrastructure, Permitting, and Compliance Activities**

The Eagle Mine and Humboldt mill areas are accessible via an extensive and established network of paved roads, a regional airport, rail services, excellent telecommunications facilities, national grid electricity, an ample supply of freshwater and a highly educated work force. Eagle concentrate is transported offsite from the mill by rail to a central CN rail yard in Michigan, where it is staged for on-transportation by rail to smelters in Canada.

Both the mine and mill operate under several local, state and federal permits. All permits are in place for the mine and mill operations, and Eagle has maintained compliance with the corresponding requirements. In addition to adhering with all legal requirements, Eagle Mine operates under Lundin Mining's Responsible Mining Management System and corresponding health, safety and environment system standards. This system undergoes third-party auditing to ensure continued compliance with those standards and additional guidance documents.



The Eagle Mine groundwater discharge permit renewal submission, a routine process required every 5 years, was submitted to the Michigan Department of Environment, Great Lakes and Energy (“EGLE”, formerly the Michigan Department of Environmental Quality) in 2017 and continues to be under review in 2021. The Humboldt mill NPDES surface water discharge permit renewal application, also a routine process required every 5 years, was submitted in 2019 with the review process also continuing into 2021. Permit applications for both the mine and mill air permits were submitted to the EGLE for minor modifications in 2019 and approved in the second quarter of 2020.

The social performance team engages with all stakeholders that are impacted by the operations, primarily in the communities nearest to the mine and mill. An outreach office is located in downtown Marquette to increase the opportunity for direct communication. Engagement occurs throughout the year and is focused on managing social impacts, risks and opportunities. The team operates under Lundin Mining’s Responsible Mining Management System and bases their activities on a 5-year social performance strategic plan. The systems utilized reflect best practices in stakeholder engagement, grievance procedures, risk management and community investment.

The Community Environmental Monitoring Program, successfully renegotiated in 2019, is an ongoing initiative that provides a local environmental NGO and the Keweenaw Bay Indian Community access to the sites for collecting third party environmental data. As a result of these and other engagements and community investments, Eagle Mine has sustained strong stakeholder relationships and promoted socioeconomic development in the communities nearest to the mine.

Eagle is currently expected to permanently cease operations in 2025. While there is no regulatory requirement in Michigan for Eagle to periodically submit mine closure plans, there is a requirement to submit a final mine closure plan for the TSF at the Humboldt mill prior to cessation of operations. Mine closure planning at Eagle is routinely refined and integrated with the remaining LOM plan.

**xii. Capital and Operating Costs**

As previously reported in the Company’s MD&A, total forecast Eagle cash costs for 2021 are tabulated below. Forecast cash costs for 2021 are \$0.50/lb Ni, assuming a Cu by-product credit priced at \$2.95/lb.

<b>Eagle (\$/lb Ni)<sup>(1)</sup></b>	<b>2021 Forecast</b>
Mining costs	2.10
Milling costs	0.99
G&A and other costs	1.75
TC/RCS	0.01
By-product credit, net of TC/RCS	(4.35)
<b>Cash cost per payable pound of nickel</b>	<b>0.50</b>

*(1) Cash costs are based on various assumptions and estimates, including but not limited to: production volumes, commodity prices, foreign exchange rates, TC/RCS and operating costs.*

As previously reported in the Company’s MD&A, total forecast capital expenditures for Eagle for 2021 are tabulated below. Approximately half of the capital is for underground mine development and equipment and the remainder for mill water treatment plant upgrades.

<b>Eagle</b>	<b>Unit</b>	<b>2021 Forecast</b>
Underground mine equipment and development	\$M	8.0
Mill water treatment plant	\$M	7.0
<b>Total</b>	<b>\$M</b>	<b>15.0</b>



**xiii. Exploration, Development, and Production**

The 2021 underground drilling campaign will focus on Eagle East and will include 7,210 m of infill drilling, plus an additional 4,485m of infill drilling along the upper keel of the intrusion.

In 2020, Eagle produced 16,718 tonnes of nickel in concentrate and 18,663 tonnes of copper in concentrate. As previously reported in the Company's MD&A, for 2021, forecast production is as tabulated below.

<b>Eagle</b>	<b>Unit</b>	<b>2021 Forecast</b>
Nickel production	'000 Tonnes	15 – 18
Copper production	'000 Tonnes	17 – 20

The current mine life of Eagle is to 2025.

## **D. NEVES-CORVO MINE**

The Neves-Corvo Mine is located in Portugal and is owned and operated by the Portuguese company Somincor, which is a 100% owned subsidiary of Lundin Mining. The scientific and technical information in the following section has been derived, in part, from the Neves-Corvo Report. The Neves-Corvo Report is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

### **i. Project Description, Location and Access**

The Neves-Corvo Mine is situated approximately 220 km southeast of Lisbon in the Alentejo Region of southern Portugal. The mine site is located approximately 15 km southeast of the town of Castro Verde and exploits five major orebodies from an underground mine. The ore is processed on-site, and tailings are disposed of in the Cerro de Lobo impoundment approximately 3 km from the plant. Concentrates are dispatched by rail and road for onward shipping to customers.

Neves-Corvo has good connections to the national road network which links with Faro to the south and Lisbon to the north. The mine has a dedicated rail link into the Portuguese rail network and to the port of Setúbal.

There are a number of small villages with populations numbered in the hundreds located within the mining concession. Most employees travel to the mine by Company-provided buses or private cars.

The mining operation is contained within a mining concession contract between the Portuguese government and Somincor that, as of July 1, 2014, covers an area of 28.9 km<sup>2</sup> and is located in the parishes of Santa Bárbara de Padrões and Union parishes of Almodôvar and Graça dos Padrões, counties of Castro Verde and Almodôvar, district of Beja. The concession comprises the Neves-Corvo area with 13.5 km<sup>2</sup> and Area B (which includes the Semblana deposit) with 15.4 km<sup>2</sup>. The concession provides the rights to exploit the Neves-Corvo deposits for copper, zinc, lead, silver, gold, tin and cobalt for an initial period of fifty years (from November 24, 1994) with two further extensions of twenty years each. The mining concession provides sufficient surface rights to accommodate the existing mine infrastructure and allow expansion if required.

An exploration concession of 141 km<sup>2</sup> that surrounds the combined Neves-Corvo mining concession and exploration targets in the counties of Castro Verde, Almodôvar and Mértola district of Beja was granted to Somincor on June 28, 2018 and is valid for an initial period of three years with one extension of two years – which extension will require a reduction of the exploration concession size by 25%. The Company anticipates filing for this two-year extension in the second quarter of 2021.

Royalties for the Neves-Corvo area of the mining concession are either a profit-related royalty of 10%, or a revenue-based royalty of 1% (at the government's discretion). Royalties on Area B (which includes the Semblana deposit) are a 4% revenue-based royalty for copper and associated payable metals, 3.5% for zinc and associated payable metals and for any other metals. The royalty payments due by Somincor may be reduced by between 2% and 6% of Somincor expenditure on mining related research, social, environmental or archaeological projects and the granting of scholarships.

### **ii. History**

The Neves-Corvo ore bodies were discovered in 1977. The Portuguese company Somincor was established to exploit the deposit and by 1983, the Corvo, Graça, Neves and Zambujal sulfide deposits had been partially outlined, covering an area of approximately 1.5 km by 2 km. Rio Tinto became involved in the project in 1985, effectively forming a 49%/51% joint venture with the Portuguese government-owned company EDM. The project was reappraised with eventual first production commencing from the Upper Corvo and Graça orebodies in January 1989.

During the development of the mine, high-grade tin ores were discovered, associated with the copper mineralization, which led to the rapid construction of a tin plant that was commissioned in 1990.

The railway link between Neves-Corvo and Setúbal was constructed between 1990 and 1992 for the shipment of concentrates and the hauling of sand for backfill on the return journey. This was followed between 1992 and 1994 by a major mine deepening exercise to access the Lower Corvo orebody through the installation of an inclined conveyor ramp linking the 700 and 550 levels.

In June 2004, EuroZinc acquired a 100% interest in Somincor for consideration of €128 million. In October 2006, EuroZinc merged with Lundin Mining and the Lundin Mining name was retained.

In January 2005 an agreement was signed between Somincor and EDM whereby EDM retained the right to acquire up to 15% in mining projects located in Somincor exploration concessions outside the original mining concession area A, which right it exercised in 2014 as described further below.

In 2006, zinc production was commenced at Neves-Corvo with processing through the modified tin plant. In June 2007, Wheaton PMC agreed to acquire 100% of the life-of-mine payable silver production from the mine, within the limits of the original concession, as the mine produces around 0.5 million ounces of silver per year in copper concentrate. Zinc production was suspended in November 2008 due to the low prevailing zinc price. In September 2009, the decision was made to expand the zinc plant to a design capacity of 50,000 tpa zinc in concentrate and first zinc production was achieved from the expanded plant in mid-2011.

In mid-2009, a copper tailings retreatment circuit was commissioned to recover both copper and zinc, and in late 2010, tailings disposal changed from subaqueous to paste methods at the Cerro do Lobo facility.

In October 2010, the copper rich Semblana deposit was discovered 1 km to the northeast of the Zambujal copper-zinc orebody within the Castro Verde exploration concession. In December 2011, following extensive diamond drilling, an initial Inferred Mineral Resource estimate was published, which was further updated in June 2012. A pre-feasibility study of the Semblana Project was delivered to EDM in August 2013.

As noted above, in 2014, EDM exercised its right to a definitive 15% interest in Area B (which includes the Semblana deposit), an area that was previously known as the Castro Verde exploration concession. Pursuant to the agreement, EDM is entitled to participate in such projects by means of an interest-bearing carried interest loan to be funded by Somincor and is repayable from the pro rata profits attributable to EDM. Somincor retains a right of first refusal should EDM attempt to sell its interest. No further work has taken place on the Semblana Project since the pre-feasibility study was completed in 2013.

An updated Feasibility Study examining an expansion of the zinc operations to 2.5 Mtpa throughput was completed early 2017 and the project approved in May 2017. The Zinc Expansion Project contemplates increasing zinc mining and processing capacity from 1.1 to 2.5 Mtpa generating an average of 150,000 tpa of zinc in concentrate over 10 years. Approval of the ZEP EIA was granted in July 2017, with engineering and underground work commencing thereafter. Construction activities on the ZEP project were temporarily suspended from March 2020 as a result of the COVID-19 pandemic. Limited works were completed during the year and at year end work had restarted on ventilation raises and the SAG mill and surface conveyors had been commissioned with waste rock.

Restart of ZEP commenced in early January 2021 with plans to mobilize a smaller number of contractors with an extended schedule to advance the project given the current COVID-19 health and safety requirements for social distancing and other personnel limitations. A phased commissioning approach is expected to be completed in 2021 with production ramp up planned to occur in the fourth quarter. Total pre-production capital is estimated at \$430 million (€360 million).

### **iii. Geological Setting, Mineralization and Deposit Types**

Neves-Corvo is located in the western part of the Iberian Pyrite Belt (IPB), which stretches through southern Spain into Portugal and which has historically hosted numerous major stratiform volcano-sedimentary massive sulfide deposits. At the base, the IPB consists of a pre-orogenic sequence of shales and arenites (phyllites and quartzites)

conformably overlain by a 200 m to 700 m thick volcanic-sedimentary succession, the Volcanic Siliceous Complex (VSC) of Late Devonian-Early Carboniferous age, 360-342 Ma. The VSC comprises fine grained clastic sediments and felsic to mafic (bimodal) volcanic rocks. The entire sequence shows pervasive hydrothermal alteration.

The Neves-Corvo deposits occur within the VSC. Overlying the mineralization, there is a thrust-faulted repetition of volcano-sedimentary and flysch units. The whole assemblage has been folded into a gentle anticline-oriented northwest to southeast plunging to the southeast, resulting in orebodies distributed on both limbs of the fold. All the deposits have been affected by both sub-vertical and low angle thrust faults, causing repetition in some areas.

The mineral deposits at Neves-Corvo are classified as volcano-sedimentary massive sulfide. They typically occur as lenses of polymetallic (Cu, Zn, Sn, Pb) massive sulfides that formed at or near the seafloor in submarine volcanic environments. They formed from accumulations of the focused discharges of hot metal-enriched fluids associated with seafloor hydrothermal convection, typically in tectonic areas of active submarine volcanism, including rift spreading centers and island arc subduction zones.

Six massive sulfide lenses have been defined at Neves-Corvo comprising Neves, Corvo, Graça, Zambujal, Lombador and Semblana. The base metal grades are segregated by the strong metal zoning into copper, tin and zinc zones, as well as barren massive pyrite. The massive sulfide deposits are typically underlain by stockwork sulfide zones, which form an important part of the copper orebodies.

The mineralized zones lie on both flanks of the Roário-Neves-Corvo anticline. The mineralized zones of Neves, Corvo, Graça, Zambujal and Lombador are connected by thin massive sulfide "bridges" over the crest of the fold and are conformable with the stratigraphy. Within the area of these five main deposits, this has resulted in an almost continuous complex volume of mineralized rock showing a large range in both style of mineralization and geological structure.

The Corvo orebody lies between 230-800 m below surface, dips to the northeast at 10-40° and has a strike of approximately 600 m. The orebody attains a maximum thickness of 95 m and consists of a basal layer of copper ore up to 30 m thick, overlain by barren pyrite containing intermittent lenses of copper mineralization.

The Graça orebody is up to 80 m thick, extends for 700 m along strike, 500 m down dip and ranges in depth below surface from 230-450 m. The orebody is linked to Corvo by a bridge of thin continuous sulfide mineralization. As with Corvo, much of the copper ore occurs as a basal layer overlain by barren pyrite in which there are also intercalations of copper ore.

The Neves deposit consists of two lenses of mineralization, joined by a thin bridge, which dip north at 0-35°. The maximum true thickness is 55 m with a strike length of 1,200 m and 700 m down dip. The southern lens, Neves South, contains mostly of zinc ore with significant lead, silver and copper grades and minor barren pyrite, underlain by copper ore, which is locally tin-bearing.

The Zambujal orebody comprises significant copper and zinc mineralization straddling the crest of the Neves-Corvo Anticline. It has a thickness of 53 m and plan dimensions of 550 m on strike and 600 m on dip. It contains a succession of zinc rich lenses containing some massive copper mineralization.

The Lombador deposit is the largest of the five massive sulfide deposits at Neves-Corvo situated on the north-eastern flank of the anticline. It is located at a depth of 400 m at its western end and extends down to a depth of 1,200 m below surface. It dips to the northeast at approximately 35° but steepens at depth and has a shallow plunge to the northwest. The sulfide lens has dimensions of up to 15 m in thickness and extends for approximately 1,400 m down dip and at least 1,600 m along strike.

The Semblana deposit is almost flat and has a gentle dip (15-20°) to the north and is located at a depth of 790 m below surface. Most drill holes have intersected copper bearing stockwork mineralization, although several small zones of massive copper in lenses have also been identified. The massive copper zone measures approximately

150 m north to south and 100 m east to west, although it is open to the east and west. Stockwork occurs as one continuous zone measuring approximately 700 m north to south and 250 m east to west.

#### **iv. Exploration**

Exploration surrounding the Neves-Corvo Mine has focused on the search for further blind massive sulfide deposits. Exploration techniques employed by Somincor at Neves-Corvo include soil geochemistry, geological mapping and various geophysical techniques including magnetics, gravity, electromagnetic and seismic surveys, in addition to exploration drilling.

In the first quarter of 2020, two holes totaling 3,735 m were drilled on the exploration concession, targeting geophysical targets. No subsequent drilling was conducted during 2020, although a gravity survey was completed on the northwestern portion of the exploration lease. Exploration work was curtailed in the second quarter of 2020 in response to travel and budgetary restrictions resulting from the COVID-19 pandemic.

#### **v. Drilling**

Drilling is undertaken using both surface and underground drilling methods. Underground drilling is a continuous activity at Neves-Corvo focusing on the delineating and upgrading of existing Mineral Resource estimates as well as the exploration of peripheral Inferred Mineral Resource estimates. Surface drilling campaigns have been important over the years in stepping out beyond the limits of underground development to explore extensions to mineralization. Underground drilling is typically undertaken on 35 m spacing, whereas surface drilling is typically undertaken on 70 m to 100 m spacing or greater.

Underground production drilling was largely executed with a 10 m spacing between sections in order to better define the shape and grades of the production panels. As a standard procedure, drill holes are surveyed with a Reflex EZ-Shot tool at 30 m intervals, which provides an accurate location of the drill intersections.

In 2020, underground diamond drilling consisted of 364 production holes totaling 27,551 m and 27 evaluation holes totaling 6,469 m, for a total of 34,020 m. The evaluation holes completed the Zambujal East extension program from 2019 and focused on the Neves North – Lombador connection. The evaluation drilling program was curtailed in the second quarter of 2020.

#### **vi. Sampling, Analysis and Data Verification**

The sampling methodology, preparation and analyses differ depending on whether the sample is drill core or face sample. All samples are collected by Somincor geological staff with all sample preparation and analysis currently undertaken at the Neves-Corvo Mine site and laboratory.

Sample preparation is conducted at the Neves-Corvo sample preparation facility located within the mine site for all samples with the exception of drill core from the Semblana exploration drilling where sample preparation was undertaken at the ALS laboratory in Seville, Spain, an independent laboratory.

Sample analysis is conducted at the Neves-Corvo analytical laboratory located within the mine site for all samples with the exception of drill core from the Semblana exploration drilling. Following sample preparation at ALS, Seville, the Semblana samples were then sent for analysis at ALS, Vancouver, an independent laboratory.

Laboratory samples were historically analyzed using Atomic Absorption and X-Ray Fluorescence (“**XRF**”) methods. Since April 2011 analysis by Inductive Coupled Plasma (“**ICP**”) is also undertaken. Assay results based solely on the XRF analysis for Cu, Pb, Zn, S, Fe, As, Sn, Sb, Bi, Se and In are used for the purposes of Mineral Resource estimation.

Sample collection and transportation of drill core and face samples is undertaken by Somincor Geology Department staff. Somincor conduct a comprehensive QA/QC program by the routine insertion of certified

reference material, blanks and duplicates to monitor the sampling, sample preparation and analytical process. Analysis of QA/QC data is made to assess the reliability of sample assay data and the confidence in the data used for the estimation.

Data entry, validation, storage and database maintenance is carried out by Somincor staff using established procedures. All data are stored in a central SQL database located at the Neves-Corvo Mine offices. The SQL database has a series of automated validation tools during import and export for error identification.

Industry standard exploration drill core splitting, sampling, insertion of quality control samples and density measurement protocols and procedures are in place at Neves-Corvo. In addition to drill core sampling, underground grade control sampling is carried out using face sampling in the areas subject to drift-and-fill mining and short diamond drill holes in the bench-and-fill areas. Samples are prepared on-site and analyzed at either the mine's fully accredited assay laboratory facility or by the independent ALS Chemex laboratory in Vancouver, Canada.

Data verification, sample security and QA/QC procedures that conform to industry standards are in place at Neves-Corvo. All drill cores are logged and photographed, and the cores and sampling splits are stored on-site, except for production holes where the entire core, is crushed and sent to be assayed. Traceability records prevent errors of identification and ensure sample history can be followed.

### **vii. Mineral Processing and Metallurgical Testing**

Neves-Corvo maintains regular metallurgical testing programs that are incorporated with historical testing results and mill performance into statistical models to predict and improve the complex's processing performance. Model outputs are mill throughput, grind requirements, metal recovery to concentrate, and final concentrate grade. Metallurgical tests are executed in a number of specialized in-house and commercial facilities. Testing includes milling work indices, mineralogy using optical QEMSCAN<sup>TM</sup> and MLA techniques and bench scale flotation testing that is correlated with industrial scale performance in order to predict mill throughput and metallurgical performance.

A comprehensive suite of metallurgical test work programs and studies were completed as a part of the ZEP Feasibility Study. These studies included mineralogical, comminution and flotation programs on representative samples obtained from drill core. These programs were carried out at Somincor and third-party facilities demonstrating that acceptable zinc recoveries and concentrate specifications could be achieved from the proposed processing circuit.

### **viii. Mineral Resource and Mineral Reserve Estimates**

Mineral Resources at Neves-Corvo are estimated using three-dimensional interpretation and modelling methods with calculations performed using specialized software Leapfrog<sup>®</sup> and Vulcan<sup>®</sup> 3D. The Ordinary Kriging method of interpolation is used to estimate metal grades and a multiple regression formula using the estimated sulfur and iron grades is used to estimate density.

Mineral Reserves are estimated by the Neves-Corvo Mine planning department primarily using Deswick software. Stopping volumes are cognizant of the method of access to allow for the cut-off grade boundary and include an allowance for planned and unplanned dilution and ore loss. An effective minimum mining width of 5 m is applied.

The Semblana Mineral Resource was modelled and estimated using Datamine Studio software. Metal grades were estimated using Ordinary Kriging or inverse distance weighting. Bulk density was estimated using inverse distance weighting.

Factors which may affect the Mineral Resource and Mineral Reserve estimates include: dilution and mining recovery, metal prices, smelter, refining and shipping terms, metallurgical performance, geotechnical characteristics of the rock mass, capital and operating cost estimates, and the likelihood of obtaining land title,

required permits and environmental, social and legal licenses. To the extent such factors are within the control of or capable of influence by the Company, these factors are managed through industry accepted practices and procedures and well as maintaining an engaged and constructive dialogue with the local communities and government authorities.

Details of the June 30, 2020 Mineral Resource and Mineral Reserve estimates for Neves-Corvo and Semblana are included in Schedule A, attached to this AIF.

#### **ix. Mining Operations**

Neves-Corvo is a major underground mine. The principal means of mine access are provided by one vertical 5 m diameter shaft and a ramp from surface. The shaft is used to hoist ore from the 700 m level. The surface is nominally 1,220 m above datum, or 220 mamsl. A conveyor decline descends from the 700 m level to the 550 m level and provides ore transport from the deeper levels of the mine. The mine is highly mechanized, and a number of different stoping methods are employed but the most significant are bench-and-fill, uphole longhole stoping, and drift-and-fill. Backfill is provided by hydraulically placed sand, paste tailings and internally generated waste rock.

New mine infrastructure for ZEP includes a new crusher station on the 260 m level, a conveyor system connecting this to the 700 m shaft hoisting facilities, an upgrade to the main hoisting shaft together with extensions to the mines ventilation, pumping and electrical distribution systems. Much of the zinc ore for the ZEP will be mined in deep areas of the Lombador orebody using primarily bench and fill mining methods, with limited amounts of drift and fill.

#### **x. Processing and Recovery Operations**

The treatment facility at Neves-Corvo comprises two processing plants. The copper plant processes copper ores and has a maximum capacity of approximately 2.7 Mtpa and the zinc plant, which treats zinc or copper ores, was expanded to 1.1 Mtpa capacity during 2011. Both processing plants comprise conventional crushing, rod and ball mill grinding circuits with flotation cells and concentrate thickening and dewatering. In mid-2009, modifications to the copper plant were completed to regrind and recover additional copper and zinc concentrate from the copper tailings stream. A similar modification to the zinc plant was commissioned in late 2014.

Modifications to the existing zinc plant for the ZEP project include new surface stockpile and feeder facilities, an expanded grinding circuit including a new SAG with reconfiguring of an existing Vertimill as the secondary mill, expanded flotation capacity, expanded zinc and lead thickeners and filters and associated expansions and upgrades to ancillary services.

Copper and zinc concentrates are transported by rail to a dedicated port facility at Setúbal, Portugal, from where they are shipped to smelter customers. Lead concentrate is containerized and trucked to ports for overseas shipment.

Tailings disposal was changed from subaqueous to sub-aerial paste deposition during 2010 following approval by the Portuguese authorities. Tailings are thickened and pumped from a facility located at the Cerro de Lobo tailings impoundment, 3 km from the mine site. Expansion of the paste tailings thickening and distribution facilities to accommodate the additional tailings from the expanded zinc processing plant, along with provision for additional process reclaim water pumping capability, were well advanced by the end of 2020. Construction of a new southern expansion of the TSF will commence in 2021.

Copper, zinc and lead concentrates from the mine are sold to a variety of smelter customers that are primarily European based. Multi-year sales contracts are normally agreed upon with these customers for the majority of the production volumes and treatment, refining and penalty charges are typical of those for copper, zinc and lead sulfide concentrates.



## **xi. Infrastructure, Permitting and Compliance Activities**

The Neves-Corvo Mine is in an area of southern Portugal that is easily accessible via a dedicated railhead to the mine site, excellent roads, a major highway within 25 km, and an international airport at Faro, approximately 80 km to the south.

Fresh water is supplied to the mine via a 400-mm diameter pipeline from the Santa Clara reservoir, located approximately 40 km west of the mine. Supply capacity is 600 m<sup>3</sup>/hour and storage facilities close to the mine hold 30 days' supply requirements. The total water requirement for the mine and plant is estimated at over 1,000 m<sup>3</sup>/hour, with up to 95% of the volume being reused. The mine is connected to the national energy grid by a single 150 kV, 50 MVA rated, overhead power line, approximately 22.5 km in length.

Neves-Corvo operates under an Integrated Pollution Prevention and Control License, that was granted by the Portuguese Environmental Agency, Agência Portuguesa do Ambiente, in 2008. It has been renewed twice and is valid until May 2025. The license includes conditions covering environmental management systems, tailings and waste rock disposal, water and energy consumption, emissions to the atmosphere, emissions to water courses and water treatment, noise, industrial waste disposal, seismic events, emergency and closure planning.

Key environmental issues being managed by the mine include the acid-generating potential of the ore and waste rocks; the proximity of the Oeiras River to the mine site; the presence of an area groundwater system that is part of a significant aquifer, connecting to local water supplies and the Oeiras River; and the dispersal of dust and noise from the mine site. To support effective environmental management, Neves-Corvo is progressing various environmental studies, including a site-wide hydrogeological investigation.

In 2018, Neves-Corvo commenced the update of the MCP, a regulatory requirement to be completed every five years, including the review of closure costs to cover the final closure process. The next version of the mine closure plan is due to be submitted to the permitting agency in late 2022.

Neves-Corvo submitted an EIA in late November 2016 to the Portuguese authorities, in support of the ZEP. The ZEP EIA was reviewed and approved in July 2017. Following on the receipt of the EIA approval, a Relatório de Conformidade Ambiental do Projecto de Execução ("RECAPE") was submitted. The RECAPE is a detailed review of basic engineering data to confirm consistency with the project definition as presented in the EIA, with respect to environmental impacts. The project received regulatory approval, in 2018 and the associated Municipal Construction permit application package was also submitted to municipal authorities in December 2017 with approval received in early 2018.

Preparations for the ZEP-associated tailings facility expansion permitting process were submitted as a separate application in 2019. The associated approval was received in January 2020.

The environmental license was issued in August 2017 and was updated in 2019 to incorporate consideration of the ZEP. It was updated again in 2020 to incorporate the tailings facility expansion associated with the LOM plan.

The social performance team engages with all stakeholders, primarily in the communities nearest the mine, namely Castro Verde, Almodôvar, Aljustrel, Mértola and Ourique. Engagement occurs throughout the year and is focused on managing social impacts, risks and opportunities specific to each community. The team bases their activities on a 5-year social performance strategic plan and systems which reflect best practice and international standards in stakeholder engagement, grievance procedures, risk management and community investment.

**xii. Capital and Operating Costs**

As previously reported in the Company's MD&A, total forecast Neves-Corvo cash costs for 2021 are tabulated below using a forecast exchange rate of €/US dollar: 1.20. Forecast cash costs for 2021 are \$2.20/lb Cu, assuming a zinc by-product credit priced at \$1.00/lb.

<b>Neves-Corvo (\$/lb Cu)<sup>(1)</sup></b>	<b>2021 Forecast</b>
Mining costs	1.65
Milling costs	0.65
G&A and other costs	0.80
TC/RCS	0.30
By-product credit, net of TC/RCS	(1.20)
<b>Cash cost per payable pound of copper</b>	<b>2.20</b>

(1) Cash costs are based on various assumptions and estimates, including but not limited to: production volumes, commodity prices, foreign exchange rates, TC/RCS and operating costs.

As previously reported in the Company's MD&A, total forecast capital expenditures for Neves-Corvo for 2021 are tabulated below. ZEP capital expenditure is forecast at \$70 million while sustaining capital expenditures include underground development, mobile mining equipment replacements, water initiatives and TSF expansion.

<b>Neves-Corvo</b>	<b>Unit</b>	<b>2021 Forecast</b>
Development and equipment	\$M	50.0
Water initiatives and TSF expansion	\$M	10.0
Other sustaining	\$M	5.0
ZEP Project	\$M	70.0
<b>Total</b>	<b>\$M</b>	<b>135.0</b>

**xiii. Exploration, Development, and Production**

The 2021 underground drilling plan comprises 25,000 m of infill drilling focused on Lombador and Lombador North.

Plans for the 2021 surface exploration program include a combined total of 13,700 m of drilling within the mining concession area. Borehole electro-magnetic surveys will be carried out on select drill holes. Exploration expenditure in 2021 is estimated at \$4.0 million.

In 2020, Neves-Corvo produced 32,032 tonnes of copper in concentrate and 69,143 tonnes of zinc in concentrate. As previously reported in the Company's MD&A, for 2021 forecast production is as tabulated below.

<b>Neves-Corvo</b>	<b>Unit</b>	<b>2021 Forecast</b>
Copper production	'000 Tonnes	35 - 40
Zinc production	'000 Tonnes	70 - 75

The current copper and zinc Mineral Reserves at Neves-Corvo will support a LOM of over 10 years with copper production, based on current Mineral Reserves estimates, gradually decreasing, and planned zinc production, with the completion of the ZEP project, substantially increasing.

## **E. ZINKGRUVAN MINE**

The Zinkgruvan Mine is located in south central Sweden and is owned and operated by ZMAB which is a 100% indirect subsidiary of Lundin Mining. The scientific and technical information in the following section has been derived, in part, from the Zinkgruvan Report. The Zinkgruvan Report is available on SEDAR under the Company's profile at [www.sedar.com](http://www.sedar.com).

### **i. Project Description, Location and Access**

The Zinkgruvan Mine is located approximately 175 km southwest of Stockholm. The mine site is approximately 15 km from the town of Askersund and comprises a deep underground mine, a processing plant and associated infrastructure and tailings disposal facilities. Concentrates are trucked from the mine to the inland port of Otterbäcken on Lake Vänern from where they are shipped via canal and sea to European smelter customers.

Zinkgruvan has good local road access and is close to the main E18 highway linking Stockholm and Oslo. Rail and air links are available in the town of Örebro 60 km from Zinkgruvan. Lake Vänern, the largest lake in Sweden, is 100 km away and provides access to coastal shipping via a series of inland canals and the port of Göteborg.

The mining operations are contained within two exploitation concessions covering the deposit and its immediate area. The Zinkgruvan concession was amalgamated from a large number of smaller rights in 2000, has an area of 254 ha and is valid until 2025. The neighboring Klara concession was granted in 2002, has an area of 355 ha and is valid until 2027. A third mining concession, the Dalby concession, neighboring the Klara concession and covering the known northern extension of the Zinkgruvan mineralization with an area of 165 ha was granted in 2019 and is valid until 2044. A fourth mining concession, is 40 km due east of Zinkgruvan, has an area of 70 ha and is valid until 2026, although no mining operations exist on this property.

In addition, the mine currently holds seven exploration concessions in the area totaling 10,000 ha with a variety of expiry dates. Initially, an exploration concession is valid for three years. During this time, if the holder wishes to extend the concession period, an application to the Mining Inspectorate must be submitted. If adequate exploration is deemed to have been undertaken by the Mining Inspectorate during the initial three years, then a first renewal of the concession can be applied for. The first renewal period is for three years. A second renewal of up to 4 years can then be applied for if special reasons for the second renewal can be demonstrated by the applicant. A third renewal of up to 5 years can be granted by the Mining Inspectorate if exceptional reasons can be demonstrated and that extensive work has been undertaken within the concession and that further exploration will likely result in conversion to an exploitation concession.

For exploitation concessions granted before 2005, there are no mining royalties in Sweden. The Dalby exploitation concession, granted in 2019, carries a statutory royalty of 0.2% of the annual value of the metal recovered after mineral processing. The corporation tax rate in Sweden has been 21.4% since January 1, 2019 and was reduced to 20.6% effective January 1, 2021. The Zinkgruvan Mine owns sufficient freehold surface land to accommodate the existing and planned mine infrastructure.

The Zinkgruvan Mine is operating under an environmental license that was issued in 2015. The license has been formalized and includes temporary limits for noise, vibration, water and fugitive dust. The license requires the submission of additional studies to establish final permit limits approved by the Environmental Court (EC).

### **ii. History**

The Zinkgruvan deposit has been known since the 16th century but it was not until 1857 that large scale production commenced under the ownership of the Belgian company Vieille-Montagne. The initial processing plant for these operations from the 1850s to the mid-1970s was in Åmmeberg on the shores of Lake Vättern with ore transported approximately 10 km from the mine site by narrow gauge railway.

In the mid-1970s, Vieille-Montagne expanded production to 600,000 tpa. A new shaft, named P2, was sunk to access deeper ore and the Åmmeberg facilities were replaced by a new concentrator and TSF built adjacent to the Zinkgruvan Mine site.

In 1977 the Åmmeberg facilities were permanently closed and subsequently rehabilitated pursuant to Swedish regulatory requirements, resulting in the relinquishment of the majority of such facilities by the late 1980s and early 1990s.

In 1991, Vieille-Montagne formed Åmmeberg Mining AB into which it transferred the Zinkgruvan Mine and related assets. In 1995, North Australia (via the Swedish parent company North Mining Svenska AB) acquired Åmmeberg Mining AB and thereby the Zinkgruvan Mine. In August 2000, Rio Tinto became the owner of the mine following its acquisition of North Australia. In June 2004, Lundin Mining purchased North Mining Svenska AB (now known as Zinkgruvan Mining AB) and the mine from Rio Tinto. In 2005 Åmmeberg Mining AB was merged into North Mining Svenska AB (now known as Zinkgruvan Mining AB).

In December 2004, Wheaton PMC agreed to purchase the LOM silver production from the Zinkgruvan Mine. In October 2007, the Company announced the Zinkgruvan expansion program to increase ore production by 300,000 tpa through the addition of copper to the zinc-lead production.

In late 2010, the copper plant was commissioned and, during 2011, modifications were made to allow the plant's 300,000 tpa ore capacity to be used to also treat zinc/lead ores. In November 2010, an access ramp from the surface to the underground workings was completed, allowing a significant increase in the mine's operational flexibility. In 2015, a low-cost project was approved to increase the overall mill capacity by approximately 10%. This investment, which focused primarily on increased grinding capacity and improved plant availability, was completed in June 2017. Expansion of the existing Enemossen tailings storage facility was initiated in 2016, with the new and adjacent Enemossen East facility receiving first tailings in October 2017.

Increased exploration drilling, from both surface and underground during 2018 and 2019, resulted in the delineation of additional Inferred Mineral Resources in the Dalby area of the mine. Infill and exploration drilling have been ongoing in 2020 adding additional Mineral Resources and converting Inferred Mineral Resources to Indicated. Conceptual feasibility and mine design work is ongoing.

### **iii. Geological Setting, Mineralization and Deposit Types**

The Zinkgruvan deposit is located in the southern part of the Bergslagen province of south-central Sweden. The province comprises a Proterozoic aged (1.9 giga-annum or Ga) greenstone belt and hosts massive Zn-Pb, Cu and Ag sulfide mineralization and banded iron formations. The supracrustal rocks are dominated by felsic metavolcanics successions with limestones and calcsilicates commonly found within the metavolcanics. The province was folded and metamorphosed to upper amphibolite facies during the Svecofennian orogeny (1.9-1.8 Ga).

The Zinkgruvan deposit comprises a stratiform, massive Zn-Pb deposit situated in an east-west striking synclinal structure within the lower Proterozoic Svecofennian supracrustal sequence (1.90 Ga - 1.88 Ga). The deposit exhibits distinctive stratification and extends for more than 5,000 m along strike and the mineralization has been intercepted to depths of approximately 2,000 m. The mineralization thickness ranges from 3 m to 40 m. In the central part of the deposit the zinc-lead mineralization is stratigraphically underlain by a substratiform copper stockwork. Deformation during the Svecofennian orogeny included isoclinal folding resulting in the stratigraphy of the area being overturned. A regional north-northeast to south-southwest trending fault (the Knalla fault) is present in the center of the property and separates the deposit into two areas. The Nygruvan area, which provided most of the historical mine production, is located to the east and strikes northwest to southeast and dips sub-vertically to the northeast. The Knalla area is located to the west of the fault and strikes northeast to southwest and dips variably to the northwest. The Knalla area is further sub-divided into the following areas from northeast to southwest: Burkland, Lindängen (now predominantly depleted by mining), Sävsjön, Mellanby, Dalby, Cecilia and Borta Bakom.

The Zinkgruvan mineralization is dominated by sphalerite and galena and is generally massive, well banded and stratiform. Remobilization of galena and silver has occurred in response to metamorphism and deformation and this is most pronounced in the lead-rich western extension of Nygruvan and in the Burkland area.

Copper stockwork mineralization occurs in the structural hanging wall of the Burkland deposit. Chalcopyrite is the main copper mineral and occurs as coarse disseminations and patches within a marble host rock.

General consensus exists on a syngenetic-exhalative origin for the Zinkgruvan deposit in which lenses of polymetallic (Zn, Pb, Ag (and Cu)) sulfides formed at or near the seafloor in submarine hot spring environments. They formed from accumulations of the focused discharges of metal-enriched fluids associated with seafloor hydrothermal convection, potentially associated with areas of active submarine volcanism including rift spreading centers.

#### **iv. Exploration**

Drilling is the principle means of near mine exploration. Historical exploration comprised a heliborne magnetic and radiometric survey covering an area of 223 km<sup>2</sup> including the mine site and the immediate area was carried out, a GEOTEM® air borne electromagnetic survey covering an area of 236 km<sup>2</sup> was flown, extensive ground geophysical surveys including magnetic, horizontal-loop electromagnetic and induced polarization were undertaken while geological mapping, conventional till sampling and MMI geochemical surveying were also carried out. Several possible targets were identified during the exploration program; however, none of these were tested by drilling and no further work was undertaken on them prior to 2000. Since 2000, exploration has predominantly been focused on near mine targets rather than regional.

In 2020, exploration has focused primarily on replacing mining depletion and adding new Mineral Resources, exploring the continuation of the Burkland, Nygruvan and the Dalby areas at depth and the Flaxen area closer to surface. Due to the depth of the exploration areas and the relatively complex geometry, a large portion of exploration is done by underground drilling. In 2020, 204 m of underground exploration development drifting was done in the Western Field and Nygruvan areas providing platforms for continued exploration drilling along mineralized trends.

#### **v. Drilling**

Underground drilling, comprising Mineral Resource exploration and stope definition drilling, is carried out on an ongoing basis. Stope definition holes are drilled from underground with intersections typically on 15 m by 20 m centers. Drill holes are surveyed at 3 m intervals using gyro surveying equipment, which provides an accurate location of the drill intersections.

In 2020, 17,772 m of surface and underground exploration drilling was completed with a focus on expanding near mine Mineral Resources. Underground drilling comprised 13,257 m on the Nygruvan, Dalby, Cecilia and Borta Bakom extensions, at depth and along strike, while 4,515 m were drilled from surface on the Flaxen concession. A total of 43,536 m of infill and definition drilling was completed from underground.

#### **vi. Sampling, Analysis and Data Verification**

All samples are collected by ZMAB geological staff and sampling procedures are the same for both underground and surface drill core. Core boxes are transported from the drill sites to the on-site logging facilities at Zinkgruvan Mine. Core sample intervals selected for analyses are halved with splitting performed by an Almonte® core saw.

Prior to May 2020, sample preparation was carried out entirely on-site at the Zinkgruvan Mine site facility, with jaw crushing undertaken in a facility located adjacent to the core logging facility while all further stages of sample preparation are undertaken within a section of the Zinkgruvan analytical laboratory. Since May 2020, all samples are sent either as whole or half core to the Bureau Veritas sample preparation facility in Krakow, Poland, for preparation. All geological samples are assayed at Bureau Veritas laboratories, Vancouver, Canada, an

independent laboratory. The laboratory assays using ICP to analyze for 23 elements, including: Zn, Pb, Ag, Cu, Co, Ni, Al, As, Bi, Ca, Cd, Cr, Fe, Hg, K, Mg, Mn, Mo, Na, P, Sb, Sr, and W.

A systematic QA/QC program was implemented during 2001. The same QA/QC procedures have been in place at Zinkgruvan since 2001 and includes insertion of duplicates, standards and blanks into the sample stream prior to shipment to Bureau Veritas. External assay checks are carried out by ALS Chemex, Vancouver, an independent laboratory. The results of the assaying are continually reviewed by Zinkgruvan geological staff.

Data entry, validation, storage and database maintenance is carried out by ZMAB geological staff using established procedures. The data used for Mineral Resource estimation is based on only diamond core produced from either surface or underground drilling of generally 56 mm diameter core size. All data are stored in a central acQuire database located at the ZMAB Mine offices. Assay values are uploaded into the database from Excel worksheets that have been sent from Bureau Veritas. Prior to uploading of the assay data, a statistical check of the QA/QC data is undertaken by ZMAB geological staff. In addition, the acQuire database has a series of automated validation tools during import and export for error identification.

In each case, established procedures were used to ensure the security of samples during transportation between the drill rig and the laboratories. Quality assurance procedures, data verification and assay protocols used in connection with drilling and sampling conform to industry accepted quality control methods.

#### **vii. Mineral Processing and Metallurgical Testing**

Zinkgruvan makes significant use of historical testing results and mill performance to predict and improve the complex's processing performance in terms of mill throughput, metal recovery to concentrate, and final concentrate grade. Metallurgical tests are also executed in a number of specialized academic and commercial facilities. Testing includes grindability work indices, mineralogy using optical and QEMSCAN™ technology when necessary and bench scale flotation testing. This test work, coupled with industrial scale performance, has demonstrated that the Zinkgruvan processing plant is amenable to treating future ore sources and that the mill throughput and metallurgical performance is predictable.

#### **viii. Mineral Resource and Mineral Reserve Estimates**

Mineral Resources at Zinkgruvan are estimated using 3D block modelling in Leapfrog Geo+Edge and Maptek Vulcan software. Ordinary Kriging, Radial Base Function and inverse distance weighting methods are used for grade estimation. Density is estimated using a regression formula based on estimated metal grades.

Mineral Reserves are estimated from Mineral Resource estimates using Deswik® software. In estimating the Mineral Reserves, the mine uses a NSR based variable cut off value together with dilution and mining recovery factors that are based on the mine's long operating experience.

Factors which may affect the Mineral Resource and Mineral Reserve estimates include: dilution and mining recovery, metal prices, smelter, refining and shipping terms, metallurgical performance, geotechnical characteristics of the rock mass, capital and operating cost estimates, and the likelihood of obtaining land title, required permits and environmental, social and legal licenses. To the extent such factors are within the control of or capable of influence by the Company, these factors are managed through industry accepted practices and procedures and well as maintaining an engaged and constructive dialogue with the local communities and government authorities.

Details of the June 30, 2020 Mineral Resource and Mineral Reserve estimates for Zinkgruvan are included in Schedule A, attached to this AIF.



**ix. Mining Operations**

Zinkgruvan is an underground mine with a long history. Mine access is currently via three shafts, with the principal P2 shaft providing hoisting and man access to the 800 m and 850 m levels with the shaft bottom at 900 m. A ramp connecting the underground workings with surface was completed in 2010 and provides vehicle access direct to the mine. A system of ramps is employed to exploit estimated Mineral Reserves below the shaft and the deepest mine level is now at approximately 1,270 m below surface.

The mine is highly mechanized and uses a combination of longitudinal and transverse longhole panel stoping, depending on orebody width, in the Burkland and Nygruvan areas and an Avoca style method in the Cecilia area. In 2013, underhand panel stoping was introduced to the lower sections of the Burkland and Nygruvan orebodies. All stopes are backfilled with either paste tailings and cement or waste rock.

**x. Processing and Recovery Operations**

The processing plant is located adjacent to the P2 shaft. The run-of-mine zinc/lead ore is milled in two single stage closed-circuit autogenous grinding mills. A bulk flotation stage is followed by lead-zinc separation in the cleaner flotation section to produce separate zinc and lead concentrates. The concentrates are thickened and filtered and then stockpiled under cover. Metallurgical recoveries average approximately 90% for zinc and 82% for lead. Tailings are pumped some 4 km to a dedicated tailings impoundment from which decant water is returned to the process.

A separate 0.3 Mtpa copper treatment line in the processing plant was commissioned during 2010. This line was further modified during 2011 to allow it the flexibility to treat zinc-lead ore as well as copper ore and in 2017 the ball mill was replaced with an autogenous mill. Metallurgical recoveries of copper average 90%.

Zinc, lead and copper concentrates from the mine are sold to a variety of European smelters. Multi-year sales contracts are normally agreed upon with customers and treatment, refining and penalty charges are typical of those for zinc, lead and copper sulfide concentrates. The lead concentrates are particularly high-grade and contain elevated levels of silver.

**xi. Infrastructure, Permitting and Compliance Activities**

Zinkgruvan is accessible by a good system of local roads, with rail and air access at the town of Örebro, located approximately 60 km from the mine. Lake Vänern is located 100 km from the mine and provides access to coastal shipping, via a series of inland canals to the Port of Göteborg. The mine has ready access to grid power, domestic water and industrial water sources and communications systems.

The Zinkgruvan mineral deposit has been continuously mined for over 160 years and, typical of many historical mining areas, water and surface impacts have been observed locally. The focus is to manage current operations such that the potential for environmental or social impacts are minimized.

Zinkgruvan Mine operates under an environmental license that was issued in 2015. The license includes conditions covering production levels, tailings disposal, water discharge limits, hazardous materials, process chemicals, water recirculation, noise levels, blast-induced vibrations, diffuse dusting, waste handling, energy use and closure planning. The license includes temporary limits for noise, vibration, water and fugitive dust, and final permit limits will be established based on additional studies that the license require for submittal.

Zinkgruvan's noise and vibration studies, along with recommended final permit limits, were submitted for approval in 2020. Water and fugitive dust evaluations are continuing per a Court approved schedule to allow for systematic studies and pilot scale testing to ensure development of an appropriate water treatment solution and long-term dust management plan. The Company anticipates submitting these plans in late 2022, with final permit limits to be defined by mid-2026.



In 2018 and 2019, fugitive dust investigations indicated a potential human health exposure risk for lead and cadmium on unwashed vegetables due to long-term dust deposition in the area. The findings were reported to the local county board (ÖCAB) and confirmed by the local health authorities (AMM) in March 2020. Zinkgruvan management informed impacted residents in early April, primarily of proper garden measures to be implemented prior to the growing season. Information pamphlets prepared with ÖCAB were distributed to residents, and mitigation measures were published on the AMM website. The sampling program will be duplicated in 2021 ensuring all vegetables are washed prior to testing.

In addition, the mine implemented additional dust mitigation and monitoring measures. Measurements of dust is ongoing and dust reduction measures such as establishment of green barriers and water suppression in summertime have been communicated and approved by ÖCAB.

Zinkgruvan Mine is working with the relevant authorities to ensure protection of the Forsaåsen Aquifer following the identification of elevated sulphate levels. Effective mitigation measures implemented by Zinkgruvan Mine since 2019 have decreased the sulphate groundwater concentrations in this aquifer. Monitoring and groundwater investigations are underway to further understand the hydrogeology and geochemistry of the Forsaåsen Aquifer.

The MCP is updated periodically, and the most recent revision was submitted to the local permitting agency in 2020.

The social performance team engages with numerous stakeholders, primarily in the communities nearest the mine, namely Zinkgruvan, Åmmeberg, Askersund and Godegård. This engagement occurs throughout the year and is focused on managing social impacts, risks and opportunities specific to each community. The team bases their activities on a 5-year social performance strategic plan and systems which reflect best practice and international standards in stakeholder engagement, grievance procedures, risk management and community investment.

## **xii. Capital and Operating Costs**

As previously reported in the Company's MD&A, total forecast Zinkgruvan cash costs for 2021 are tabulated below using a forecast exchange rate of US dollar/SEK: 8.50. Forecast cash costs for 2021 are \$0.65/lb Zn, assuming a Pb and Cu by-product credit priced at \$0.85/lb and \$2.95/lb, respectively.

<b>Zinkgruvan (\$/lb Zn)<sup>(1)</sup></b>	<b>2021 Forecast</b>
Mining costs	0.45
Milling costs	0.15
G&A and other costs	0.20
TC/RCs	0.30
By-product credit, net of TC/RCs	(0.45)
<b>Cash cost per payable pound of zinc</b>	<b>0.65</b>

*(1) Cash costs are based on various assumptions and estimates, including but not limited to: production volumes, commodity prices, foreign exchange rates, TC/RCs and operating costs.*

As previously reported in the Company's MD&A, total forecast capital expenditures for Zinkgruvan for 2021 are estimated at \$50 million, as tabulated below. The capital forecast includes approximately \$25 million for mine development and the remainder for in-fill drilling and improvement initiatives.

<b>Zinkgruvan</b>	<b>Unit</b>	<b>2021 Forecast</b>
Development	\$M	25.0
Other sustaining	\$M	25.0
<b>Total</b>	<b>\$M</b>	<b>50.0</b>

**xiii.Exploration, Development, and Production**

Exploration activities in 2021 will focus on expanding Mineral Resources in the near-mine areas with a total of 27,350 m of drilling planned. Development drifting totaling 350 m is planned to establish drill platforms for future drilling of the deeper extensions of Burkland and Nygruvan.

Underground exploration drilling totaling 20,500 m is planned to concentrate along the Nygruvan, Dalby, Western Field and Burkland extensions. From surface, 1,850 m is planned for step out drilling along mineralized trends in the Flaxen concession, and 5,000 m is planned for targets defined in the Hjortronmossen area. The total exploration expenditure in 2021 is planned at approximately \$6.0 million.

In addition, a total of 44,500 m of infill and definition drilling, all from underground, is also planned.

In 2020, Zinkgruvan produced 73,601 tonnes of zinc, 24,128 tonnes of lead and 3,346 tonnes of copper in concentrate. As previously reported in the Company's MD&A, for 2021, forecast production is as tabulated below.

<b>Zinkgruvan</b>	<b>Unit</b>	<b>2021 Forecast</b>
Zinc production	'000 Tonnes	71 – 76
Copper production	'000 Tonnes	3 – 4

The current zinc/lead and copper Mineral Reserve estimates at Zinkgruvan are able to support a LOM in excess of 10 years.

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**F. OTHER INVESTMENTS****i. Freeport Cobalt**

Lundin Mining holds an effective 24% ownership interest in Freeport Cobalt, with Freeport holding an effective 56% ownership interest and acting as operator and Gécamines holding a 20% interest. Freeport Cobalt markets cobalt products including fine powders, chemicals, catalysts, ceramics and pigments.

**G. CLOSED AND HISTORICAL SITES**

The Company continues to monitor the Storliden site in northern Sweden, where production ceased in 2008. During 2018, in response to an order from the local county board, ZMAB initiated additional groundwater monitoring around the sealed decline. As a result of the analysis of the data obtained and the request for a risk assessment, the Company has decided to commence certain supplemental reclamation activities in 2021 such as soil removal, revegetation, groundwater analysis and other studies.

The Company's Zinkgruvan operations are located in an area where mining and related operations have been ongoing for over 160 years. As a result, the Zinkgruvan operations are in the vicinity of historical industrial sites which the Company does not own and which were reclaimed by other unrelated companies many years ago. As a responsible mining company, the Company monitors both its sites and, at the request of the applicable local county board, those proximate to the Company's operations but not owned by it.

ZMAB continues to work with local regulatory authorities and local communities at the historical Ämmeberg site, where Belgian company Vieille-Montagne (now Umicore) processed and shipped Zinkgruvan ore from the 1850s until the mid-1970s. The historic processing facilities and tailings storage site were reclaimed by Vieille-Montagne during the 1980s and are currently used primarily as a golf course and marina facility. In June 2018, ZMAB submitted to the local county board (OCAB) a site-specific risk assessment addressing potential residual human health and ecological risks associated with the reclaimed industrial properties. OCAB has requested additional information and for ZMAB to conduct certain further studies. ZMAB has requested clarity on the nature and amounts of future contributions that OCAB will expect ZMAB to contribute in relation to further studies and any desired remediation activities that might result from this work prior to undertaking such further studies.

## Risks and Uncertainties

The Company's business activities are subject to risks, including those described below. Every investor or potential investor in the Company's securities should carefully consider these risks. Any of the following risks could have an adverse effect on the Company, its business and prospects, and could cause actual outcomes and results to differ materially from those described in the forward-looking statements relating to the Company. The risks described below are not the only risks facing the Company. Additional risks and uncertainties not presently known by management of the Company or that management currently believes are immaterial could also affect the Company, its business and prospects.

### **The Company's mining operations generally involve a high degree of inherent risk that cannot be eliminated and may not be insurable.**

The mining industry is subject to significant risks and hazards, including environmental hazards, industrial accidents, unusual or unexpected geological conditions, labor force disruptions, civil strife, pandemics, unavailability of materials and equipment, weather conditions, pit wall failures, tailings dam failures, rock bursts, rock falls, rock slides, cave-ins, flooding, seismic activity, fire, geochemical issues, equipment failure, failure of retaining dams, theft, water conditions, water balance and chemistry, acid rock drainage, disruption to power and water supply, unanticipated variations in grade and other geological problems, ground or stope instabilities or failures, backfill quality or availability, underground conditions, metallurgy, ore hardness and other processing issues, supply chain/logistics disruptions, force majeure events, and unanticipated transportation costs, most of which are beyond the Company's control.

These risks and hazards could result in, among other things: damage to, or destruction of, mineral properties or producing facilities; personal injury or death; environmental damage; reputational loss; mining and production delays; monetary losses; poor concentrate quality/marketability; difficulty selling concentrate to customers; limited mine site or smelter access; higher costs and expenditures; project completion delays; contractual obligations and financial covenants defaults, government investigations, and possible legal liability. All of these could adversely impact the Company's results of operations and financial position.

The Company maintains insurance to cover some of these risks and hazards. The insurance is maintained in amounts that are believed to be reasonable depending on the circumstances surrounding the identified risk; however, insurance is subject to deductibles and, in the case of business interruption insurance, waiting periods during which coverage is not applicable. No assurance can be given that such insurance will continue to be available, that it will be available at economically feasible premiums, or that the Company will obtain or maintain such insurance. The Company's property, liability and other insurance may not provide sufficient coverage for losses related to these or other risks or hazards. In addition, the Company does not have coverage for certain environmental losses and other risks (for example, political risks), as the potential loss associated with risk events is deemed acceptable or the costs of insurance are deemed excessive for the protection provided. The lack or insufficiency of insurance coverage could adversely affect the Company's cash flow, overall profitability, its business and its results of operations.

### **The Company's business, financial position and results of operation may be adversely impacted by global financial conditions and inflation.**

Global financial conditions continue to be characterized as volatile. In recent years, global markets have been adversely impacted by various credit crises and significant fluctuations in fuel and energy costs and metals prices. Many industries, including the mining industry, have been impacted by these market conditions. Global financial conditions remain subject to sudden and rapid destabilizations in response to future events, as government authorities may have limited resources to respond to future crises. A continued or worsened slowdown in the financial markets, geopolitical events 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 crises may be precipitated by any number of causes, including natural disasters, outbreaks of medical endemic or pandemic issues, geopolitical instability, changes to energy prices or sovereign defaults. If increased levels of volatility continue or in the event of a rapid destabilization of global economic conditions, it may result in a material adverse effect on commodity prices, demand for metals, availability of credit, investor confidence, and general financial market liquidity, all of which may adversely affect the Company's business and the market price of its securities.

In addition to potentially affecting the price of commodities, general inflationary pressures may also affect the Company's labor, commodity and other input costs at operations, which could have a materially adverse effect on the Company's financial condition, results of operations and capital expenditures for the development of its projects.

### **Market volatility may impact the price of the Company's common shares.**

Securities of mining companies experience volatility, at times unrelated to the financial performance or prospects of the companies involved. The Company's share price may be significantly affected by factors unrelated to the Company's performance. Macro-economic, geo-political, and industry-related events, speculation about the Company in the press or investment community, speculation about the metals the Company produces, changes in valuation of similar companies, attempts to benefit from shorting the Company's common shares, additions or departures of key personnel, strategic acquisitions by competitors and regulatory changes, among others, may affect investor sentiment and have an impact on the price of the Company's common shares. As a result of these changes, the market price of the Company's common shares at any given point in time may not accurately reflect its long-term value.

### **The Company's business is highly dependent on the international market prices and demand of the metals it produces, which are both cyclical and volatile.**

The Company's business, financial performance and results of operations are significantly affected by the market prices and demand of the metals it produces, particularly copper, zinc, gold and nickel as well as silver.

Historically, prices and demand for these metals have been subject to wide fluctuations which can be material and can occur over short periods of time, and are affected by numerous factors beyond the Company's control, including international economic and political conditions, the cyclical nature of consumer and industrial consumption, actual or perceived changes in levels of supply, the availability and costs of substitutes, inventory levels maintained by users, actions of participants in the commodities markets, interest rates and expectations, global pandemics, inflation or deflation and expectations, and currency exchange rates, among other factors. The Company cannot predict whether, and to what extent, metal prices and demand will rise or fall in the future.

An increase in the production of these metals worldwide or changes in, among other things, technology, industrial processes or consumer habits, including increased demand for substitute materials, may decrease the demand for these metals. A fall in demand, resulting from economic slow-downs or other factors, could also decrease the volume of metals that the Company sells and, therefore, materially adversely impact the Company's results of operations and financial position.

Future declines in metal prices could have an adverse impact on the Company's results of operations and financial position, and the Company may consider curtailing, modifying or discontinuing certain operations. In addition, the Company may not be able to adjust production volume in a timely or cost-efficient manner in response to sustained changes in metal prices. Lower utilization of capacity during periods of weak prices may expose the Company to higher unit production costs since a significant portion of its cost structure is fixed in the short-term due to the high capital intensity of mining operations. If prices drop significantly, the economic prospects of the mines and projects in which the Company has an interest could be significantly reduced or rendered uneconomic. Low metal prices will affect the Company's liquidity, and if they persist for an extended period, the Company may have to look for other sources of cash flow to maintain liquidity until metal prices recover. A sustained and material impact on the Company's liquidity may also impact the Company's ability to comply with financial

covenants under its credit facilities. Conversely, during periods of high prices, the Company's ability to rapidly increase production capacity may be limited, which could prevent it from selling more products. Moreover, the Company may be unable to complete expansions and greenfield projects in time to take advantage of any rising prices for copper, zinc, gold and nickel or other products.

The Company does not currently hedge metal prices. Hedging activity requires approval of the Company's Board of Directors or a clear delegation of that authority to a Board Committee or to the Company's CEO and CFO acting jointly. The Company will not hold or issue derivative instruments for speculation or trading purposes.

### **The Company is exposed to risk from the threat of infectious diseases or outbreaks of viruses, including the COVID-19 virus.**

Global markets have been adversely impacted by emerging infectious diseases and/or the threat of outbreaks of viruses, other contagions or epidemic diseases, including the COVID-19 virus and its variants. The speed and extent of the spread of an infectious disease, including COVID-19 and its variants, and the duration and intensity of resulting business disruption and related financial and social impact, are uncertain, and such adverse effects may be material. A significant outbreak could result in a widespread crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn which could adversely affect the Company's business and the market price of the Company's common shares. Many industries, including the mining industry, have been impacted by these market conditions. If increased levels of volatility should occur over an extended period, or in the event of a rapid destabilization of global economic conditions, it may result in a material adverse effect on commodity prices, demand for metals, availability of credit, investor confidence, and general financial market liquidity, all of which may adversely affect the Company's business and the market price of the Company's securities. In addition, there may not be an adequate or effective response to emerging or sustained outbreaks of infectious diseases and governments may impose strict emergency measures in response to the threat or existence of an infectious disease. There are potentially significant economic and social impacts, including travel bans, quarantine and self-isolation, labor shortages and shutdowns, delays and disruption in supply chains, social unrest, government or regulatory actions or inactions (including but not limited to permanent changes in taxation or policies), decreased demand or the inability to sell and deliver concentrates and resulting commodities, declines in the price of commodities, delays in permitting or approvals, governmental disruptions or other unknown but potentially significant impacts. While the Company closely monitors and takes proactive measures to mitigate the direct effects of infectious diseases and virus outbreaks in the workplace, at this time, the Company cannot accurately predict what effects large scale outbreaks or pandemics will have on its operations or financial results, including due to uncertainties relating to the ultimate geographic spread, the duration of the outbreak, and the length of restrictions or responses that have been or may be imposed by the governments. Given the global nature of the Company's operations, the Company may not be able to accurately predict which operations will be impacted. Any outbreak or threat of an outbreak of a contagion or epidemic disease could have a material adverse effect on the Company, its business and operational results.

### **The Company may be subject to sudden tax changes, which can have a material adverse effect on profitability.**

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 Canada, the United States, Bermuda, Brazil, Chile, the Netherlands, Portugal, Sweden, or any of the countries in which the Company's operations or business is located, could result in an increase in taxes, or other governmental charges, duties or impositions, or an unreasonable delay in the refund of certain taxes owing to the Company. No assurance can be given that new tax laws, rules or regulations will not be enacted or that existing tax laws will not be changed, interpreted or applied in a manner that could result in the Company's profits being subject to additional taxation, result in the Company not recovering certain taxes on a timely basis or at all, or that could otherwise have a material adverse effect on the Company.

Brazil has recently experienced an increase in the number of tax proceedings, including tax claims and disputes. In addition, Brazil's government is expected to submit its tax reform proposals to Congress in 2021. The Company

cannot provide any assurance as to whether it will be subject to a tax dispute in Brazil, or whether the adoption of the tax reform policies will have an adverse effect on the Company.

In 2018 and 2020, the Chilean IRS issued tax assessments denying tax deductions related to interest expenses arising from an intercompany debt for the taxation years 2014, 2015 and 2016. While not yet assessed by the Chilean IRS, a similar position would deny tax refunds related taxation years 2017 to 2020 and would affect taxes receivable and deferred tax assets recorded at December 31, 2020. The Company believes the claims are inconsistent with Chilean tax law and without merit and accordingly has filed an appeal for each assessment. If the assessments are upheld, it may have a material adverse effect on the Company. In 2019 and in 2020, the Company received assessments from the Chilean IRS on the same intercompany debt as noted above for the 2016 and 2017 tax years with respect to the withholding tax rate applied. The Chilean IRS is seeking additional withholding taxes, including interest and penalties, on interest payments made in 2016 and 2017. While not yet assessed, a similar position taken on interest payments made for taxation years 2018 to 2020 would result in additional withholding taxes and possible penalties and interest. The Company believes its original filing positions are in compliance with tax regulations and is disputing the claim.

Since October 2019, Chile has been experiencing widescale public demonstrations demanding, among other things, constitutional and legal reforms, including demands for social program benefit increases and public funding for services that are currently private. In connection with this, the government has been considering tax reform and has introduced a number of tax changes that affect businesses, including but not limited to a new tax on investments and a tax on land holdings. Other tax changes could be considered or proposed in the future, including but not limited to increases to mining or income taxes or new royalties or changes to value added taxes.

### **The Company derives a significant portion of its revenue from one asset.**

The Candelaria Mine accounted for approximately 55% of the Company's 2020 copper production, and accordingly, the Company derives a significant portion of its revenue from the Candelaria Mine. While the acquisition of the Chapada Mine in 2019 has reduced the Company's dependence on the Candelaria Mine, the Company's profitability will be sensitive to changes in, and its performance will depend to a greater extent on, the operations of the Candelaria Mine.

### **The Company may be unable to obtain, retain or comply with necessary permits, which could adversely affect operations.**

The Company's mining and processing operations, development, and exploration activities are subject to extensive permitting requirements. Each phase of a mine life cycle requires certain approvals, permits and licenses. The potential inability to timely secure permits required for the development and operation of the Company's mining assets, as well as to advance its exploration efforts presents a key risk for the Company. Activities required to obtain and/or achieve or maintain full compliance with such permits can be costly and involve extended timelines. The granting, renewal and continued effectiveness of permits and approvals are subject to discretion by the applicable regulatory authority and previously issued permits may be suspended or revoked for a variety of reasons, including through government or court action. Certain governmental approval and permitting processes are subject to public comment and can be challenged by project opponents, which may result in significant delays or in approvals being withheld or withdrawn. In addition, permitting and approval processes may be delayed as a result of governmental disruption or upheaval. Lundin Mining can provide no assurance that necessary permits will be obtained, that previously issued permits will not be suspended for a variety of reasons, including through government or court action, or that delays will not occur in connection with obtaining all necessary permits, renewals of permits, or additional permits for any possible future changes to operations, or additional permits associated with new legislation. Material delays in or inability to obtain required permits and/or to maintain compliance with permits once obtained could have serious consequences and a material adverse effect on the Company, including, but not limited to: injunctions, civil or criminal fines or penalties, suspension or revocation of permits; damage to the Company's reputation; stopping the Company from proceeding with the development of a project or harming its ability to secure future approvals and permits; negatively impacting the further development or operation of a project or increasing the costs of development



or production; material capital expenditures or remedial actions; potential impacts on labor, community, and government relations; erosion of shareholder value; and litigation or regulatory action against the Company. The Company can provide no assurance that it will continue to hold or obtain, if required to, all permits necessary to develop or continue operating at any particular site, which could adversely affect its operations.

At Candelaria, the Company has submitted an environmental permit application that will reflect the continued growth in Mineral Reserves and further extension to the operating life to 2040. This permit application is undergoing a lengthy structured review and public comment period. At Zinkgruvan, the Company is in discussions with the Swedish authorities for the purposes of establishing final permit limits for water discharge and dust. At Chapada Mine, the Company has submitted a permit application for the dam raise of the tailings storage facility. The application is being reviewed by the Brazilian regulatory authorities and their approval could be delayed. Contingency plans to mitigate operational issues will be put in place if delays are further extended. In addition, several historical permits at the Chapada Mine are in the process of being consolidated into one instrument which will include additional operational requirements and conditions. The timing of approvals of all permits is uncertain and processing times have been negatively affected by COVID-19.

The Company is presently complying in all material respects with necessary licenses and permits under applicable laws and regulations to conduct its current operations. However, licenses and permits are subject to change in various circumstances, permits and approvals may require renewal from time to time, and new permits may need to be obtained in the future.

**Reputation loss may result in decreased investor confidence, increased challenges in developing and maintaining community relations, and an impediment to our overall ability to advance our projects, thereby having a material adverse impact on Lundin Mining's financial performance, financial condition, cash flows, and growth prospects.**

Damage to the Company's reputation can result from the actual or perceived occurrence of any number of events or from allegations or investigations into any number of events and could include any negative publicity, whether true or not. The increased usage of social media and other web-based tools used to generate, publish and discuss user-generated content and to connect with other users has made it increasingly easier for individuals and groups to communicate and share opinions and views on the Company and its activities and make allegations against the Company, whether true or not. Lundin Mining does not ultimately have direct control over how it is discussed in the media or perceived by others and reputational loss may lead to decreased investor confidence and an impediment to the Company's ability to advance its projects and could have a material adverse impact on its ability to develop and maintain community relations, as well as its financial performance, financial condition, cash flows and growth prospects.

**Mining operations involve health and personal safety hazards that could adversely affect the Company's reputation, business and future operations.**

By their nature, exploration and mining activities present a variety of hazards and associated health and safety risks. Workers involved in the Company's operations are subject to many inherent health and safety risks and hazards, including, but not limited to, underground mine fires, underground rock falls, equipment or structural fires, pit wall failures, rock falls, rock slides, rock bursts, cave-ins, floods, falls of ground, tailings dam failures, chemical hazards, exposure to biological, physical or ergonomic agents, mineral dusts, gases and fumes, use of explosives, noise, electricity and moving equipment (especially heavy equipment) and vehicle incidents, incidents related to cranes and rigging, civil disturbances and criminal activities, and slips and falls, which could result in occupational illness or health issues, personal injury, and loss of life, and/or facility and workforce evacuation. In addition, personnel involved with remote activities such as those associated with exploration may be exposed to risks related to wildlife, environmental conditions or civil unrest.

Even though robust health and safety controls and risk mitigation measures are in place across the Company's mines, and the Company has experienced an overall reduction in occupational injuries during 2020, a fatal

accident occurred underground at the Neves-Corvo Mine in Portugal on September 25, 2020 due to a fall of ground. A third-party investigation of that accident was undertaken to identify causal factors and lessons learned. While every effort is made to apply the lessons learned to improve controls and reduce the potential for future accidents of this type, their prevention cannot be guaranteed. The overall management of health and safety is governed in accordance with the requirements of the Company's Responsible Mining Policy and the Responsible Mining Management System standard (See "*Description of the Business – Responsible Mining*" above). Additional health and safety controls are implemented based on workplace hazard identification and mitigation requirements, qualitative and quantitative risk assessments, mandatory fatality prevention standards called High Consequence Protocols, safe work procedures and permit systems, safe work observations, occupational exposure limits, incident reporting and investigations, applicable legislation, and local workplace health and safety regulation. While every effort is made to control and eliminate potential health and safety risks, these risks cannot be eliminated and may adversely affect the Company's reputation, business and future operations. Incidents resulting in serious injury or death, or those having a negative impact on surrounding communities (real or perceived) could result in litigation, civil or criminal sanctions, regulatory action (including, but not limited to suspension of operations and/or fines and penalties), increased community tensions, or otherwise adversely affect the Company's reputation and ability to meet its objectives.

**The actual operating results of exploration and development projects may differ materially from those anticipated and there can be no assurance that development projects will be able to be developed successfully or economically.**

The Company's ability to maintain, or increase, its annual production of copper, zinc, nickel, gold and other metals is dependent, in significant part, on its ability to bring new mines into production and to expand existing mines (such as the Zinc Expansion Project at Neves-Corvo). The success of construction projects and the start-up of new mines by the Company is subject to a number of factors including: the availability and performance of engineering and construction contractors, mining contractors, suppliers and consultants; the receipt of required governmental approvals and permits in connection with the construction of mining facilities and the conduct of mining operations (including environmental permits); the successful completion and operation of ore passes, process/recovery plants, and conveyors to move ore, among other operational elements. There can be no assurance that current or future construction and start-up plans implemented by the Company will be successful, that the Company will be able to obtain sufficient funds to finance construction and start-up activities, that personnel and equipment will be available in a timely manner or on reasonable terms to successfully complete construction projects, that the Company will be able to obtain all necessary governmental approvals and permits or that the completion of the construction, the start-up costs and the ongoing operating costs associated with the development of new mines will not be significantly higher than anticipated by the Company. Any of the foregoing factors could adversely impact the operations and financial condition of the Company.

Further, the exploration for and development of mineral deposits involves significant risks, which even a combination of careful evaluation, experience and knowledge may not eliminate. While the discovery of an orebody may result in substantial rewards, few properties that are explored are ultimately developed into producing mines and it is impossible to ensure that the exploration or development programs planned by the Company will result in a profitable commercial mining operation. Whether a mineral deposit will be commercially viable depends on a number of factors, some of which are: the particular attributes of the deposit, such as size, grade and proximity to infrastructure; recoverability; metal prices; and government regulations, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals and environmental protection. The exact effect of these factors cannot be accurately predicted, but the combination of these factors may result in the Company not receiving an adequate return on invested capital.

Capital expenditure estimates and timeline estimates for exploration and development projects are based on assumptions and analyses made by the Company's management. Major expenses may be required to locate and establish Mineral Resources and Mineral Reserves, to develop metallurgical processes and to construct mining and processing facilities at a particular site. There is no certainty that the expenditures made by the Company towards the search and evaluation of mineral deposits will result in discoveries or development of commercial quantities of ore. Future Company projects may not have an operating history upon which to base estimates of

future cash flow. Although the Company utilizes the operating history of its existing mines to derive estimates of future operating costs and capital requirements, such estimates may differ materially from actual operating results. The economic feasibility analysis with respect to any individual project is based upon, among other things, the interpretation of geological data obtained from drill holes and other sampling techniques, feasibility studies (which derive estimates of operating costs based upon anticipated tonnage and grades of ore to be mined and processed), and base metal price assumptions, the configuration of the orebody, expected recovery rates of metals from the ore, comparable facility and equipment costs, anticipated climatic conditions, estimates of labor, productivity, royalty or other ownership requirements and other factors. Development projects are also subject to issuance of necessary permits and other governmental approvals, sourcing suitable power and water requirements, confirming the availability of appropriate local area infrastructure, receipt of adequate financing and addressing local stakeholder concerns. If the Company declines or is unable to advance a project on a particular timetable or at all, the rights associated with the project could be negatively affected. Any of the foregoing factors could adversely impact the operations and financial condition of the Company.

**Failure in the Company's infrastructure could have an adverse effect on the Company's operations.**

Mining, processing, development and exploration activities depend, to one degree or another, on adequate infrastructure. Reliable roads, bridges, power sources, pipelines, underground ventilation, ore and waste hoisting equipment, water storage structures, waste impoundments, water supply, and other critical infrastructure are important for the Company's operations. Unusual or infrequent weather phenomena, sabotage, catastrophic failure, corrosion, government or other interference in the operation, maintenance or provision of such infrastructure could adversely affect the Company's business and results of operations.

On September 27, 2020, failure of an electrical protection device at the Chapada Mine's main substation during an unplanned power outage, caused significant damage to the mine's four operating SAG and ball mill motors. This damage materially impacted the mine's processing capacity until December 21, 2020 when repair and reinstallation of required motors was completed.

Infrastructure at high-risk locations has been built to meet construction standards designed for regions of high seismicity. Chilean operations have been the subject of numerous studies to assess the robustness of various mine structures, including tailings management facilities and waste rock dumps. In addition to having monitoring equipment in place to detect unusual movement, or the presence of unexpected or excessive water, regular geotechnical reviews are carried out at all Company operations. However, there is no assurance that a significant natural event may not result in catastrophic losses having an adverse effect on the Company, including, but not limited to its personnel and assets, and its operations.

**The Company's Mineral Reserves and Mineral Resources are estimates only and no assurance can be given that the anticipated tonnages and grades will be achieved, that the indicated level of recovery will be realized or that Mineral Reserves could be mined and processed profitably.**

To extend the lives of its mines and projects, ensure the continued operation of the business and realize its growth strategy, it is essential that the Company continues to realize its existing identified Mineral Reserves, convert Mineral Resources into Mineral Reserves, increase its Mineral Resource base by adding new Mineral Resources from areas of identified mineralized potential, and/or undertake successful exploration and/or acquire new Mineral Resources. Exploration is highly speculative in nature and identifying new ore bodies is becoming increasingly difficult.

No assurance can be given that the anticipated tonnages and grades in respect of Mineral Reserves and Mineral Resources contained in this Annual Information Form will be achieved, that the indicated level of recovery will be realized or that Mineral Reserves will be mined and processed profitably. The Company's ability to maintain or increase its annual production will be dependent in part on its ability to bring new mines into production and to expand Mineral Reserves at existing mines. Actual Mineral Reserves may not conform to geological, metallurgical

or other expectations, and the volume and grade of ore recovered may differ from estimated levels. There are numerous uncertainties inherent in estimating Mineral Reserves and Mineral Resources, including many factors beyond the Company's control. Such estimation is a subjective process, and the accuracy of any Mineral Reserve or Mineral Resource estimate is a function of the quantity and quality of available data and of the assumptions made and judgments used in engineering and geological interpretation. Mineral Resource estimates for properties that have not commenced production are based, in many instances, on limited and widely spaced drill hole information, which is not necessarily indicative of the conditions between and around drill holes. Accordingly, such Mineral Resource estimates may require revision as more drilling information becomes available, as actual production experience is gained or as the Company's mining methods are changed. No assurance can be given that any part or all of the Company's Mineral Resources constitute or will be converted into Mineral Reserves. In addition, short-term operating factors relating to the Mineral Reserves, such as the need for orderly development of the ore bodies or the processing of new or different ore grades, may require significant capital expenditures in any particular accounting period. In addition, there can be no assurance that recoveries in small scale laboratory tests will be duplicated in larger scale tests under on-site conditions or during production. Lower market prices, increased production costs, reduced recovery rates and other factors may result in a revision of its Mineral Reserve estimates from time to time or may render the Company's Mineral Reserves uneconomic to exploit. Mineral Reserve data is not indicative of future results of operations.

If the Company's actual Mineral Reserves and Mineral Resources are less than current estimates or if the Company fails to expand or develop its Mineral Resource base through the realization of identified mineralized potential or replace depleted Mineral Reserves through development or acquisition, its production, results of operations or financial condition may be materially and adversely affected. Evaluation of Mineral Reserves and Mineral Resources occurs from time to time and they may change depending on further geological interpretation, drilling results and metal prices. The category of Inferred Mineral Resource is the lowest confidence Mineral Resource category and is subject to the most variability. There is no assurance that Inferred Mineral Resources will be upgraded to Measured Mineral Resources or Indicated Mineral Resources and subsequently to Proven Mineral Reserves and Probable Mineral Reserves as a result of continued exploration. The Company regularly evaluates its Mineral Resources and it often determines the merits of increasing the reliability of its overall Mineral Resources.

**Lundin Mining's current and future operations are subject to a risk that stakeholders may oppose continued operation, further development, or new development of its projects and mines, and such opposition may have a negative impact on Lundin Mining's reputation and operational results.**

There are evolving expectations related to environmental protection, human rights and indigenous rights and an increasing level of public concern relating to the perceived effect of mining activities on communities, including certain environmental and social aspects such as water consumption and water quality, land use, noise and vibration, dust and air quality, mine closure, and employment and economic development opportunities. Increased global awareness for the impacts of climate change has contributed to this growing public concern. Further, sustained periods of stress on local economies may increase scrutiny of and pressure on mining operations.

Some of the Company's operations are situated in areas presently or previously inhabited or used by indigenous peoples or people claiming indigenous status, triggering various international and national laws, codes, resolutions, conventions, guidelines, and imposing obligations on government and companies to respect the rights of indigenous people, including mandated consultation with local communities. Examples include the Candelaria Mine where linear infrastructure and activities including the desalination plant and port area, power lines, water pipelines and concentrate transport are located in or pass through the vicinity of smaller communities and settlement areas, whereby people claiming Indigenous status reside or conduct their activities, as well as the Eagle Mine, where operations and exploration activities require interaction with Indigenous communities. While the Company is dedicated to maintaining mutually rewarding relationships with all of its stakeholders, there can be no assurance regarding the nature of the relationship with such stakeholders or that required key approvals, permits or licenses will be obtained when and as necessary.

Opposition to mining activities by communities or indigenous groups may ultimately affect permitting or approval processes, current and future operations, or further development or new development of projects and mines, as well as the Company's reputation. 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 our activities and may have a negative impact on the Company's reputation and operations.

Opposition by any of the aforementioned groups to the Company's operations, partners or the industry generally may require modification of, or preclude the operation or development of, its projects and mines or may require it to enter into agreements with such groups or local governments with respect to the Company's projects and mines, in some cases, causing increased cost and considerable delays to the advancement of its projects. While the Company is committed to operating in a socially responsible manner, there can be no assurance that its efforts, in this respect, will mitigate this potential risk.

### **The failure or breach of information systems or a component of information systems could adversely impact our reputation and results of operations.**

The Company's information systems, and those of its third-party service providers and vendors, are vulnerable to an increasing threat of continually evolving cybersecurity risks. These risks may take the form of malware, computer viruses, security breaches, cyber threats, extortion, employee error, malfeasance, system errors or other types of risks, and may occur from inside or outside of Lundin Mining's organization. Cybersecurity risk is increasingly difficult to identify and quantify and cannot be fully mitigated because of the rapidly evolving nature of the threats, targets and consequences. Additionally, unauthorized parties may attempt to gain access to these systems or Lundin Mining's information through fraud or other means of deceiving its third-party service providers, employees or vendors. Lundin Mining's operations depend, in part, on how well it and its suppliers protect networks, equipment, information technology ("IT") systems and software against damage from a number of threats. The Company has entered into agreements with third parties for hardware, software, telecommunications and other services in connection with its operations. The Company's operations and mining operations also depend on the timely maintenance, upgrade and replacement of networks, equipment, IT systems and software, as well as pre-emptive expenses to mitigate the risks of failures. However, if Lundin Mining is unable or delayed in maintaining, upgrading or replacing its IT systems and software, the risk of a cyber security incident could materially increase. Any of these and other events could result in information system failures, delays and/or increases in capital and operating expenses. The failure of information systems or a component of information systems could, depending on the nature of any such failure, adversely impact the Company's reputation, ability to comply with regulatory reporting obligations and results of operations.

In addition, targeted attacks on the Company's systems (or on systems of third parties that Lundin Mining relies on), failure or non-availability of a key IT system or a breach of security measures designed to protect its IT systems could result in disruptions to the Company's operations through delays or the corruption and destruction of data, extensive personal injury, property damage, loss of confidential information or financial or reputational risks. Even though additional controls and safeguards are regularly introduced, there can be no assurance that Lundin Mining's ability to monitor for or mitigate cybersecurity risks will be fully effective due to the increasing capabilities of hackers and rogue agents, and the increased risk related to the current remote work situation affecting many of the Company's employees and contractors due to the COVID-19 pandemic, and the Company may be unable to identify cybersecurity breaches or discover them in a timely manner. Any significant compromise or breach of data security, whether external or internal, or misuse of data, could result in significant costs, lost sales, fines and lawsuits, and damage to Lundin Mining's reputation. In addition, as the regulatory environment related to information security, data collection and use, and privacy becomes increasingly rigorous, with new and constantly changing requirements applicable to the Company's business, compliance with those requirements could also result in additional costs. As cyber threats continue to evolve, Lundin Mining may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

Data privacy is subject to frequently changing rules and regulations. The European Union's General Data Protection Regulation, or GDPR, took effect on May 25, 2018 and introduced increased regulations relating to



personal data security. The GDPR requires companies to satisfy new requirements regarding the handling of personal and sensitive data, including its use, protection and the ability of persons whose data is stored to correct or delete such data about themselves. The Brazilian equivalent (Law No. 13,709, Lei Geral de Proteção de Dados or LGPD) took effect in September 2020, with the administrative sanctions provisions currently having a delayed application date of August 1, 2021. Any noncompliance with the GDPR, the LGPD or any other cybersecurity and data privacy regulations could result in proceedings or actions against the Company and the imposition of fines or penalties, which could have an adverse effect on the Company and its business, reputation and results of operations.

**The Company may be subject to misconduct by its employees or third-party contractors that results in failure to strictly comply with anti-corruption laws which could have a material adverse effect on its reputation and results of operations.**

The Company maintains and requires adherence to policies governing ethical business conduct and practices. The Company's operations are governed by, and involve interactions with, many levels of government in numerous countries. The Company, its employees, officers, directors, contractors and third-party agents are required to comply with anti-corruption and anti-bribery laws, including the *Canadian Corruption of Foreign Public Officials Act* and the *U.S. Foreign Corrupt Practices Act*, as well as similar laws in the countries in which the Company conducts business. In recent years, there has been a general increase in both the frequency of enforcement and the severity of penalties under such laws, resulting in greater scrutiny and punishment to companies convicted of violating anti-corruption and anti-bribery laws.

Furthermore, the Company, its employees, officers, directors, contractors and third-party agents may be subject to investigations and allegations with respect to anti-corruption and anti-bribery matters, as well as theft, sabotage, fraud, insider trading, violation of laws, slander or other illegal actions. Any investigation or allegation of wrongdoing involving the Company, its employees, officers, directors, contractors and third-party agents, even if without merit or unfounded, may have a material adverse effect on the Company's reputation or the results of its operations. The Company's internal procedures and programs may not always be effective in ensuring that the Company, its employees, contractors or third-party agents will comply strictly with laws. The Company may be liable for violations by its employees, officers, directors, contractors and third-party agents. If the Company becomes subject to an investigation, allegation or enforcement action or is found to be in violation of such laws, this may have a material adverse effect on its reputation, result in significant penalties, fines and/or sanctions imposed on the Company, and/or have a material adverse effect on its business and operational results.

**General economic and political conditions in Brazil and Chile may materially adversely affect the Company's business, financial position and results of operations.**

A significant portion of the operations of the Company are conducted in Brazil and Chile and are dependent upon the performance of the local economy. As a result, general economic conditions in Brazil and Chile may have a material adverse impact on the Company's business, financial position and results of operations.

Government action following administration change, or in response to exchange rate movement, monetary policies, inflation control, energy shortages and economic instability, among other matters, may have important effects on the Company's operations. Uncertainty over whether governments will implement changes in policy or regulation affecting these or other factors in the future may contribute to economic uncertainty in Brazil and Chile.

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**The Company is exposed to risks relating to tailings and waste management that may adversely impact the business and its reputation.**

The mining and milling processes generate waste rock and tailings, and the disposal of these materials is subject to substantial regulation and involve significant environmental risks. Tailings are the sand-like materials that remain from the extraction process. Tailings are stored in engineered facilities that are planned, designed, constructed, operated, decommissioned and closed in such a manner that all structures are stable, and all aspects conform with local regulatory requirements, Company standards, accepted leading industry practices and any commitments to local stakeholders. While the Company employs a comprehensive approach to tailings management, there can be no assurance that these measures are sufficient.

In Brazil, regulatory requirements for tailings storage facilities management and reporting have steadily increased in the past several years and have required the Chapada Mine to continue to adapt its practices and procedures to ensure legal and regulatory compliance. In some cases, regulations can be ambiguous or subject to varying interpretations, some of which may not be consistent with the views of government regulatory bodies or the court's interpretation of them. While the Company is taking steps to avoid potential discrepancies or divergence in interpretation of its legal and regulatory requirements, there remains a risk of legal or administrative action being taken against it which may have a material adverse impact on the Company.

Waste rock dumps and tailings impoundments may also be subject to ground movements or deteriorating ground conditions, natural weathering, the generation and release of acid rock drainage affecting water quality, extraordinary weather events resulting in structural instability or tailings impoundment overflow, all of which could require that deposition activities be suspended or altered. The tailings storage facility infrastructure, including pipelines, pumps, liners, etc. may fail or rupture. The occurrence of such an event may result in environmental release, extended business interruption, damage or harm to third parties, regulatory fines and penalties, revocation or suspension of permits or licenses, material impact to cash flows, balance sheet, share price and reputational damage.

Environmental and regulatory authorities in the applicable jurisdictions of operation conduct periodic or annual inspections of the relevant mine. As a result of these inspections, the Company is from time to time required to modify its waste and water management programs, complete additional monitoring work or take remedial actions with respect to the operations as it pertains to waste or water management. Liabilities resulting from non-compliance, 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 a breach, failure or overflow, the Company's losses or consequences of regulatory action might not be covered by insurance policies.

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

The Company prepares estimates and projections of its future production. Any such information is forward-looking, and no assurance can be given that such estimates will be achieved. These estimates are based on existing mine plans and other assumptions which change from time to time, including the availability, accessibility, sufficiency and quality of ore, the Company's costs of production, its ability to sustain and increase production levels, the sufficiency of its infrastructure, the performance of its workforce and equipment, the Company's ability to maintain and obtain mining interests and permits and its compliance with existing and future laws and regulations. The Company's actual production may vary from 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 relating to the Mineral Reserves, such as the need for sequential development of orebodies and the processing of new or different ore grades; revisions to mine plans; unusual or unexpected orebody formations; risks and hazards associated with mining; natural phenomena, such as inclement weather conditions, water availability, floods, and earthquakes; suspension of operations; and unexpected labor shortages, strikes, local community opposition or blockades. Failure to achieve the estimated



forecasts could have an adverse impact on the Company's future cash flows, business, results of operations and financial condition.

**Social and political unrest in our operating jurisdictions may have an adverse effect on the Company's operational results.**

Since October 2019, Chile has been experiencing varying degrees of civil unrest resulting in proposals for legislative and constitutional reforms. In a plebiscite on October 25, 2020, the electorate voted in favor of the creation of a new national Constitution to be prepared by a constituent assembly to be elected in April 2021. While the level of civil unrest declined in 2020, pockets of unrest continue and there can be no assurance that it will not increase in 2021 and result in deterioration in social order, increases in criminal activity, damage to property and the deaths of some civilians. While the Company has adopted certain measures to protect its employees, property, and production facilities from unrest, the measures implemented cannot guarantee that such incidents will not continue to occur, and such incidents may halt or delay production, increase operating costs, result in harm to employees or trespassers, cause damage to production facilities or otherwise decrease operational efficiency, increase community tensions, or result in criminal and/or civil liability for the Company or its employees and/or financial damages or penalties.

Additional potential impacts arising from the civil unrest include a longer-term increase in the cost of carrying on business as a result of social reforms and taxes. Although Chile has a mature and stable political system, 2021 will also experience regularly scheduled municipal, gubernatorial and presidential elections which may result in significant political and economic changes, including potential for changes in mining policies, water use and ownership rights and shifts in political attitude towards foreign investment in natural resources. Changes, even if seemingly minor in nature, may adversely affect the Company's operations. As such, with respect to its operations at the Candelaria Mine in Chile and elsewhere, the Company is subject to the risks normally associated with the conduct of business in foreign jurisdictions. The occurrence of one or more of these risks could have a material and adverse effect on the Company's cash flows, earnings, results of operations and financial condition. See the risks and uncertainties detailed under the heading "*The occurrence of mining regime changes that affect foreign ownership, mineral exploration, development or mining activities, may affect the Company's viability and profitability.*" These risks may limit or disrupt the Company's operations and exploration activities, restrict the movement of funds or result in the deprivation of contractual rights or the taking of property by nationalization or expropriation without fair compensation.

**Adverse changes in the relationship between Lundin Mining and its employees and contractors may have a material adverse effect on its business, results of operations and financial condition.**

Production at the Company's mining operations is dependent upon the efforts of its employees and contractors and the Company's operations would be adversely affected if it fails to maintain satisfactory labor relations. In addition, relations between the Company and its employees may be affected by changes in the scheme of labor relations that may be introduced by the relevant governmental authorities in whose jurisdictions the Company carries on business. A prolonged labor disruption by employees or suppliers at any of the Company's mining operations or distribution channels (i.e., product transporters) could have an adverse effect on the Company's ability to achieve its objectives with respect to such properties and its operations. The Company successfully renegotiated collective bargaining agreements with its unions in Brazil in 2020 and in Sweden in early 2021, without any significant labor disruption, however, the Company's operations at the Candelaria Mine were impacted for approximately 50 days by labor disruptions during collective bargaining negotiations in the fourth quarter of 2020. There can be no assurance that future negotiations will be successful and may result in protests and/or labor actions which could be prolonged and could have an adverse effect on the Company's results of operations.

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**A number of concentrate products include varying amounts of minor elements that are subject to increasing environmental regulation, which may expose the Company to higher smelter treatment charges, penalties or limit the Company's ability to sell certain products.**

The Company's customer smelters are subject to increasingly stringent environmental regulation which could adversely affect their ability to treat concentrates from certain of the Company's operations. The nature of the ore mined by the Company changes as different parts of an orebody are accessed. This may result in higher levels of minor elements which may negatively impact the marketability of the Company's concentrate. The Company relies on customer smelters to process its concentrates into metals for sale. The Company may be required to pay higher smelter treatment charges or specific penalties relating to minor elements present in its concentrates, it may incur additional costs to blend certain products, or it may not be able to sell certain products in certain jurisdictions, depending on the regulatory environment.

**Exchange rate fluctuations may adversely affect the Company's costs.**

Currency fluctuations may affect the Company's costs and may affect its operating results and cash flows. Copper, zinc, gold and nickel are each sold throughout the world based principally on the U.S. dollar price, but a portion of the Company's operating expenses are incurred in local currencies, such as CLP, EUR, SEK, BRL and other currencies. Appreciation of certain non-U.S. dollar currencies against the U.S. dollar would increase the costs of production at the Company's mines, making such mines less profitable and may negatively impact the Company's results of operations. The Company regularly reviews its exposure to currency price volatility as part of its financial risk management efforts. Currently, the Company does not hold hedging contracts for foreign currencies. Hedging activity requires approval of the Company's Board of Directors or a clear delegation of that authority to a Board Committee or to the Company's CEO and CFO acting jointly. There can be no assurance that the Company's current position will remain the same and the Company may enter into foreign currency hedging activities in the future.

**As a result of its foreign operations, the Company operates through subsidiaries and is highly dependent on third parties for the provision of certain services and places significant reliance on local advisors and consultants in foreign jurisdictions.**

The Company conducts operations through subsidiaries, including foreign subsidiaries, which hold mining and exploration properties in Brazil, Chile, Portugal, Sweden, the United States, and Peru. Accordingly, the Company is subject to certain risks relating its foreign operations, including limitations on the transfer of cash or other assets between the parent corporation and such entities, or amongst such entities, and could restrict the Company's ability to fund or extract funds from its operations efficiently. Any such limitations, or the perception that such limitations may exist now or in the future, could have an adverse impact on the Company's valuation and stock price.

In addition, the Company is highly dependent on third parties in these foreign jurisdictions for the provision of services, including contract mining, rail, road haulage, pipeline and port services. Contractual disputes, demurrage charges, rail, road, pipeline and port capacity issues, availability of vessels, trucks and railcars, weather problems or other factors impacting these third-party relationships can have a material adverse effect on the Company's operations, including its ability to transport materials according to schedules and contractual commitments, and could result in lower than anticipated sales volumes and revenue.

Under Brazilian law, outsourcing is now permitted on the contracting company's core and non-core business activities, provided that certain requirements are met. In case of non-compliance with applicable regulations by contracted companies, the contracting company will be held liable on a secondary basis for the period the outsourcing agreement has taken place. Should the Company's Chapada operations be subject to this secondary liability, it may have an adverse effect on the Company's operational results and financial position.

Additionally, the legal and regulatory requirements in the foreign jurisdictions with respect to conducting mineral exploration and mining activities, banking system and controls, as well as local business culture and practices are different from those in Canada. The officers and directors of the Company must rely, to a great extent, on the Company's local legal counsel and local consultants retained by the Company in order to keep abreast of material legal, regulatory and governmental developments as they pertain to and affect the Company's business operations, and to assist the Company with its governmental relations. The Company must rely, to some extent, on those members of management and the Company's board of directors who have previous experience working and conducting business in these countries in order to enhance its understanding of and appreciation for the local business culture and practices. The Company also relies on the advice of local experts and professionals in connection with current and new regulations that develop in respect of banking, financing, labour, litigation and tax matters in these countries. Any developments or changes in such legal, regulatory or governmental requirements or in local business practices are beyond the control of the Company. The impact of any such changes may adversely affect the business of the Company.

### **The Company is subject to risks associated with climate change.**

Mining and processing operations are energy intensive, resulting in a significant carbon footprint. The Company acknowledges climate change as an international and community concern. A number of governments or governmental bodies have introduced or are contemplating regulatory changes in response to the potential impacts of climate change. Where legislation already exists, regulation relating to emission levels and energy efficiency is becoming more stringent. Some of the costs associated with reducing emissions can be offset by increased energy efficiency and technological innovation. However, if the current regulatory trend continues, this may result in increased costs at some of the Company's operations. In addition, the physical risks of climate change may also have an adverse effect at some of the Company's operations. These may include extreme weather events, natural disasters, resource shortages, changes in rainfall and storm patterns and intensities, water shortages, changing sea levels and changing temperatures. Associated with these physical risks is an increasing risk of climate-related litigation (including class actions) and the associated costs. Adverse publicity or climate-related litigation could have an adverse effect on the Company's reputation or financial condition.

Certain Company operations are in regions considered to be at high risk of severe natural phenomena. Thus, the risk for regions already exposed can be considered more severe because of the effects of climate change. Severe drought conditions impacting the regions in which the Company operates may affect its access to adequate water to sustain operations in the normal course, may result in conflict with local communities, or may materially increase operating costs. Conversely, extraordinary storm events may result in localized flooding directly or indirectly impacting mine personnel and operations. In Portugal, the Company has recently experienced both of these issues. In 2020, due to drought-like conditions, the Santa Clara reservoir (the primary source of freshwater for the Neves-Corvo Mine) recorded water levels much lower than historical averages and experienced increased drawdown from the surrounding communities. In late 2020 and early 2021, due to much heavier than anticipated rainfall, Neves-Corvo's treated tailings water facility holding pond experienced a significant increase in water volumes which required controlled discharges of treated water in consultation with the local environmental authorities. Should these extreme climate conditions continue, the mine and local communities may be required to seek out alternative freshwater sources or alter existing water management and treatment facilities which may result in adverse impacts to production and operational costs.

### **The Company's ability to attract and retain highly skilled employees may adversely impact the Company's business and future operations.**

The Company is dependent on the services of a number of key executives and management personnel. The success of the Company's operations is also dependent on its highly skilled and experienced workforce, including employees with adequate institutional and technical knowledge, and skills that satisfy the requirements of a "Qualified Person" under applicable securities laws. There continues to be robust global competition over highly skilled experienced workers which has been exacerbated by recent strong metal prices. In addition, the development of new mines in geographic areas without an established mining industry would require the training of inexperienced workers to staff these new mines. The loss of experienced and knowledgeable employees or

our inability to attract and retain additional highly skilled, diverse employees may adversely affect the Company's business and future operations.

**Compliance with environmental, health and safety laws and regulations, including changes to such laws or regulations, could adversely affect the Company's results of operations.**

The Company's operations are subject to environmental, health and safety regulation in the various jurisdictions in which it operates, including protection of the environment, waste disposal, worker safety, mine development, water management and protection of endangered and other special status species. These operations are subject to various political, economic and social uncertainties, and local laws and regulations. The implementation of new, or the amendment of, existing laws and regulations affecting the mining and metals industry could have an adverse impact on the Company. Further, global initiatives such as those related to climate change, may result in new restrictions affecting not only the mining sector but also key supply chain partners, such as the shipping industry where new requirements to curb greenhouse gas emissions have been promulgated.

These regulations mandate, among other things, the preparation of environmental assessments before commencing certain operations, the maintenance of air and water quality standards and land reclamation. They also set out limitations on the generation, transportation, storage and disposal of solid and hazardous waste. Environmental legislation is evolving in a manner that will likely, in the future, require stricter standards and enforcement, increased fines and penalties for non-compliance, more stringent environmental assessments of proposed projects and a heightened degree of responsibility for companies and their officers, directors and employees. Continuing issues with tailings dam failures at other companies' operations may increase the likelihood that these stricter standards and enforcement mechanisms will be implemented in the future. The Company can provide no assurance that future changes in environmental regulation will not adversely affect its results of operations.

The general area in which the Candelaria Mine is located is arid, contains limited natural vegetation and hosts a number of other industrial and agricultural operations, resulting in considerable latent dust and particulates in the air. Candelaria employs processes and technology to monitor and manage air quality impacts and regularly reviews and updates them. In January 2019, Candelaria became aware that the Ministry of the Environment had commenced a technical review of the air quality of the Copiapó and Tierra Amarilla areas to determine if the areas might be declared a saturated zone for purposes of Chilean law. In response, local industry and government agreed to work together to voluntarily develop and propose mitigation measures that would remove the need to formally declare the area as a saturated zone. If those voluntary efforts fail and a saturation zone declaration is approved, it would trigger an obligation for the State to prepare and enforce a decontamination plan in the area. A decontamination plan could require Candelaria to implement additional controls or measures or modify existing ones, which could adversely affect Candelaria activities and profitability.

Failure to comply with applicable laws, regulations and permitting requirements (including allegations of such) may result in enforcement actions, 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, remedial actions, materially increased costs of compliance or impaired ability to secure future approvals and permits. Parties engaged in mining operations or in the exploration or development of mineral properties may also be required to compensate those suffering loss or damage due to the mining activities and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations. The Company may also be held responsible for the costs of addressing contamination at the site of current or former activities or at third party sites. The Company could also be held liable to third parties for exposure to hazardous substances. The occurrence of any environmental violation or enforcement action may have an adverse impact on the Company's reputation and could adversely affect its results of operations.

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**The Company is exposed to counterparty and customer concentration risk.**

The Company is exposed to various counterparty risks including, among others: financial institutions that hold the Company's cash; companies that have payables to the Company, including concentrate customers; the Company's insurance providers; the Company's lenders and other banking counterparties; companies that have received deposits from the Company for the future delivery of equipment; third parties that have agreed to indemnify the Company upon the occurrence of certain events; and joint venture/operations partners.

The Company maintains relationships with various banking partners for its operating activities in the jurisdictions in which the Company operates. The Company's access to funds under its credit facilities or other debt arrangements is dependent on the ability of the financial institutions that are counterparties to the facilities to meet their funding commitments. Default by financial institutions could require the Company to take measures to conserve cash until the markets stabilize or until alternative credit or other funding arrangements for the Company's business needs can be obtained.

In addition, certain third parties have agreed to indemnify the Company for certain liabilities and obligations associated with, among other things, tax liabilities or certain representations and warranties made by those third parties in connection with certain acquisitions (including Yamana, in relation to the Company's acquisition of the Chapada Mine in 2019). The Company cannot be assured that, if any such third party is required to indemnify the Company and its subsidiaries for any substantial obligations, that such third party will not assert a position that it is not liable in the hopes of avoiding or delaying its indemnity obligations and/or that it will be able to satisfy such obligations when due. The Company may also be required to pursue costly and time-consuming legal action to obtain orders for payment. Any failure to indemnify could have a material adverse effect upon the Company.

The Company is also subject to customer counterparty risks and concentration risk associated with trade receivables. The Company transacts with credit-worthy customers to minimize credit risk and if necessary, employs pre-payment arrangements and the use of letters of credit, where appropriate, but cannot always be assured of the solvency of its customers over time. In addition, four customers represent a significant portion of the Company's sales and are expected to continue to account for a significant portion of the Company's sales in the future. The Company may be susceptible to an impact on financial returns as a result of the fact that its sales are concentrated on a limited number of customers and, in some cases, on a long-term contract basis. There is a risk that a customer reducing its overall purchases or otherwise seeking to materially change the terms of the business relationship at any time could adversely affect the Company's business, financial condition, and operational results.

**The nature of the Company's business includes risks related to litigation and administrative proceedings that could materially adversely affect the Company's business and financial performance.**

The nature of the Company's business exposes it to various litigation matters, including civil liability claims, environmental matters, health and safety matters, regulatory and administrative proceedings, governmental investigations, tort claims, allegations of discriminatory practices, harassment, unethical behavior, breach of human rights, contract disputes, labor matters and tax matters, among others. In addition, the Company may be subject to proceedings as a result of misconduct by its employees or third-party contractors, such as theft, bribery, sabotage, fraud, insider trading, violation of laws, slander or other illegal actions. All industries, including the mining industry, are subject to legal claims, with and without merit. The Company is currently involved in litigation and may become involved in legal disputes in the future. Defense and settlement costs associated with litigation can be substantial, even with respect to claims that are frivolous or have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding may have a material adverse effect on the Company's financial position or results of operations. Securities class action litigation is also becoming more prevalent and is often brought against companies following periods of volatility in the market price of their securities.



In December 2017, a class action was filed in Ontario against Lundin Mining and certain of its officers and directors and, in January 2018, a second overlapping action was filed in Quebec, both seeking damages and asserting various claims including alleged misrepresentations and/or failure to make timely disclosure of allegedly material information about Candelaria, in defense of which the Company and other defendants have engaged external counsel. In August 2018, the Quebec Superior Court granted a stay to the Quebec action. The proceeding for the Ontario action is still in progress and the leave and class certification motion is currently scheduled for December 2021.

The Company cannot predict the outcome of these pending or threatened proceedings or actions or any other litigation (see also "*Legal Proceedings*" below). If the Company cannot resolve disputes favorably, or if there is significant reputational damage as a result of any real or frivolous claim, the Company may face increased costs or liabilities to third parties, impairment of assets, lost revenues and the Company's activities and operations, financial condition, results of operations, future prospects and share price may be adversely affected.

**The Company may be exposed to greater foreign exchange and capital controls, as well as political, social and economic risks as a result of its operation in emerging markets.**

The Company's current asset portfolio includes operating assets in Brazil and Chile and exploration licenses in Peru. In emerging markets there can be a greater level of exchange and capital controls, as well as political, social, and economic risk compared to some other countries in which the Company operates. From time-to-time, emerging market countries 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. In addition, many emerging markets require supplementary consents or reporting processes before local currency earnings can be converted into U.S. dollars or other currencies and/or such earnings can be repatriated or otherwise transferred outside of the operating jurisdiction. Furthermore, some jurisdictions regulate the amount of earnings that can be maintained by operating entities in off-shore bank accounts and require additional earnings to be held by banks located in the country of operation. These measures can have a number of negative effects on the Company's operations, including, among other things, a reduction in 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.

Mining investments are subject to the risks normally associated with any conduct of business in foreign countries, and operations in emerging markets may also be subject to more frequent civil disturbances and criminal activities, including but not limited to: terrorism; hostage taking; trespassing; sabotage; theft/fraud; vandalism; military repression; expropriation; extreme fluctuations in currency exchange rates; high rates of inflation; labor unrest, opposition or blockades; the risks of war, civil unrest, protests or blockades; renegotiation or nullification of existing concessions, licenses, permits and contracts; ability of governments to unilaterally alter agreements; government imposed local contracting and purchase laws, including laws establishing, among other things, profit margins, production quotas, maximum and minimum price levels and the ability to confiscate merchandise in certain circumstances; surface land access issues; illegal mining; changes in taxation policies (as described above), practices, regulations and laws and the application thereof; restrictions on foreign exchange and repatriation; governmental imposed controls and restrictions in response to pandemics; and changing political conditions, currency controls and governmental regulations that impose local procurement requirements or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction. The occurrence of any such events may adversely affect the Company's viability and profitability.

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**The Company may be subject to risks relating to mine closure and reclamation obligations.**

In order to obtain mining permits and approvals from regulatory authorities, mine operators must typically submit a reclamation plan for restoring, upon prolonged suspension or completion of mining operations, the mined property to a productive use and meet many other permitted conditions. Typically, the Company submits the necessary permit applications several months or even years before it plans to begin activities. Some of the permits the Company requires are becoming increasingly difficult and expensive to obtain, and the application and review processes are taking longer to complete, becoming increasingly complex in terms of required background information, and are subject to challenge.

Closure activities typically include ground stabilization, infrastructure demolition and removal, topsoil replacement, regrading and revegetation and such activities may have significant impacts on local communities and accordingly, may not be supported by local stakeholders. The Company develops and regularly updates MCPs for all operations over the LOM, giving consideration to where post-mining land use may benefit local communities. In addition to immediate closure activities, closed mining operations may require long-term surveillance and monitoring. MCPs are developed in accordance with the Company's corporate standards and to comply with local regulatory requirements. Actual costs realized in satisfaction of mine closure obligations may vary materially from management's estimates. From time to time, regulatory approval for amendments to MCPs and associated permits may be sought, and these could have a significant impact on mine closure costs.

The Company provides the appropriate regulatory authorities with reclamation financial assurance for mine closure obligations in the various jurisdictions in which it operates in accordance with applicable law and regulation. The amount and nature of the financial assurances are dependent upon a number of factors, including the Company's financial condition and reclamation cost estimates. Changes to these amounts, as well as the nature of the collateral to be provided, could significantly increase the Company's costs, making the maintenance and development of existing and new mines less economically feasible.

**The occurrence of mining regime changes that affect foreign ownership, mineral exploration, development or mining activities, may affect the Company's viability and profitability.**

As governments continue to struggle with deficits and concerns over the effects of depressed economies, the mining and metals sector has been targeted to raise revenue. Governments are continually assessing the fiscal terms of the economic rent for a mining company to exploit resources in their countries. Numerous countries, including, but not limited to countries in which the Company operates have implemented changes to their respective mining regimes that reflect increased government control or participation in the mining sector, including changes of law affecting foreign ownership and take-overs, mandatory government participation, taxation and royalties, working conditions, currency remittance, rates of exchange, exchange control, exploration licensing, import restrictions, export duties, repatriation of income or return of capital, environmental protection, surface land access, as well as requirements for local procurement of goods, supplies and employment or other benefits to be provided to local residents. Further, there can be no assurance that the Company's assets will not be subject to nationalization, requisition or confiscation, whether legitimate or not, or undue taxation by an authority or body. The occurrence of mining regime changes adds uncertainties that cannot be accurately predicted and any future adverse changes in government policies or legislation in the jurisdictions in which the Company operates that affect foreign ownership, mineral exploration, development or mining activities, may adversely affect the Company's viability and profitability. Failure to comply strictly with applicable laws, regulations and local practices relating to mineral right applications and tenure, could result in loss, reduction or expropriation of entitlements, or the imposition of additional local or foreign parties as partners with carried or other interests and may adversely affect the Company's operations or profitability. It is not possible for the Company to accurately predict such developments or changes in laws or policy or to what extent any such developments or changes may have an adverse effect on the Company, including, but not limited to, its operations.



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**The Company's internal controls cannot provide absolute assurances as to the reliability of financial reporting.**

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Disclosure controls and procedures are designed to ensure that material information required to be disclosed by a company in reports filed with securities regulatory agencies is recorded, processed, summarized and reported on a timely basis and is accumulated and communicated to a company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. The Company has invested resources to automate, document, analyze and test its system of disclosure controls and procedures and its internal control over financial reporting. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance with respect to the reliability of financial reporting.

**Any challenges or defects in title or termination of mining or exploitation concessions to the Company's properties could have a material and adverse effect on the Company's cash flow, results of operations and financial condition.**

The validity of mining or exploitation claims, which constitute most of the Company's property holdings, can be uncertain, may be contested, and title insurance is generally not available. Each sovereign state is generally the sole authority able to grant mineral property rights, and the ability to ensure that the Company has obtained secure title to individual mineral properties or mining concessions may be severely constrained. The Company has not conducted surveys of all the claims in which it holds direct or indirect interests and, therefore, the precise area and location of such claims may be in doubt. The Company can provide no assurances that there are no title defects affecting its properties. Although the Company has attempted to acquire satisfactory title to its properties, these properties may be subject to prior unregistered agreements, transfers or claims, and title may be affected by, among other things, undetected defects (particularly title to undeveloped properties).

Under the laws of the jurisdictions where the Company's operations, development projects and prospects are located, Mineral Resources belong to the state and governmental concessions are required to explore for, and exploit, Mineral Reserves. The Company holds mining, exploration and other related concessions in each of the jurisdictions where it is operating and where it is carrying on development projects and prospects. The concessions held by the Company in respect of its operations, development projects and prospects may be terminated under certain circumstances, including where minimum activity/production levels are not achieved by the Company (or a corresponding penalty is not paid) if certain fees are not paid or if environmental and safety standards are not met.

Any challenges, disputes, or termination of any one or more of the Company's mining, exploration or other concessions, property holdings or titles could have a material adverse effect on the Company's financial condition or results of operations.

**Failure to accurately assess the value of the Company's assets may result in an impairment charge which may adversely affect the Company's results of operations.**

The Company annually undertakes a detailed review of the LOM plans for its operating properties and an evaluation of the Company's portfolio of development projects, exploration projects and other assets. The recoverability of the Company's carrying values of these operating and development properties may be affected by a number of factors including, but not limited to, metal prices, foreign exchange rates, capital cost estimates, mining, processing and other operating costs, metallurgical characteristics of ore, mine design and timing of production. If carrying values of an asset or group of assets exceeds estimated recoverable values, an impairment charge may be required to be recorded, which may have a material adverse effect on the market price of the Company's securities.

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**Historical environmental liabilities and ongoing reclamation obligations may impose significant costs on the Company.**

Some of the Company's properties may have been used for mining and related operations for many years before being acquired and may have been acquired with assumed environmental liabilities from previous owners or operators. Environmental conditions may exist on these and other properties that are unknown and/or have been caused by previous or existing owners or operators of such properties, the remediation of which may be (or be perceived to be) the Company's responsibility. As the Company grows, it may acquire exploration licenses or operating assets that include old mine workings or closed facilities within the licensed concession. Such sites may be subject to existing or new requirements for their remediation and care and the Company may be required to resolve any such issues to satisfy regulatory requirements and/or key stakeholders. Such requirements may impose significant conditions and costs on the Company.

For example, the Company continues to monitor the Storliden site in northern Sweden, where production ceased in 2008; the Zinkgruvan Mine in Sweden, which has been in operation for over 160 years; and a historic processing and tailing storage site in nearby Åmmeberg, where an unrelated Belgian company, Vieille-Montagne (now Umicore), processed and shipped Zinkgruvan ore from the 1850s until the mid-1970s. Vieille-Montagne reclaimed the historical processing facilities and tailings storage area at Åmmeberg in the 1980s and it is currently used primarily as a golf course and marina facility, but it may be determined that the affected properties require additional incremental remediation and the local county board may assert that the Company is partially liable. The Company will continue to work with local regulatory authorities and local communities to assess these conditions and is committed to adhering to its responsible mining practices. There can be no assurance that additional, potentially onerous requirements will not be asked of or imposed on the Company in the future.

**The Company is exposed to risks relating to the pricing and availability of key supplies and services.**

Mining operations and facilities are intensive users of electricity and carbon-based fuels. Energy prices can be affected by numerous factors beyond the Company's control, including global and regional supply and demand, weather patterns, political, geo-political and economic conditions and applicable regulatory regimes. In addition, a key operational risk is the availability of sufficient power and water supplies to support mining operations. The Company's ability to obtain a secure supply of power and 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 (such as climate, severe weather and inadequate infrastructure); delivery; the ability to extend supply contracts and relevant regulatory regimes, all of which are outside the Company's control. The prices and various sources of energy the Company relies on may be negatively impacted and any such change could have an adverse effect on profitability. The Company can provide no assurance that it will secure the required power, water and access rights going forward or on reasonable terms at all of its facilities and the failure to do so could have a material adverse effect on the Company's business, financial condition and results of operations.

Key operating supplies such as fuel, explosives, reagents, tires and spare parts are necessary for the ongoing operations of the Company's mines and mills. If these supplies become unavailable or their costs increase significantly, the profitability of the Company's operations would be negatively impacted.

Concentrate treatment and transportation costs are a significant component of costs. Increases in treatment costs, rates, or lack of available ocean vessels or rail cars may have an adverse impact on results of operations, cash flows and financial position.

**The Company's inability to effectively compete in the industry may adversely affect our business and future operations.**

There is competition within the mining industry for the discovery and acquisition of properties considered to have commercial potential. The Company competes with other mining companies, many of which have greater financial resources than the Company, for the acquisition of mineral claims, leases and other mineral interests

as well as for the recruitment and retention of qualified employees and other personnel. The Company may not be able to compete successfully with its competitors in acquiring properties, assets or access to infrastructure.

**The Company's indebtedness may adversely affect its business, financial condition and results of operations and its ability to meet payment obligations under its indebtedness.**

The Company may incur substantial debt from time to time to finance working capital, capital expenditures, investments or acquisitions or for other purposes. If the Company does so, the risks related to the Company's indebtedness could intensify, including, among other things: increased difficulty in satisfying existing debt obligations; limitations on the ability to obtain additional financing, or imposed requirements to make non-strategic divestitures; imposed hedging requirements; imposed restrictions on the Company's cash flows, for debt repayment; increased vulnerability to general adverse economic and industry conditions; interest rate risk exposure as borrowings may be at variable rates of interest; decreased flexibility in planning for and reacting to changes in the industry in which it competes; reduced competitiveness as compared to less leveraged competitors; and increased cost of borrowing.

The terms of the Credit Agreement require the Company to satisfy various affirmative and negative covenants and to meet certain financial ratios and tests. These covenants limit, among other things, the Company's ability to incur further indebtedness if doing so would cause it to fail to meet certain financial covenants, create certain liens on assets or engage in certain types of transactions. The Company can provide no assurances that in the future, it will not be limited in its ability to respond to changes in business or competitive activities or be restricted in its ability to engage in mergers, acquisitions or dispositions of assets. Furthermore, a failure to comply with these covenants, including a failure to meet the financial tests or ratios, would likely result in an event of default under the Credit Agreement and would allow the lenders to accelerate the debt, which could materially and adversely affect the Company's business, financial condition and results of operations, its ability to meet payment obligations under its debt and the price of its common shares.

The Company holds various financial assets, the value of which may be impacted by changes in interest rates. Interest rates may also affect the Company's credit arrangements over time. The Company does not currently hedge interest rate exposure. Hedging activity requires approval of the Company's Board of Directors or a clear delegation of that authority to a Board Committee or to the Company's CEO and CFO acting jointly. The Company will not hold or issue derivative instruments for speculation or trading purposes.

**The Company is subject to laws in various jurisdictions and failure, or alleged failure, to comply with such laws, or any changes in such laws could adversely affect its operational results.**

The Company has mining operations in Brazil, Chile, Portugal, Sweden, and the United States, and exploration and inactive mine properties in various countries. Accordingly, the Company's mining, processing, development and mineral exploration activities are subject to various political, economic and social uncertainties, and local laws and regulations governing prospecting, development, production, taxes, climate change, labor standards and occupational health, mine safety, toxic substances, land use, water use, land claims of local and indigenous people and other matters. In addition, 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.

Non-compliance with applicable laws, regulations and permitting requirements (including allegations of such) may result in enforcement actions, including orders issued by regulatory or judicial authorities causing operations to cease or be curtailed or causing the withdrawal of mining licenses, and the imposition of corrective measures requiring material capital expenditure or remedial action resulting in materially increased costs of compliance, reputational damage and potentially impaired ability to secure future approvals and permits. The Company may be required to compensate third parties for loss or damage and may have civil or criminal fines or penalties imposed for violations of applicable laws or regulations. Accordingly, the failure, or alleged failure, to comply with

laws and regulations or the implementation of new, or the amendment of, existing laws and regulations governing operations and activities of mining and milling, or more stringent implementation thereof could have a material adverse impact on the Company's operations and financial position. Similarly, changes in policy that alter laws or changes to laws regarding mining royalties or taxes, or other elements of a country's fiscal regime, may also adversely affect the Company's costs of operations and financial results.

**The Company has a significant shareholder, and dispositions by the significant shareholder could have an adverse effect on the market price of its common shares.**

Nemesia S.a.r.l. ("**Nemesia**"), which is controlled by two private companies owned by a trust settled by the late Adolf H. Lundin, currently owns approximately 12.71% of the Company's common shares. If Nemesia were to sell a substantial number of common shares in the public market, the market price of the common shares could fall. Further, as long as Nemesia maintains its current ownership interest in the Company, it may be able to exert influence over matters that are to be determined by votes of the holders of common shares. There is a risk that the interests of Nemesia differ from those of other shareholders.

**The Company is exposed to liquidity risks and limited financial resources.**

Exploration, acquisition, development and operation activities require significant investment of resources and capital. The Company allocates such resources and capital to support business objectives, and the availability of required resources and capital is subject to market conditions and the Company's financial position. Similarly, a sudden shift in regulation or investor requirements or expectations could force the Company to assume unanticipated additional costs for equipment and technology – for example, to implement more rapid than anticipated carbon reduction or other environmental measures. This may further expose the Company to liquidity risks in meeting its capital expenditure requirements in instances where cash positions are unable to be maintained or appropriate financing is unavailable.

The Company has limited financial resources and there is no assurance that sufficient additional funding or financing will be available to the Company or its direct and indirect subsidiaries on acceptable terms, or at all, for further exploration or development of its properties or to fulfill its obligations under any applicable agreements. General market conditions, volatile metals and key consumable prices, a claim against the Company, a significant disruption to the Company's business, or other factors may make it difficult to secure the necessary financing. These factors may impact the Company's ability to obtain financing, loans and other credit facilities in the future and, if obtained, on terms favorable to the Company. Furthermore, actions taken by central banks to impact fiscal and monetary policies have increased levels of volatility and market turmoil. As a result of this uncertainty, the Company's growth could be adversely impacted, including through the delay or indefinite postponement of the exploration and development of the Company's properties, and the trading price of its securities could be adversely affected.

**The Company may be subject to the exclusive jurisdiction of foreign courts, which would impact investors' ability to enforce legal rights. In addition, uncertainty in government agency interpretation or court interpretation and application of laws and regulations could result in unintended non-compliance.**

The Company has material subsidiaries organized under the laws of foreign jurisdictions and certain of the Company's directors, management and personnel are located in foreign jurisdictions, and as a result investors may have difficulty in effecting service of process within Canada and collecting from or enforcing against the Company, or its directors and officers, any judgments issued by the Canadian courts or Canadian securities regulatory authorities which are predicated on the civil liability provisions of Canadian securities legislation or other laws of Canada. Similarly, in the event a dispute arises in connection with the Company's foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada.

The courts in some of the foreign jurisdictions in which the Company operates may offer less certainty as to the judicial outcome of legal proceedings or a more protracted judicial process than is the case in more established economies. Operating in emerging markets can increase the risk that contractual and/or mineral rights may be disregarded or unilaterally altered. Businesses can become involved in lengthy court cases over simple issues when rulings are not clearly defined, and the poor drafting of laws and excessive delays in the legal process for resolving issues or disputes compound such problems. In addition, there may be limited or no relevant case law providing guidance on how courts would interpret such laws and the application of such laws to the Company's contracts, joint ventures, licenses, license applications or other legal arrangements. Accordingly, 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 in these jurisdictions. Moreover, the commitment of local businesses, government officials and agencies and the judicial system in these jurisdictions to abide by legal requirements and negotiated agreements may be more uncertain and may be susceptible to revision or cancellation, and legal redress may be uncertain or delayed. These uncertainties and delays could have a material adverse effect on the Company's business and operational results.

### **The Company's common shares are subject to risks relating to dilution.**

The Company may issue additional securities to raise funds, to pay for acquisitions or for other reasons. The Company cannot predict the size of future issuances of securities or the effect, if any, that future issuances and sales of securities will have on the market price of common shares. Sales or issuances of substantial numbers of common shares, or the expectation that such sales could occur, may adversely affect prevailing market prices of the Company's common shares. In connection with any issuance of common shares, investors will suffer dilution to their voting power and the Company may experience dilution in its earnings per share.

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

The Company commenced paying a regular quarterly dividend in 2017 and increased it in 2020 and 2021. See "*Dividends and Distributions*" below. 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 continue to be paid in the future or on the same terms as are currently paid by the Company.

### **The Company may not complete acquisition or business arrangements that it pursues, or is pursuing, on favorable terms and cannot assure that any acquisitions or business arrangements completed will ultimately benefit the Company's business.**

From time to time, the Company examines opportunities to acquire additional mining assets and businesses. Any acquisition that the Company may choose to complete may be of a significant size, may change the scale of the Company's business and operations, and may expose the Company to new or greater geographic, political, operating, financial, legal and geological risks. The Company's success in its acquisition activities depends on its ability to identify suitable acquisition candidates, negotiate acceptable terms for any such acquisition, and integrate the acquired operations successfully with those of the Company. Any acquisition and any potential acquisition would be accompanied by risks. For example, there may be a significant change in commodity prices after the Company has committed to complete the transaction and established the purchase price or exchange ratio; a material orebody may prove to be below expectations; the Company may have difficulty integrating and assimilating the operations and personnel of any acquired companies (which may be compounded by geographical separation, unanticipated costs, and the loss of key employees), realizing anticipated synergies and maximizing the financial and strategic position of the combined enterprise, and maintaining uniform standards, policies and controls across the organization; the integration of the acquired business or assets may divert the attention of management or disrupt the Company's ongoing business and its relationships with employees, customers, suppliers and contractors; and the acquired business or assets may have unknown liabilities which may be significant.

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**Activist shareholders or proxy solicitation firms could advocate for changes to the Company's corporate governance and operational practices, which could have an adverse effect on the Company's reputation, business and future operations.**

In recent years, publicly-traded companies have been increasingly subject to demands from activist shareholders and proxy solicitation firms advocating for changes to corporate governance practices, such as executive compensation practices, social issues, or for certain corporate actions or reorganizations. There can be no assurances that activist shareholders and proxy solicitation firms will not publicly advocate for the Company to make certain corporate governance changes or engage in certain corporate actions. Responding to challenges from activist shareholders, such as proxy contests, media campaigns or other activities and similar activities from proxy solicitation firms, could be costly and time consuming and could have an adverse effect on the Company's reputation and divert the attention and resources of the Company's management and Board, which could have an adverse effect on the Company's business and results of operations. Even if the Company does undertake such corporate governance changes or corporate actions, activist shareholders and proxy solicitation firms may continue to promote or attempt to effect further changes. Activist shareholders may attempt to acquire control of the Company to implement such changes. If shareholder activists with differing objectives are elected to the Board, this could adversely affect the Company's business and future operations. Additionally, shareholder activism could create uncertainty about the Company's future strategic direction, resulting in loss of future business opportunities, which could adversely affect the Company's business, future operations, profitability and the Company's ability to attract and retain qualified personnel.

## Dividends and Distributions

On November 30, 2016, the Company's Board approved a dividend policy (the "**Dividend Policy**"). The Company's Dividend Policy anticipates paying four cash dividends per calendar year, the first declared with the release of year-end results; the second declared with the release of first quarter results; the third declared with the release of second quarter results; and the fourth declared with the release of the third quarter results. The declaration, timing, amount and payment of all dividends remain at the discretion of the Board.

In each of 2018 and 2019, the Company paid an aggregate cash dividend of C\$0.12 per common share in four equal installments throughout the year. In February 2020, the Company increased its quarterly cash dividend by 33% to C\$0.04 per common share (C\$0.16 per share on an annualized basis). In February 2021, the Company further increased its quarterly cash dividend by an additional 50% to C\$0.06 per common share (C\$0.24 per share on an annualized basis) to be paid in April 2021, with further dividends expected to be approved and paid quarterly in 2021.

The Board of Directors reviews the dividend quarterly based on, among other things, the Company's current and projected liquidity profile.

## Description of Capital Structure

As at December 31, 2020, the authorized share capital of the Company consisted of an unlimited number of common shares without nominal or par value of which 736,039,350 common shares were issued and outstanding, and one special share without nominal or par value. The special share is not issued and outstanding at this time.

The holders of common shares are entitled to receive notice of and attend all meetings of shareholders with each common share entitling the holder to one vote on any resolution to be passed at such shareholder meetings. The holders of common shares are entitled to dividends if, as and when declared by the Board of Directors. The common shares are entitled, upon liquidation, dissolution or winding up of the Company, to receive the remaining assets of the Company available for distribution to shareholders.



The special share is a non-voting share and the holder thereof is not entitled to receive notice of or attend any meeting of the shareholders of the Company or to vote at any such meeting. The special share is redeemable at the option of either the Company or the holder at an amount determined by the Board of Directors prior to or concurrently with the issuance of the special share (the “**Redemption Amount**”). The holder of the special share is entitled to receive, in priority to the common shares, a fixed, non-cumulative, preferential dividend at the rate of 8% per annum on the Redemption Amount. The holder of the special share is entitled, upon liquidation, dissolution or winding up of the Company, to receive from the assets of the Company a sum equivalent to the Redemption Amount before any amount is paid or any property or assets of the Company are distributed to holders of common shares or shares of any other class ranking junior to the special share. No dividend or other payment or distribution by the Company may be made if such payment or distribution would result in the net realizable value of the Company’s assets being less than the Redemption Amount.

## Market for Securities

### Exchange Listings

In Canada, the common shares of the Company are listed on the TSX under the symbol LUN. The common shares of the Company are also listed on the Nasdaq Stockholm Exchange under the symbol LUMI.

### Trading Price and Volume

The following table provides information as to the price ranges and volume traded by month during the year ended December 31, 2020 on the TSX.

Month	High (C\$)	Low (C\$)	Volume
January 2020	8.08	6.82	39,249,800
February 2020	7.59	6.44	47,821,000
March 2020	7.08	4.08	78,293,700
April 2020	7.58	4.97	48,173,800
May 2020	6.79	5.68	45,344,300
June 2020	7.40	6.25	45,381,500
July 2020	8.59	7.27	41,285,800
August 2020	8.27	7.46	35,325,100
September 2020	8.54	6.68	55,883,900
October 2020	8.44	7.19	43,628,700
November 2020	10.44	8.11	45,435,500
December 2020	11.50	9.39	62,289,900

## Directors and Officers

### Name, Address, Occupation and Security Holding of Directors and Officers

The Board of Directors currently comprises ten directors whose term of office will expire at the Company’s annual shareholders’ meeting scheduled to be held on or about May 7, 2021. Each director holds office until the next Annual Meeting of Shareholders or until his/her successor is duly elected unless his/her office is earlier vacated in accordance with the by-laws of the Company. The names, provinces and countries of residence of each of the directors and executive officers of the Company as at the date of this AIF, their respective positions and offices held with the Company, their principal occupations within the preceding five years and the number of securities of the Company owned by them as at the date of this AIF are set forth in the following table:



<b>Name, residence and current position(s) held in the Company</b>	<b>Principal occupations for last five years</b>	<b>Served as director since</b>	<b>Number of securities beneficially owned, or controlled or directed</b>
<b>Lukas H. Lundin</b> Vaud, Switzerland <i>Chairman and Director</i>	Chairman and Director of the Company since September 1994; chairman, president and/or director of a number of publicly traded resource-based companies.	September 9, 1994	2,271,449 common shares
<b>Marie Inkster</b> Ontario, Canada <i>President, Chief Executive Officer and Director</i>	President and Chief Executive Officer, and Director of the Company since September 30, 2018; and Senior Vice President and Chief Financial Officer of the Company from May 2009 to September 2018.	September 30, 2018	451,689 common shares
<b>C. Ashley Heppenstall</b> London, United Kingdom <i>Lead Director</i>	A director of International Petroleum Corporation, Josemaria Resources Inc., Lundin Gold Inc. and Lundin Energy AB.	May 11, 2020	nil common shares
<b>Donald K. Charter</b> Ontario, Canada <i>Director</i>	A director of IAMGold Corporation, Dream Industrial Real Estate Investment Trust and International Petroleum Corp.	October 31, 2006	67,424 common shares
<b>John H. Craig</b> Ontario, Canada <i>Director</i>	Lawyer, partner of Cassels Brock & Blackwell LLP until December 31, 2016, and Senior Counsel since January 1, 2017. Also, a director of a number of publicly traded companies.	June 11, 2003	213,849 common shares
<b>Peter C. Jones</b> Alberta, Canada <i>Director</i>	Corporate director and retired executive.	September 20, 2013	76,482 common shares
<b>Jack O. Lundin</b> British Columbia, Canada <i>Director</i>	Mining Executive with a master's degree in Mineral Resource Engineering. CEO and director of Bluestone Resources Inc.	February 18, 2021	120,000 common shares
<b>Dale C. Peniuk</b> British Columbia, Canada <i>Director</i>	Chartered Professional Accountant (CPA, CA) and corporate director of a number of publicly traded companies since 2006.	October 31, 2006	50,000 common shares
<b>Karen Poniachik</b> Santiago, Chile <i>Director</i>	Business and Corporate Affairs Consultant. Former Advisor of the World Economic Forum Mining & Metals Industry Group. Board Member for a number of private corporations.	February 18, 2021	nil common shares
<b>Catherine J. G. Stefan</b> Ontario, Canada <i>Director</i>	Chartered Professional Accountant (CPA, CA) and a corporate director. Previously President, Stefan & Associates, a consulting firm, between 1990 and October 2016.	May 8, 2015	56,400 common shares

<b>Name, residence and current position(s) held in the Company</b>	<b>Principal occupations for last five years</b>	<b>Served as director since</b>	<b>Number of securities beneficially owned, or controlled or directed</b>
<p><b>Stephen T. Gatley</b> Haywards Heath, United Kingdom <i>Vice President, Technical Services</i></p>	<p>Vice President, Technical Services of the Company since June 2012.</p>	N/A	98,000 common shares
<p><b>Andrew Hastings</b> Ontario, Canada <i>Senior Vice President and General Counsel</i></p>	<p>Senior Vice President and General Counsel of the Company since February 27, 2019. Vice-President, Joint Venture Governance (May 2018 to February 2019), Vice President and Senior Counsel (June 2015 to April 2018) of Barrick Gold Corporation.</p>	N/A	nil common shares
<p><b>Jean-Claude Lalumiere</b> Ontario, Canada <i>Senior Vice President, Human Resources</i></p>	<p>Senior Vice President, Human Resources of the Company since January 1, 2019. Vice President, Human Resources from March 20, 2018 to December 2018; Senior Vice President and Chief Human Resources Officer of Empire Life from June 2017 to March 2018; Vice President, Human Resources of Iron Ore Company of Canada from May 2015 to March 2017.</p>	N/A	9,271 common shares
<p><b>Annie Laurenson</b> Ontario, Canada <i>Corporate Secretary</i></p>	<p>Corporate Secretary of the Company since April 2018; Assistant Corporate Secretary of the Company from March 2017 to April 2018. Manager Bank Board Services and Assistant Corporate Secretary of Bank of Montreal from October 2015 to March 2017.</p>	N/A	nil common shares
<p><b>Jinhee Magie</b> Ontario, Canada <i>Senior Vice President and Chief Financial Officer</i></p>	<p>Senior Vice President and Chief Financial Officer of the Company since September 30, 2018; Vice President, Finance of the Company from May 2009 to September 2018.</p>	N/A	240,000 common shares
<p><b>Peter Richardson</b> Ontario, Canada <i>Senior Vice President and Chief Operating Officer</i></p>	<p>Senior Vice President and Chief Operating Officer of the Company since October 2018; Vice President and Chief Operating Officer from January 2018 to October 2018; and Chief Operating Officer of the Company since September 2017; General Manager at Eagle Mine from August 2015 to September 2017.</p>	N/A	37,589 common shares
<p><b>Peter Rockandel</b> Ontario, Canada <i>Senior Vice President, Corporate Development and Investor Relations</i></p>	<p>Senior Vice President, Corporate Development and Investor Relations of the Company since September 5, 2018. Managing Director, Investment Banking at GMP Securities from September 2017 to August 2018; GMP Securities, Institutional Equities, April 2003 to September 2017.</p>	N/A	20,000 common shares

<b>Name, residence and current position(s) held in the Company</b>	<b>Principal occupations for last five years</b>	<b>Served as director since</b>	<b>Number of securities beneficially owned, or controlled or directed</b>
<b>J. Mikael Schauman</b> Stockholm, Sweden <i>Senior Vice President, Commercial</i>	Senior Vice President, Commercial of the Company since January 1, 2019; Vice President, Marketing of the Company from February 2007 to December 2018.	N/A	108,000 common shares
<b>Ciara Talbot</b> Ontario, Canada <i>Vice President, Exploration</i>	Vice President, Exploration of the Company since March 1, 2018; Director, Exploration (and various other senior exploration roles) of the Company from September 1, 2012 to February 1, 2018.	N/A	21,689 common shares

Certain directors of the Company have other business interests and do not devote all of their time to the affairs of the Company. See "Conflicts of Interest" below.

The directors and officers of the Company, as a group, beneficially own, or control or direct, directly or indirectly, a total of 3,841,842 common shares, representing approximately 0.52% of the number of common shares of the Company issued and outstanding as of the date of this AIF.

There are currently four standing committees of the Board of Directors. These committees are the Audit Committee, the Corporate Governance and Nominating Committee, the Health, Safety, Environment and Community Committee and the Human Resources/Compensation Committee. The following table identifies the members of each of these Committees:

<b>Audit Committee</b>	<b>Human Resources/ Compensation Committee</b>	<b>Corporate Governance and Nominating Committee</b>	<b>Health, Safety, Environment and Community Committee</b>
Dale C. Peniuk (Chair)	Donald K. Charter (Chair)	Catherine J. G. Stefan (Chair)	Peter C. Jones (Chair)
Donald K. Charter	Peter C. Jones	C. Ashley Heppenstall	John H. Craig
Catherine J. G. Stefan	C. Ashley Heppenstall	Dale C. Peniuk	Marie Inkster

### **Corporate Cease Trade Orders or Bankruptcies**

Except as noted below, no director or executive officer of the Company is, as at the date of this AIF, or was within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including Lundin Mining), that:

- (a) was subject to an Order that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, 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.

Except as noted below, no director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company:

- (a) is, as at the date of this AIF, or has been within the 10 years before the date of this AIF, a director or executive officer of any company (including Lundin Mining) 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; or
- (b) has, within the 10 years before the date of this AIF, 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 the assets of the director, executive officer or shareholder.

Messrs. Craig and Lundin were directors of Sirocco. Pursuant to a plan of arrangement completed on January 31, 2014, Canadian Lithium Corp. acquired Sirocco. Under the plan of arrangement, Canadian Lithium Corp. amalgamated with Sirocco to form RBI.

In October 2014, RBI commenced proceedings under the *Companies' Creditors Arrangement Act* (the CCAA). CCAA proceedings continued in 2015 and a receiver was appointed in May 2015. The TSX de-listed RBI's common shares on November 24, 2014 for failure to meet the continued listing requirements of the TSX.

Messrs. Craig and Lundin were never directors, officers or insiders of RBI. Messrs. Craig and Lundin, however, were directors of Sirocco within the 12-month period prior to RBI filing under the CCAA.

The foregoing information, not being within the knowledge of the Company, has been furnished by the respective directors, officers and controlling shareholders of the Company individually.

## **Penalties or Sanctions**

No director or executive officer of the Company, or a shareholder holding a sufficient number of securities of the Company to affect materially the control of the Company, has been subject to:

- (a) 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
- (b) any other 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.

## **Conflicts of Interest**

The Company's directors and officers may serve as directors or officers of other companies or have significant shareholdings in other resource companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors of the Company may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. In the event that such a conflict of interest arises at a meeting of the Company's directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or the terms of such participation. From time to time, several companies may participate in the acquisition, exploration and development of natural resource properties, thereby allowing for their participation in larger programs, the involvement in a greater number of programs or a reduction in financial exposure in respect of any one program. It may also occur that a particular company will assign all or a portion of its interest in a particular program to another of these companies due to the financial position of the company making the assignment. In accordance with the laws of Canada, the directors of the

Company are required to act honestly, in good faith and in the best interests of the Company. In determining whether or not the Company will participate in a particular program and the interest therein to be acquired by it, the directors will primarily consider the degree of risk to which the Company may be exposed and the financial position at that time.

The directors and 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 and officers of conflicts of interest 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 officers. All such conflicts will be disclosed by such directors or officers in accordance with the CBCA and they will govern themselves in respect thereof to the best of their ability in accordance with the obligations imposed upon them by law. Other than as disclosed herein, the directors and officers of the Company are not aware of any such conflicts of interest in any existing or contemplated contracts with or transactions involving the Company.

## **Audit Committee**

### **Overview**

The Audit Committee of the Board of Directors oversees the accounting and financial reporting processes of the Company and its subsidiaries and all external audits and interim reviews of the financial statements of the Company, on behalf of the Board, and has general responsibility for oversight of internal controls, and accounting and auditing activities of the Company and its subsidiaries. The Audit Committee also has a significant role in risk management including (1) reviewing the Corporation's financial risk management programs (such as material commodity, currency or interest rate hedging), treasury reports and policies, as applicable; and (2) together with the HSEC Committee, reviewing with management (i) the effectiveness of the Corporation's procedures with respect to risk identification, assessment and management; (ii) the Corporation's major risk exposures and the steps management has taken to monitor and control such exposures; and (iii) the effect of relevant regulatory initiatives and trends. All auditing services and non-audit services to be provided to the Company by the Company's auditors are pre-approved by the Audit Committee. The Audit Committee reviews, on a regular basis, any reports prepared by the Company's external auditors relating to the Company's accounting policies and procedures, as well as internal control procedures and systems. The Audit Committee is also responsible for reviewing all financial information, including annual and quarterly financial statements, MD&A and press releases regarding earnings, prepared for securities commissions and similar regulatory bodies, and recommending approval thereof to the Board, prior to public dissemination or delivery of the same. The Audit Committee also oversees the work of the external auditor on the annual audit process, the quarterly review engagements, the Company's internal accounting controls, the resolution of issues identified by the Corporation's external auditors, the Company's Whistleblower Policy, any complaints and concerns regarding any known or suspected accounting, financial or auditing irregularities or, in conjunction with the Corporate Governance and Nominating Committee, any known or suspected violations of the Company's Code of Conduct, Ethical Values and Anti-Corruption Policy. The Audit Committee recommends to the Board annually the firm of independent auditors to be nominated for appointment by the shareholders at the annual general meeting of shareholders and approves the compensation of such external auditor.

### **Audit Committee Mandate/Charter**

The Board of Directors has adopted the Mandate which sets out the Audit Committee's purpose, procedures, organization, powers, roles and responsibilities. The complete Mandate is attached as Schedule B to this AIF.

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

Below are the details of each Audit Committee member, including his/her name, whether he/she is independent and financially literate as such terms are defined under NI 52-110 and his/her education and experience as it

relates to the performance of his/her duties as an Audit Committee member. The qualifications and independence of each member is discussed below.

<b>Member Name</b>	<b>Independent<sup>(1)</sup></b>	<b>Financially Literate<sup>(2)</sup></b>	<b>Education and Experience Relevant to Performance of Audit Committee Duties</b>
Dale C. Peniuk (Chair)	Yes	Yes	Mr. Peniuk is a Chartered Professional Accountant (CPA, CA) and holds a B.Comm (Accounting and Management Information Systems). He was formerly an audit/assurance partner of KPMG LLP Chartered Accountants and led KPMG Vancouver's Mining industry practice. In addition to Lundin Mining, he is presently a director and audit committee chair of Argonaut Gold Inc., Capstone Mining Corp., and Kuya Silver Corporation (formerly Miramont Resources Corp.) and has been the audit committee chair of a number of other reporting issuers since 2006. Mr. Peniuk is the designated financial expert on the Audit Committee.
Donald K. Charter	Yes	Yes	Mr. Charter has extensive senior executive leadership experience, most recently as President and CEO of Corsa Coal. His business experience includes financial services, mining and real estate. Mr. Charter was a part of the Dundee group of companies as an Executive Vice President with capital markets related responsibilities. He became the founding Chairman and CEO of the Dundee Securities group of companies. In addition to Lundin Mining, he is currently Board Chair of IAMGold, a member of the Audit Committee of International Petroleum Corporation and Dream Office Real Estate Investment Trust. Mr. Charter holds degrees in Economics and Law and is a member of the Institute of Corporate Directors.
Catherine J. G. Stefan	Yes	Yes	Ms. Stefan is a Chartered Professional Accountant (CPA, CA) and has a B. Comm. She held the position of Chief Operating Officer, O&Y Properties Inc., President of Stefan & Associates, Executive Vice-President of Bramalea Group and Chair, Tax Committee of Canadian Institute of Public Real Estate Companies (CIPREC). In addition to Lundin Mining, she is presently Board Chair and chair of the audit committee of Denison Mines Corp.

(1) A member of an audit committee is independent if the member has no direct or indirect material relationship with the Company which could, in the view of the Board of Directors, reasonably interfere with the exercise of a member's independent judgment, or is otherwise deemed to have a material relationship pursuant to NI 52-110.

(2) An individual is financially literate if he/she has the ability to read and understand a set of financial statements that present a breadth of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues and can reasonably be expected to be raised by the Company's financial statements.

## Audit Committee Oversight

Since the commencement of the Company's most recently completed financial year, there has not been a recommendation of the Audit Committee to nominate or compensate an external auditor which was not adopted by the Board of Directors.

## Pre-Approval Policies and Procedures

All audit and non-audit services performed by the external auditor are pre-approved by the Audit Committee.

## External Auditor Service Fees

The following table discloses the fees billed to the Company by its external auditors during the financial years ended December 31, 2020 and 2019. Services billed in C\$, BLR, CLP, € or SEK were translated using average exchange rates that prevailed during 2020 and 2019.

<b>Fiscal Year Ending</b>	<b>Audit Fees<sup>(1)</sup></b>	<b>Audit-Related Fees<sup>(2)</sup></b>	<b>Tax Fees<sup>(3)</sup></b>	<b>All Other Fees<sup>(4)</sup></b>
December 31, 2020	\$1,797,298	\$10,366	\$68,667	\$nil
December 31, 2019	\$1,400,515	\$3,682	\$8,861	\$nil

(1) *Audit fees represent fees billed by the Company's auditors for audit services.*

(2) *Audit-related fees represent fees billed for assurance and related services by the Company's auditors that are reasonably related to the performance of the audit or review of the Company's financial statements and not disclosed in the Audit Fees column.*

(3) *Tax fees represent fees billed for professional services rendered by the Company's auditor for tax compliance, tax advice and tax planning.*

(4) *All other fees represent fees billed for products and services provided by the Company's auditors other than services reported under clauses (1), (2) and (3) above.*

# Legal Proceedings and Regulatory Actions

## Legal Proceedings

Lundin Mining and its subsidiaries are, from time to time, involved in various claims, legal proceedings, investigations and complaints arising in the ordinary course of business. The results of these pending or threatened proceedings cannot be predicted with certainty. Other than as disclosed below, to the best of the Company's knowledge, the Company is not and was not, during the year ended December 31, 2020, a party to any legal proceedings which may be material, nor is any of its property, nor was any of its property during the year ended December 31, 2020, the subject of any such legal proceedings and as at the date hereof, no such legal proceedings are known to be contemplated.

### **Canadian Securities Class Action**

Two proposed class actions were filed against Lundin Mining and certain officers and directors. The first, in the province of Ontario, on December 7, 2017 (*Markowich v. Lundin Mining Corporation et al*) and a second overlapping action in the Province of Québec on January 18, 2018 (*Prévreau v. Lundin Mining Corporation et al*). Both proposed class actions seek damages of C\$175 million (approximately \$130 million) and punitive damages of C\$10 million (approximately \$7 million) and assert various statutory and other claims related to, among other things, alleged misrepresentations and/or failure to make timely disclosure of material information about the Company's business and operations and, in particular, the operations of the Candelaria Mine and a rock slide at the Candelaria Mine on October 31, 2017. The proposed Ontario class action asserts claims on behalf of a putative class comprising persons who acquired securities of the Company between October 25, 2017, and November 29, 2017, whereas the proposed Québec class action asserts claims on behalf of only such persons who are resident or domiciled in Québec. In June 2018, counsel to the plaintiffs in the Québec action agreed to a stay (i.e., indefinite cessation) of that proceeding in light of the Ontario action. On August 30, 2018, the Québec Superior Court, on



consent of the parties, stayed the Québec action indefinitely. On September 2, 2020, the plaintiff in the Ontario action served motion materials for leave and certification. The leave and certification motion has been scheduled for a hearing in December 2021. It is not possible at this time for the Company to predict an outcome of the class action proceedings. Lundin Mining believes the class actions are without merit and intends to vigorously defend itself.

#### ***Candelaria – Caldera Fishermen Civil Action***

On January 18, 2018, a claim was filed against Minera Candelaria in the Copiapó Court of Appeals on behalf of three Caldera fishermen. The claim alleges contamination of marine habitat as a result of vessel loading activities at the Punta Padrones port operations owned by Candelaria. Further, the claim alleges that this contamination has caused harm to fishermen and local communities including impact on health and livelihood. In the following months, a further four claims making the same arguments were filed by the same Chilean lawyer on behalf of an aggregate of an additional 452 Caldera fishermen, although Candelaria was not formally notified of these claims (i.e., served) until several weeks after each of the claims was filed. In aggregate, the five claims seek damages totaling approximately CLP 27.3 billion (\$39.3 million) which equates to approximately CLP 60 million (\$86,000) per each of the 455 claimants. The five claims were consolidated into a single proceeding on June 11, 2018.

In mid-2018, Minera Candelaria filed a response with the Copiapó Court of Appeals against the claims made. The response sought dismissal of the claims based primarily on the lack of evidence supporting the environmental damage caused by the port facility, the imprecise nature of the monetary claims being made and the absence of actual damages (i.e., no reduction in fishing levels). On February 25, 2019, the presiding judge issued a ruling dismissing all claims made by the plaintiff Caldera fishermen. The plaintiff Caldera fishermen filed an appeal with the Valparaiso Court of Appeals which was heard on February 24, 2021 and the Company is awaiting the court's ruling. The Company believes the claim to be without merit and accordingly has not accrued any amounts related to the litigation. The Company intends to vigorously defend this claim.

#### ***Candelaria – SMA Regulatory Sanctions***

In May 2015, Minera Candelaria was notified by the Chilean Environmental Superintendent (*Superintendencia de Medio Ambiente*, or “SMA”) of 16 charges associated with alleged infractions of its environmental approvals. The charges, which originate from two inspections carried out by the SMA in June 2013 and July 2014, relate to issues including dust control, road maintenance and signage, disposal of used tires, brine management at the desalination plant, groundwater consumption and the footprint of the mining operations, among others. Minera Candelaria followed the process established by the SMA for responding to the charges, which continued for approximately 18 months. On November 30, 2016, the SMA issued a resolution clearing some of the charges and sanctioning Minera Candelaria with a fine of approximately \$4 million for others. The majority of the fine relates to alleged water management issues. From 2016-2018, Minera Candelaria pursued various appeals and other procedural actions before the Second Environmental Court (“**Second EC**”) resulting in the Second EC confirming the SMA sanctions and Minera Candelaria paying fines and interest of approximately \$4.4 million but, with Minera Candelaria also securing the right to appeal to the Supreme Court which it did so. On May 7, 2019, the Supreme Court overturned the ruling issued by the Second EC and ordered a re-hearing of the case before a new panel of judges on the Second EC. The re-hearing occurred in 2020 and the Second EC ruled in favor of the Minera Candelaria overturning the fine and ordered the SMA to carry out a new investigation. The SMA appealed this decision and a hearing before the Supreme Court is expected to occur in 2021.

#### ***Candelaria – Environmental Damage Action***

On July 15, 2019, the State Defense Council (*Consejo de Defensa del Estado*, or “**CDE**”) filed a lawsuit against Minera Candelaria before the First Environmental Court (“**First EC**”) alleging environmental damage due to extraction of groundwater beyond Minera Candelaria's permitted limits. This action is based on the same water management issues alleged by the SMA in the case described above. The action was settled in January 2021 with no admission of environmental damage having occurred.

## Regulatory Actions

No penalties or sanctions were imposed against the Company by a court relating to securities legislation or by a securities regulatory authority during the year ended December 31, 2020, nor were there any other penalties or sanctions imposed by a court or regulatory body against the Company that would likely be considered important to a reasonable investor in making an investment decision, nor were any settlement agreements entered into by the Company before a court relating to securities legislation or with a securities regulatory authority during the year ended December 31, 2020.

## Interest of Management and Others in Material Transactions

To the best of the Company's knowledge, none of the directors or executive officers of the Company, nor any person or company that beneficially owns, controls or directs, directly or indirectly, more than 10% of any class or series of outstanding voting securities of the Company, nor any associate or affiliate of any of the foregoing persons, has or has had any material interest, direct or indirect, in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect the Company.

## Transfer Agents and Registrars

The transfer agent and registrar for the common shares of the Company is Computershare Investor Services Inc. at its principal offices in Toronto, Ontario.

## Material Contracts

The only material contracts entered into by the Company, other than those entered into in the ordinary course of business, within the most recently completed financial year, or before the most recently completed financial year but are still in effect, are set forth below. Copies of these material contracts are available under the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

- (a) Stock Purchase Agreement. On October 6, 2014, the Company and Freeport entered into a definitive Stock Purchase Agreement, which was completed on November 3, 2014, to purchase an 80% ownership interest in Candelaria and supporting infrastructure for cash consideration of \$1.8 billion, plus customary adjustments.
- (b) Candelaria Stream Agreement. On October 6, 2014 (and as amended on November 4, 2016, June 20, 2017 and August 27, 2020), the Company, LMC Bermuda Ltd., Franco-Nevada and Franco-Nevada (Barbados) Corporation entered into the Candelaria Stream Agreement to sell to Franco-Nevada a gold and silver stream from Candelaria for an upfront deposit of \$648 million, subject to expected post-closing adjustments. In addition to the upfront deposit, Franco-Nevada will make ongoing payments upon delivery of the stream.
- (c) Stock Purchase Agreement - BHR. On November 15, 2016, the Company entered into the Stock Purchase Agreement - BHR to sell its 24% interest in the Tenke Fungurume Mine by selling its indirect shareholdings in TF Holdings to an affiliate of BHR Partners, a Chinese private equity firm, for \$1.136 billion in cash and contingent consideration of \$25.7 million given the average cobalt price exceeded \$20 per pound during the 24-month period beginning on January 1, 2018. In connection with its announced sale, Lundin Mining waived its right of first offer which allowed Freeport to complete its sale of its 56% interest in the Tenke Fungurume Mine to CMOC on

November 16, 2016. On April 19, 2017, the Company completed the sale of its indirect interest in TF Holdings.

- (d) **Chapada Purchase Agreement.** The Chapada Purchase Agreement, whereby Lundin Mining acquired a 100% ownership stake in Mineração Maracá Indústria e Comércio S/A, which owns the Chapada Mine from Yamana. Total cash consideration paid by the Company was \$783 million, consisting of a base purchase price of \$800 million less \$17 million of working capital adjustments. The purchase price was funded by cash on hand and the Company's revolving credit facility. Contingent consideration includes a 2.0% NSR royalty on future gold production from the Suruca gold deposit and US\$100 million on potential construction of a pyrite roaster. In addition, the Company is responsible for contingent consideration of up to US\$125 million over five years if certain gold price thresholds are met.
- (e) **Credit Agreement.** The Credit Agreement with respect to the secured revolving \$800 million Credit Facility with a \$200 million accordion option, which bears interest on US dollar denominated drawn funds at rates of LIBOR + 1.75% to LIBOR + 2.75% depending upon the Company's net leverage ratio.

## Interests of Experts

The Qualified Persons who have reviewed and approved the scientific and technical information or the Mineral Reserve and Mineral Resource estimates during the year ended December 31, 2020 for the Company's material properties or who have authored portions of the Technical Reports disclosed in this AIF are as follows:

### *Candelaria Mine:*

- Messrs. Patricio Calderón, Registered Member, Chilean Mining Commission, Deputy Manager Exploration Geology, Candelaria Mine, in respect of the Candelaria Mineral Resource estimates and Cristian Erazo, Registered Member, Chilean Mining Commission, Deputy Manager Technical Services Candelaria Underground and Patricio Oyarce, Registered Member, Chilean Mining Commission, Senior Engineer Technical Services Open Pit, Candelaria Mine, in respect of the Mineral Reserve estimates;
- Messrs. Glen Cole, P.Geo., Benny Zhang PEng, Adrian Dance, P.Eng., and Cameron C. Scott, P.Eng, of SRK Consulting (Canada) Inc. and John Nilsson, P.Eng., of Nilsson Mine Services Ltd., in respect of the Candelaria Report;

### *Chapada Mine*

- Mr. Felipe Machado de Araujo, Registered Member, Chilean Mining Commission, formerly employed by Chapada as Mineral Resources Coordinator, Chapada Mine, in respect of the Chapada Mineral Resource estimate and Mr. Jean-Francois St-Onge, PEO and OIQ, Director Technical Services, Lundin Mining, in respect of the Chapada Mineral Reserve estimate; and
- Messrs. Chester Moore, P.Eng., Hugo Miranda, ChMc(RM), and Andrew Hampton, P.Eng. of Roscoe Postle Associates Inc, and David Ritchie, P.Eng, of SLR Consulting, in respect of the Chapada Report.

### *Eagle Mine*

- Mr. Graham Greenway, P.Geo, Group Resource Geologist, Lundin Mining, in respect of the Eagle Mineral Resource estimates and Mr. Josh Lam, P.Eng, Mine Superintendent, Lundin Mining, in respect of the Eagle Mineral Reserve estimates;

- Mr. Graham Greenway, P.Geo, Group Resource Geologist, Lundin Mining, in respect of the Eagle East Mineral Resource estimate and Mr. Josh Lam, P.Eng, in respect of the Eagle East Mineral Reserve estimate;
- Graham Clow, P.Eng., David Rennie, P.Eng., Brenna Scholey, P.Eng., and Normand Lecuyer, P.Eng., of Roscoe Postle Associates Inc, in respect of the Eagle Report;

#### *Neves-Corvo Mine*

- Ms. Sandra Santos, CEng MIMMM, Geological Engineer, Neves-Corvo, in respect of the Neves-Corvo Mineral Resource estimate and Mr. Jean-Francois St-Onge, PEO and OIQ, Director Technical Services, Lundin Mining, in respect of the Neves-Corvo Mineral Reserve estimate;
- Mr. Graham Greenway, P.Geo, Group Resource Geologist, Lundin Mining, in respect of the Semblana deposit Mineral Resource estimate;
- Mr. Richard Ellis, CGeol, EurGeol, and Dr. Phil Newall, CEng, FIMMM, of Wardell Armstrong International Ltd., in respect of the Neves-Corvo Report;

#### *Zinkgruvan Mine*

- Mr. Graham Greenway, P.Geo, Group Resource Geologist, Lundin Mining, and Dr. David Allison, CEng, MIMMM, Group Mining Engineer, Lundin Mining, in respect of the Zinkgruvan Mineral Resource and Mineral Reserve estimate;
- Messrs. Richard Ellis, CGeol, EurGeol, Philip King, CEng, FIMMM, and Tim Daffern, CEng, FIMMM, of Wardell Armstrong International Ltd., in respect of the Zinkgruvan Report;

#### *General*

- Unless otherwise stated, the scientific and technical information in this AIF has been reviewed and approved by Mr. Stephen Gatley, Vice President, Technical Services of Lundin Mining and Mr. Graham Greenway, Group Resource Geologist of Lundin Mining, each of whom is a Qualified Person under NI 43-101.

Each of the aforementioned firms or persons held less than 1% of the outstanding securities of the same class of the Company or of any associate or affiliate of the Company when such expert prepared the Technical Reports or the Mineral Resource or Mineral Reserve estimates referred to, and held less than 1% of the outstanding securities of the same class of the Company following the preparation of such reports or data.

None of the aforementioned firms or persons, nor any directors, officers or employees of such firms, are currently expected to be elected, appointed or employed as a director, officer or employee of the Company or of any associate or affiliate of the Company, other than Mr. Gatley, who is employed as an officer of the Company, and Messrs. Greenway, Calderón, Oyarce, Erazo, St-Onge, Lam, Allison and Ms. Santos, each of whom is currently employed by Lundin Mining or one of its subsidiaries.

The Company's independent auditors, PricewaterhouseCoopers LLP, Chartered Professional Accountants, Licensed Public Accountants, issued an independent auditor's report dated February 18, 2021 in respect of the Company's annual consolidated financial statements as at December 31, 2020 and December 31, 2019 and for each of the years then ended. PricewaterhouseCoopers LLP has advised that they are independent with respect to the Company within the meaning of the Chartered Professional Accountants of Ontario, CPA Code of Professional Conduct.

## **Additional Information**

Additional information regarding the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com). Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, if any, and securities authorized for issuance under equity compensation plans is contained in the Company's management information circular dated March 19, 2021 prepared in connection with the annual meeting of shareholders to be held on or about May 7, 2021.

The Company's management information circular for the year ended December 31, 2020 will be prepared and filed in connection with its annual meeting of shareholders, which is expected to be held on or about May 7, 2021. Additional financial information is provided in the Company's annual consolidated financial statements for the years ended December 31, 2020 and 2019, together with the auditors' report thereon and the notes thereto, and MD&A for the year ended December 31, 2020.

**SCHEDULE A: Mineral Resource and Reserve Estimates as at June 30, 2020**

**Mineral Resource Estimates – June 30, 2020**

Mineral Resources - inclusive of Mineral Reserves		Contained Metal 000's (Ounces millions)																											
		000's Tonnes	Cu %	Zn %	Pb %	Au g/t	Ag g/t	Ni %	Cu t	Zn t	Pb t	Au oz	Ag oz	Ni t	Lundin Interest														
<b>Copper</b>																													
<b>Candelaria</b>	Measured	434,834	0.46			0.11	1.6		2,019			1.5	22		80%														
<b>Open Pit</b>	Measured (Stockpile)	85,086	0.32			0.09	1.3		270			0.2	4		80%														
	Indicated	38,410	0.33			0.09	1.3		127			0.1	2		80%														
	Inferred	5,958	0.24			0.05	0.7		14			-	-		80%														
<b>Candelaria</b>	Measured	35,695	0.41			0.09	0.4		147			0.1	-		80%														
<b>La Espanola</b>	Indicated	39,697	0.39			0.09	0.4		155			0.1	-		80%														
	Inferred	17,208	0.38			0.09	0.4		66			-	-		80%														
<b>Candelaria</b>	Measured	272,939	0.93			0.22	3.1		2,530			1.9	27		80%														
<b>Underground</b>	Measured (Stockpile)	63	0.93			0.20	2.5		1			-	-		80%														
	Indicated	272,529	0.85			0.19	2.6		2,324			1.7	23		80%														
	Inferred	54,452	0.85			0.17	2.2		460			0.3	4		80%														
<b>Chapada</b>	Measured	494,059	0.25			0.15			1,221			2.4			100%														
<b>Copper</b>	Measured (Stockpile)	115,385	0.22			0.15			251			0.6			100%														
	Indicated	522,755	0.22			0.14			1,167			2.3			100%														
	Inferred	171,048	0.22			0.08			372			0.4			100%														
<b>Chapada</b>	Measured	12,737				0.42						0.2			100%														
<b>Suruca Gold</b>	Indicated	134,780				0.54						2.3			100%														
	Inferred	12,565				0.48						0.2			100%														
<b>Neves-Corvo</b>	Measured	9,823	3.6	0.9	0.3			44	351	85	28		14		100%														
	Indicated	52,124	2.1	0.8	0.3			43	1,072	437	180		72		100%														
	Inferred	12,640	1.8	0.8	0.3			33	227	101	40		14		100%														
<b>Semblana</b>	Inferred	7,807	2.9					25	223				6		100%														
<b>Zinkgruvan</b>	Measured	3,632	2.3	0.3				36	82	12			4		100%														
	Indicated	463	2.0	0.9				38	9	4			1		100%														
	Inferred	241	2.0	0.5				35	5	1			-		100%														
<b>Zinc</b>																													
<b>Neves-Corvo</b>	Measured	11,246	0.3	8.0	1.8			67	36	897	204		24		100%														
	Indicated	60,007	0.3	6.7	1.4			61	206	4,041	836		117		100%														
	Inferred	3,677	0.4	5.8	1.4			63	13	214	51		7		100%														
<b>Zinkgruvan</b>	Measured	6,687		7.9	3.0			74		530	202		16		100%														
	Indicated	15,909		9.0	4.4			81		1,425	703		41		100%														
	Inferred	18,981		7.6	3.5			82		1,439	661		50		100%														
<b>Nickel</b>																													
<b>Eagle</b>	Measured	751	2.2			0.2		2.2	17					17	100%														
	Indicated	477	1.6			0.1		2.1	8					10	100%														
	Indicated Eagle East	2,579	2.7			0.3	10	3.3	71			-	1	86	100%														
	Inferred	21	0.9			0.1		1.0	-			-	-	-	100%														
									<b>Lundin's share</b>			<b>10,551</b>			<b>7,430</b>			<b>2,153</b>			<b>12.3</b>			<b>352</b>			<b>113</b>		
									not including Inferred Resources																				

Note: totals may not summate correctly due to rounding

**Mineral Reserve Estimates – June 30, 2020**

Mineral Reserves		Contained Metal 000's (Ounces millions)													
		Category	000's Tonnes	Cu %	Zn %	Pb %	Au g/t	Ag g/t	Ni %	Cu t	Zn t	Pb t	Au oz	Ag oz	Ni t
<b>Copper</b>															
<b>Candelaria</b>	Proven	355,519	0.49			0.11	1.6		1,732			1.3	18		80%
<b>Open Pit</b>	Proven (Stockpile)	85,086	0.32			0.09	1.3		270			0.2	4		80%
	Probable	25,622	0.31			0.08	1.1		81			0.1	1		80%
	<b>Total</b>	<b>466,227</b>	<b>0.45</b>			<b>0.11</b>	<b>1.5</b>		<b>2,082</b>			<b>1.6</b>	<b>23</b>		<b>80%</b>
<b>Candelaria</b>	Proven	32,702	0.42			0.09	0.4		136			0.1	-		80%
<b>La Espanola</b>	Probable	25,297	0.40			0.09	0.4		102			0.1	-		80%
	<b>Total</b>	<b>58,000</b>	<b>0.41</b>			<b>0.09</b>	<b>0.4</b>		<b>238</b>			<b>0.2</b>	<b>1</b>		<b>80%</b>
<b>Candelaria</b>	Proven	79,845	0.86			0.20	3.2		687			0.5	8		80%
<b>Underground</b>	Proven (Stockpile)	63	0.93			0.20	2.5		1			-	-		80%
	Probable	80,311	0.81			0.18	2.6		648			0.5	7		80%
	<b>Total</b>	<b>160,219</b>	<b>0.83</b>			<b>0.19</b>	<b>2.9</b>		<b>1,335</b>			<b>1.0</b>	<b>15</b>		<b>80%</b>
<b>Chapada</b>	Proven	403,695	0.24			0.16			983			2.1			100%
<b>Copper</b>	Proven (Stockpile)	115,385	0.21			0.15			243			0.5			100%
	Probable	240,573	0.22			0.12			533			1.0			100%
	<b>Total</b>	<b>759,652</b>	<b>0.23</b>			<b>0.15</b>			<b>1,759</b>			<b>3.6</b>			<b>100%</b>
<b>Chapada</b>	Proven	11,454				0.42						0.2			100%
<b>Suruca Gold</b>	Probable	53,741				0.53						0.9			100%
	<b>Total</b>	<b>65,195</b>				<b>0.51</b>						<b>1.1</b>			<b>100%</b>
<b>Neves-Corvo</b>	Proven	5,199	3.1	0.8	0.3		31		162	43	16		5		100%
	Probable	24,494	1.8	0.7	0.2		30		433	181	61		24		100%
	<b>Total</b>	<b>29,693</b>	<b>2.0</b>	<b>0.8</b>	<b>0.3</b>		<b>30</b>		<b>596</b>	<b>224</b>	<b>76</b>		<b>29</b>		<b>100%</b>
<b>Zinkgruvan</b>	Proven	2,825	1.9	0.2			30		54	7			3		100%
	Probable	274	1.7	0.8			33		5	2			-		100%
	<b>Total</b>	<b>3,099</b>	<b>1.9</b>	<b>0.3</b>			<b>30</b>		<b>58</b>	<b>9</b>			<b>3</b>		<b>100%</b>
<b>Zinc</b>															
<b>Neves-Corvo</b>	Proven	4,713	0.3	8.2	2.2		71		14	387	105		11		100%
	Probable	25,401	0.3	7.1	1.7		61		82	1,813	436		49		100%
	<b>Total</b>	<b>30,114</b>	<b>0.3</b>	<b>7.3</b>	<b>1.8</b>		<b>62</b>		<b>96</b>	<b>2,200</b>	<b>541</b>		<b>60</b>		<b>100%</b>
<b>Zinkgruvan</b>	Proven	3,393		7.7	3.4		78			263	115		8		100%
	Probable	5,393		7.9	3.8		84			427	204		14		100%
	<b>Total</b>	<b>8,786</b>		<b>7.9</b>	<b>3.6</b>		<b>81</b>			<b>690</b>	<b>319</b>		<b>23</b>		<b>100%</b>
<b>Nickel</b>															
<b>Eagle</b>	Proven	728	1.8			0.2		1.9	13					14	100%
	Probable	474	1.3			0.1		1.7	6					8	100%
	Probable Eagle East	2,707	2.4			0.3	5	2.9	65				0.5	78	100%
	<b>Total</b>	<b>3,909</b>	<b>2.1</b>			<b>0.2</b>	<b>4</b>	<b>2.6</b>	<b>84</b>				<b>0.5</b>	<b>100</b>	<b>100%</b>
Note: totals may not summate correctly due to rounding									<b>Lundin's share</b>	<b>5,518</b>	<b>3,123</b>	<b>936</b>	<b>6.9</b>	<b>146</b>	<b>100</b>

**Notes on Mineral Reserves and Mineral Resources Table**

Mineral Resources and Mineral Reserve estimates are shown on a 100% basis for each mine. The Measured and Indicated Mineral Resource estimates are inclusive of those Mineral Resource estimates modified to produce the Mineral Reserve estimates. All estimates are prepared as at June 30, 2020.

As further detailed below for the respective operations, estimates, for all operations are prepared by or under the supervision of and verified by a Qualified Person as defined in NI 43-101 or have been audited and verified by independent Qualified Persons on behalf of Lundin Mining.

**Candelaria and Ojos**

Mineral Resources at Candelaria are estimated using metal prices of US\$3.45/lb copper and US\$1,300/oz gold and an exchange rate of USD/CLP 600. Mineral Reserves were estimated using metal prices of US\$3.00/lb copper and US\$1,300/oz gold and an exchange rate of USD/CLP 600.

Candelaria and La Española open pit Mineral Resource estimates are reported within a conceptual pit shell with cut-off grades of 0.15% and 0.17% copper respectively. Underground Mineral Resources are estimated at a cut-off grade of 0.45% copper within confining grades shells of 0.4% copper. Mineral Reserves for the Candelaria open pit, Española open pit and underground for the Candelaria property are estimated at cut-off grades of 0.16%, 0.19% and 0.50% copper, respectively. Underground Mineral Reserves for the Ojos del Salado property



(Santos and Alcaparrosa Mines) are estimated at cut-off grades of 0.55% copper and 0.60% copper respectively. Patricio Calderón, Deputy Manager Exploration Geology, Patricio Oyarce, Senior Engineer Technical Services Open Pit and Cristian Erazo, Deputy Manager Technical Services Candelaria Underground, each of whom is a Registered Member, Chilean Mining Commission, employed by the Candelaria mining complex and is a Qualified Person as defined under NI 43-101, supervised the preparation of and verified the Mineral Resource estimates, open pit Mineral Reserve and underground Mineral Reserve estimates respectively for Candelaria.

### **Chapada**

Mineral Resources at Chapada and Suruca SW copper-gold are estimated using metal prices of US\$3.45/lb copper and US\$1,495/oz gold and an exchange rate of USD/BRL 4.00. For the Suruca gold only Mineral Resource estimates a gold price of \$1,500/oz has been used and an exchange rate of USD/BRL 3.50. Mineral Reserves were estimated using metal prices of US\$3.00/lb copper and US\$1,300/oz gold and an exchange rate of USD/BRL 4.00.

The Chapada and Suruca SW copper-gold Mineral Resource estimates are reported within a conceptual pit shell at a variable Net Smelter Return (NSR) marginal cut-off averaging \$4.08 per tonne. For the Suruca gold deposit only Mineral Resource estimates, cut-off grades of 0.16 g/t gold for oxides and 0.23 g/t for sulfides were used. Mineral Reserves for the Chapada open pit are estimated at a NSR cut-off of \$4.73 per tonne. For the Suruca gold deposit only Mineral Reserve estimates cut-off grades of 0.19 g/t gold for oxides and 0.30 g/t for sulfides are used. Felipe Machado de Araujo, Mineral Resources Coordinator, Registered Member of Chilean Mining Commission formerly employed by Chapada prepared the Chapada and Suruca Mineral Resource estimates and Jean-Francois St-Onge, PEO and OIQ, Director Technical Services, Lundin Mining reviewed and verified the Mineral Reserve estimates for Chapada. Both Messrs. Araujo and St-Onge are Qualified Persons as defined under NI 43-101.

### **Neves-Corvo and Semblana**

Mineral Reserves for Neves-Corvo and Semblana have been estimated using metal prices of US\$3.00/lb copper and US\$1.00/lb zinc and an exchange rate of EUR/USD 1.25.

The Mineral Resources are estimated above cut-off grades of 1.0% for copper and 4.5% for zinc. The copper and zinc Mineral Reserve estimates have been calculated using variable NSR values based on area and mining method. The NSR is calculated on a recovered payable basis considering copper, lead, zinc and silver grades, metallurgical recoveries, prices and realization costs. The copper Mineral Reserves are estimated above a site average cut-off of EUR 42.0/t (grade equivalent to 1.34% copper). For zinc Mineral Reserve estimates a site average cut-off of EUR 46.6/t (grade equivalent to 5.34% zinc) is used. Mineral Reserves and Mineral Resources for Neves-Corvo were estimated by the mine geology and mine engineering departments at Neves-Corvo under the guidance of Sandra Santos, CEng MIMMM, Geological Engineer, and Diogo Caupers, Chief Mine Planning Engineer, each of whom is employed by the Neves-Corvo mine. Sandra Santos, prepared the Neves-Corvo Mineral Resource estimates and Jean-Francois St-Onge, PEO and OIQ, Director Technical Services, Lundin Mining, reviewed and verified the Mineral Reserve estimates for Neves-Corvo. Both Ms. Santos and Mr. St-Onge are Qualified Persons as defined under NI 43-101.

The Mineral Resources at Semblana are estimated above a cut-off grade of 1.0% copper. The Mineral Resource estimate contained in this AIF was prepared by Graham Greenway, P.Geol, Group Resource Geologist, Lundin Mining, who is a Qualified Person as defined under NI 43-101.

### **Zinkgruvan**

Mineral Resources and Mineral Reserves at Zinkgruvan have been estimated using metal prices of US\$3.00/lb copper, US\$1.00/lb zinc and US\$1.00/lb lead and an exchange rates of USD/SEK 7.00.

The zinc Mineral Resources are estimates within geological volumes based at a nominal NSR cut-off of SEK 350/t (equivalent to 4.5% zinc) and a minimum mining width of 5 m. The copper Mineral Resource is estimated above a cut-off grade of 1.0% Cu. The zinc and copper Mineral Reserves are estimated above a site average NSR cut-off grade of SEK 500/t (equivalent to 6.1% zinc and 1.4% copper respectively). The NSR is calculated on a recovered payable basis considering copper, lead, zinc and silver grades, metallurgical recoveries, prices and realization

costs. The Zinkgruvan Mineral Resource and Mineral Reserve estimates are prepared by the mine's geology and mine engineering department under the supervision of Anja Hagerud, Resource Manager, and Nigel Clark, Section Manager Technical Services, both employed by Zinkgruvan Mine. The estimates were reviewed and verified by Graham Greenway, P.Geol, and David Allison, Group Mining Engineer, CEng MIMMM, Lundin Mining. Both Messrs. Greenway and Allison are Qualified Persons as defined under NI 43-101.

***Eagle and Eagle East***

Mineral Resources and Mineral Reserves at Eagle and Eagle East have been estimated using metal prices of US\$3.00/lb copper and US\$6.50/lb nickel.

The Eagle Mineral Resources and Reserves are reported above a fixed NSR cut-off of US\$108/t. The Eagle East Mineral Resources are reported above a fixed NSR cut-off of US\$142/t and the Mineral Reserves are reported above US\$142/t for long-hole stopes and US\$150/t for cut-and-fill stopes. The NSR is calculated on a recovered payable basis considering nickel, copper, cobalt, gold and PGM grades, metallurgical recoveries, prices and realization costs. The Eagle Mineral Resource and Mineral Reserve estimates are prepared by the mine's geology and mine engineering department under the guidance of Lars Olaussen, Technical Services Principal and Josh Lam, P.Eng, Mine Superintendent, both of whom are employees of Eagle Mine. The Eagle East Mineral Resource estimate was prepared by Graham Greenway, P.Geol, Group Resource Geologist, Lundin Mining, who also reviewed and verified the Eagle Mineral Resource estimate. Josh Lam, P.Eng, reviewed and verified the Eagle and Eagle East Mineral Reserve estimates. Both Messrs. Greenway and Lam are Qualified Persons as defined under NI 43-101.

**SCHEDULE B: Audit Committee Mandate****AUDIT COMMITTEE MANDATE****A. PURPOSE**

The purpose of the Audit Committee (the “**Committee**”) is to ensure that Lundin Mining Corporation’s (the “**Corporation**”) management has designed and implemented an effective system of internal financial controls, to review and report on the integrity of the consolidated financial statements of the Corporation and to review the Corporation’s compliance with regulatory and statutory requirements as they relate to financial statements, taxation matters and disclosure of material risks and facts.

The Committee’s function is one of oversight. The Corporation’s management is responsible for the preparation of financial statements in accordance with applicable accounting standards, laws and regulations and the Corporation’s external auditor is responsible for the audit or review of those financial statements, in accordance with applicable auditing and assurance standards, laws and regulations.

**B. COMPOSITION, PROCEDURES AND ORGANIZATION**

1. The Committee shall consist of at least three members of the Board of Directors (the “**Board**”), all of whom shall be “independent”, as that term is defined in National Instrument 52-110, “Audit Committees”.
2. All of the members of the Committee shall be “financially literate” (i.e., able to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Corporation’s financial statements).
3. At least one member of the Committee shall have accounting or related financial expertise (i.e., able to analyze and interpret a full set of financial statements, including the notes thereto, in accordance with generally accepted accounting principles).
4. The Board, at its organizational meeting held in conjunction with each annual general meeting of the shareholders, shall appoint the members of the Committee for the ensuing year. The Board may at any time remove or replace any member of the Committee and may fill any vacancy in the Committee.
5. Unless the Board shall have appointed a Chair of the Committee or in the event of the absence of the Chair, the members of the Committee shall elect a Chair from among their number.
6. The secretary of the Committee shall be designated from time to time from one of the members of the Committee or, failing that, shall be the Corporation’s Corporate Secretary, unless otherwise determined by the Committee.
7. 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.
8. The Committee shall have access to such officers and employees of the Corporation and to the Corporation’s external auditors, and to such information respecting the Corporation, as it considers to be necessary or advisable in order to perform its duties and responsibilities.
9. Meetings of the Committee shall be conducted as follows:

- (a) the Committee shall meet at least four times annually at such times and at such locations as may be requested by the Chair of the Committee. The external auditors or any member of the Committee may request a meeting of the Committee;
  - (b) the external auditors shall receive notice of and have the right to attend all meetings of the Committee;
  - (c) the Chair of the Committee shall be responsible for developing and setting the agenda for Committee meetings and determining the time and place of such meetings;
  - (d) the following management representatives shall be invited to attend all meetings, except executive sessions and private sessions with the external auditors:
    - (i) Chief Executive Officer; and
    - (ii) Chief Financial Officer;
  - (e) other management representatives shall be invited to attend as necessary; and
  - (f) notice of the time and place of every meeting of the Committee shall be given in writing to each member of the Committee a reasonable time before the meeting.
10. The internal auditors and the external auditors shall have a direct line of communication to the Committee through its Chair and may bypass management if deemed necessary. The Committee, through its Chair, may contact directly any employee in the Corporation as it deems necessary, and any employee may bring before the Committee any matter involving questionable, illegal or improper financial practices or transactions.
11. The Committee shall have authority to engage independent counsel and other advisors as it determines necessary to carry out its duties, to set and pay the compensation for any advisors employed by the Audit Committee and to communicate directly with the internal and external auditors.

### **C. DUTIES AND RESPONSIBILITIES**

The Committee will act within the scope of its authority under this mandate and shall also deal with such matters as the Board may refer to it from time to time. The Committee is authorized to carry out the following duties and responsibilities:

1. Overall duties and responsibilities
  - (a) Assist the Board in the discharge of its responsibilities relating to the Corporation's accounting principles, reporting practices and internal controls and its approval of the Corporation's annual and quarterly consolidated financial statements;
  - (b) Establish and maintain a direct line of communication with the Corporation's internal and external auditors and assess their performance;
  - (c) Ensure that management of the Corporation has designed, implemented and is maintaining an effective system of internal financial controls; and
  - (d) Report regularly to the Board on the fulfilment of its duties and responsibilities.
2. Duties and responsibilities related to the Corporation's external auditors

- (a) Recommend to the Board a firm of external auditors to be engaged by the Corporation, and to verify the independence of such external auditors;
  - (b) Review and approve the fee, scope and timing of the audit and other related services rendered by the external auditors;
  - (c) Review the audit plan of the external auditors prior to the commencement of the audit;
  - (d) Review with the external auditors, upon completion of their audit:
    - (i) contents of their report;
    - (ii) scope and quality of the audit work performed;
    - (iii) adequacy of the Corporation's financial and auditing personnel;
    - (iv) co-operation received from the Corporation's personnel during the audit;
    - (v) internal resources used;
    - (vi) significant transactions outside of the normal business of the Corporation;
    - (vii) significant proposed adjustments and recommendations for improving internal accounting controls, accounting principles or management systems; and
    - (viii) the non-audit services provided by the external auditors;
  - (e) Discuss with the external auditors the quality and not just the acceptability of the Corporation's accounting principles; and
  - (f) Implement structures and procedures to ensure that the Committee meets the external auditors on a regular basis in the absence of management.
3. Duties and responsibilities related to the Corporation's internal auditors
- (a) Periodically review the internal audit function with respect to the organization, staffing and effectiveness of the internal audit department;
  - (b) Review and approve the internal audit plan; and
  - (c) Review significant internal audit findings and recommendations, and management's response thereto.
4. Duties and responsibilities related to the Corporation's internal control procedures
- (a) Review the appropriateness and effectiveness of the Corporation's policies and business practices which impact on the financial integrity of the Corporation, including those relating to internal auditing, insurance, accounting, information services and systems and financial controls, management reporting and risk management;
  - (b) Together with the Corporation's Corporate Governance and Nominating Committee review compliance under the Corporation's Code of Conduct, Ethical Values and Anti-Corruption Policy (including oversight of financial and accounting whistleblower reports);

- (c) Review any unresolved issues between management and the external auditors that could affect the financial reporting or internal controls of the Corporation; and
  - (d) Periodically review the Corporation's financial and auditing procedures and the extent to which recommendations made by the internal audit staff or by the external auditors have been implemented.
5. Other duties and responsibilities
- (a) Review the Corporation's quarterly statements of earnings, including the impact of unusual items and changes in accounting principles and estimates and report to the Board with respect thereto;
  - (b) Review financial risk management programs (such as material commodity, currency or interest rate hedging) and the Corporation treasury reports and policies, as required;
  - (c) Review and recommend to the Board for approval of the financial and, together with the Health, Safety, Environment and Community Committee (the "**HSEC Committee**"), the risk management sections of:
    - (i) the annual report to shareholders;
    - (ii) the annual information form;
    - (iii) prospectuses; and
    - (iv) other public reports requiring approval by the Board, and report to the Board with respect thereto;
  - (d) Review regulatory filings and decisions as they relate to the Corporation's consolidated financial statements;
  - (e) Review the appropriateness of the policies and procedures used in the preparation of the Corporation's consolidated financial statements and other required disclosure documents, and consider recommendations for any material change to such policies;
  - (f) Review and report on the integrity of the Corporation's consolidated financial statements;
  - (g) Review the minutes of any audit or equivalent committee meeting of subsidiary companies;
  - (h) Review with management, the external auditors and, if necessary, with legal counsel, any litigation, claim or other contingency, including tax assessments that could have a material effect upon the financial position or operating results of the Corporation and the manner in which such matters have been disclosed in the consolidated financial statements;
  - (i) Review the Corporation's compliance with regulatory and statutory requirements as they relate to financial statements, tax matters and disclosure of material facts;
  - (j) Develop a calendar of activities to be undertaken by the Committee for each ensuing year and to submit the calendar in the appropriate format to the Board of Directors following each annual general meeting of shareholders;
  - (k) Establish procedures for:

- (i) the receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls, or auditing matters; and
- (ii) the confidential, anonymous submission by employees of the Corporation of concerns regarding questionable accounting or auditing matters; and
- (iii) Coordinate with the HSEC Committee (as it relates to health, safety, environment and community risks) and review with management:
- (iv) the effectiveness of the Corporation's procedures with respect to risk identification, assessment and management;
- (v) the Corporation's major risk exposures;
- (vi) the steps management has taken to monitor and control such exposures; and
- (vii) the effect of relevant regulatory initiatives and trends.

Approved: 18 March 2021



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