



Annual Information Form

For the year ended December 31, 2022

Dated: March 7, 2023

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Forward-looking Information

Unless otherwise noted, the information given herein is as of December 31, 2022.

Certain statements made in this document that are not current or historical factual statements may constitute “forward looking information” within the meaning of applicable Canadian securities legislation. Forward looking information may include, but is not limited to, statements with respect to future events or future performance; the effect of the Copper Purchase Agreement in respect of the Chapada Mine (each as defined herein) on Altius Minerals Corporation’s (“Altius” or the “Corporation”) financial position and/or results; expectations regarding the impact, if any, of COVID-19 on the Corporation’s operations; production volumes; the financial and operational strength of counterparties; industry conditions, trends and practices; realized prices for production; future mineral reserves and mine life; management’s expectations regarding the Corporation’s growth and results of operations; estimated future revenues; fluctuations in the prices of the primary commodities that are material for the Corporation’s royalty revenue (including potash, iron ore, and copper); requirements for additional capital; business prospects and opportunities including within renewable energy; treatment under governmental regulatory regimes with respect to environmental matters; treatment under governmental taxation regimes; government regulation of mining operations; dependence on personnel; and competitive conditions. Such forward looking information reflects management’s current beliefs and is based on information currently available to management. Expressions such as “anticipates”, “expects”, “believes”, “estimates”, “could”, “intends”, “may”, “plans”, “will”, “would”, “pro forma” and other similar expressions, or the negative of these terms, are generally indicative of forward looking information. By its very nature, forward looking information requires the Corporation to make assumptions and is subject to inherent risks and uncertainties which give rise to the possibility that the Corporation’s predictions, forecasts, expectations or conclusions will not prove to be accurate, that the Corporation’s assumptions may not be correct and that the Corporation’s objectives, strategic goals and priorities will not be achieved. Such forward looking information is not fact but only reflects management’s estimates and expectations.

A number of factors could cause actual events or results to differ materially from any forward looking information, including, without limitation: fluctuations in the prices of the primary commodities that drive royalty revenue; fluctuations in the value of the Canadian dollar; changes in national and local government legislation, including permitting, licensing and environmental regimes and taxation policies; regulations and political or economic developments in any of the jurisdictions where properties in which the Corporation holds a royalty or other interest are located; influence of macroeconomic developments; reduced access to debt and equity capital; litigation; title, permit or licensing disputes related to the Corporation’s interests or any of the properties in which the Corporation holds a royalty or other interest; excessive cost escalation as well as development, permitting, infrastructure, operating or technical difficulties on any of the properties in which the Corporation holds a royalty or other interest; rate and timing of production differences from resource estimates; risks and hazards associated with the business of development and mining on any of the properties in which the Corporation holds a royalty or other interest, including, but not limited to unusual or unexpected geological and metallurgical conditions,

slope failures or cave ins, flooding and other natural disasters; and the ability of certain renewable royalty investments to (as defined herein) to meet certain milestones.

The forward looking information contained herein is based upon assumptions management believes to be reasonable, including, without limitation: the ongoing operation of the properties in which the Corporation holds a royalty or other interest by the owners or operators of such properties in a manner consistent with past practice; the accuracy of public statements and disclosures made by the owners or operators of such underlying properties; no material adverse change in the market price of the commodities that underlie the asset portfolio; no adverse development in respect of any significant property in which the Corporation holds a royalty or other interest; the accuracy of publicly disclosed expectations for the development of underlying properties that are not yet in production; and the absence of any other factors that could cause actions, events or results to differ from those anticipated, estimated or intended. However, there can be no assurance that forward looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Investors are cautioned that the forward looking information is not a guarantee of future performance. The Corporation cannot assure investors that actual results will be consistent with any forward looking information disclosed herein. Accordingly, investors should not place undue reliance on forward looking information due to the inherent uncertainty thereof. For additional information with respect to risks, uncertainties and assumptions, please refer to the "Risk Factors" section of this Annual Information Form ("AIF").

The forward looking information disclosed herein is provided as of the date of this AIF only and the Corporation does not assume any obligation to update or revise such information to reflect any new information, estimates or opinions, future events or results or otherwise, except as required by applicable law.

Non-GAAP Financial Measures

Management uses the following non-GAAP financial measures: attributable revenue, attributable royalty revenue, adjusted earnings before interest, taxes, depreciation and amortization (adjusted EBITDA), adjusted operating cash flow and adjusted net earnings (loss).

Management uses these measures to monitor the financial performance of the Corporation and its operating segments and believes these measures enable investors and analysts to compare the Corporation's financial performance with its competitors and/or evaluate the results of its underlying business. These measures are intended to provide additional information, not to replace International Financial Reporting Standards (IFRS) measures, and do not have a standard definition under IFRS and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS. As these measures do not have a standardized meaning, they may not be comparable to similar measures provided by other companies. Further information on the composition and usefulness of each non-GAAP financial measure, including reconciliation to their most directly comparable IFRS measures, is included in the non-GAAP financial measures section in the Corporation's Management Discussion and Analysis.

Technical and Third-Party Information

Except where otherwise stated, the disclosure in this AIF relating to properties and operations on the properties in which Altius holds royalty and streaming interests is based primarily on information publicly disclosed by the owners or operators of these properties and information available in the public domain as at March 7, 2023. As a royalty holder, Altius has limited, if any, access to properties included in its royalty portfolio. Altius generally relies on publicly available information regarding these properties and operations and generally has no ability to independently verify such information. Additionally, Altius has, and may from time to time receive, operating information from the owners and operators of these properties which it is not permitted to disclose to the public. Altius is dependent on the operators of the properties and their qualified persons to provide information to Altius or on publicly available information to prepare required disclosure pertaining to properties and operations on the properties on which Altius holds royalty and streaming interests and generally has limited or no ability to independently verify such information. Although Altius does not have any knowledge that such information may not be accurate, there can be no assurance that such third party information is complete or accurate.

All currency references in this AIF are to Canadian dollars unless otherwise indicated.

Corporate Structure

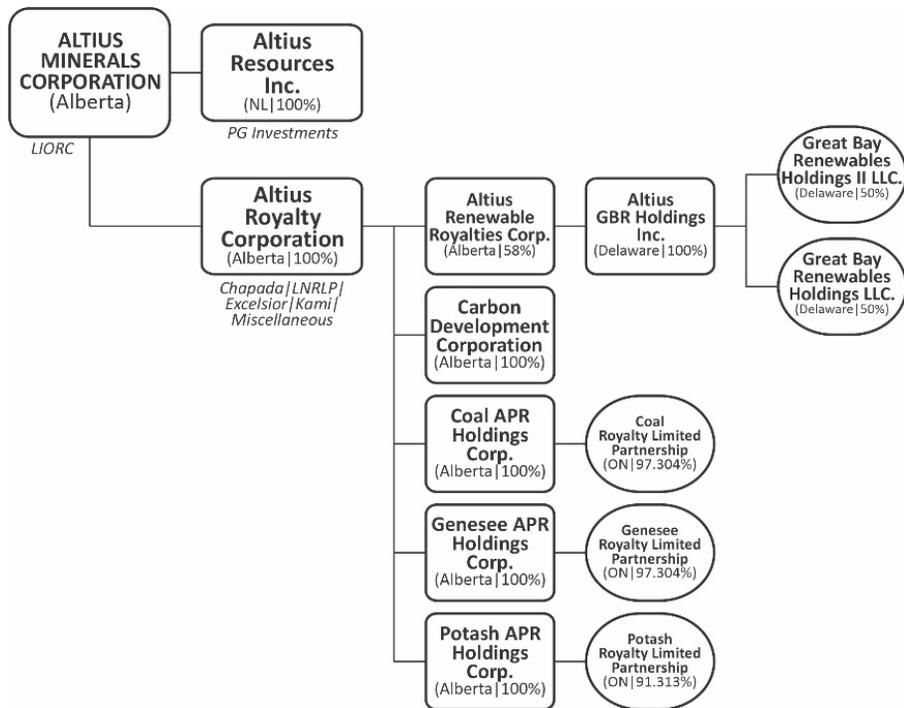
Name, Address and Incorporation

The Corporation was incorporated as a private corporation under the name 730260 Alberta Inc. by certificate and articles of incorporation (the "Articles") issued pursuant to the provisions of the *Business Corporations Act* (Alberta) on March 5, 1997. The Articles were amended by certificate and articles of amendment dated June 12, 1997 to remove the "private company" provisions and the restrictions on share transfers and to change the name of the Corporation to "Altius Minerals Corporation."

The head office of the Corporation is located at 2nd Floor, 38 Duffy Place, St. John's, Newfoundland and Labrador A1B 4M5. Its registered office is located at 4300 Bankers Hall West, 888 – 3rd Street S.W., Calgary Alberta, T2P 5C5.

Intercorporate Relationships

The following chart sets forth the intercorporate relationships between the Corporation and certain subsidiaries, their jurisdictions of incorporation, continuance, formation, or organization, as applicable, and the Corporation's current equity interest in each such subsidiary.



General Development of the Business

The Corporation manages its business under three operating segments, consisting of (i) the acquisition and management of producing and development stage royalty and streaming interests (“Mineral Royalties”), (ii) the acquisition and early stage exploration of mineral resource properties with a goal of vending the properties to third parties in exchange for early stage royalties and minority equity or project interests (“Project Generation”) and (iii) its majority interest holding in publicly traded Altius Renewable Royalties Corp. (TSX: ARR) (“ARR”), which is focused on the acquisition and management of renewable energy investments and royalties (“Renewable Royalties”).

The Corporation’s diversified mineral royalties and streams generate revenue from 11 operating mines located in Canada (9), the United States (1), and Brazil (1) that produce copper, nickel, cobalt, potash, iron ore and thermal (electrical) coal. It holds royalty interests in 3 construction stage lithium mines. The Corporation further holds a diversified portfolio of pre-production stage royalties and junior equity positions that it mainly originates through mineral exploration initiatives within its Project Generation business division.

The Corporation holds a 58% interest in ARR, which through a jointly controlled entity, Great Bay Renewables LLC (“GBR”), holds a portfolio of royalties related to renewable energy generation projects located primarily in the United States that includes 10 operating assets and several additional development stage projects. Certain funds managed by affiliates of Apollo Global Management, Inc. (the “Apollo Funds”) represent the other party to the joint venture.

Significant Acquisitions

The Corporation did not complete any significant acquisitions during the year ended December 31, 2022.

Three Year History

Year ended December 31, 2022

Attributable royalty revenue and EBITDA

Attributable royalty revenue (see non-GAAP financial measures section of the Annual Management Discussion and Analysis for definition and reconciliation) for the year ended December 31, 2022 was a record \$103.5 million compared to \$83.9 million in 2021 mainly as a result of higher realized commodity prices and the commencement of renewable royalty revenue from recently acquired projects. Potash revenue doubled year over year and accounted for approximately 40% of total revenue, reflecting significantly higher average realized prices in the first half of the year. Adjusted EBITDA (see non-GAAP measures section of the Annual Management Discussion and Analysis for definition and reconciliation) of \$89.7 million compares to \$67.0 million in 2021 following the trend of increased revenue but was partially offset by higher professional development fees as well as higher public company related costs within the Renewable Royalties segment. Adjusted operating cash flow (see non-GAAP measures section of the Annual Management Discussion and Analysis for definition and reconciliation) increased to \$75.9 million from \$49.4 million in 2021, generally following the higher revenue trend.

ARR investment

In December 2022, the Corporation purchased 2,298,700 additional common shares in Altius Renewable Royalties Corp. ("ARR") as part of a bought-deal financing to help fund a US\$46 million royalty investment in support of Longroad Energy's ("Longroad") acquisition of the 70 MWac Titan Solar project in California. With this participation, Altius maintained a 58% ownership stake in ARR. During the year ended December 31, 2022 US\$43,850,000 (CAD\$58,583,000) was funded into the GBR joint venture by ARR. These amounts were used to fund ARR's 50% of renewable royalty investments into Titan Solar ("Titan"), Hodson Energy, LLC ("Hodson"), Bluestar Energy Capital LLC ("Bluestar") and Nova Clean Energy LLC ("Nova"), a wind project in Hansford County, Texas, a Tri Global Energy LLC ("TGE") investment tranche as well as working capital for GBR. ARR currently holds through its GBR joint venture 10 producing renewable energy royalties totalling 2,068 MW with entitlements to an additional 5,961 GW of construction and development stage royalties.

See 2021 section for additional information on ARR.

Acquisition of investments

During the year ended December 31, 2022 the Corporation acquired investments of \$47,814,000 primarily reflecting the acquisition of 866,000 additional shares in Labrador Iron Ore Royalty Corporation ("LIORC") for \$25,947,000, bringing the total share ownership in LIORC to 3,739,800 shares or 5.8% of total shares outstanding.

Miscellaneous share acquisitions were made during the year in the junior equities portfolio totaling \$5,411,000.

The Corporation also invested an additional \$2,584,000 in Lithium Royalty Corp (“LRC”), in addition to \$1,299,000 through its co-participation rights in project level royalty acquisitions completed by LRC. LRC currently holds 29 lithium-based royalties on 27 projects, including two in production and four under construction. See 2021 section for additional developments regarding LRC.

On June 7, 2022 the Corporation funded a US\$10,000,000 (CAD\$12,573,000) investment in the form of common shares in Invert Inc. (“Invert”), a carbon streaming and investment company making investments in carbon credit projects and building a platform to place the credits with corporate and individual participants to reach their decarbonization objectives. On March 9, 2022 the Corporation invested in a secured convertible note of US\$5,000,000 in Invert which followed the original equity investment of US\$500,000 funded in 2021. The note bears interest at a 7% annual rate, has a term of one year and is convertible to equity at an agreed discount upon a go-public event. Subsequent to December 31, 2022 the Corporation agreed to extend the term of the note for one year, with minor improvements to the conversion feature.

Capital Allocation

The Corporation’s capital allocation priorities are linked to its strategy of creating per share value growth through a portfolio of assets that relate to long-life, high margin operations while providing growing shareholder capital returns. In April 2022, the Corporation announced that Fairfax Financial Holdings Limited, through certain of its affiliates (collectively, “Fairfax”), exercised 6,670,000 common share purchase warrants (the “Warrants”) at an exercise price of \$15 per common share in the capital of Altius (each, a “Common Share”) for gross proceeds of \$100 million. Fairfax elected to pay the exercise price of the Warrants by surrendering its \$100 million preferred securities to Altius for cancellation, in full satisfaction of such exercise price. Altius now has no outstanding warrants, preferred securities or resulting distribution obligations after this transaction, and Fairfax has become the holder of approximately 13.9% of Altius issued and outstanding common shares. The Corporation made interest and other payments of \$2.1 million on closing.

In August 2022 the Corporation renewed its Normal Course Issuer Bid (“NCIB”) by which it could purchase at market price up to 1,698,481 common shares, being approximately 3.56% of the 47,680,588 common shares issued and outstanding as of August 10, 2022, through the facilities of the Toronto Stock Exchange (“TSX”) or a Canadian alternative trading system. During the 2022 year, the Corporation repurchased 268,000 common shares at a cost of \$4,835,000 or \$18.04 per share.

During the year, the Corporation made \$8,000,000 in scheduled payments on its credit facilities and completed a drawdown on its revolving facility of \$10,000,000 to acquire investments.

The Corporation increased its quarterly dividend during 2022 from \$0.07 to \$0.08 and paid dividends of \$13,854,000 or \$0.30 per common share.

Silicon Discovery and royalty implications

AngloGold Ashanti Limited (“AGA”) continues to advance the discovery of a potential major new gold district, centered around its Silicon Project, located near Beatty, Nevada. On February 22, 2023 it reported an increased and higher-confidence mineral

resource estimate for the Silicon deposit of 4.22 million ounces (“Moz”) of gold (3.4 million ounces as Indicated and 0.8 million ounces as Inferred) and further resource estimates totaling 4.18 million ounces from 3 smaller nearby deposits (North Bullfrog – 1.19 Moz measured and indicated and 0.36 Moz inferred; Motherlode – 1.55 Moz indicated and 0.17 Moz inferred; and Sterling – 0.91 Moz inferred). It also reported that it has now elected to evaluate the Merlin deposit discovery on an integrated basis with Silicon as part of a combined pre-feasibility study with results expected in 2023.

The Corporation has delivered requests to AGA under the terms of its royalty agreement for the registration of our royalty interest in relation to certain mineral lands that have been acquired by AGA that surround the central lands that host the Silicon and Merlin discovery areas. These include additional contiguous or adjacent lands staked directly by AGA and those acquired by it through third party acquisitions (e.g. Corvus Gold and Coeur Mining lands). AGA has responded that it does not agree that these additional surrounding lands are subject to the royalty. While discussions to find an amicable resolution are ongoing, the royalty agreement does allow for dispute resolution through arbitration in British Columbia should an agreement on our royalty entitlements prove unattainable.

Project Generation

During the year, the Corporation invested \$5.4 million in new project equity positions, which was partially offset by sales of public equities of \$3.4 million, for net investment of \$2.0 million. The market value of the junior equities portfolio at December 31, 2022 was \$50.3 million.

Year ended December 31, 2021

Attributable royalty revenue and EBITDA

Attributable royalty revenue for the year ended December 31, 2021 was a record \$83.9 million, a 24% increase over the prior year.. Average realized prices for Altius’s main commodity contributors were up significantly across the board, with both copper and potash up almost 50%, and iron ore dividends received up 97%. Adjusted EBITDA of \$67.0 million was up 27% from 2020, representing an EBITDA margin of 80% which follows the increase in attributable revenue but is partially offset by an increase in expenses within the Renewable Royalties segment primarily due to higher public company related costs. Adjusted operating cash flow was \$49.4 million, up from \$47.5 million in 2020 generally following the higher revenue trend, but also reflecting the timing of tax installment payments in 2020 which were deferred in accordance with tax authority allowances due to COVID-19 impacts.

ARR IPO and Deployment of Capital

On March 3, 2021 ARR completed an initial public offering of 9,100,000 shares at a price of C\$11.00 per ARR Share (the “Offering Price”) for total gross proceeds of C\$100,100,000. An over-allotment option was granted to the underwriters of the IPO to purchase up to an additional 1,365,000 shares. Altius also owns 3,093,835 warrants at a strike price of US\$4.00 per ARR Share and an expiry date of April 30, 2030.

During the year ended December 31, 2021, US\$27,880,500 (CAD\$35,261,000) was funded into GBR for the Corporation's portion of renewable royalty investments into Northleaf Capital Partners ("Northleaf"), Longroad Energy ("Longroad"), Apex Clean Energy ("Apex"), and a TGE investment tranche. As a result of funding by its partner during the year the Corporation's ownership interest was diluted from 89% to 50%.

At the end of 2021, following a change of control at Apex Clean Energy (one of GBR investments), an option was exercised by the new majority owners of Apex to buy out the remaining royalties under the Apex partnership that had not yet been assigned. A buyout purchase price of US\$70 million was agreed, including a US\$41.7 million cash payment to GBR, with the balance representing a provisional value ascribed to the three retained royalties (El Sauz, Jayhawk and Young Wind). When each of the three royalties are at a point six months from commercial operations, a final valuation will be done with reconciliation payments due to either GBR or Apex depending on the results of the final valuation.

Lithium Royalty Corporation Financing

On January 11, 2021 Altius announced that LRC, of which Altius was a founding investor, had agreed to a US\$40,000,000 investment by New York based private equity firm Riverstone Holdings, as part of a larger US\$70,700,000 offering by LRC. Pursuant to this investment Altius exercised its pro-rata equity participation right (through investments in affiliated limited partnership LRC LP I) by committing an additional US\$7,600,000. Altius maintains a direct 10% co-participation right with respect to future LRC royalty level investments and a board nomination right. LRC was founded in May 2018 as a private royalty and streaming company focused on the lithium mining sector. It is managed through Waratah Capital Advisors Ltd. During the year ended December 31, 2021 the Corporation invested US\$5,554,000 (C\$7,007,000) in LRC.

Refinancing of Credit Facility

On August 9, 2021 the Corporation amended its credit facilities to increase the available credit from \$160,000,000 to \$225,000,000 and extended the term from June 2023 to August 2025. In addition, the required principal payments were reduced from \$5,000,000 to \$2,000,000 quarterly and other covenants were adjusted to better reflect the growing financial strength and revenue profile of the business. The Corporation also amended its cash flow hedge on September 9, 2021 to align with the new terms of the debt. The amount of the floating-to-fixed interest rate swap reduces in tandem with the quarterly scheduled principal repayments on the term debt and the Corporation expected the interest rate on the fixed portion of the debt to be approximately 4.34% per annum during the full term of the loan, with the revolving facility fluctuating in accordance with market interest rates.

Capital Allocation

During the year ended December 31, 2021 the Corporation repaid \$17,000,000 in scheduled payments on its credit facilities, paid dividends of \$9,947,000 (24 cents per common share), paid distributions of \$5,000,000 on its preferred securities and repurchased 821,100 of its common shares of the Corporation ("Common Shares") at a cost of \$12,943,444 under its normal course issuer bid.

As at year end 2021 Altius held 2,873,800 shares of LIORC, unchanged from its position at the end of 2020.

Project Generation

During the year ended December 31, 2021, the Corporation received \$16.1 million in net proceeds from sale of Project Generation equity positions net of acquisitions and ended the year with a project generation equity value of \$55.5 million.

Year ended December 31, 2020

Attributable royalty revenue and EBITDA

Attributable royalty revenue for the year ended December 31, 2020 was \$67.5 million compared to \$78.1 million in the prior year. Weakness in the year came mainly in the first half, particularly the second quarter, reflecting COVID-19 uncertainty and commodity price weakness, followed by a strong second half with Q4 2020 revenue of \$21.9 million. Adjusted EBITDA of \$52.8 million was down 16% from 2019, representing an EBITDA margin of 78% which is consistent with prior years. Adjusted operating cash flow was \$47.5 million up from \$44 million in 2019 as a result of lower costs and timing of corporate tax payments.

The decline in revenue and EBITDA resulted from lower volumes from Chapada offset by improved base metal prices in the second half, as well as lower realized potash prices and reduced LIORC dividends. The Corporation also sold 1,000,000 shares in LIORC to strengthen its financial position earlier in the year in light of uncertainty caused by the pandemic.

Apollo Transaction

On October 11, 2020 the Corporation, through a newly created subsidiary Altius GBR Holdings Inc. (“Altius GBR Holdings”), entered into a strategic relationship with Apollo Funds to accelerate the growth of its innovative renewable energy royalty business. Under the agreement structure the Apollo Funds had the right to solely fund the next US\$80 million in approved investment opportunities in Great Bay Renewables Holdings, LLC in exchange for a 50% ownership in the GBR Joint Venture, with opportunities thereafter funded equally by the Apollo Funds and ARR and with an equally shared governance structure. Altius retained a 91% interest in the GBR Joint Venture. During the year ended December 31, 2021, the Corporation’s interest was diluted to 50%.

Acquisition of Liberty Partnership Units

On July 24, 2020 the Corporation entered into an agreement with Liberty Metals & Mining Holdings, LLC to acquire its 44.9% interest in the Coal Royalty and Genesee Royalty Limited Partnerships (together the “Prairie Royalty LPs”) for a net purchase price of \$8,957,000 plus positive working capital adjustments, which it funded using cash on hand. This transaction closed on July 31, 2020 and Altius’s partnership interests in the Prairie Royalty LPs increased from 52.4% to 97.3%. Effective August 1, 2020 the Corporation consolidated the net assets of the Prairie Royalty LPs, recognized a non-controlling interest and discontinued equity accounting for those partnerships. The Prairie Royalty LPs generate royalty income from thermal coal mines located in Alberta, Canada.

Capital Allocation

During the year ended December 31, 2020 the Corporation repaid \$20,000,000 in scheduled payments on its credit facilities, paid dividends of \$8,318,000 (20 cents per common share), paid distributions of \$5,014,000 on its preferred securities and repurchased 644,400 of its Common Shares at a cost of \$6,090,000 under its normal course issuer bid. The Corporation invested a total of \$67,574,000 (US\$49,145,000) into renewable royalty investments during 2020 comprised of the Apex agreement and the TGE milestone based payments of \$13,500,000. Apex redeemed the investment at the end of the 2021 year. See 2021 sections above.

At year end 2020 Altius held 2,873,800 shares of LIORC as a result of reducing its shareholdings from 3,781,600 shares in the early part of 2020.

Project Generation

During the year 2020 the Corporation received \$6.7 million in net sales of project generation equity positions and ended the year with a project generation equity value of \$52.2 million.

Description of the Business

General

As noted, the Corporation manages its business under three operating segments, consisting of Mineral Royalties, Project Generation and Renewable Royalties.

The Corporation's diversified mineral royalties and streams generate revenue from 11 operating mines located in Canada (9), the United States (1), and Brazil (1) that produce copper, zinc, nickel, cobalt, potash, iron ore and thermal (electrical) coal. The Corporation further holds a diversified portfolio of pre-production stage royalties and junior equity positions that it mainly originates through mineral exploration initiatives within its Project Generation business division. The Corporation holds a 58% interest in ARR, which through a jointly controlled entity, GBR, holds royalties related to renewable energy generation projects located primarily in the United States. The Apollo Funds represent the other party to the joint venture.

Altius currently has 19 employees.

See Schedules "A", "B" and "C" for additional discussion on material royalties as well as the section entitled "Royalty Portfolio".

Chapada Copper Stream

On May 3, 2016 Altius completed its acquisition of a copper purchase agreement (the "Copper Purchase Agreement") with a subsidiary of Yamana Gold Inc. ("Yamana") to acquire future copper payments referenced to Yamana's Chapada copper-gold mine located in central Brazil (the "Chapada Mine" or "Chapada"). The Copper Purchase Agreement has a base rate of 3.7% referenced to copper production from the Chapada Mine, reducing to 1.5% for remaining life of mine after 75 million pounds of copper are delivered to Altius. To December 31, 2022 approximately 26 million pounds have been delivered to Altius. In

addition, the Copper Purchase Agreement provides for an expansion incentive rate whereby the base rate decreases to 2.65% in the event of an expansion of the Chapada Mine. On July 5, 2019 Lundin Mining Corp. (“Lundin Mining”) closed the acquisition from Yamana of a 100% ownership stake in Mineração Maracá Indústria e Comércio S/A which owns the Chapada Mine. Subsequent to acquiring the mine, Lundin Mining published an updated National Instrument 43-101 – Standards for Disclosure for Mineral Projects (“NI 43-101”) estimate for Chapada Mine which should form the basis for planned near-mine exploration work with the goal of expanding known resources and reserves. The Copper Purchase Agreement is guaranteed by Lundin Mining and Lundin Mining’s wholly-owned Bermudian subsidiary, which owns the Chapada Mine. For more information on the Chapada Mine, please refer to Schedule “A” to this AIF.

Potash

The potash royalties comprise royalty interests in respect of potash produced from the Rocanville Mine, Cory Mine, Allan Mine, Patience Lake Mine, Vanscoy Mine and Esterhazy Mine, each of which is located in Saskatchewan, Canada.

Potash Royalty Agreements

The potash royalty agreements under which the potash royalties are payable are generally structured as a lease of subsurface mineral rights owned by a party to a potash mining company, in return for a royalty payment based on a percentage of the net selling price of potash. The specific royalty percentages are generally determined in accordance with Saskatchewan’s Subsurface Mineral Regulations, which provide for a variable rate depending on the average grade of potash ore mined. The net selling price is typically determined with reference to the mining company’s list price for standard grade potash.

Subsurface minerals are leased to Nutrien and Mosaic Co., which are mining companies that have the exclusive right to mine the leased subsurface minerals under various unitized and non-unitized leases. Under the unitized leases, as with the coal royalties, Altius will earn royalties based on its proportionate share of all potash mined within the larger area. Altius will earn royalty payments for each tonne of potash produced based on the market price of potash, the quality of the potash that is produced during a given period, and the tonnage produced from within the lands or the unitized area. Actual royalties earned each year may vary depending on total potash production at each of the mines underlying the potash royalties.

Royalty Unitization by Mine	
Rocanville (U1)	26.23%
Rocanville (U2)	13.36%
Esterhazy (U1 & 2)	9.47%
Esterhazy (U3)	9.19%
Vanscoy (U1)	3.33%
Cory	8.62%
Patience Lake	17.55%
Allan (U2)	5.01%

777 Mine

The 777 Mine, over which Altius owned a 4% net smelter royalty in addition to a tonnage royalty, closed in mid-2022, as planned. Small royalty payments were received for the balance of 2022 related to residual processing and sales.

Voisey's Bay

Altius indirectly owns a 10% interest in a 3% net smelter return royalty interest in Voisey's Bay nickel-copper-cobalt mine and therefore holds an effective 0.3% net smelter return royalty. The Voisey's Bay mine is operated by Vale S.A and mine operations are currently transitioning from open pit to underground thereby extending the life of the mine.

Genesee

The Altius coal royalty refers to the thermal (electrical) coal produced from the Genesee Mine located in Alberta, Canada.

In 2015 the Government of Alberta introduced its Climate Leadership Plan, which in particular changed its policies regarding coal-fired electrical power generation. At the time it publicly acknowledged that the objective of the Plan, to completely phase out coal-based electrical generation capacity by 2030, would have a negative economic impact on stakeholders that had made investments in its integrated coal electricity sector under previous policy regimes. Alberta elected to provide transition payments to impacted electrical generation stations as a means of compensation for resulting stranded investments and to ensure continuing investor confidence in the province. After attempting unsuccessfully to seek positive engagement with the Alberta government respecting payments to the Corporation as a result of its stranded investments, in November 2018 Altius commenced action against Alberta and against Canada, which had similarly taken action to phase out coal-fired electrical generation across Canada, by filing a Statement of Claim in the Court of Queen's Bench of Alberta. The suit claimed \$190 million in damages while describing actions that Altius believes were tantamount to expropriation of its royalty interest in the integrated Genesee Mine and power plant in Alberta. The suit also claimed an unlawful taking of its property and undue interference with its economic interests. Proceedings continued as set forth in the documents that are posted to the Altius website and on January 4, 2021, by a Decision of a Master of the Court of Queen's Bench, the applications of Alberta and Canada to dismiss the Altius Statement of Claim on a summary basis and without a trial was granted. Altius believed that this decision was in error and incorrectly applied the law on taking and constructive expropriation and appealed the decision of the Master to the Court of Queen's Bench of Alberta, which on April 8, 2022 dismissed the Appeal. Altius has further appealed this decision to the Court of Appeal of Alberta, which appeal was temporarily held in abeyance pending the outcome of a Supreme Court of Canada case on an unrelated constructive taking matter, which was subsequently announced on October 21, 2022. Altius issued a press release October 24, 2022 on the implications of that case. The parties (Altius, Alberta and Canada) have since submitted their factums on the appeal and a hearing date before the Court of Appeal of November 9, 2023 has now been set.

Coal Royalty Agreement

The coal royalties are comprised of electrical coal rights at the Genesee Mine which are payable under a royalty agreement in respect of the Genesee Mine (the “Genesee Royalty Agreement”). The electrical coal royalty arrangements provide for a royalty payable at a base rate with an annual escalator provision that is tied to indices published by Statistics Canada. Electrical coal royalties are paid by the power utilities and the royalty rates are escalated in accordance with Canadian GDP inflation, in most cases. Certain of the coal rights to which the coal royalties are tied have been unitized with the coal rights of other owners within a larger geographic area to form dedicated reserves. These dedicated reserves may or may not be subject to unitization agreements. Under a unitization agreement, any coal produced from a unitized area is allocated to and deemed to be produced from the lands of each party in accordance with each party’s proportionate share of the coal reserves for the purpose of calculating royalties. Under the terms of its unitized leases, Altius will earn its share of royalties based on its proportionate share of total coal production within the unitized area.

Below is a summary of the Corporation's producing royalties:

Summary of Producing Royalties and Streaming Interests

Mine	Operator	Royalty	2022 Revenue ⁽¹⁾ (millions \$)	Commodity
Chapada	Lundin Mining	3.7% of payable copper	19.1	Copper
777 (3)	Hudbay Minerals	Net smelter	7.5	Zinc, Copper, Gold & Silver
IOC ⁽²⁾	Iron Ore Company of Canada	7% gross overriding royalty	10.7	Iron
Rocanville	Nutrien	Revenue	21.9	Potash
Cory	Nutrien	Revenue	4.3	Potash
Allan	Nutrien	Revenue	1.8	Potash
Patience Lake	Nutrien	Revenue	1.3	Potash
Esterhazy	Mosaic	Revenue	11.6	Potash
Vanscoy	Nutrien	Revenue	0.5	Potash
Voisey's Bay	Vale	0.3% NSR	1.9	Nickel-Copper-Cobalt
Genesee	Westmoreland/Capital Power Corporation	Tonnes x indexed multiplier	15.0	Coal/Electricity
Renewables	Various (10 producing)	Revenue	4.80	Renewable energy
Other	Various	Revenue	3.1	Other

(1) Attributable revenue (non-gaap financial measures) see annual Management Discussion and Analysis, December 31, 2022

(2) Held indirectly through common shares of Labrador Iron Ore Royalty Corporation

(3) Mine closed at the end of June 2022

Founding Equity Stakes

In addition to Altius Renewable Royalties Corp. discussed above the following are entities in which the Corporation has founding equity stakes.

Adventus

The Corporation currently owns approximately 9% of the common shares of Adventus Mining Corporation (“Adventus”), which it originally acquired by contributing a portfolio of zinc exploration projects from its Newfoundland and Irish properties and cash in exchange for shares in Adventus. Adventus, through an initial public offering, began trading as a public company on the TSX Venture Exchange on February 9, 2017.

Overview of Corporate Policies and Oversight

Health and Safety

Altius' board of directors (“Board”), executive and employees are committed to health, safety and mitigation of the environmental footprint resulting from our varied mineral exploration activities. Altius' employees are required to adhere to all aspects of the Corporation’s Health and Safety policy to ensure that not only they, but their coworkers as well as contractors, consultants, observers, and visitors, remain healthy and safe at all times. Safety policies, procedures and regulations have been established for all individuals and/or companies involved in our activities..

Since inception of the Altius health and safety program in 2005, Altius has implemented various policies and procedures designed to ensure compliance with any occupational health & safety legislation in areas in which it operates and strives to exceed minimum requirements. The Corporation considers its health and safety program to be a "living document" that is intended to evolve to meet with our own ever-increasing health and safety standards as well as the evolving culture of safety in our industry and workplace. In 2020 and 2021 the policy was amended to include provisions for telecommuting during COVID-19. An employee wellness policy was enacted in 2022 to support employee access to programs to support physical and mental health and general wellbeing.

Code of Conduct for Directors, Officers and Employees

The Corporation’s employees, directors and officers are expected to adhere to the Code of Conduct adopted by the Corporation. This document is to ensure that the Corporation and its subsidiaries and affiliates are committed to conducting business with people in a respectful manner. Those engaged in business are expected to always act in a manner that enhances the reputation of the Corporation for honesty, fairness, competency and professionalism.

Whistleblower Policy

The Corporation’s Whistleblower policy provides a framework for reporting concerns with a fully independent third-party service. This policy provides an anonymous reporting mechanism for concerns or complaints that go beyond financial

reporting and accounting matters to include general behavior that seems unsafe, unethical and/or likely to cause harm to the Corporation or its employees.

Executive Compensation Clawback Policy

The Corporation's Executive Compensation Clawback Policy governs the reimbursement, cancellation or withholding, as applicable, of performance-based executive compensation in connection with a restatement of the financial results of the Corporation.

Anti-Discrimination, Inclusion and Diversity Policy for Management and Board Members

The Corporation does not tolerate discrimination based on any personal attribute such as race, ethnic origin, colour, nationality, disability, religion, age, gender, sexual orientation or gender identity in its employment practices, including recruitment, promotions, training and pay. The Corporation is committed to a merit-based system for management and Board members within a diverse and inclusive culture which solicits multiple perspectives and views. The Corporation operates within a system that strives to be free of conscious or unconscious bias and discrimination, particularly with regard to diversity and pay equity. As such, the Corporation has separate policies in place to ensure an effective recruitment and retention for a diverse management and Board.

Anti-Corruption Policy

Altius is committed to conducting its business in accordance with applicable law and the highest ethical standards. That commitment is reflected in our Code of Conduct for Directors, Officers and Employees and in the Anti-Corruption Policy, which is intended to provide guidance and procedures for compliance with Canada's Corruption of Foreign Public Officials Act ("CFPOA") and local laws pertaining to bribery and corruption.

Environmental, Social and Governance Investment Policy

The Environmental, Social, and Governance ("ESG") policy and framework allows for the integration of material social and environmental considerations into the Corporation's investment processes and decision-making. The result will be that ESG activities of companies being considered for potential investments will be assessed and monitored as part of Altius' due diligence and risk management processes, where appropriate. Specifically, Altius will monitor changing stakeholder concerns and political climates in other jurisdictions, thereby ensuring responsible investment and lowering corporate risk. This review process will provide Altius with reassurance that companies are remaining in compliance with national/international ESG expectations and standards.

Corporate Disclosure, Confidentiality, Insider Trading and Anti-Hedging Policy

This Policy on Corporate Disclosure, Confidentiality, Insider Trading and Anti-Hedging establishes procedures which are designed to (a) permit the disclosure of information about the Corporation to the public in an informative, timely and broadly disseminated manner in accordance with all applicable legal and regulatory requirements; (b) ensure the proper safeguarding

of non-publicly disclosed confidential Information, including material information; and (c) protect Altius and those to whom this Policy applies by preventing improper trading, and the appearance of improper trading, in securities of Altius.

These policies and procedures are important to develop sound disclosure practices and maintain investor confidence, as well as to comply with securities laws and stock exchange rules on disclosure and trading.

Majority Voting Policy

The Board believes that each of its members should carry the majority support of its shareholders. To this end, the Board has adopted a majority voting policy. In an uncontested election of directors, if any nominee receives a greater number of votes "withheld" from his or her election than votes "for" then the nominee shall be considered not to have received the support of the shareholders, even though duly elected as a matter of corporate law. A person elected as a director who is considered under this test not to have the majority support of the shareholders shall promptly tender to the board his or her resignation, to take effect upon acceptance by the Board.

Share Ownership Policy

In November 2020, the Board and management agreed to adopt a mandatory share ownership policy that aligns the Board and management with shareholder values including equity ownership. Each non-employee director of the Corporation is expected to hold Common Shares or Common Share equivalents having a value at least equal to three times the total annual base cash retainer payable to such director. Each Named Executive Officer ("NEO") of the Corporation, as such term is defined in the Corporation's annual compensation disclosure, is expected to hold Common Shares or Common Share Equivalents having a value at least equal to three times the annual base cash salary then payable to such NEO, while senior management members are expected to hold Common Shares or Common Share equivalents having a value at least equal to their annual base cash salary then payable to such senior manager.

IT and Cybersecurity Policy

In 2022, the Board approved adoption of a revised IT and cybersecurity policy meant to protect Altius data and infrastructure, outline guidelines that govern cybersecurity measures and define IT infrastructure usage. Additional disclosures around IT and cybersecurity have also been provided in the Corporation's 2022 Sustainability Report.

Human Rights Policy

In 2022, the Board approved adoption of a revised Human Rights Policy, which details specific principles and commitments and is aligned with international best practice frameworks, including the United Nations Guiding Principles on Business and Human Rights. It encompasses support for international labour standards, including freedom to engage in collective bargaining, respect for fundamental freedoms, compliance with laws, a workplace free of discrimination, and commitments for due diligence on new investments to include human rights issues.

Supplier Code of Conduct

In 2022, Altius developed its first Supplier Code of Conduct ("Supplier Code"), which outlines the minimum standards that all suppliers of Altius Minerals are expected to follow as a condition of doing business with the Company. The Supplier Code applies to any supplier of Altius, which is defined as any individual or business that provides goods and services to the Company, including companies and operators with whom Altius has royalty and/or streaming interests. The Supplier Code defines the expectation of suppliers to conduct their activities with honesty, integrity, and transparency in line with the Altius Code of Conduct for Directors, Officers, and Employees. Suppliers are also expected to meet all relevant laws and regulations in the jurisdictions where they operate, including with respect to working conditions, health and safety, environmental protection, human rights, corruption and bribery, and tax compliance.

Board of Directors Charter

The Board and management of the Corporation are committed to maintaining a high standard of corporate accountability. The Board has responsibility for the overall stewardship of the Corporation and discharges such responsibility by reviewing, discussing and approving the Corporation's strategic planning and organizational structure and supervising management with a view to preserving and enhancing the underlying value of the Corporation. Management of the business within this process and structure is the responsibility of the Chief Executive Officer and senior management. These responsibilities are set- out in the Board Charter.

Audit Committee Charter

The purpose of the Audit Committee is to assist the Board in fulfilling its oversight responsibilities by reviewing the financial information which will be provided to shareholders of the Corporation and others, the systems of corporate financial controls which management and the Board have established and the audit process. The Audit Committee will oversee the Corporation's financial reporting process on behalf of the Board and report the results to the Board. These responsibilities are set out in the Audit Committee Charter (Schedule "D").

Governance and Sustainability Committee Charter

The Board and management of the Corporation are committed to maintaining a high standard of corporate governance. This is defined under the Governance and Sustainability Committee Charter. The overall roles and responsibilities of the Governance and Sustainability Committee are to provide for the Board's effectiveness and continuing development. Specifically, the Committee will generally assist the Board in developing the Corporation's approach to its own governance by: (a) overseeing the Corporation's corporate governance policies and making policy recommendations aimed at enhancing Board effectiveness; (b) evaluating the Board and its directors in terms of their effectiveness, knowledge and contribution to the governing of the Corporation and overseeing the Board's ongoing orientation and education; (c) identifying and recommending individuals qualified to become members of the Board; and (d) overseeing the succession planning for the Corporation.

Compensation Committee Charter

The Compensation Committee is a standing committee of the Board, with responsibilities as set out in the Compensation Committee Charter. The purpose of the Compensation Committee is to assist the Board in discharging its oversight responsibilities relating to the attraction, compensation, evaluation and retention of directors and key senior management employees with the skills and expertise needed to enable the Corporation to achieve its goals and strategies at fair and competitive compensation and with appropriate performance incentives.

Risk Factors

An investment in securities of the Corporation involves a significant degree of risk that should be considered prior to making an investment decision. In addition to discussions of key success factors and business issues elsewhere in this document, the investor should consider the following risk factors:

Geopolitical Risk

The Russian invasion of Ukraine has resulted in losses of life, the displacement of millions of people, and political and economic disruptions on a global scale. As the situation evolves, the Corporation may be exposed to potential risks impacting assets, operations, commodity prices, liquidity and credit or supply chains in the region and globally. The Corporation has seen recent volatility in nickel and potash prices, as a significant portion of the world's supply of these commodities come from the affected regions. The Corporation will continue to monitor the situation as there may be other significant and unforeseen impacts from these events.

Unforeseen Catastrophic Risk

The global demand for commodities is a major driver of revenues for the Corporation. Any global slowdown may have an adverse effect on the profitability and outlook for the royalty business and may also negatively impact the value of the Project Generation business portfolio. The effects of a global economic crisis, such as an epidemic or natural disaster, may adversely affect the demand for commodities, and ultimately our financial condition, results and cash flows. This may also require our royalty revenue guidance to be adjusted accordingly or removed if the effect is significantly pronounced. Royalty revenue guidance was suspended in 2020 due to the uncertainty surrounding COVID-19 and its impacts. In 2021, Altius reported volume guidance where available from its royalty operators, without attempting to project Altius revenue guidance as commodity prices remain volatile, a climate which persists into 2023. Altius continues to monitor the global economic situation and will inform the markets of any material departure from our current outlook.

Operational and Development Risk

The Corporation has both direct and indirect risk exposure, with indirect operating and development risk exposure as its royalty counterparties operate mines and processing facilities. Mining operations are exposed to multiple environmental, safety and social opposition risks that could result in injuries and fatalities, unexpected downtime, regulator-imposed

shutdowns, unauthorized water or waste discharges to the environment and other events which could have adverse material impacts on the operator's results, which in turn could result in material reductions or cessations of royalty payments to the Corporation.

Although the Corporation does not engage in any mining operations, and therefore is limited to indirect operating risk exposure, the Corporation does engage in exploration activity, which implicitly involves a high degree of risk caused by limited chances of discovery of an economic deposit and eventual mine development. The Corporation mitigates this risk by cost-sharing with exploration partners and by continuously evaluating the economic potential of each mineral property at every stage of its life cycle. Advanced exploration activity, including drilling, often carries higher safety, environmental and social impact risk and is typically not performed by Altius directly. The objective of the Project Generation business is to attract exploration partners at a pre-drilling stage, exchanging exploration land for equity and an associated royalty.

Development Stage Projects

Profits from commercial operations which may in the future take place upon development stage projects will depend on a significant number of factors, including economic feasibility, changing market conditions, aboriginal engagement and support, environmental and governmental regulations, labour availability, the cost of and the ability to attract external financial capital, and the ability to attract partners with sufficient technical expertise and relevant industry experience to develop the various projects. Any failure to meet one or a combination of these factors may result in project delays or potential cancellation and the Corporation's future operating results may be adversely affected. Development stage projects upon which the Corporation has royalties include the Kami iron ore project, the Curipamba copper-zinc-precious metals project, the Gunnison ISL copper project, the Silicon gold project, and various lithium projects. The Corporation, through its ARR joint venture, also held development stage royalties on wind and solar energy projects through its investment agreements with TGE, Apex, and most recently BlueStar Energy and Hodson. Some of the development stage royalties from the TGE and Apex transactions have become operational in 2022 and 2023. The Corporation mitigates development stage risk by maintaining a diversified royalty portfolio including both producing and non-producing royalties. The renewable royalty risk is mitigated by entering into agreements on a portfolio of projects, with a minimum return threshold on royalties whose fair market value is measured based on actual performance six months after the start of commercial operations.

Dependence on Third Party Property Owners and Operators

The revenue derived from the Corporation's royalty portfolio is based on production by third party property owners and operators. These owners and operators are responsible for determining the manner in which the properties underlying the royalties are exploited, including decisions to expand, continue, reduce or cease production from a property, and decisions to advance exploration efforts and conduct development of non-producing properties. The Corporation will have little or no input on such matters. The interests of third party owners and operators and those of the Corporation on the relevant properties may not always be aligned. As an example, it will, in almost all cases, be in the interest of the Corporation to advance development and production on properties as rapidly as possible in order to maximize near term cash flow to mitigate the risk, while third

party owners and operators may, in many cases, take a more cautious approach to development as they are at risk on the cost of development and operations. The inability of the Corporation to control the operations for the properties in which it has a royalty interest may result in a material and adverse effect on the Corporation's profitability, results of operation and financial condition.

Exposure to Mineral Price Fluctuations

The revenue derived by the Corporation from its royalty portfolio and investments could be affected by changes in the market price of the commodities that underlie those royalties and other investments, which can affect production levels to which its royalty portfolio is tied. The Corporation's revenue will be particularly sensitive to changes in the price of copper, potash and high-grade premium iron ore, as the revenue from these commodities represents the majority of the cash flow expected to be derived in the near future. Commodity prices, including those to which the Corporation is exposed, fluctuate on a daily basis and are affected by numerous factors beyond the control of the Corporation, including levels of supply and demand, industrial development levels, inflation and the level of interest rates. Such external economic factors are in turn influenced by changes in international investment patterns, monetary systems and political developments.

All commodities, by their nature, are subject to wide price fluctuations and future material price declines will result in a decrease in revenue or, in the case of severe declines that cause a suspension or termination of production by relevant operators, a complete cessation of revenue from royalties or working interests applicable to one or more relevant commodities. Moreover, the broader commodity market tends to be cyclical, and a general downturn in overall commodity prices could result in a significant decrease in overall revenue. Any such price decline may result in a material and adverse effect on the Corporation's profitability, results of operation, financial condition and dividend policy. The Corporation mitigates this risk through monitoring of prices as well as ensuring asset and commodity diversification.

Limited Access to Data and Disclosure for Royalty / Stream Portfolio

The Corporation neither serves as the mine property owner or operator for the properties underlying its royalty portfolio, and the Corporation has no input into how the operations are conducted. Consequently, the Corporation has varying access to data on the operations or to the actual properties themselves. This could affect its ability to assess the value of the royalty interest or enhance the royalty's performance. This could also result in delays in cash flow from that anticipated by the Corporation based on the stage of development of the applicable properties underlying its royalty portfolio. The Corporation's royalty payments may be calculated by the royalty payors in a manner different from the Corporation's projections and the Corporation may or may not have rights of audit with respect to such royalty interests. In addition, some royalties may be subject to confidentiality arrangements that govern the disclosure of information with regard to royalties and as a result the Corporation may not be in a position to publicly disclose non-public information with respect to certain royalties. The limited access to data and disclosure regarding the operations of the properties in which the Corporation has an interest may restrict the Corporation's ability to assess the value or enhance its performance, which may result in a material and adverse effect on

the Corporation's profitability, results of operation and financial condition. The Corporation mitigates this risk by building relationships with various operators and counterparties to encourage information sharing.

Dependence on Payment from Operators

The Corporation will be dependent to a large extent upon the financial viability and operational effectiveness of owners and operators of the properties underlying its royalty and streaming portfolio. Payments from production generally flow through the operator and there is a risk of delay and additional expense in receiving such revenues. Payments may be delayed by restrictions imposed by lenders, delays in the sale or delivery of products, recovery by the operators of expenses, the establishment by the operators of mineral reserves for such expenses or the bankruptcy, insolvency or other adverse financial condition of the operator. Notwithstanding that most of the royalties owned by the Corporation represent an interest in the underlying mineral property, the Corporation's rights to payment under the royalties must, in most cases, be enforced by contract without the protection of a security interest that the Corporation could readily liquidate. This inhibits the Corporation's ability to collect outstanding royalties upon a default. In the event of a bankruptcy, insolvency or other arrangement of an operator or owner, the Corporation will be treated like any other unsecured creditor with respect to unpaid royalty revenue, and therefore have a limited prospect for full recovery of unpaid royalty revenue. The Corporation mitigates this risk by closely monitoring timely payment of royalties and asserting the legal rights existing under royalty contracts, if required.

Unknown Defects and Impairments

A defect in a streaming transaction under a copper purchase agreement may arise to defeat or impair the claim of the Corporation to such streaming transaction, which may have a material adverse effect on the Corporation. It is possible that material changes could occur that may adversely affect management's estimate of the recoverable amount.

Any impairment estimates on the Corporation's royalty and streaming assets, which are based on applicable key assumptions and sensitivity analysis, are based on management's best knowledge of the amounts, events or actions at such time, and the actual future outcomes may differ from any estimates that are provided by the Corporation. Any impairment charges on the Corporation's carrying value could have a material adverse effect on the Corporation.

The Ability to Attract Partners for Exploration

The probability of successfully progressing early stage projects is dependent on an ability to attract exploration partners to share project expenditures and to provide additional technical expertise required to develop projects. If the Corporation is unable to attract partners to cost-share project expenditures and to provide additional technical expertise, the level of exploration the Corporation could perform with limited personnel may be adversely impacted. This could affect the likelihood of discovering future commercially feasible projects. To mitigate this risk, the Corporation monitors the market cycles and adjusts our business development approach for the changes. Marketing and business development are ongoing throughout all stages.

Credit Facility and Associated Covenants

The Corporation's credit facility is subject to certain restrictive conditions that limit the discretion of management with respect to certain business matters, including financial covenants that require the Corporation to meet certain financial ratios, financial condition tests and other restrictive covenants. A failure to comply with the obligations in the credit facility could result in a default which, if not cured or waived, could result in a termination of the credit facility. The Corporation monitors this risk by analysis of financial results and covenant calculations as well as ongoing communications with creditors.

Leverage Risk

The Corporation's degree of leverage could have adverse consequences for the Corporation, including: limiting the Corporation's ability to obtain additional financing for working capital, debt service requirements, acquisitions and general corporate or other purposes; restricting the Corporation's flexibility and discretion to operate its business; having to dedicate a portion of the Corporation's cash flows from operations to the payment of interest on its existing indebtedness and not having such cash flows available for other purposes including expenditures that are important to its growth and strategies; exposing the Corporation to increased interest expense on borrowings at variable rates; limiting the Corporation's ability to adjust to changing market conditions; and placing the Corporation at a competitive disadvantage compared to its competitors that have less debt. At December 31, 2022, the Corporation had debt of \$120,873,000, cash of \$82,385,000 including ARR's cash of \$67,855,000, and public and private equities valued at \$218,210,000 being mainly shares of LIORC and the publicly traded junior equities portfolio. The Corporation mitigates risk associated with leverage by maintaining a level of debt that is conservative relative to the Corporation's yearly cash flows and level of cash and investments. The Corporation's net debt-to-EBITDA levels have declined significantly since 2016 reflecting growth in EBITDA and improving financial position. The Corporation continues to ensure that working capital requirements are maintained by budgeting, monitoring cash flow and ensuring capital allocation strategies are a priority.

Dividends

The ability to pay dividends will be dependent on the financial condition of the Corporation. Payment of dividends on the Corporation's Common Shares is within the discretion of the Board and will depend upon the Corporation's future earnings, cash flows, acquisition capital requirements and financial condition, and other relevant factors. Although the Corporation currently pays a regular dividend, which was increased in 2021 and 2022, there can be no assurance that it will be in a position to declare or pay dividends due to the occurrence of one or more of the risks described herein.

Debt and Equity Financing

Because of their size and scale, the success of some resource-based projects depends on the ability of the property owner to raise the financial capital required to successfully construct and operate a project. This ability may be affected by general economic and market conditions, including the perceived threat or actual occurrence of an economic recession or liquidity issues. If market conditions are not favorable, major resource-based projects could be cancelled or delayed, or the expected rate

of return to the Corporation may be significantly diminished. The Corporation mitigates this risk by asset and commodity diversification to protect and offset if one market is unfavorable.

Government Regulations

The Corporation's operations are subject to extensive governmental regulations with respect to such matters as environmental protection, health, safety and labour; mining law reform; restrictions on production or export, price controls and tax increases; aboriginal land claims; and expropriation of property in the jurisdictions in which it operates. Compliance with these and other laws and regulations may require the Corporation to make significant capital outlays which may slow its growth by diverting its financial resources. The enactment of new adverse regulations or regulatory requirements, such as the announcement by the Government of Alberta regarding the phase out of its coal fueled electrical generation capacity by 2030 or more stringent enforcement of current regulations or regulatory requirements may increase costs, which could have an adverse effect on the Corporation. In 2021, operators of coal fired electrical generation projects over which the Corporation holds royalties further stated their intention to convert coal fired electrical generation to gas generation at an earlier date, namely by 2023. The Corporation cannot give assurances that it will be able to adapt to these or other adverse regulatory developments on a timely or cost-effective basis. Violations of these regulations and regulatory requirements could lead to substantial fines, penalties or other sanctions. The Corporation mitigates this risk through not doing business in unstable countries and, within stable countries, by doing its utmost to adhere to all laws and regulations and to engage legal counsel to ensure compliance, if necessary.

Key Employee Attraction and Retention

The Corporation's continued success is highly dependent on the retention of key personnel who possess business and technical expertise. The number of persons skilled in the acquisition, exploration and development of natural resource and mining projects is limited and competition for such persons is intense. As the Corporation's business activity grows, additional key financial, administrative and operations personnel as well as additional staff may be required. Although the Corporation believes it will be successful in attracting, training and retaining qualified personnel, there can be no assurance of such success. If the Corporation is not successful in attracting, training and retaining qualified personnel, the Corporation's business and profitability may be affected.

Although safety and health factors are considered integral to all aspects of the Corporation, mineral exploration is an inherently risky business. In the event of an accident or an unforeseen circumstance, the Corporation has emergency succession plans in place for both the Executive Chairman and the CEO of the Corporation as well as for other members of senior management.

Exploration Alliances

The Corporation's objective is to create joint ventures or corporate structures related to the opportunities it generates, which results in the Corporation carrying minority and non-operating project or equity interests and/or royalty interests. In certain

circumstances the Corporation must rely on the decisions and expertise of third parties regarding exploration on properties in which it holds an interest. To mitigate this risk, the Corporation participates in alliances and cost-sharing with exploration partners. As well, there is continuous evaluation of the economic potential of each property at every stage of its life cycle.

Legal Claims

Altius may become party to legal claims arising in the ordinary course of business, including as a result of activities of joint ventures in which it has an interest. There can be no assurance that any such legal claims will not result in significant costs to Altius. To mitigate this risk, there are ongoing communications with the parties with whom it does business so that we may be aware of any legal issues and potential operational and financial impacts. The Corporation works diligently with counterparties to limit legal issue exposure.

Title to Mineral Properties Cannot Be Assured

The acquisition of title to mineral properties in different jurisdictions is a very detailed, diverse and time-consuming process. Title to, and the area of, mineral rights may be disputed, and additional amounts may have to be paid to surface rights owners in connection with any development of mining activity. The properties may also be subject to prior unregistered agreements of transfer or aboriginal land claims, and title may be affected by undetected defects. Although Altius believes it has taken reasonable measures to ensure that title to its exploration properties and its royalties are valid and in good standing, there is no guarantee that title to its properties and royalties will not be challenged or impaired by third parties, or that such rights and interests will not be revoked or significantly altered to the detriment of the Corporation.

Financial Instrument Risk

The Corporation's financial assets and financial liabilities are exposed to various risk factors that may affect the fair value presentation or the amount ultimately received or paid on settlement of its assets and liabilities. The Corporation manages these risks through prudent investment and business decisions, and, where the exposure is deemed too high, the Corporation may enter into derivative contracts to reduce this exposure. The Corporation does not utilize derivative financial instruments for trading or speculative purposes. Hedge accounting is applied only when appropriate documentation and effectiveness criteria are met.

A summary of the major financial instrument risks and the Corporation's approach to the management of these risks are highlighted below.

Credit risk

Credit risk is the risk that a third party might fail to fulfill its performance obligations under the terms of a financial instrument. Credit risk arises from cash and cash equivalents, short-term investments and receivables. The Corporation closely monitors its financial assets, including the receivables from royalty operators who are responsible for remitting royalty

income. The operators are established and reputable companies in the mining and mineral sector and as such management does not believe we have a significant concentration of credit risk.

The Corporation's cash and cash equivalents are held in fully segregated accounts at Canadian chartered banks and include only Canadian and US dollar instruments. The Corporation does not expect any liquidity issues or credit losses on these instruments.

Foreign currency risk

Certain royalty and streaming revenues are exposed to foreign currency fluctuations, which are denominated and paid in US dollars. The Corporation does not enter into any derivative contracts to reduce this exposure since the receivable is short-term in nature and the expected receivable amount cannot be predicted reliably. The Corporation has a portion of its debt and cash denominated in US dollars. The Corporation does not enter into any derivative contracts to reduce this exposure and has the ability to offset debt with certain US dollar revenues.

Liquidity risk

The Corporation believes that on a long-term basis its revenue generating assets and net working capital position will enable it to meet current and future obligations at the current level of activity. This conclusion could change with a significant change in the operations of the Corporation or as a result of other developments.

Other price risk

The value of the Corporation's mining and mineral related investments is exposed to fluctuations in the quoted market price depending on a number of factors, including general market conditions, company-specific operating performance and the market value of the commodities that the companies may focus on. The Corporation does not utilize any derivative contracts to reduce this exposure. Royalty interests are exposed to fluctuations in commodity prices as well as fluctuations in foreign currency, specifically the US dollar. The Corporation may be unable to sell its entire interest in an investment without having an adverse effect on the fair value of the security due to low trading volumes on some investments. The Corporation does not enter into any derivative contracts to reduce this exposure.

Interest rate risk

The Corporation has debt and is therefore exposed to interest rate risk on liabilities. The Corporation manages this risk by monitoring debt balances, entering into hedging transactions and making discretionary payments. The Corporation entered into a floating to fixed interest rate swap to manage the interest rate risk on a portion of its debt balance (December 2022 - \$40 million). The Corporation's cash and cash equivalents may fluctuate in value depending on the market interest rates and the time to maturity of the instruments. The Corporation manages this risk by limiting the maximum term to maturity on invested funds or holding the investments to maturity.

Environmental, Social and Governance (ESG) Risks

Tailings and waste management

Tailings and waste management are an important part of mining operations and are analyzed carefully as part of the initial due diligence Altius conducts on potential royalty acquisitions. Operators of the mines for which Altius has royalties are subject to tailings disposal regulation which varies by country, and by principal jurisdiction of the operator. For example, Canadian companies operating internationally often adhere to Canadian Dam Association construction standards or standards modeled on that template, even if their permitting jurisdiction requires a lesser standard. Although such an event has not occurred, Altius continues to monitor the operator's Technical Reports. None of the mining operations on which Altius holds royalties have experienced a shutdown or prolonged stoppage for tailings dam failures or other significant environmental events.

Clean-up and Reclamation

Reclamation is the responsibility of the mine operator and in some cases Altius is responsible for early-stage exploration reclamation. Reclamation of mining operations is part of the due diligence review for royalty and stream acquisitions through site visits and discussions with the mine operators. In addition, Altius ensures any reclamation of mineral properties vended to third parties is the responsibility of the acquirer. The Corporation carefully selects the acquirers to ensure they are committed to and have the capability of complying with responsibilities for reclamation of the properties.

Although Altius has no mining operations, it has an active exploration history. Since the early 2000s Altius has been an industry leader with respect to minimizing its environmental footprint and to developing and maintaining reclamation processes and strategies for exploration activity. For example, in 2012 Altius was the first to establish a voluntary clean-up initiative (ROLES) for abandoned exploration drill sites in Newfoundland and Labrador, which received industry-wide participation and resulted in the capture and safe removal of more than 14,000 litres of diesel fuel, 406 fuel drums, and 25 large propane cylinders from 13 different high and medium priority sites.

Biodiversity

Mining typically disturbs the surrounding biodiversity with the requirement for earth moving, and the footprint of an operating mine and infrastructure. This may result in impacts to local flora and fauna, including species at risk. The risk to a royalty holder is that a potential mine fails to achieve construction permits because of an inability to mitigate biodiversity impacts. This risk factor has greater application to non-paying royalties, as in our case all of our paying royalties are in jurisdictions and on mines that have established operating history, and no material unmitigated biodiversity concerns. Altius's development stage or exploration stage royalties are more exposed to this potential risk, particularly in jurisdictions that are new to mining like Ecuador (Curipamba) or newly emerged from a long moratorium like Maine (Pickett Mountain). The operators of these development projects continue to demonstrate high standards of oversight and commitment to respecting the areas of impact as they advance their projects through environmental baseline work, and we as royalty holders are kept

informed of potential issues and evaluate participation as a sponsor in specific environmental and social investment projects, consistent with our ESG objectives.

Climate Change

Governments worldwide have introduced regulation to limit greenhouse gas emissions (“GHG”), including the phasing out of coal-fired power as the highest polluting form of power generation. As a royalty company, Altius has no operating mines, and as such does not have significant GHG emissions, being only those related to a leased office in St John’s, Newfoundland, and a smaller shared office space in Toronto, Ontario. Although the leased premises of the Toronto office does not currently capture and report actual GHG emissions or water use data to tenants, we have disclosed in our Sustainability Report the data pertaining to our occupancy from our main Newfoundland headquarters.

Climate change risk negatively impacted Altius when legislation ending coal-fired power generation was introduced in Canada in 2015, after Altius had purchased a portfolio of coal royalties based on existing regulations at the time of purchase. This is expected to result in reduced royalty cash flows to Altius, as the Genesee coal fired plant that is now scheduled to decommission by 2024 was originally expected to operate until 2055, the end of its federally regulated life. Further risk exists that coal fired plants will be converted to natural gas earlier than expected, depending on the economics of gas supply versus coal. Altius previously committed to reinvest thermal coal cash flows into renewable energy royalties and did so with the funding of ARR and several subsequent investments in renewable energy projects and royalties. The renewable royalty segment of the business has grown over the past year, including the initial public offering of ARR and the acquisition by GBR joint venture of new royalty like investments for total capital deployed and committed of US\$325 million since its inception.

Other climate change related risks exist when extreme weather events disrupt mining operations or end user markets for products that are mined or produced. For example, Chapada production continues to be subject to seasonal heavy rain periods that constrain operating in the open pit. Longer term, climate events support the thesis that potash and other fertilizers will continue to be in demand as agriculture industries respond to negative impacts to food production by continuing to employ fertilizer and other yield enhancement technologies or methods to a diminishing quota of arable land.

Cyber Security

The Corporation and its royalty or streaming counterparties are dependent on information technology (IT) infrastructure consisting of various hardware equipment, software and network systems. Unauthorized parties may attempt to gain access to these systems at Altius or at Altius counterparty operations through fraud or other means. Failure of information systems at Altius or its counterparty operations could result in network disruption, reputational risk, risk of lawsuits for privacy violations or loss of funds that are then vulnerable to recovery processes and timeframes. Although to date Altius has not experienced losses relating to cyber security breaches, cyber security incidents have been rising globally and Altius continues to invest in network infrastructure and monitoring capacity, along with employee training and Code of Conduct obligations concerning the protection of confidential information. Altius introduced a Cybersecurity & IT policy in 2021 and strengthened

its IT management by conducting an independent, external audit of its IT systems through an accredited third-party expert. In addition, the Corporation recently added an outside service provider to monitor potential IT vulnerabilities related to external access points.

COVID 19

In March 2020, the World Health Organization declared a global pandemic related to COVID-19. The impacts on global commerce have been far-reaching. To date, there has been significant stock market volatility, significant volatility in commodity prices and foreign exchange markets, restrictions on the conduct of business and the global movement of people and the availability of some goods has been constrained. Uncertainty remains surrounding COVID-19 and the extent and duration of the impacts that it may have on our operating partners' ability to operate on forecasted production amounts, on global commodity prices, on operating partners' logistics and supply chains, on the Corporation's employees and on global financial markets.

Royalty Portfolio

The Corporation considers the following royalties to be material for purposes of NI 43-101.

Chapada Copper Stream

Under the terms of the Chapada Copper Purchase Agreement the Corporation is entitled to purchase 3.7% of the payable copper produced from the Chapada Mine at 30% of the market price. The rate of payable copper is subject to reduction in the event of a threshold production increase at Chapada or upon delivery of 75 million pounds of copper. The Chapada Mine is located in Goias state, Brazil, and is currently a 23.5 million-tonne-per-year (Mtpa) mill throughput operation that since 2018 produces on average 121 million pounds (or approximately 55,000 tonnes) of copper. Chapada has been in production since 2007. On July 5, 2019, Lundin Mining acquired Chapada from Yamana.

In 2022, Chapada production was 45,739 tonnes copper and 68,000 ounces gold. Copper and gold production was lower than the prior year primarily due to processed ore types impacting grade and metal recoveries. Lundin Mining's guidance for 2023 is 43,000 to 48,000 tonnes of copper (and 55,000 – 60,000 ounces gold) based on the 24 Mtpa throughput rate and mine plan. The Chapada LOM plan is based on the Mineral Reserves and a processing rate of up to 24.0 Mtpa with the ore stockpile to be processed intermittently throughout the mine life. The current mine life is 22 years plus an additional seven years at the end of the mine life for processing the remainder of the ore stockpile, which would take the operation to 2051.

Lundin Mining states there are significant opportunities to create additional value at Chapada with processing plant throughput expansions, prioritizing near-mine exploration programs to understanding the potential for Mineral Resource and Reserve increases, and, in parallel, continuing to review and evaluate options for other expansions. Lundin Mining completed a prefeasibility study for expansion of the Chapada operation in 2022, including the debottlenecking of the existing processing facilities to increase throughput from the current level to up to approximately 25 Mtpa and the construction of a

new processing line for a combined throughput of up to 50 Mtpa. The optimization study will advance to feasibility in 2023 while the study for the new processing line will be put on hold pending further definition and update of the Mineral Resources and Mineral Reserves of Chapada.

Relating to near-mine exploration programs, Lundin Mining stated in February 2022 that it has made a discovery of a new copper-gold mineralized system called Saúva, located approximately 15 kilometers north of the Chapada mine. In February 2023 Lundin announced a maiden Mineral Resource Estimate at Saúva. An Indicated Mineral Resource is estimated to be 179.0 Mt at 0.32% copper and 0.20 g/t gold, containing 578 kt (1.3 Blb) of copper and 1.1 Moz of gold, based on a drill database of 233 holes (65,413 m) completed by September 2022. The deposit remains open in all directions. Subsequent to the estimate cut-off date, 28 holes (8,522 m) were completed through the end of 2022. The 2023 exploration program is focused on increasing the Mineral Resource and testing step-out anomalies along the broader Saúva-Formiga trend and is expected to include 55,000 m of drilling.

Chapada's total copper-gold Measured and Indicated Mineral Resources effective December 31, 2022 are estimated to be 1,101.1 Mt at 0.23% copper and 0.12 g/t gold, containing 2.5 Mt (5.4 Blb) of copper and 4.2 Moz of gold. Exploration success since the June 30, 2021 estimates have offset mine depletion. Additional information on the Chapada streaming interest can be found in Schedule "A" to this AIF.

Rocanville Royalty

The Corporation holds a royalty on Nutrien's Rocanville potash mine (the "Rocanville Mine"). The potash royalty agreements are structured as a lease of subsurface mineral rights to Nutrien in return for royalty payments based on percentage of ownership in the underlying units and the net selling price of potash. The Rocanville mine is located in southeastern Saskatchewan near the Saskatchewan-Manitoba provincial boundary, approximately 15 kilometers north-east of the town of Rocanville, Saskatchewan.

In recent years the Rocanville mine has undergone a major expansion which brought the nameplate capacity of the Rocanville facility to 6.5 million tonnes of finished potash products per year. This work involved sinking a third shaft, enhancement of hoists, major expansions of both mine and mill, major improvements to loadout facilities, and other infrastructure improvements. The recent Rocanville expansion, which was announced in 2007, was substantially complete in 2016, and production was ramped up through 2017. In 2022, operational capability at the Rocanville facility was 5.2 million tonnes per year.

Over Rocanville's 51 year mine life, 297.816 million tonnes of potash ore have been mined and hoisted to produce 96.397 million tonnes of finished potash products (from startup in 1970 to December 31, 2021). The life-of-mine average concentration ratio (raw ore/finished potash products) is 3.10 and the overall extraction rate over this time period is 31%. For Rocanville, mine life can be estimated by dividing the total Mineral Reserve (Proven + Probable) of 466 million tonnes by the average annual mining rate (million tonnes of ore hoisted per year). For Rocanville, the mining rate is defined as equal to the actual three-year running

average (consecutive, most recent years). The average mining rate at Rocanville over the past three years (2020, 2021 and 2022) was 16.667 million tonnes of potash ore mined and hoisted per year. If this mining rate is sustained and if Mineral Reserves remain unchanged, then the Rocanville mine life would be 28 years. This estimate of mine life is likely to change as mining advances further into new mining blocks, and / or if mining rates change.

Additional information on the Rocanville royalty can be found in Schedule “B” to this AIF.

Esterhazy Royalty

The Corporation holds a royalty on Mosaic’s Esterhazy potash mine (the “Esterhazy Mine”). The potash royalty agreements are structured as a lease of subsurface mineral rights to Mosaic in return for royalty payments based on percentage of ownership in the underlying units and the net selling price of potash. The Esterhazy Mine comprises three shafts (K1, K2 and K3) located approximately 85 km southeast of Yorkton, Saskatchewan and approximately 15 km east of the township of Esterhazy, Saskatchewan.

In December 2018, the north shaft at K3 was commissioned. In 2019, Mosaic accelerated the timeline for completion of the K3 project at Esterhazy, which would allow the company to eliminate brine spending at the K1 and K2 mines in 2022, 30 months ahead of the original plan. In early June 2021, due to increased brine inflows Mosaic made the decision to accelerate the timing of the shutdown of the K1 and K2 mine shafts at Esterhazy, which was an acceleration of approximately nine months. The early closure of K1 and K2 accelerated the timeline for the completion of the south shaft at K3. As of December 8, 2021, the south shaft at K3 was completed and had achieved full hoisting capacity three months ahead of schedule. During 2022, the decommissioning of the K1 and K2 shafts was completed and Esterhazy's K3 mine reached its targeted initial annual run rate of 5.5 million tonnes. Output was further expanded with the addition of an eleventh miner, which entered service in the fourth quarter. A twelfth miner is currently being commissioned, and the final thirteenth miner is expected to enter service in the second half of 2023. Upon completion, these three additional miners will add one million tonnes of annual capacity.

As reported by Mosaic, the mineral reserves at Esterhazy decreased by 3% to 543 million tonnes at December 31, 2022 compared to 557 million tonnes at December 31, 2021. Year over-year changes are due to mining depletion.

The LOM plan for the Esterhazy Facility includes the K3 mineral reserves. The K4 mineral resources are currently scheduled after depletion of the K3 mineral resources. Production is based on an average production rate of 17.527 million tonnes per year based on 365 production days per year. Mosaic expects the K3 mineral reserves production to ramp up to full production by 2024 and expects the mine to ramp down starting in 2051, with mining anticipated to be completed in 2054. Mosaic’s current schedule to begin mining the K4 mineral resources is in 2050, with the mine ramping up to full production in 2055 and ending in 2090.

Additional information on the Esterhazy royalty can be found in Schedule “C” to this AIF.

Dividends and Distributions

Altius paid aggregate dividends of \$13,854,000 on its Common Shares in the year ended December 31, 2022 (2021-\$9,947,000 and 2020- \$8,318,000). The future payment of dividends or distributions will remain dependent upon the financial requirements to fund future growth, the financial condition of the Corporation and other factors the Board may consider appropriate in the circumstances. The ability to pay future dividends and distributions is subject to continued compliance with debt covenants.

The Corporation also paid aggregate distributions to the holders of preferred securities of \$3,346,000 in 2022 prior to the redemption of the preferred securities¹ (2021-\$5,000,000 and 2020-\$5,014,000).

Description of Capital Structure

Authorized and Issued Capital

The Corporation is authorized to issue an unlimited number of Common Shares and an unlimited number of preferred shares. As at December 31, 2022, there were 47,624,958 Common Shares issued and outstanding.

In April 2022, 6,670,000 Common Share purchase warrants held by Fairfax were exercised, making Fairfax the largest holder of Altius common shares.

Common Shares

The holders of Common Shares are entitled to dividends if, as, and when declared by the Board, to one vote per share at meetings of holders of Common Shares and, upon liquidation, dissolution, or winding up to receive on a pro rata basis the net assets of the Corporation after payment of debts and other liabilities, in each case subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority or on a pro rata basis with the Common Shares. The Common Shares do not carry any pre-emptive subscription, redemption or conversion rights, nor do they contain any sinking or purchase fund provisions.

Preferred Shares

The preferred shares of the Corporation may be issued in one or more series, each consisting of a number of preferred shares as determined by the Board who also may fix the designations, rights, privileges, restrictions and conditions attaching to the shares of each series of preferred shares. The preferred shares, with respect to payment of dividends and distribution of assets in the event of voluntary or involuntary liquidation, dissolution or winding-up or any other distribution of the assets, rank on a parity with the preferred shares of every other series and shall be entitled to preference over the Common Shares and the shares of any other class ranking junior to the preferred shares.

Market for Securities

The Corporation's Common Shares trade on the Toronto Stock Exchange under the trading symbol "ALS". The Common Shares were listed for trading on the Toronto Stock Exchange on January 15, 2007, prior to which they were listed for trading on the TSX Venture Exchange.

Price Range and Trading Volume

The following table sets forth the reported high and low sale prices and the trading volumes of the Common Shares for each month in the year ended December 31, 2022.

Month	High \$	Low \$	Total Volume
January	\$18.92	\$16.21	3,000,000
February	\$21.87	\$17.31	3,150,000
March	\$25.68	\$21.19	4,190,000
April	\$25.71	\$20.38	2,380,000
May	\$21.44	\$18.05	3,020,000
June	\$20.62	\$17.51	2,720,000
July	\$18.39	\$15.63	2,350,000
August	\$19.45	\$17.18	1,810,000
September	\$19.82	\$16.85	2,330,000
October	\$21.55	\$18.46	1,780,000
November	\$24.00	\$20.83	2,380,000
December	\$22.96	\$21.47	1,180,000

Directors and Officers

Name, Address, Occupation and Security Holding

The following table sets forth the names, the provinces or state and countries of residence, and the positions held with the Corporation and the principal occupations of each of the directors and Named Executive Officers during the five preceding years:

Name	Province and Country of Residence	Position and Date of Appointment	Principal Occupation
John Baker	Newfoundland and Labrador, Canada	Director since June 1997, Chairman since November 2006 and Executive Chairman since 2014	Executive Chairman of the Corporation
Brian Dalton	Newfoundland and Labrador, Canada	President and CEO, Director since June 1997	President and CEO of the Corporation and of ARR

Frederick Mifflin ^{1,2,3}	Ontario, Canada	Director since November 2006, Lead Director since September 2017	Vice Chair, Blair Franklin Capital Partners Inc., an independent financial advisory firm
Jamie Strauss ^{2,3}	Dorset, United Kingdom	Director since October 2010	Founder and CEO, Digbee, a data, research, and ESG Disclosure platform for extractive mining industry
Anna El-Erian ⁵	California, United States of America	Director since May 2015	Director of Gabriel Resources Ltd, Sabina Gold & Silver, the Fraser Institute, ARR
André Gaumont ²	Quebec, Canada	Director since September 2017	Director, ARR; Former SVP and Director Osisko Gold Royalties; Former President & CEO of Virginia Gold Mines
Roger Lace ¹	Ontario, Canada	Director since May 2019	Chairman, Hamblin Watsa Investment Counsel Ltd.
Nicole Adshead-Bell ^{5, 4}	British Columbia, Canada	Director since October 2020	Lead Director, Bravo Mining Corp.; Director, Dundee Precious Metals Inc., Chairman, Hot Chili Limited; Director, Matador Mining Ltd; President, Cupel Advisory Corp. (private company established to focus on investments in the mining sector)
Teresa Conway ^{1,4}	British Columbia, Canada	Director since October 2020	Director, Eldorado Gold and Entrée Resources, Former President and CEO of Powerex Corp.
Ben Lewis	Newfoundland and Labrador, Canada	Chief Financial Officer since October 2006	Chief Financial Officer of the Corporation and of ARR
Chad Wells	Newfoundland and Labrador, Canada	Vice President, Business Development/Corporate Secretary since February 2003	Corporate Secretary and Vice President, Business Development of the Corporation
Lawrence Winter	Newfoundland and Labrador, Canada	Vice-President, Exploration since October 2006	Vice-President, Exploration of the Corporation

Notes:

- 1) Member of the Audit Committee.
- 2) Member of the Compensation Committee.
- 3) Member of the Governance and Sustainability Committee.
- 4) Member appointed effective March 10, 2021.

As at the date of this AIF, the directors and Named Executive Officers of the Corporation, as a group beneficially own, or exercise control or direction, directly or indirectly, over 2,503,824 Common Shares or 5.3% of the issued and outstanding Common Shares. Each director holds office until the next annual general meeting of shareholders or until his or her successor is elected or appointed.

Corporate Cease Trade Orders or Bankruptcies

During the past ten years, none of the directors or executive officers of the Corporation is or has been a director, chief executive officer or chief financial officer of any company that was the subject of a cease trade order, or order similar to a cease trade order, or an order that denied such company access to any exemption under securities legislation for a period of more than 30 consecutive days that was issued (a) while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or (b) after the director or chief 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.

Furthermore, during the past ten years, except as noted below, none of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation is or has been a director or executive officer of any other company that while such person was acting in that capacity or within a year of that person ceasing to act in that capacity, such company 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 the company's assets.

John Baker, Executive Chairman, and Brian Dalton, CEO, previously served as directors of Newfoundland and Labrador Refining Corporation ("NLRC"), a 39.6% owned equity investment of the Corporation. In response to a bankruptcy petition initiated by a contractor, NLRC sought and was granted creditor protection under applicable insolvency legislation on June 24, 2008. NLRC filed a proposal with the Trustee and Official Receiver on October 17, 2008 and an amended Proposal on or about November 6, 2008 (the "Proposal"). The Proposal was approved by Order of the Supreme Court of Newfoundland and Labrador (the "Court") on November 20, 2009. NLRC's efforts to attract financing and/or partners for the refinery project failed and on June 12, 2014 the Trustee under the Proposal delivered a Notice of Default in the Performance of the Proposal indicating that there had been a default in the performance of a provision of the Proposal, that the Trustee intended to apply for its discharge as Trustee, and that creditors were free to take proceedings to annul the Proposal and place NLRC in bankruptcy. No further proceedings were taken by creditors and accordingly on July 30, 2014 the Trustee was granted an Order by the Court discharging the Trustee under the Proposal without annulment of the Proposal.

Penalties or Sanctions

None of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation has been subject to (a) any penalties or sanctions 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.

Personal Bankruptcies

During the past ten years, none of the directors, executive officers or shareholders holding a sufficient number of securities to affect materially the control of the Corporation has 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 such director, executive officer or shareholder.

Conflicts of Interest

Some of the directors and officers are or may be engaged in business activities on their own behalf and on behalf of other corporations, and situations may arise where some of the directors and officers may be in a potential conflict of interest with the Corporation. Conflicts, if any, will be subject to the procedures and remedies under the *Business Corporations Act* (Alberta).

In connection with the IPO of ARR in 2021, Altius and ARR entered into a services agreement dated January 15, 2021 pursuant to which Altius provides office space, management, and administrative services, including the services of the CEO (Brian Dalton), CFO (Ben Lewis) and corporate secretary (Flora Wood) to ARR for a monthly fee of \$50,000 plus applicable taxes beginning on February 1, 2021.

In addition, pursuant to an investor rights agreement dated February 4, 2021 between Altius and ARR (the "Investor Rights Agreement"), the board of directors of ARR will be comprised of five individuals, two of whom shall be appointed by Altius, which will be entitled to appoint two directors provided that it and its affiliates hold 40% or more of the outstanding ARR Shares and one director provided that it and its affiliates hold between 10-40% of the outstanding ARR Shares. Under the Investor Rights Agreement ARR has also granted Altius certain anti-dilution and piggyback registration rights, provided that Altius and its affiliates beneficially own not less than 10% of the outstanding ARR Shares. Altius has also agreed that it will not vote against and will cause voting securities owned by its affiliates not to be voted against, any resolution that a majority of the board of directors of ARR has approved to be recommended to securityholders of ARR, subject to certain exceptions. As of the date of this AIF, Anna El-Erian and André Gaumond serve on the boards of directors of both the Corporation and ARR.

In certain instances, the interests of ARR may differ from the interests of Altius and its shareholders, including with respect to strategic decisions. It is possible that conflicts of interest may arise between Altius and ARR that such conflicts may not be resolved in a manner that is in the best interests of Altius or its shareholders.

Legal Proceedings

Except as noted above with respect to the Genesee Mine, the Corporation and its subsidiaries are not a party to any material legal proceedings.

Interest of Management and Others in Material Transactions

There are no material interests, direct or indirect, of any director, executive officer, or any person or company who beneficially owns, directly or indirectly, more than 10% of the outstanding Common Shares or any known associate or affiliate of such persons, in any transaction during the three most recently completed financial years, or during the current financial year, which has materially affected or is reasonably expected to materially affect the Corporation or a subsidiary of the Corporation, other than as disclosed elsewhere in this AIF.

Transfer Agent and Registrar

TSX Trust Company, through its office in Toronto, Ontario, is the transfer agent and registrar for the Common Shares.

Material Contracts

The following are the material contracts entered into by Altius other than contracts entered into in the ordinary course of business, during the financial year ended December 31, 2022, or since such time or before such time, and that are still in effect:

- 1) Copper Purchase Agreement relating to the Chapada Mine; and
- 2) Credit Agreement and related amendments among Altius and certain subsidiaries originally dated May 3, 2016 and amended and restated as of August 9, 2021 relating to the Credit Facilities;

A copy of each material contract is available on System for Electronic Document Analysis and Retrieval (“SEDAR”) under Altius’ profile at www.sedar.com.

In the normal course of business, the Corporation enters into and maintains several earn-in agreements or exploration alliances with other exploration companies to provide technical support and to cost-share in exploration expenditures. These agreements normally result in the Corporation holding a reduced ownership in the mineral property and holding a royalty interest in any future potential mining revenues. While these agreements are not individually material, any of them could become material pending a significant mineral discovery and eventual development.

The Corporation holds directly and indirectly royalty and streaming interests with third party mine operators that may be considered material. Because the Corporation enters into these contracts in normal course of its business, they are not listed in the summary above. However, the Corporation does file these contracts on SEDAR. See the Summary of Producing Royalty and Streaming Interests table above for a list of these royalties.

Interests of Experts

Other than transactions carried out in the ordinary course of business of the Corporation or its subsidiaries, none of the directors or executive officers of the Corporation, any shareholder directly or indirectly beneficially owning, or exercising

control or direction over, more than 10% of the outstanding Common Shares, or an associate or affiliate of any of the foregoing persons has had, during the three most recently completed financial years of the Corporation or during the current financial year, any material interest, direct or indirect, in any transactions that materially affected or would materially affect the Corporation or its subsidiaries.

Lawrence Winter, PhD, P.Geo, Vice President of Exploration for Altius, a “qualified person” as such term is defined in NI 43-101, has reviewed and approved the scientific and technical information in this annual information form on the Chapada mine. Lawrence Winter owns less than 1% of the securities of the Corporation or of any associate or affiliate of the Corporation. Regarding Chapada, readers should consult the Lundin Mining annual information form for the year ended December 31, 2022, dated February 22, 2023 (the “Lundin AIF”) and Lundin Mining’s *Technical Report on The Chapada, Mine Goiás State, Brazil* dated October 10th, 2019 (“Chapada Technical Report”). Lundin Mining’s Technical Report and the Lundin AIF are available for review under Lundin Mining’s profile on SEDAR at www.sedar.com.

Carol Seymour, P.Geo., Senior Geologist for Altius, has reviewed and approved the scientific and technical information in this annual information form on the Rocanville and Esterhazy Mines. Carol Seymour owns less than 1% of the securities of the Corporation or of any associate or affiliate of the Corporation. Regarding Rocanville, readers should consult the *Technical Report on Rocanville Potash Deposit (KL505), Saskatchewan, Canada* dated Effective December 31, 2021, prepared by Nutrien and the *Annual Information Form for the year ended December 31, 2021* (“Nutrien AIF”) dated February 16, 2023 to obtain further particulars regarding the Rocanville Mine. Nutrien's Technical Report and Nutrien AIF are available for review under Nutrien's profile on SEDAR at www.sedar.com. Regarding Esterhazy, readers should consult the Mosaic Form 8-K dated February 22, 2023 and the 2022 Form 10-K dated February 23, 2023 (“Mosaic 10-K”) and the *Esterhazy Potash Facility Technical Report Summary* with effective date December 31, 2021, which is included as Exhibit Ex-96.2 of the 2021 Mosaic 10-K report dated February 23, 2022 to obtain further particulars regarding the Esterhazy Mine. The Mosaic 8-K and 10-K are available for review under Mosaic’s profile on EDGAR at www.sec.gov.

Deloitte LLP is the auditor of the Corporation and is independent of the Corporation within the meaning of the Rules of Professional Conduct of the Institute of Chartered Accountants of Newfoundland and Labrador.

Audit Committee

The purpose of the Corporation’s audit committee is to provide assistance to the Board in fulfilling its legal and fiduciary obligations with respect to matters involving the accounting, auditing, financial reporting, internal control and legal compliance functions of the Corporation. It is the objective of the audit committee to maintain free and open communications among the Board, the independent auditors and the financial and senior management of the Corporation.

The full text of the audit committee’s charter is included as Schedule "D" to this AIF.

Composition of the Audit Committee

During the year ended December 31, 2022, the audit committee was comprised of Teresa Conway (Chair), Fred Mifflin and Roger Lace. All members are financially literate and are independent, as defined under Section 1.4 and 1.5 of National Instrument 52-110 *Audit Committees*.

Relevant Education and Experience

Teresa Conway

Ms. Conway is a Chartered Professional Accountant with over 30 years experience. She is currently a Director and member of the Audit Committee of Eldorado Gold and Entrée Resources. Ms. Conway was the President and CEO of Powerex (2012-2017) and held various executive positions, including CFO, since joining Powerex in 1993. Prior to that Ms. Conway was with PriceWaterhouseCoopers (PWC) from 1985-1992. Ms. Conway has a Bachelor of Business Administration from Simon Fraser University and has the professional designation ICD.D from the Institute of Corporate Directors.

Frederick Mifflin

Mr. Mifflin is Vice Chair of Blair Franklin Capital Partners Inc., an independent financial advisory firm. Previously, Mr. Mifflin was employed by BMO Capital Markets Inc. in various executive positions including Executive Managing Director of Mining and Metals. Mr. Mifflin holds a B. Comm. (Honours) degree from the Smith School of Business at Queen's University, an M.B.A. from The University of Chicago Booth School of Business and is a graduate of the Advanced Management Program from Harvard Business School. Mr. Mifflin is an independent director and member of the Audit Committees of Toromont Industries Ltd. and Uni-Select Inc. and accredited by the Institute of Corporate Directors.

Roger Lace

Mr. Lace is Chairman of Hamblin Watsa Investment Counsel Ltd., a wholly owned subsidiary of Fairfax, responsible for managing Fairfax's global investments. He has over 40 years experience in the investment management industry and has been with Fairfax for more than 30 years. Mr. Lace holds a Bachelor of Science degree from MIT, and an MBA from the Richard Ivey School at Western University and is a CFA charter holder.

Pre-Approval Policies and Procedures

Under its terms of reference, the audit committee is required to review and pre-approve the objectives and scope of the audit work to be performed by the Corporation's external auditors and their proposed fees. In addition, the audit committee is required to review and pre-approve all non-audit services which the Corporation's external auditors are to perform.

Pursuant to these procedures since their implementation, all of the services provided by the Corporation's external auditors relating to the fees reported as audit, audit-related, tax and all other services have been approved by the audit committee.

Audit Fees

The aggregate fees billed by the external auditors in the year ended December 31, 2022 were \$537,000, which included non-refundable HST of \$40,000, compared to \$375,000 for the year ended December 31 2021 which included non-refundable HST of \$48,000.

Tax Fees

The aggregate fees billed by the external auditors for tax compliance, tax advice and tax planning services in the year ended December 31, 2022 were \$126,000, which included non-refundable HST of \$9,000, compared to \$87,000 for the year ended December 31, 2021 which included non-refundable HST of \$10,000.

Audit Related Fees

Audit-related fees represent fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Corporation's financial statements and not disclosed under Audit fees. The aggregate fees billed by the external auditor in the year ended December 31, 2022 were \$88,000, which included non-refundable HST of \$11,000, compared to \$nil in 2021.

All Other Fees

All other fees billed by the external auditors in the year ended December 31, 2022 and 2021 were \$nil and \$nil, respectively.

Additional Information

Additional information relating to the Corporation may be found on SEDAR at www.sedar.com.

Additional information, including regarding directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's management information circular for its most recent annual meeting of shareholders that involved the election of directors. Additional information is also provided in the Corporation's financial statements and Management's Discussion & Analysis for its most recently completed financial year.

Schedule “A” – Chapada Mine

All of the information below with respect to the Chapada Mine owned by Lundin Mining has been excerpted or derived from the Lundin Mining annual information form for the year ended December 31, 2022, dated February 22, 2023 (the “Lundin AIF”) and the Lundin Mining *Technical Report On The Chapada Mine, Goiás State, Brazil* dated October 10th, 2019 (“Chapada Technical Report”), prepared by Roscoe Postle Associates Inc. (“RPA”). Additional information has been taken from various Lundin Mining news releases as referenced.

Readers should consult the Lundin AIF and Chapada Technical Report to obtain further particulars regarding the Chapada Mine. The Lundin AIF and Chapada Technical Report are available for review under Lundin Mining’s profile on SEDAR at www.sedar.com. The information below is subject to the assumptions, qualifications and procedures set out in the Lundin AIF and Chapada Technical Report is qualified in its entirety with reference to the full text of the Lundin AIF and Chapada Technical Report, respectively.

Lawrence Winter, Ph.D., P.Geol, Vice President, Exploration for Altius, who is a “qualified person” for the purpose of NI 43-101, has reviewed and approved the scientific and technical information in this section on the Chapada Mine.

Property Description, Location and Access

Chapada is located in northern Goiás State, approximately 320 kilometres north of the state capital of Goiania and 270 kilometres 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 up to 24.0 Mtpa. The mineral concentrate product from the processing plant is transported by road to the port of Açú in the state of Rio de Janeiro from where it is shipped to destinations in Europe and the Far East. The Suruca deposit is not yet in production.

Access to Chapada is via the paved BR-153 highway from Brasília 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.

Mineração Maracá Indústria e Comércio S.A. (“MMIC”), a wholly-owned indirect subsidiary of the Company that owns the Chapada Mine, holds 76 mining and exploration concessions totaling 110,039 ha. 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 69 exploration concessions in the area that total approximately 104,250 ha.

MMIC holds surface rights in the area of the Chapada Mine, which incorporates substantially 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 (including in the tailings dam self-rescue zone), 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% NSR payable by MMIC to Sandstorm.

Lundin reports that it is subject to separate copper purchase agreements related to the Chapada Mine’s copper production from specific areas in and around the active mining areas of the Chapada Mine 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.

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-gold concentrates 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 Mining acquired Chapada from Yamana.

The total material processed from the start of production up to the end of December 2022 was 324 Mt grading 0.35% Cu and 0.29 g/t Au.

Geological Setting, Mineralization and Deposit Types

Regional, Local and Property Geology

The Chapada area is located between the Amazonian craton to the northwest and the San Francisco craton to the southeast, within the north-northeast striking metavolcano-sedimentary Mara Rosa Magmatic Arc, which is part of a large system of mobile belts that have a complex, multi-phased history of deformation.

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 Chapada deposit lithologies were grouped in “litho-structural domains” to assist mine operations. These domains are classified based on lithological relationships, intensity of hydrothermal alteration, and intensity of weathering. The Suruca deposit comprises three distinct zones, divided according to the contained metals and oxidation zones: Suruca Oxide (Au-only), Suruca Sulphide (Au-only), and Suruca SW (Cu-Au).

Mineralization

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 sulphide 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 sulphide concentrations. The second generation of quartz veins/veinlets with sulphides (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.

Deposit Types

Currently, the most accepted metallogenetic model for Chapada is a metamorphosed porphyry model associated with skarn system. The porphyry, skarn, and epithermal system can be separated into three distinct mineralization styles, based on hydrothermal alteration and metal association:

- Copper-Gold Porphyry System (Chapada Corpo Principal, Corpo Sul, and Sucupira);
- Gold (Silver-Lead-Zinc) Distal Skarn (Suruca); and
- Copper-Gold Proximal Skarn (Suruca SW).

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 northeast and southwest 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 mineralisation was discovered close to the plant facilities and the Santa Cruz mineralisation was outlined as a southern extension of Corpo Sul.

Exploration work at Suruca started in 2008 with geological mapping, chip sampling and shallow drilling followed by a geophysical programme 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 mineralisation to define a Measured Mineral Resource. In 2017, the Suruca SW mineralization was discovered exhibiting similar geological features to the Chapada deposit. Since that time, drilling continued and focused on strike and down dip extensions (2018) and delineating the copper-gold mineralization to the southwest of Suruca (2021).

In 2022, exploration activities included exploration drilling at Chapada and within the district.

Drilling

Exploration drilling at Chapada and within the district during 2022 comprised of: (i) a regional stage gated program with 6,109 m drilled, supported by regional soil and geophysics (Induced Polarization) surveys; (ii) 1,995 m drilled on the near-mine mineralized extension of Sucupira; and (iii) 3,800 m drilled on the mineralized extension of Cava Norte. Total exploration drilling at Chapada was 11,904 m in 2022.

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-metre intervals, adjusted for lithological contacts. Geological data is recorded in a secure SQL database.

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 assay performance of the primary laboratories used by MMIC was assessed by a review of results from the insertion of certified reference material (CRM) standards. The CRM is a sample of known value that is used to assess laboratory performance.

An external (independent of the laboratory being assessed) industry-standard QA/QC program was conducted for the drill campaigns, which followed written protocols. The QA/QC program consisted of the insertion of blanks or sterile samples (non-certified blanks) and CRMs into the sample stream and the running of duplicate field (quarter-core) samples. Later, pulp duplicate samples were re-assayed at a secondary facility.

Compilation of assay QA/QC results was carried out on a continuous basis by a staff geologist in the Exploration Department. The data were collected and plotted on graphs to look for problem areas, and monthly and annual reports were generated. General performance was monitored, including the number of samples collected, the number and type of QA/QC samples, equipment availability, assay return times, etc. The reports also described the progress and results of special research projects, such as heterogeneity studies, that were underway at the time. Any problem areas with regard to assay verification were flagged

and recommendations for appropriate action are implemented. Sample runs with failed QA/QC samples are sent for re-analysis.

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

Mineral Processing and Metallurgical Testing

A significant amount of process testwork 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 testwork was completed. Initially this focused on increasing the plant throughput capacity and improving the grinding circuit. Ore characterisation 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, after significant testwork, the process plant flowsheet has incorporated Woodgrove Technologies Staged Flotation Reactors and Direct Flotation Reactors and has seen some associated recovery improvements. The mine has addressed future increases in ore competency by implementing a Semi-Mobile Crusher Plant to crush a portion of the SAG Mill Feed Stockpile. Further process benefits have been realized with improved ore size distributions due to a Mine to Mill program and improved SAG Mill Liner configurations. Further debottlenecking, expansion and Enterprise Optimization studies are underway.

At Suruca, separate test work programs were initiated for the oxide and sulphide 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 testwork, and column leach testwork. The updated KCA test work program confirmed the amenability of Suruca ore to cyanide leaching and recommended further compaction test work.

The Company completed a prefeasibility study for expansion of the Chapada operation in 2022, including the debottlenecking of the existing processing facilities to increase throughput from the current level to up to approximately 25 Mtpa and the construction of a new processing line for a combined throughput of up to 50 Mtpa. The optimization study will advance to feasibility in 2023 while the study for the new processing line will be put on hold pending further definition and update of the Mineral Resources and Mineral Reserves of Chapada.

Mineral Resources and Mineral Reserves

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. Block model estimates are validated using industry-standard methods. NSR parameters are scripted into the finalized block model.

Classification for Chapada, Suruca Sulphide, 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 for Indicated, and 200 m by 200 m drill pattern for Inferred.

Using the reported Mineral Resources, appropriate NSR cut-off value for Mineral Reserves, and adequate Modifying Factors to account for mining dilution and ore recovery, the Chapada Mine technical team developed open pit mine designs and production schedules to estimate the Mineral Reserves. Based on the final mine plan and the economic analysis results, 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 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. To the extent such factors are within the control of or capable of influence by Lundin Mining, 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 December 31, 2022 Mineral Resource and Mineral Reserve estimate for Chapada are shown below in tables 1 and 2.

Table 1 – Chapada Mineral Resources (inclusive of Mineral Reserves) – December 31, 2022

Site	Category	Tonnes 000's	Copper %	Gold g/t	Contained (kt)	Contained (Koz)
Chapada	Measured	513,443	0.25	0.12	1,269	2,015
Open Pit	Indicated	458,473	0.21	0.11	986	1,679
	M&I	971,917	0.23	0.12	2,255	3,694
	Inferred	66,279	0.22	0.08	146	175
Chapada Stockpile	Measured	129,220	0.18	0.11	234	460
	Indicated					
	M&I	129,220	0.18	0.11	234	460
Suruca Gold	Measured	12,737		0.42		170
	Indicated	134,780		0.54		2,324
	M&I	147,517		0.53		2,494
	Inferred	12,565		0.48		194
Sauva	Measured					
	Indicated	178,966	0.32	0.20	578	1,135
	M&I	178,966	0.32	0.20	578	1,135
	Inferred	70,819	0.26	0.12	187	283

Table 2 – Chapada Mineral Reserves – December 31, 2022

Site	Category	Tonnes 000's	Copper %	Gold g/t	Contained (kt)	Contained (Koz)
Chapada	Proven	360,865	0.25	0.14	906	1,606
Open Pit	Probable	165,614	0.23	0.11	378	587
	Total	526,479	0.24	0.13	1,284	2,192
Chapada Stockpile	Proven	129,220	0.18	0.11	234	460
	Probable					
	Total	129,220	0.18	0.11	234	460
Chapada	Proven	11,454		0.42		154
Suruca Gold	Probable	53,741		0.53		908
	Total	65,195		0.51		1,062

Notes on Mineral Resource and Mineral Reserve Tables:

The Measured and Indicated Mineral Resource estimates are inclusive of those Mineral Resource estimates modified to produce the Mineral Reserve estimates. All estimates, with the exception of Suruca, are effective as at December 31, 2022. The Suruca Mineral Resource and Mineral Reserve estimates are effective as at June 30, 2019.

Reference herein to \$ or USD is to United States dollars and BRL is to Brazilian reais. Mineral Reserves for all active mines have been estimated using metal prices of \$3.35/lb copper and \$1,600/oz gold. Exchange rate used was USD/BRL 5.00 for Mineral Reserve and Mineral Resource estimates. For the Suruca gold deposit Mineral Reserve, the metal prices used were \$3.00/lb copper and \$1,250/oz gold and an exchange rate of USD/BRL 3.95.

Mineral Reserve estimates for all operations are prepared by or under the supervision of and verified by Mr. Arkadius Tarigan, P.Eng., Director, Reserves and Mine Planning of Lundin Mining and a Qualified Person. Mineral Resource estimates for all operations are prepared by or under the supervision of and verified by Mr. Cole Mooney, P.Geo., Director, Resource Geology of Lundin Mining and a Qualified Person. No limitations were imposed on their verification process.

The Chapada and Suruca copper-gold Mineral Resource estimates are reported within a conceptual pit shell based on metal prices of \$4.02/lb copper and \$1,800/oz gold and at open pit discard NSR cut-off grade of \$4.72/t. For the Suruca gold only Mineral Resource estimates, cut-off grades of 0.16 g/t gold for oxides and 0.23 g/t for sulphides were used. Mineral Reserves for the Chapada open pit are estimated at metal prices of \$3.35/lb copper and \$1,600/oz gold and at open pit discard NSR cut-off grade of \$4.72/t. For the Suruca gold only Mineral Reserve estimates cut-off grades of 0.19 g/t gold for oxides and 0.30 g/t for sulphides are used.

The Saúva open pit Mineral Resource estimates are reported within a conceptual pit shell based on metal prices of \$4.02/lb copper and \$1,800/oz gold with a cut-off grade of 0.16% copper equivalent. Copper equivalency is based on metallurgical recoveries of 79% for copper and 68% for gold.

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 Sulphide 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 22 years plus an additional seven years at the end of the mine life for processing the remainder of the ore stockpile.

Processing and Recovery Operations

The Chapada concentrator is designed to process copper sulfide ore at a nominal rate of up to approximately 65,000 tpd for a total of up to 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 2022, copper and gold recoveries averaged 78.6% and 56.3% respectively and the average concentrate grades were 22.5% Cu and 10.4 g/t Au.

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 Staged Flotation Reactor (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 Açú 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.

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 capacity 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. The Company completed a prefeasibility study for expansion of the Chapada operation in 2022, including the debottlenecking of the existing processing facilities to increase throughput from the current level to up to 25.2 Mtpa and the construction of a new processing line to duplicate production for a combined throughput of up to 50 Mtpa. The optimization study will advance to feasibility in 2023 seeking to achieve up to 26 Mtpa while the study for the new processing line will be put on hold pending further definition and update of the Mineral Resources and Mineral Reserves of Chapada.

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

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 85.4 km long 230 kV transmission line connected to the Energias de Portugal (EDP) electric substation at the city of Itapaci, Goiás. The current power demand at Chapada is approximately 47.7 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 tailings facility is located to the immediate north of the plant site and consists of one main dam (Main Dam) and two perimeter dams (Dike II and Dike III). The Main Dam is constructed with compacted cyclone underflow coarse tailings sands using the centerline method of construction and extends about 5 km in crest length. The Main Dam also includes a 17 m high starter embankment constructed of compacted residual, clay-like soil. The current average downstream slope of the Main Dam is 3.5H:1V. The Main Dam also includes a reinforcement buttress around the central maximum section in the valley bottom. In 2022, the Main Dam had a crest elevation at 377.5 m. The Dike II perimeter dam is a zoned earth-fill constructed dam consisting of residual, clay-like soil. Dike II retains the supernatant pond at the south end of the Chapada tailings facility,

does not retain any tailings and is equipped with a vertical chimney drain. The Dike III perimeter dam is a centerline constructed dam with compacted cyclone underflow coarse tailings sands, includes a small starter embankment formed of residual, clay-like soil and has a downstream slope of 3.5H:1V. All dams were constructed with foundation drains.

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 December 2021, MMIC received the construction license for the 382 m dam raise and the operating license was issued in May 2022. As part of its long-term planning, MMIC is engaging in discussions with the regulator to raise the ultimate crest elevation to 398 m.

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 underflow tailings coarse sands following the centerline method (Main Dam 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.

Tailings facility inspections and monitoring are completed daily by a specialized operations technical team. Data are gathered and submitted every two weeks to Brazil's National Mining Agency (Agência Nacional de Mineração or "ANM"). In addition, Chapada also maintains a geotechnical monitoring center (which constantly monitors the tailings facility), an emergency action plan, and a trained team to respond quickly and safely in any situation.

Brazilian regulations require numerous tailings dam safety inspections or reviews to be completed by a Brazilian registered engineer and, upon successful inspection, the issuance of a stability condition declaration that must be filed with the ANM. This includes tailings dam safety inspections twice a year (most recently completed in September 2022) and a more comprehensive dam safety review every two years (next planned review in 2023). The most recent Independent Tailings Review Board site visit was completed in August 2022.

Environmental management and monitoring programs have been developed and are implemented for Chapada. The mine monitors surface and groundwater water quality, drainage 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.

The waste rock at the mine is either PAG or non-acid generating. 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 or is released into the environment, after solids sedimentation.

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 Goiás State environmental regulator (then known as FEMAGO and now known as the Secretaria de Estado de Meio Ambiente e Desenvolvimento Sustentável or “SEMAD”) in accordance with the National Environmental Council (CONAMA) Resolution 001/86, Goiás State environmental regulator (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 originally obtained on November 20, 2006 and renewed in 2008 and 2012. The operating license expires in August 2022 and the Company will submit an extension request with SEMAD in the second quarter of 2022. Permitting of new activities, such as the mining of the southwest pit and tailings dam raise, progressed well in 2021 with the Company receiving both installation and operating licenses for the southwest pit and an installation license for the tailing dam raise. Simultaneously, the Company has been engaged since 2019 with SEMAD in a legislated process to consolidate a number of other historical permits and activities into a single permit (Unification License) which would streamline permit management and oversight for both the Company and SEMAD. This Unification License process would regularize various historical technical non-compliances which have developed since the mine began operating in 2006 including, certain historical operational activities taking place on the basis of expired permits or preliminary permits (such as installation permits) or outside of the defined permit requirements. In February 2022, MMIC was formally accepted by SEMAD into the Unification License process and, subject to satisfaction of the specified conditions, expects to receive a Unification License in 2023.

Chapada operates under Lundin Mining’s Responsible Mining Management System (RMMS) and corresponding health, safety, environment, and community standards.

This system undergoes a third-party audit to ensure continued compliance with those standards and guidance documents. In addition, the site is both certified under OHSAS - 18001 for health and safety and ISO- 14001 for environmental management. Chapada Mine’s health and safety management system was converted from is OHSAS-18001 and recertified under ISO-45001

and ISO-14001 in September 2022. Chapada has a valid MCP, which is updated periodically. The closure plan is submitted (i) periodically to the State Environmental Agency, with the next version expected to be submitted following final approval of the Unification License; and (ii) every five years to the ANM, with the last version submitted in June 2022.

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.

Capital and Operating Costs

As reported in the Lundin's MD&A for the year ended December 31, 2022, Chapada's annual production cost is presented below. In addition, Chapada's actual cash costs and cash costs per pound for 2022 and guidance for 2023 is presented below.

<u>Chapada</u>	2022 Actual	2023 Guidance ⁽²⁾
Annual production cost	\$324M	--
Cash Cost ⁽¹⁾	\$209M	\$264M
Cash Cost per pound of copper ⁽¹⁾ (\$/lb Cu)	\$2.08	\$2.55-2.75

(1) Cash Cost and Cash Cost per pound of copper are non-GAAP measures. For a description and reconciliation of non-GAAP measures, please refer to "Non-GAAP and Other Performance Measures" in Lundin Mining's MD&A for the year ended December 31, 2022, which section is incorporated by reference herein and is available on SEDAR under the Company's profile at www.sedar.com. Cash Costs are calculated on a by-product basis and do not include the effects of copper stream agreements.

(2) Guidance Cash Cost is based on various assumptions and estimates, including but not limited to: production volumes, commodity prices (Au: \$1,750/oz), foreign exchange rates (USD/BRL:5.00), and operating costs.

As reported in the Company's MD&A for the year ended December 31, 2022, total capital cost estimates for Chapada for 2023 are \$70 million, a breakdown of which is tabulated below. Capital expenditures include \$25 million for capitalized waste stripping, \$15 million for the TSF and water management systems, and \$5 million for mine and mobile equipment.

<u>Chapada Capital Cost Estimates</u>	Unit	2023 Guidance
TSF and water management	\$M	15
Capitalized stripping	\$M	25
Mine and mobile equipment	\$M	5
Other	\$M	25
Total sustaining	\$M	70

The Company capitalizes waste costs during the production phase of the mine when these costs provide probable future economic benefits and identifiable improved access to the ore body which can be reliably measured.

Exploration, Development and Production

The 2023 exploration program will focus on regional targets with 9,000 m of drilling planned. Geophysical (Induced Polarization/Resistivity) and soil geochemical surveys will continue to identify and focus drill targeting. Total planned exploration expenditure is approximately \$1 million for 2023.

In 2022, Chapada produced 45,739 tonnes of copper and approximately 68,000 ounces of gold in concentrate. As reported in the Company's MD&A for the year ended December 31, 2022, 2023 production guidance is tabulated below.

<u>Chapada</u>	<u>Unit</u>	<u>2023 Guidance</u>
Copper production	'000 Tonnes	43-48
Gold production	'000 Ounces	55-60

The current forecast LOM of the Chapada open pit and stockpiles is to 2051.

The information presented in this section is forward-looking information. See cautionary statement on "Forward Looking Information" regarding risks and uncertainties.

For further details regarding Exploration work, see "*Exploration*", above.

For further details regarding Development and Production, see various sections above such as "*History, Mining Operations, Processing and Recovery Options, and Infrastructure, Permitting and Compliance Activities*".

Please refer to the section "*Forward Looking Information*".

Schedule “B” – Rocanville Royalty

Current Technical Report

All of the information below with respect to the Rocanville Mine owned by Nutrien has been excerpted or derived from the *Technical Report on Rocanville Potash Deposit (KL305), Saskatchewan, Canada* dated effective December 31, 2021 (the “Rocanville Technical Report”), prepared by Nutrien and the Nutrien Annual Information Form for the year ended December 31, 2022 dated February 16, 2023 (“Nutrien AIF”). Carol Seymour., P.Geol, Senior Geologist for Altius, has reviewed and approved the scientific and technical information in this section on the Rocanville Mine. Readers should consult the Rocanville Technical Report and the Nutrien AIF obtain further particulars regarding the Rocanville Mine. Nutrien's Technical Report and Nutrien AIF are available for review under Nutrien's profile on SEDAR at www.sedar.com.

Project Description, Location and Access

The Rocanville mine (surface plant) is located in southeastern Saskatchewan near the Saskatchewan-Manitoba provincial boundary, approximately 15 kilometers north-east of the town of Rocanville, Saskatchewan.

The legal description (Saskatchewan Township / Range) of the Rocanville surface plant is Section 22 Township 17 Range 30 West of the 1st Meridian. More precisely, the Rocanville #2 Shaft collar is located at:

- Latitude: 50 degrees 28 minutes 19.54 seconds North
- Longitude: 101 degrees 32 minutes 42.58 seconds West
- Elevation: 480.36 metres above mean Sea Level (SL)
- Northing: 5,596,826.122 m
- Easting: 745,137.307 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

The legal description (Saskatchewan Township / Range) of the Rocanville Scissors Creek Shaft is Section 13 Township 17 Range 32 West of the 1st Meridian and is approximately 12 kilometers north-east of the town of Rocanville, Saskatchewan. More precisely, the Shaft collar is located at:

- Latitude: 50 degrees 27 minutes 7.0632 seconds North
- Longitude: 101 degrees 46 minutes 13.58 seconds West
- Elevation: 525.35 metres above mean Sea Level (SL)
- Northing: 5,593,868.30 m
- Easting: 729,253.35 m
- Projection: UTM
- Datum: NAD83
- Zone: 13

Nutrien owns approximately 3,244 hectares (8,016 acres) of surface rights required for current Rocanville mine operations, including all areas covered by the existing surface plant and Tailings Management Area, and all surface lands required for the anticipated future Rocanville mine and expanded milling operations.

The Rocanville mine surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. Most finished potash products are shipped by rail over existing track, with some product shipped by truck over the North American Highway System.

The Rocanville mine is served by a number of towns and villages within 50 kilometres of the minesite. The nearest towns are Rocanville (15 km distant), Moosomin and Esterhazy (both 50 km distant). The nearest city is Yorkton (100 km distant).

Rocanville is situated near the north extent of the Great Plains of North America. Topography is relatively flat, with gently rolling hills and occasional valleys. The Qu'Appelle River valley, a glacial outflow channel, lies just north of the minesite, and the Assiniboine River Valley is a few kilometers to the east. Climate at the Rocanville mine is typical for an inland prairie location at latitude 50° North (often characterized as “mid-latitude steppe” climate).

Part of the normal surface infrastructure associated with operating the potash mine in Saskatchewan includes waste disposal on the land and disposal of salt brine into deep subsurface aquifers. Facilities to carry out all aspects of these tasks are in place at Rocanville

All permits and approvals required for the operation of a potash mine in Saskatchewan are in place at Rocanville.

Mineral Rights

The original Rocanville Crown Subsurface Mineral Lease KL III was entered into in June 1966. In the following years various minor amendments were made to this Crown lease, resulting in Crown Subsurface Mineral Lease KL IIIR. A new Crown Subsurface Mineral Lease numbered KLSA 002 was issued in February 2010 incorporating all Crown mineral rights within the existing Crown Lease KL IIIR and approximately two-thirds of Crown mineral rights covered in KP 338A. The portion of the lands that were not part of the Lease amalgamation remained as Crown Exploration Permit KP 338B until December 2016 when they were converted to a Crown Subsurface Mineral Lease numbered KL 249. In October 2017, KL 305 was formed by the amalgamation of Crown Subsurface Leases KLSA 002 (KLSA 002B, following minor amendments) and KL 249. KL 305 covers an area of approximately 113,975 hectares (281,639 acres). In May 2020, a Crown Subsurface Mineral Lease numbered KL 279, was acquired from North Atlantic Potash. KL 279 covers an area of approximately 56,540 hectares (139,712 acres).

Per the Rocanville Technical Report, Nutrien has leased potash mineral rights for 54,184 hectares (133,892 acres) of Crown Land and owns or has leased approximately 45,612 hectares (112,710 acres) of Freehold Land within KL 305. The Rocanville Crown Lease terms are for a period of 21 years from October 2017 and May 2017, with renewals at the Company's option for 21- year periods. Freehold Lands also remain under lease providing, generally, that production is continuing and that there is a continuation of the Crown Lease.

Within the current Rocanville Crown Lease area, 80,181 hectares (198,132 acres) are mined pursuant to unitization agreements with mineral rights holders (Crown and Freehold) within two unitized areas.

History

Ten potash mines were brought into production in Saskatchewan between 1962 to 1970. With over 50 years of production history, most potash mines have contracted or expanded production in response to the demand for potash. No new mines had been commissioned until 2017. Most of the operating mines are conventional underground mines, while three operate using solution mining methods.

Exploration drilling for potash in the Rocanville, Saskatchewan area was carried out in the 1960s. Thirty-four potash test holes were drilled during this early exploration phase: 25 in Saskatchewan and nine in Manitoba. The Rocanville mine was built by a company called Sylvite of Canada Ltd. (a division of Hudson's Bay Mining and Smelting Ltd.) in the late 1960s, and potash production began at Rocanville in 1970. The mine has run on a continuous basis since then other than short-term shutdowns

taken for inventory management purposes or occasional plant maintenance and construction work, or other outages that are typical for operations of this nature. PotashCorp acquired the Rocanville mine in 1977.

Effective January 1, 2018, PotashCorp and Agrium completed the Arrangement. As a result of completing the Arrangement, PotashCorp and Agrium are wholly-owned subsidiaries of Nutrien.

A major expansion to increase the nameplate capacity of Rocanville from 3.0 million tonnes to approximately 6.0 million tonnes of finished potash products per year was announced in 2007. Expansion work was substantially completed by the end of 2016, and production was ramped up through 2017 when a nameplate capacity of 6.5 million tonnes of finished potash product was announced. The operational capability at Rocanville during 2022 was 5.2 million tonnes per year of finished potash product.

Geological Setting, Mineralization and Deposit Types

Much of southern Saskatchewan is underlain by the Prairie Evaporite Formation, a layered sequence of salts and anhydrite which contains one of the world's largest deposits of potash. The potash extracted from the predominantly sylvinitic ore has its main use as a fertilizer.

The 100 m to 200 m thick Prairie Evaporite Formation is overlain by approximately 500 m of Devonian carbonates, followed by 100 m of Cretaceous sandstone, and 400 m of Cretaceous shales and Pleistocene glacial tills to surface; it is underlain by Devonian carbonates (Fuzesy, 1982). The Phanerozoic stratigraphy of Saskatchewan is remarkable in that units are flat-lying and relatively undisturbed over very large areas. Rocanville stratigraphy differs slightly from this regional model in that Mississippian carbonates and Jurassic clastics are present.

There are three mineable potash members within the Prairie Evaporite Formation of Saskatchewan. Stratigraphically highest to lowest, these members are: Patience Lake, Belle Plaine, and Esterhazy.

The Rocanville potash deposit lies within the Esterhazy Member of the Prairie Evaporite Formation. The Patience Lake Member potash beds are not present in the Rocanville Area. The Belle Plaine and White Bear Members are present, but not conventionally mineable in the Rocanville area. The potash zone at Rocanville is approximately 2.4 metres thick and occurs near the top of the Prairie Evaporite Formation. Potash mineralization in this area is flat-lying and continuous. Mine elevations range from approximately 895 m to 1040 m, averaging approximately 955 m. Within the Rocanville Lease, depths to the top of the ore zone can reach up 1250 m (the deepest potash exploration drillhole) but are expected to be shallower than 1200 m over

most of the lease area. Salt cover from the ore zone to overlying units is approximately 30 m. The Rocanville mine operates as a conventional, underground potash mine.

Potash mineralization in this region of Saskatchewan is predominantly sylvinitic, which is comprised mainly of the minerals sylvite (KCl) and halite or rock salt (NaCl), with minor carnallite ($\text{KMgCl}_3 \cdot 6\text{H}_2\text{O}$) and water insolubles. Potash fertilizer is concentrated, nearly pure KCl (i.e. greater than 95% pure KCl), but ore grade is traditionally reported on a % K₂O equivalent basis. The “% K₂O equivalent” gives a standard measurement of the nutrient value of different potassium-bearing rocks and minerals. To convert from % K₂O equivalent tonnes to actual KCl tonnes, multiply by 1.58.

Over the past three years (2020, 2021, 2022), the average measured potash ore grade of the mill feed at Rocanville was 21.92% K₂O equivalent. The average ore grade reported from 32 historic surface drillhole intersections, all within Rocanville Subsurface Mineral Lease KL 305, is 22.3% K₂O equivalent. The average ore grade observed from thousands of in-mine samples collected to the end of December 2021 is 23.1% K₂O equivalent.

Exploration

Before the Rocanville mine was established in 1970, all exploration consisted of drilling test holes from surface and analysis of core from these drillholes. Potash Corp did not conduct any exploration drilling after start-up until 2008, when a potash exploration program was initiated under the direction of PotashCorp staff to determine the extent of potash mineralization in the western portion of the current Lease. Between 2007 and 2008, exploration work consisted of:

- Analysis of data from five existing exploration drillholes (well-logs from surface casing to total depth within or below the Prairie Evaporite Formation)
- Analysis of 377 km of existing 2D surface seismic data
- Acquisition and analysis 124 km² (48 miles²) of 3D surface seismic data,
- Drilling of four potash exploration drillholes from surface to the base of the Prairie Evaporite Formation (all with a complete suite of modern well-logs plus coring of the potash mineralized zone)
- Drilling of one shaft pilot drillhole (with a complete suite of modern well-logs plus coring of the entire rock column from surface to below the potash mineralized zone)

In most of southern Saskatchewan, potash mineralization is in place wherever Prairie Evaporite Formation salts exist, are flat-lying, and are undisturbed. Since the surface seismic exploration method is an excellent tool for mapping the top and bottom of Prairie Evaporite salts, this has become the main potash exploration tool in any existing Saskatchewan Subsurface (potash)

Mineral Lease. Historically, 2D seismic, and now the more accurate 3D seismic methods are used to map continuity and extent of potash beds in flat-lying potash deposits. Seismic data are relied upon to identify collapse structures that must be avoided in the process of mine development since these structures can act as conduits for water. As a result, isolation pillars or mining buffer zones are left around these anomalous features. This practice reduces the overall mining extraction ratio, but the risk of inflow to mine workings are effectively mitigated. Localized and relatively small ore zone mine anomalies do occur and typically are not discernable (or imaged) by the seismic method and so are not mapped. When such anomalies are encountered, they are dealt with in the normal course of mining and extraction through these anomalous areas is typically minimized. Where there is uncertainty in seismic interpretations, drilling is often used to confirm or improve refine the seismic interpretation.

A total of 1,111 linear kilometres of 2D seismic lines have now been acquired at Rocanville. Between 1988 and 2021, 3D seismic has been acquired over an area covering 770 square kilometres within the Rocanville lease. The most recent seismic survey was conducted in 2018 further infilling the Rocanville lease area. It is now Nutrien's policy to collect detailed 3D seismic data ahead of mining. Any areas recognized as seismically unusual are identified early, and mine plans are adjusted as needed.

Drilling

For the original Rocanville potash test holes drilled in 1960s, the primary objective of this drilling was to sample the potash horizon to establish basic mining parameters. Seismic surveys (2D) were done sparingly in those days, so the drillhole information was relied upon heavily to evaluate potash deposits. Test holes would penetrate the evaporite section with a hydrocarbon based drilling mud (oil-based or diesel fuel) to protect the potash mineralization from dissolution. Basic geophysical well-logs were acquired, and in many cases, drill stem tests were run on the Dawson Bay Formation, a carbonate immediately overlying the Prairie Evaporite Formation, to help assess mine inflow potential. Core samples from the targeted potash intersections were split or quartered (cut with a masonry saw) crushed and analysed to establish potash grades.

Original Rocanville drillhole assay data are taken from Robertson et al. (1977), where the best 2.44 m (8') mining interval – the original mining height at Rocanville – is reported. As explained in the Robertson Associates report, the Rocanville prospect was originally explored by 34 drillholes in Saskatchewan and Manitoba. Of these original drillholes, 26 are located within the current Rocanville Lease KL 305 and are shown in Table 1.

No further exploration drilling was done by the Company at Rocanville until 2008, when four potash exploration drillholes and one shaft pilot hole were completed. The basic drilling program was specified by Company technical staff. In 2019, 2

additional exploration drillholes were completed near the far west side of Rocanville Lease KL 305. Potash core samples from each of the 2008 and 2019 drillholes were assayed. The assay results for these drillholes are listed in Table 1.

Drillhole assay data for the Rocanville mining interval gives an estimated mean grade of 22.28% K₂O, with 1.16% water insolubles, and 3.45% carnallite (Table 1).

Note that the potash intersections for two of the drillholes listed in Table 1 revealed anomalously low grades. With over 50 years of mining experience at Rocanville, it is the opinion of the authors that areas of low grade (i.e. <15% K₂O) are localized with a relatively small lateral extent. Therefore, the average grade calculation does not include these drillholes.

Also note that the 2008 and 2019 assay results are for the best 2.59 m (8.5') mining interval, since an operational decision was made to develop parts of the western portion of Rocanville Lease KL 305 at a height of 2.59 m (8.5'). This mining height allows for more headroom with minimal negative impact on ore grade. Mining machines at Rocanville use potassium sensing technology to ensure that rooms are always cut in the best available potash ore. It is difficult to determine at which mining height certain Mineral Resources and Reserves will be cut in the future, so the more conservative mining height of 2.51 m (8.25') was applied to Mineral Resource and Reserve calculations.

Table 1: Assay results for all potash test holes within Rocanville Lease KL 305. Weighted Average for 2.44 m (8') Mining Interval

Drillhole	Year Drilled	% K ₂ O	% Water Insolubles	% Carnallite
01-04-17-30 WI	1957	23.84	1.15	4.34
16-14-017-01W2	1957	Excluded	N/A	N/A
04-20-17-32 WI	1958	22.74	0.95	1.77
08-32-17-30 WI	1959	20.74	1.06	5.18
10-12-17-30 WI	1959	16.35	1.06	7.62
13-16-18-30 WI	1959	20.32	0.75	0.74
05-07-18-30 WI	1961	19.95	1.07	4.92
16-04-18-30 WI	1961	21.89	1.26	5.71
02-11-18-30 WI	1961	24.87	0.97	0.20
01-16-17-30 WI	1964	27.05	1.31	4.29
04-20-17-30 WI	1964	23.86	1.22	0.19

16-22-17-30 WI	1964	29.06	1.38	0.11
14-36-17-30 WI	1964	17.06	0.93	6.80
14-36-17-30 WI*	1964	26.26	1.42	4.76
03-28-17-30 WI	1966	26.32	1.26	6.48
13-14-17-30 WI	1966	23.73	1.40	7.02
04-24-17-30 WI	1966	17.88	0.81	0.19
10-34-17-30 WI	1966	24.85	1.48	0.18
11-25-17-30 WI	1966	19.60	1.15	2.13
11-14-18-30 WI	1966	26.53	1.09	0.22
13-22-17-30 WI	1967	35.10	1.30	5.40
01-14-17-33 WI	1967	25.62	2.72	2.52
13-22-17-33 WI	1967	21.75	2.61	7.24
16-26-17-33 WI	1967	24.01	0.92	0.16
14-05-17-30 WI	1969	15.56	0.96	10.27
01-14-17-30 WI	1971	15.67	1.15	N/A
04-01-019-31WI	1989	22.48	0.64	0.00
06-13-17-32 WI**	2008	23.60	0.41	0.25
08-02-18-32 WI**	2008	20.70	1.06	0.76
13-09-16-33 WI**	2008	23.44	1.42	8.32
04-34-16-33 WI**	2008	15.70	0.67	8.84
09-11-18-33 WI**	2008	18.03	0.36	0.25
01-16-17-01W2**	2019	18.35	1.09	0.15
08-16-18-01-W2**	2019	(5.29) Excluded	1.21	0.20
Average of 32 useable values:		22.28	1.16	3.45

*Refers to a deflection, or whipstock, off original drillhole

**Refers to drillhole from the 2008 or 2019 exploration program, where the best 2.59 m (8.5') mining interval is reported

Due to the remarkably consistent mineralogy and continuity of the potash, as experienced through decades of mine production, very little potash exploration drilling has been done at Rocanville since start-up. Instead of exploration drillholes, seismic surveying has been relied upon to explore ahead of mine development. Where normal Prairie Evaporite sequences are mapped in the seismic data, potash beds have unfailingly been present. Occasional small-scale salt anomalies that are not mapped by seismic data do occur. When they do, they are dealt with in the normal course of mining and extraction through these anomalous areas is typically minimized. Anomalies associated with possible water inflow problems, which are mapped in the seismic data, are avoided.

Sampling, Analysis and Data Verification

Exploration in the Rocanville area was conducted in two very different time periods: the 1960s, then in 2008. Sampling and assaying of potash cores samples was done using methods considered consistent with standard procedures for potash exploration at these times.

Drillhole sampling methods have remained essentially the same over the years. Short segments of core usually about 0.3 m (1') in length are labeled based on visible changes in mineralization, and sometimes based on fixed intervals. Each segment of core is then split in half using some type of rock or masonry saw. The split portion of core is then bagged and labeled and sent to a laboratory for chemical analysis. Samples from historical drillholes were sometimes quartered; most historical samples have deteriorated substantially. Potash samples remain stored at the Subsurface Geological Laboratory of the Saskatchewan Ministry of Energy & Resources. (Regina, Saskatchewan).

All new drilling efforts have targeted areas of geological uncertainty. Although normal ore zone conditions may occur in the tested areas, they are not targeted specifically, For this reason, and because ore grade is known to be locally variable, assays from drilling are not relied upon for ore grade estimation. Instead, grade determined from routinely collected in-mine ore zone samples are found to be most reliable. The long-term average from in-mine tends to best represent the larger ore zone as it normalizes local variability. Thousands of in-mine ore grade samples were collected at Rocanville to the end of December 2021. All in-mine samples were analysed in the Rocanville mill laboratory using analysis techniques that were up-to-date for the era in which the sample was collected. Regarding quality assurance for analytical results, the Company participates in the Canpotex Producer Sample Exchange Program using methods developed by the Saskatchewan Potash Producers Association (SPPA). The Sample Exchange Program monitors the accuracy of analytical procedures used in its labs. In the early 1970s, the SPPA initiated a round-robin Sample Exchange Program, the purpose of which was to assist the potash laboratories in

developing a high level of confidence in analytical results. This program, now named the Canpotex Producer Sample Exchange Program using SPPA Methods (CPSEP), has continued up to the present. Current participants include all Canpotex member potash mine site labs, the Nutrien Pilot Plant Lab, and independent third-party surveyor labs. The CPSEP provides participants with three unknown potash samples for analysis quarterly. Results for the unknown sample analysis are correlated by an independent agency that distributes statistical analysis and a summary report to all participants. Completed exchange program samples can be used for control standards as required in QA/QC sections of standard analytical procedures.

The Nutrien Pilot Plant is secured in the same way as modern office buildings are secured. Authorized personnel have access and visitors are accompanied by staff. No special security measures are taken beyond that. Currently, no external laboratory certification is held by the Nutrien Pilot Plant. On occasion, product quality check samples are sent to the Saskatchewan Research Council, a fully certified analytical facility.

In-mine grade samples are taken at 60 m intervals in every underground mine room at Rocanville. Up until 2015, Rocanville in-mine grade samples were collected as chips taken with a hammer along a sidewall from back (roof) to floor; this methodology is referred to as channel sampling. Now, in-mine samples are taken by collecting fine “muck” from the floor of the mine (i.e. grab sampling) at the same 60 m sampling interval. This sampling technique is consistent with other Nutrien potash operations and provides safer and more consistent method of collecting samples. Through case studies, technical staff have determined that grab sampling is as representative of ore grade in the mining interval as channel sampling.

To the end of 2021, 49,580 in-mine ore grade samples were collected. All samples were analysed in the Rocanville mill laboratory using analysis techniques that were up-to-date for the era in which the sample was collected. The mean ore grade for this family of in-mine samples is 23.1% K₂O equivalent, while the median ore grade for this family of in-mine samples is 23.3% K₂O. The five-year (2017 – 2021) mean ore grade is 21.9% K₂O equivalent and was determined from 12,696 samples.

The mean ore grade from in-mine samples is considered to be a more representative estimate of expected potash ore grade at Rocanville than drilling results.

Data verification of the original drillhole ore grade assays were studied by independent consultant David S. Robertson and Associates (1977). The original assay results for core samples from historical drillholes were taken as accurate in these studies, as there is no way to reliably re-analyse these samples. Most of the remaining core samples in storage have long since deteriorated to the point where they are no longer usable. Assay data for the 2008 core samples were supervised and verified by the Company’s former Chief Geologist, T. Danyluk (P. Geo.). Assay data for the 2019 core samples were supervised and verified by Company staff, James Isbister (P. Geo) and Tanner Soroka (P. Geo).

Ore grades of in-mine samples are measured inhouse at the Rocanville mine laboratory by Company staff using modern, standard chemical analysis tools and procedures; an independent agency does not verify these results. However, check sampling through the CPSEP does occur.

It should be noted that assay results from historical drillholes match in-mine sample results reasonably well – within 1%– even though drillhole sample spacing is much greater. This correlation is further validation of the in-mine sampling methodology. Mean mineral grade determined from in-mine samples taken over decades of mining at Rocanville is thought to provide the most accurate measurement of potash grade for the Rocanville mine, also providing a good basis for estimating ore grade in areas of future mining at Rocanville.

The purpose of any mineral exploration program is to determine extent, continuity, and grade of mineralization to a certain level of confidence and accuracy. For potash exploration, it is important to minimize the amount of cross-formational drilling, since each drillhole is a potential conduit for subsurface groundwater from overlying (or underlying) water-bearing formations into future mine workings. Every potash test drillhole from surface sterilizes potash mineralization as a safety pillar is required around every surface drillhole once underground mining commences. Initial sampling and assaying of cores were done during potash exploration at Rocanville in the 1950s and 1960s. Methods were consistent with standard procedures for that era. The mine began production in 1970 and test drilling conducted after that was largely for the purpose of better understanding the caprock rather than potash mineralization.

This approach to potash sampling is in accordance with widely accepted industry practice for areas adjacent and contiguous to an existing operating potash mine. Assay of physical samples (drillhole cores and/or in-mine samples) is the only way to gain information about mineral grade, but extent and continuity of mineralization are correctly determined using data collected from seismic surveys correlated with historic drilling information. To date, surface seismic data at Rocanville have been collected, analysed, and verified by Nutrien staff, at times, in cooperation with independent consultants.

Data for the Mineral Resource and Reserve estimates for Rocanville mine were verified by Company staff as follows:

- Review of potash assay sample information (drillholes and in-mine grade samples),
- Review of surface geophysical exploration results (3D and 2D seismic data),
- Crosscheck of mined tonnages reported by mine site technical staff with tonnages estimated from mine survey information, and
- Crosscheck of Mineral Resource and Mineral Reserve calculations carried out by corporate technical staff.

In the opinion of the authors of the technical reports, this approach to data verification of potash mineral grade and surface seismic information is in accordance with generally accepted industry practice for areas adjacent and contiguous to an existing operating potash mine.

Potash Ore Density from In-Mine Mineral Grade Measurements

An estimate of in-situ rock density is used to calculate potash mineralization volumes in Mineral Resource and Reserve assessments. A common approach, and the one used by Nutrien, is to determine in-place Mineral Resource and Reserve volumes (m³), then multiply this number by in-situ bulk-rock density (tonnes / m³) to give in-place Mineral Resource and Reserve tonnes.

Well-log data from drillholes can be used to calculate bulk density if accurate and calibrated well-logs are acquired during exploration drilling. In practical terms, modern well-logs tend to meet these criteria, but historic well-logs (collected before the 1990s) do not. In Saskatchewan, almost all potash exploration drilling took place in the 1950s and 1960s, well before density logs were accurate and reliable.

Another approach, and the one used by Nutrien, is to look up density values for the minerals which constitute potash rock – values determined in a laboratory to a high degree of accuracy and published in reliable scientific journals / textbooks – then apply these densities to the bulk rock. Given that the density of each pure mineral is quantified and known, the only variable is what proportion of each mineral makes up the bulk rock. An obvious benefit of this approach is that a mean value computed on in-mine samples has a much greater confidence interval than a mean value computed from just a few drillhole assays.

The four main mineralogical components of the ore zones of Saskatchewan’s Prairie Evaporite Formation with their respective mineral densities are:

<u>Mineral</u>	<u>Density (kg / m³)</u>	<u>Components</u>
Halite	2,170	NaCl
Sylvite	1,990	KCl
Carnalite	1,600	KMgCl ₃ · 6(H ₂ O)

Insolubles	2,510 – 2,870	Anhydrite, dolomite, quartz, muscovite, and other minor mineral components (Nutrien Pilot Plant, 2018)
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All Nutrien potash mines measure and record the in-mine % K₂O grade and insoluble content of the mined rock. Magnesium content is only measured at Lanigan and Rocanville since carnallite is sometimes a component of the ore at these two mines. From this set of measurements, density of the ore can be calculated.

The value for insoluble density is based on known densities of the constituent parts of the insoluble components of the mineralization and the average occurrence of these insoluble components, which is known from over 50 years of mining experience at each of our operations. Assuming the lowest plausible density of insolubles known for Saskatchewan potash deposits of this nature, the effect upon overall bulk-rock ore density and Mineral Resource and Reserve calculations would be negligible.

From thousands of in-mine samples taken at Rocanville, bulk density has been determined to be:

$$\begin{aligned}
 &= (\text{halite density} * \% \text{ halite}) + (\text{sylvite density} * \% \text{ sylvite}) + (\text{insolubles density} * \% \text{ insolubles}) + (\text{carnallite density} * \% \text{ carnallite}) \\
 &= (2,170 \text{ kg} / \text{m}^3 * 57.5\%) + (1,990 \text{ kg} / \text{m}^3 * 35.4\%) + (2,790 \text{ kg} / \text{m}^3 * 1.0\%) + (1,600 \text{ kg} / \text{m}^3 * 6.1\%) \\
 &= 2,078 \text{ kg} / \text{m}^3 \\
 \text{RHO}_{\text{bulk-rock}}(\text{Rocanville}) &= 2,078 \text{ kg} / \text{m}^3 = 2.08 \text{ tonnes} / \text{m}^3
 \end{aligned}$$

This method is as accurate as the ore grade measurements and mineral density estimates.

Mineral Resource and Mineral Reserve Estimates

Definitions of Mineral Resource

The Canadian Institute of Mining and Metallurgy and Petroleum (“CIM”) has defined mineral resource in The CIM Definition Standards for Mineral Resources and Reserves (2014) as:

- 1) Inferred Mineral Resource: 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.

- 2) Indicated Mineral Resource: 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 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 quality continuity between points of observation.
- 3) Measured Mineral Resource: 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.

CIM defines Modifying Factors as “considerations used to convert mineral resources into mineral reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”

In south-central Saskatchewan, where geological correlations are straightforward, and within a (potash) subsurface mineral lease at an operating potash mine, mineral resource categories are generally characterized by the Company as follows:

- 1) Inferred Mineral Resource: areas of limited exploration, such as areas that have been investigated through regional geological studies, or areas with 2D regional surface seismic coverage, little or no drilling, at some distance from underground workings, and within the applicable Crown lease.
- 2) Indicated Mineral Resource: areas of adequate exploration, such as areas with 3D surface seismic coverage, little or no drilling, at some distance from underground workings, and within the applicable Crown lease.
- 3) Measured Mineral Resource: areas of detailed, physical exploration through actual drilling or mine sampling, near existing underground workings, and within the applicable Crown lease.

Exploration information used to calculate reported Mineral Resource tonnages at Rocanville consist of both physical sampling (drillhole and in-mine) and surface seismic (2D and 3D) as discussed in earlier sections. All mineral rights leased or owned by Nutrien, and within Crown Subsurface Mineral Lease KL 305, are assigned to one of the three Mineral Resource categories.

The tonnage reported in the Rocanville Measured Resource is comprised of the potash that is within 1.6 km (1 mile) of physically sampled location (i.e. drillhole or mine working). Also included as Measured Resource is the potash that is left behind as pillars in mined-out areas of the Rocanville mine. In a potash mine, it is common practice to consider mining remnant pillar

mineralization using solution methods after conventional mining is complete, or after a mine is lost to flooding. The Patience Lake mine was successfully converted from a conventional mine to a solution mine after being lost to flooding in 1989. Since conversion to a solution mine is not anticipated in the near future at Rocanville, in-place pillar mineralization remains as a Mineral Resource rather than a Mineral Reserve at this time.

Mineral Resources are reported as mineralization in-place and are exclusive of Mineral Reserves. In-place tonnes were calculated for each of the Mineral Resource categories using the following parameters:

Mining Height:	2.51 metres (8.25 feet)
Ore Density:	2.08 tonnes / cubic metre

The Mineral Resources for Rocanville Potash, as of December 31, 2021 are as follows:

Inferred Resource	902 million tonnes
Indicated Resource	1,575 million tonnes
Measured Resource	2,017 million tonnes
Total Resource	4,494 million tonnes

The average mineral grade of the Rocanville Mineral Resource is 23.1% K₂O equivalent, and was determined from thousands of in-mine samples at Rocanville.

Definitions of Mineral Reserve

CIM defined mineral reserve in The CIM Definition Standards for Mineral Resources and Reserves (2014) as:

- 1) Probable Mineral Reserve: the economically mineable part of an indicated, and in some circumstance, 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.

- 2) Proven Mineral Reserve: the economically mineable part of a measured mineral resource. A proven mineral reserve implies a high degree of confidence in the modifying factors.

CIM defines Modifying Factors as “considerations used to convert Mineral Resources into Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”

For Saskatchewan, in regions adjacent and contiguous to an operating potash mine, Mineral Reserve categories are characterized by PotashCorp as follows:

- 1) Probable Mineral Reserve: identified recoverable potash mineralization classified as a Measured Resource, within a 1.6 km (1 mile) radius of a sampled mine entry or exploration drillhole, and within Crown Subsurface Mineral Lease KL 305.
- 2) Proven Mineral Reserve: identified recoverable potash mineralization classified as a Measured Resource, delineated on at least three sides by sampled mined entries or exploration drillholes to a maximum of 3.2 km (2 miles) apart, and within Crown Subsurface Mineral Lease KL 305.

Along with this approach, analysis of in-mine samples for potash grade has provided an observation-based understanding of the potash mineralized zone at Rocanville that is far superior to the level of understanding provided by any surface drilling based exploration program. An understanding of the amount of ore that can be conventionally mined from the Measured Resource category using current mining practices comes from nearly 50 years of potash mining experience at Rocanville.

Using the definitions outlined above, part of the Rocanville Measured Resource has been converted to Mineral Reserve. The assigned Mineral Reserve category is dependent on proximity to sampled mined entries also described above. An overall extraction ratio for the Rocanville mine has been applied to the qualifying areas outlined as Measured Resource. This extraction rate is significantly lower than the local extraction ratio as it takes into account areas which cannot be mined due to unfavorable geology.

The overall extraction rate at the Rocanville mine is 31%. It was derived by dividing the total tonnes mined to date by the tonnage equivalent of the total area of the mine workings (i.e. the perimeter around the mine workings) less future mining blocks. Since an extraction rate has been applied, Mineral Reserves are considered recoverable ore, and are reported as such. Note that only drillholes whose 1.6 km radii are contiguous to mine workings or the 1.6 km radius placed around mine workings

are used to compute probable mineral reserve. The remaining non-contiguous drillholes remain in the measured resource category.

The Mineral Reserve for Rocanville is updated when a NI43-101 Technical Report is issued. In between Technical Reports, annual production tonnages are subtracted from the Proven Mineral Reserve.

The Mineral Reserves for Rocanville Potash as of December 31, 2022 are as follows:

Probable Reserve	293 million tonnes
Proven Reserve	173 million tonnes
<hr/>	
Total Reserve	466 million tonnes

The average mineral grade of the Rocanville Mineral Reserve is 23.1% K₂O equivalent, and was determined from thousands of in-mine samples at Rocanville.

Mining Operations

All conventional potash mines in Saskatchewan operate at 900 m to 1200 m below surface within 9 m to 30 m of the top of the Prairie Evaporite Formation. Over the scale of any typical Saskatchewan potash mine, potash beds are tabular and regionally flat-lying, with only moderate local variations in dip. At Rocanville, potash ore is mined using conventional mining methods, whereby:

- Shafts are sunk to the potash ore body;
- Continuous mining machines cut out the ore, which is hoisted to surface through the shafts;
- Raw potash is processed and concentrated in a mill on surface; and
- Concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Sinking of the two original shafts (Shaft #1 and Shaft #2) from surface to the potash zone was completed in early 1970, and the first potash ore was hoisted by the fall of that year. The Rocanville mine has run on a continuous basis since the first ore was hoisted in 1970, other than short-term shutdowns taken for inventory management purposes or occasional plant maintenance and construction work or other outages that are typical for operations of this nature.

In recent years the Rocanville mine has undergone a major expansion which brought the nameplate capacity of the Rocanville facility to 6.5 million tonnes of finished potash products per year. This work involved sinking a third shaft, enhancement of hoists, major expansions of both mine and mill, major improvements to loadout facilities, and other infrastructure improvements. The recent Rocanville expansion, which was announced in 2007, was substantially complete in 2016, and production was ramped up through 2017. In 2022, operational capability at the Rocanville facility was 5.2 million tonnes per year.

Virtually all Rocanville underground mining rooms are in one potash mineralized zone, within the Esterhazy Member of the Prairie Evaporite Formation (the host evaporite salt). In contrast, Nutrien potash mines further west in Saskatchewan mine in a different potash layer, the Patience Lake Member of the Prairie Evaporite. Rocanville mine elevations range from approximately 895 m to 1,120 m. Mine workings are protected from aquifers in overlying formations by approximately 30 m of overlying salt and potash beds, along with salt plugged porosity in the Lower Dawson Bay Formation, a carbonate layer lying immediately above potash hosting salt beds.

The Rocanville mine is a conventional underground mining operation whereby continuous mining machines are used to excavate the potash ore by the long-room and pillar mining method. Continuous conveyor belts transport ore from the mining face to the bottom of the production shaft. Mining methods employed in Saskatchewan are discussed in Jones and Prugger (1982) and in Gebhardt (1993). The highest mineral grade section of the Rocanville potash seam is approximately 2.3 m (7.5') thick, with gradations to lower grade sylvinite salts immediately above and below the mining horizon. The actual mining thickness at Rocanville is dictated by the height of continuous boring machines used to cut the ore, which are designed to cut slightly thicker than the high-grade mineralized zone. Historically, Rocanville borers cut at a thickness of 2.44 m (8'). These five older machines were recently adjusted to cut a thicker 2.51 m (8.25') mining height. Six newer boring machines cut a slightly thicker 2.59 m (8.5') mining height and two newly acquired boring machines cut at 2.74 m (9') mining height. This mining height allows for more headroom with minimal negative impact on ore grade. Mining machines at Rocanville use potassium sensing technology to ensure that rooms are always cut in the best available potash ore. It is difficult to determine at which mining height certain Mineral Resources and Reserves will be cut in the future, so the more conservative mining height of 2.51 m (8.25') was applied to Mineral Resource and Reserve calculations.

Conservative local extraction ratios (never exceeding 45% in any mining block) are employed at all Saskatchewan mines, including Rocanville, in order to minimize potential detrimental effects of mining on overlying strata; this is common practice in flat-lying, tabular ore bodies overlain by water-bearing layers.

From the shaft-bottom, potash ore is hoisted approximately 960 m from the potash level through the vertical shafts to a surface mill. Both production shafts also provide exhaust ventilation from underground workings; the third shaft from surface at Scissors Creek is used for service access, fresh air ventilation and second egress.

Over the 51 year mine life, 297.816million tonnes of potash ore have been mined and hoisted at Rocanville to produce 96.397million tonnes of finished potash products (from startup in 1970 to December 31, 2021). The life-of-mine average concentration ratio (raw ore/finished potash products) is 3.10 and the overall extraction rate over this time period is 31%.

The mining of potash is a capital-intensive business, subject to the normal risks and capital expenditure requirements associated with mining operations. The production and processing of ore may be subject to delays and costs resulting from mechanical failures and such hazards as unusual or unexpected geological conditions, subsidence, water inflows of varying degree, and other situations associated with any potash mining operation.

Potash beds in all regions of Saskatchewan are overlain by a number of water-bearing formations, and there are water zones underlying the potash beds as well. A water inflow into mine workings is generally significant in a potash mine since salt dissolves in water; an inflow can lead to anything from increased costs at best to closure of the mine at worst (e.g. see Prugger and Prugger, 1991).

In November 1984 a major brine inflow occurred at Rocanville (Funk et al., 2019). A single production room mined into a previously unknown geological disturbance (a vertical “chimney-like” solution collapse), resulting in an uncontrolled inflow into the mine that was as high as approximately 18,927 litres/minute (5,000 US gallons/minute). Mining operations were suspended and all of the mine’s physical and human resources were devoted to sealing the inflow. By the end of January 1985, a concrete plug was installed at the inflow point, and in March 1985, high pressure valves in the plug were shut off. After four months of concerted effort, the brine inflow into the mine was completely contained.

Since 1984 there has been no ingress of subsurface brines of any significance at Rocanville. At present, brine flow into underground workings at Rocanville is effectively nil (not measurable), and inflow into each existing shaft is estimated at less than 3 litres / minute (less than 1 US gallon / minute).

Processing and Recovery Operations

At Rocanville, potash ore has been mined and concentrated to produce saleable quantities of high-grade finished potash products since 1970. Products include granular and standard grade potash used for agriculture applications.

Both flotation methods and crystallization methods are used to concentrate potash ore into finished potash products at the Rocanville mill. A simplified process flow diagram is shown in Figure 1. Raw potash ore is processed on surface, and concentrated finished potash products (near-pure KCl) are sold and shipped to markets in North America and offshore.

Over the past three years, production of finished potash products at Rocanville was:

- 2020: 5.285 million tonnes finished potash products at 60.60% K₂O (average grade)
- 2021: 5.001 million tonnes finished potash products at 60.52% K₂O (average grade)
- 2022: 4.886 million tonnes finished potash products at 60.51% K₂O (average grade)

Over the past decade actual mill recovery rates have been between 81.5% and 84.4%, averaging 83.2%. Given the long-term experience with potash geology and actual mill recovery at Rocanville, no fundamental potash milling problems are anticipated in the foreseeable future.

Quality control testing and monitoring geared towards fine-tuning and optimizing potash milling and concentrating processes are conducted on a continual basis at all Nutrien minesites and at Nutrien research facilities. At Rocanville, this is no exception; test work to optimize circuit performance and ensure product quality is carried out on an ongoing basis.

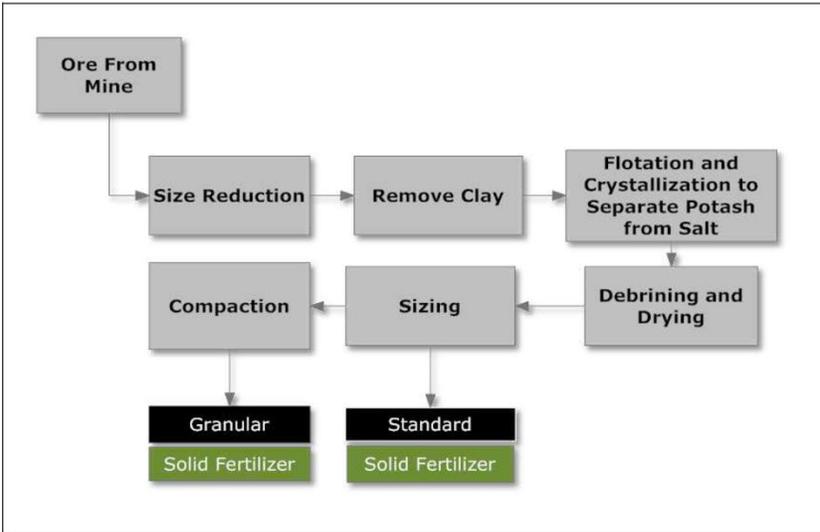


Figure 1 - Simplified flow diagram for potash flotation and crystallization milling methods used at Rocanville.

Infrastructure, Permitting and Compliance Activities

Infrastructure is in place to meet current and projected requirements for transportation, energy (electricity and natural gas), water and process materials at Rocanville.

Surface facilities are accessed by an existing paved road that is part of the Saskatchewan Provincial Highway System. Most finished potash products are shipped by rail over existing track, with some product shipped by truck over the North American highway system.

At present, high voltage power utilization at the Rocanville mine is 84 MVA (i.e., 72 MVA to the Rocanville Plant site plus 12 MVA to the Scissors Creek site). The ten-year projection of power utilization indicates that the utility can meet foreseeable future demand.

The Rocanville operation requires a sustained fresh water supply for the milling process which is sourced from two subsurface reservoirs called the Welby Plains Surficial Aquifer and the Welby Plains Middle Aquifer. These aquifers provide a sustainable source of process water for Rocanville milling operations, with no known impact on other users of water drawn from these aquifers.

The Rocanville TMA currently covers an area of approximately 567 hectares (1,400 acres) of land owned by the Company. Solid potash mine tailings typically consist of 85% to 95% rock salt (NaCl) and 5% to 15% insolubles (carbonate mud = CaCO₃, anhydrite mud = CaSO₄, and clays like chlorite, illite, and so on). An engineered slurry-wall has been constructed around the entire Rocanville TMA. The slurry-wall provides secondary containment for any saline mine waters, minimizing brine impacts from the TMA to surrounding surface water bodies and near-surface aquifers. Areas surrounding the TMA are closely monitored: this includes everything from daily visual perimeter inspections to annual investigations and inspections of surrounding subsurface aquifers.

Rocanville currently operates two brine disposal wells near the surface plant of the Rocanville mine where clear salt brine (i.e., no silt, clay slimes or other waste) is drillhole-injected into the Interlake Carbonates, at a depth of approximately 1,200 m to 1,400 m below surface. The disposal wells are provincially licensed and formation water in these extensive deep aquifers is naturally saline.

Capital and Operating Costs

The Rocanville mine has been in operation since 1970; in the years immediately preceding this, major capital investment was made to bring this mine into production. Since then, capital expenditures were made on a regular and ongoing basis to sustain

production, and to expand production from time to time.

A major refurbishment and expansion of the Rocanville mine was completed in 2013, increasing nameplate capacity to 6.5 million tonnes of finished potash products per year. This work involved construction of a third shaft, enhancement of hoists and shaft conveyances, major expansions of both mine and mill, improvements to loadout facilities, and some infrastructure improvements. All construction was carried out without significant disruption to existing potash production from the site.

Exploration, Development, and Production

In a Saskatchewan potash mine that has been producing for many decades, reduction of mine life through increased production is counter-balanced by development mining into new mineral land parcels. This increases mine life through increasing the potash Mineral Reserve.

For Rocanville, mine life can be estimated by dividing the total Mineral Reserve (Proven + Probable) of 466 million tonnes by the average annual mining rate (million tonnes of ore hoisted per year). For Rocanville, the mining rate is defined as equal to the actual three-year running average (consecutive, most recent years). The average mining rate at Rocanville over the past three years (2020, 2021 and 2022) was 16.667 million tonnes of potash ore mined and hoisted per year.

If this mining rate is sustained and if Mineral Reserves remain unchanged, then the Rocanville mine life would be 28 years. This estimate of mine life is likely to change as mining advances further into new mining blocks, and / or if mining rates change.

The following table sets forth, for each of the past two years, the production of ore, mill feed grade and finished product for the Rocanville Mine in Saskatchewan.

	Annual Nameplate Capacity ¹	Annual Operational Capability ²		2022 Production	2021 Production
		2023	2022		

	Finished Product (millions of tonnes)	Finished Product (millions of tonnes)	Finished Product (millions of tonnes)	Ore (millions of tonnes)	Grade % K ₂ O	Finished Product (millions of tonnes)	Ore (millions of tonnes)	Grade % K ₂ O	Finished Product (millions of tonnes)
Rocanville	6.5	5.2	5.2	16.34	21.7	4.89	16.64	21.8	5.00

(1) Represents estimates of capacity as of December 31, 2022. Estimates are based on capacity as per design specifications or Canpotex entitlements once determined.

(2) Estimated annual achievable production level at current staffing and operational readiness (estimated at beginning of year and may vary during the year and year-to-year including between our facilities). Estimate does not include inventory-related shutdowns and unplanned downtime.

The mining of potash is a capital-intensive business subject to the normal risks and capital expenditure requirements associated with mining operations. The production and processing of ore may be subject to delays and costs resulting from mechanical failures and hazards, such as unusual or unexpected geological conditions, subsidence, water inflows, and other conditions involved in mining potash ore.

Schedule “C”- Esterhazy Royalty

Current Technical Report

All of the information below with respect to the Esterhazy Mine owned by the Mosaic Company (“Mosaic”) has been excerpted or derived from the Mosaic 2022 Form 10-K dated February 23, 2023 (“Mosaic 10-K”) and the Esterhazy Potash Facility Technical Report Summary with effective date December 31, 2021, which is included as Exhibit Ex-96.2 of the 2021 10-K report dated February 23, 2022. Carol Seymour, P.Geo, Senior Geologist for Altius, has reviewed and approved the scientific and technical information in this section on the Esterhazy Mine. Readers should consult the Mosaic 10-K and Esterhazy Potash Facility Technical Report Summary, to obtain further particulars regarding the Esterhazy Mine. The Mosaic 10-K and the Esterhazy Technical Report Summary are available for review under Mosaic’s profile on EDGAR at www.sec.gov.

Project Description, Location and Access

The Esterhazy Property is located in east central Saskatchewan approximately 20 km south of Highway # 16 and 50 km north of Highway # 1, the two major east-west transportation routes in the province.

The Esterhazy Potash Facility is located in an area overlapping the Rural Municipalities of Fertile Belt, Langenburg, and Spy Hill in the province of Saskatchewan, Canada. The Esterhazy Facility is approximately 16 kilometers to the east of the town of Esterhazy, 90 kilometers southeast of the city of Yorkton and 220 kilometers east of the city of Regina. The K1 mill site is located 14 kilometers northeast of Esterhazy. The K2 mill site is located 19 kilometers east of Esterhazy. The K3 mine site is located 6 kilometers east of Esterhazy and the K4 mineral resources are located 30 kilometers northeast of Esterhazy. The geographic coordinates for K1 are latitude 50.726463 N and longitude -101.933506 W. The K2 coordinates are latitude 50.6574 N and longitude -101.8422 W and the K3 coordinates are latitude 50.64623 N and longitude -101.99346 W. In 2022, the decommissioning of the K1 and K2 shafts at the Esterhazy mine was completed after their shutdown in the second quarter of 2021. Capacity and production from these shafts was replaced by the K3 expansion.

Overall, the Esterhazy lands consist of flat, cleared farmland with a knob-and-kettle topography and occasional rows of trees planted to serve as windbreaks. The area was settled by farmers beginning in the late-1880s after the arrival of the Canadian Pacific Railway (CP) and is primarily crop land used to grow wheat, canola, canary seed and flax, although there are scattered pastures and grazing lands.

Mosaic, through Mosaic Potash Esterhazy Limited Partnership, a wholly owned indirect subsidiary of Mosaic, leases 197,920 acres of mineral rights from the Crown under Subsurface Mineral Leases KL 105, KL 126, and KLSA 003. The lease terms are 21 years, with renewals at Mosaic’s option for successive 21-year periods.

Mosaic also owns or leases 206,228 acres of freehold mineral rights within the Esterhazy area. All mineral titles owned or leased by Mosaic include the “subsurface mineral” which under The Subsurface Mineral Tenure Regulations (Saskatchewan) means all natural mineral salts of boron, calcium, lithium, magnesium, potassium, sodium, bromine, chlorine, fluorine, iodine, nitrogen, phosphorus and sulfur, and their compounds, occurring more than 60m below the surface of the land. Other commodities (e.g., petroleum and natural gas, coal, etc.) that are not specifically sought after when acquired may be on mineral titles that Mosaic leases or owns.

Within the total acreage leased from the Crown or owned/leased by Mosaic are parcels of land where Mosaic owns or leases less than a 100% share of the mineral rights. To mine these properties, Mosaic would need to acquire 100% control either by lease or ownership.

There are no significant environmental permitting encumbrances (existing or anticipated in the future) associated with the Esterhazy Facility. Except for royalties, Mosaic does not anticipate any future encumbrances based on current known regulations and existing permitting processes. There are no outstanding fines or material violations.

History

The Esterhazy Facility K1 started production in 1962 and K2 started production in 1967. The table below lists the important historical dates and events for Esterhazy.

Esterhazy History

Date	Event/Activity
1928	Discovery of evaporites in the sedimentary sequence in Saskatchewan.
1955	International Minerals and Chemicals (IMC, Canada) Ltd. acquired >500,000 acre lease in Esterhazy area and started drilling.
1957 to 1962	IMC Corporation begins shaft sinking at K1. K1 mine production officially started in September 1962 at a capacity of 0.9 million tonnes per year.
1965	K2 TMA Phase I expansion.
1966	The K1 mine capacity was expanded to 1.5 million tonnes per year.

1967	The K2 shaft sinking was completed to a capacity of 2.4 million tonnes per year. The first potash production from K2 was in April/May.
1968	The K2 TMA Phase II expansion was completed.
1974	K2 mill expansion, heavy media circuit.
1981	The K2 TMA Phase III expansion was completed.
1985	Inflow 10B was detected December 29, 1985 in the D400 entry at a point 3.5 miles (5.6 km) southwest of the K2 shaft. Initial inflow was estimated to be 1,000 gpm. Information obtained using seismic surveys allowed for targeted drilling and placement of calcium chloride and various grouts to reduce the inflow to manageable levels. The pumping capacity was increased through a series of stages to bring online a total of 22 pumps, to a maximum capacity of 4,000 gpm. As a result of these efforts, K1 and K2 sites continued normal mining operations.
1987	Mineral Resource Location Study – Vibroseis Study was completed.
1989	12 exploration drill holes to delineate the K1 and K2 mining area were completed.
1991 to 1998	Seismic surveys in the Gerald, Gerald West and Cutarm areas.
1997	IMC Kalium merged with IMC Global and Freeport-McMorRan.
1999	Company renamed IMC Potash.
2000-03	Seismic surveys: 2D and 3D (K1 and K2).
2004	Mosaic created out of a merger between IMC and Cargill Crop Nutrition.
2005	3D seismic surveys completed at K1 (19.5 sq. km) and K2 (10.3 sq. km).
2006-09	Various seismic surveys completed. Hoist expansion at K2. Processing plant capacity increased to 4.8million tonnes per year. K2 TMA expansion completed. Exploration drilling of 10 holes including two shaft pilot holes completed as part of the K3 expansion project.
2010	Completion of the crushing expansion at K1.
2011	3D seismic surveys at K1 North (51.4 sq. km) and Perrin Lake (37.3 sq. km).
2012	K3 South shaft pre-sink was completed. Esterhazy exits Tolling Agreement with PCS. A number of 3D seismic surveys were completed including Saskman, K1 NW, K1 SWD Field. Seven brine injection wells were drilled at Farfield.
2013	K3 South Shaft sunk to the potash level. 3D seismic survey at Panel 11Q (9.2 sq. km) completed. Completion of mill expansion at K2 for an additional 0.7 million tonnes per year. A Canpotex proving run was successfully completed increasing the site nameplate processing plant capacity from 4.8 million tonnes per year to 6.3 million tonnes per year.
2014	3D seismic survey at Panel 11Q 3C (9.3 sq. km) completed.
2015	3D seismic surveys at Gerald (12.1 sq. km) and K3 (232.4 sq. km) completed.

2016	Nine exploration drill holes completed.
2017	The K3 North shaft sinking was completed and the first K3 ore from the South shaft was skipped to surface and trucked to the K1 mill.
2018	The K3 to K2 overland conveyor construction was completed. The K3 North shaft steel and Koepe hoist rope up were completed. The K3 North shaft first ore skipped in December 18 and trucked to the K2 mill. The first K3 ore was conveyed on the overland conveyor to the K2 mill in December.
2019	Commissioned the K3 Koepe production and Blair service hoists. Four drum miners cutting K3 shaft pillar development started. Two four rotor miner assemblies completed. The K3 South shaft sinking was completed in November.
2020	Completion of the South shaft bottom steel, added a third four rotor miner, installed the Main line conveyor, added a fourth rotor miner cutting and completed the K3 South Headframe concrete slip. K3 shaft pillar development completed in December. The K3 fifth four rotor miner started cutting in October. The first ore from K3 conveyed to K1.
2021	The sixth K3 four rotor miner started cutting in January and the seventh four rotor miner started cutting in May. The K1 and K2 mines were closed 9 months ahead of schedule in response to brine inflow conditions.
2022	K1 and K2 shaft decommissioning completed.

Geological Setting, Mineralization and Deposit Types

The intracratonic Elk Point Basin is a major sedimentary geological feature in western Canada and the northwest U.S. It contains one of the world's largest stratabound potash resources. The nature of this type of deposition is largely continuous with predictable depths and thickness. It is mined at several locations, including the Esterhazy Facility.

Potash at the Esterhazy Facility area occurs conformably within Middle Devonian-age sedimentary rocks and is found in total thicknesses ranging from approximately 30 to 40 m at a depth of approximately 1,630 to 1,750m.

The Prairie Evaporite Formation, host to the potash mineralization, is divided into a basal "lower salt" and an overlying unnamed unit containing three potash-bearing units and one unit containing thin marker beds. In ascending order, the potash horizons in the upper unit are the Esterhazy Member, White Bear Marker Beds, Belle Plaine Member, and Patience Lake Member. Mineralogically, these members consist of sylvite and halite, with minor amounts of carnallite (KCl, MgCl₂, 6H₂O).

In the Esterhazy area, the Esterhazy, White Bear and Belle Plaine Members are present, and the Patience Lake Member is absent. The following is a summary of the key stratigraphic units for the Esterhazy Potash Facility area:

- Belle Plaine Member: The Belle Plaine Member underlies Second Red Bed and makes up part of the salt back that is critical to isolating the mining horizon from the formations above. The Belle Plaine Member is mined using solution mining techniques at the Belle Plaine Facility and is not mined at the Esterhazy Facility.
- White Bear Member: The White Bear Member consists of marker beds that are a distinctive unit of thin interbedded clay, halite, and sylvinite horizons that are not minable due to their insufficient thickness of only 1.2 to 1.5 meters.
- Esterhazy Member: The Esterhazy Member is separated from the Belle Plaine Member by the White Bear Member marker beds, a sequence of clay seams, low-grade sylvinite, and halite. The Esterhazy Member is mined using conventional underground techniques at the Esterhazy Facility in southeastern Saskatchewan, and by solution mining techniques at the Belle Plaine Facility.

The typical sylvinite intervals within the Prairie Evaporite Formation consist of a mass of interlocked sylvite crystals that range from pink to translucent and may be rimmed by greenish-grey clay or bright red iron insoluble material, with minor halite randomly disseminated throughout the mineralized zones. Local large one inch (2.5 cm) cubic translucent to cloudy halite crystals may be present within the sylvite groundmass, and overall, the sylvinite ranges from a dusky brownish red color (lower grade, 23% to 27% K₂O with an increase in the amount of insoluble material) to a bright, almost translucent pinkish orange color (high grade, 30%+ K₂O). Carnallite is also present locally in the Prairie Evaporite Formation as a mineral fraction of the depositional sequence. The intervening barren salt beds consist of brownish red, vitreous to translucent halite with minor sylvite and carnallite and increased insoluble materials content.

Exploration/Drilling

No recent exploration or drilling has been reported by the current operator. Please see “*History*” for a listing of historic drilling and exploration work completed on the property.

Sampling, Analysis and Data Verification

Lab analyses are employed throughout the entire mining process (mining to shipping). Samples are primarily collected by the Operations group and brought to the labs for analysis on a set routine. These routines have been established by engineering and operations personnel, based on the criticality and variability of each specific stream, noted over the site's decades of operation. The labs receive solid and liquid samples, each analyzed following well defined procedures that are subject to the Mosaic document control standards.

Mineral Processing and Metallurgical Testing

The Esterhazy Facility's processing plant consists of two separate mill facilities, designated as K1 and K2. Each mill processes the raw ore feed stock received from the underground mining operations through crushing, separation, screening and compaction unit operations to produce on-grade, saleable product. The plants utilize online grade analyzers to monitor the process as well as routine samples that are analyzed by the onsite lab. The milling can be broken down into two main functions: the wet end separates potash and salt, while the dry end sizes potash for sale.

The wet end of the mill begins with raw ore sizing and crushing to prepare it for the separation processes. In heavy media, the larger size fraction is separated into potash and salt through dense media separation that is driven by differences of buoyancy in salt and potash. Flotation receives the smaller size fraction and has specific reagents added that allow the potash crystals to float while the salt is rejected as tailings material. At K2 there is also a crystallizer circuit that produces potash using solubility, temperature, and pressure differences. Dewatering and drying is the final stage in the wet end, where potash is sent through centrifuges and industrial driers to remove all moisture.

Once the product is dried, it is sent to a screen to separate right-sized material from the over and undersized material for all the different product grades. Oversized material is sent through a crushing circuit to break it down to right-sized material. The undersized material is upgraded through compaction to a larger product.

Mosaic plans to ramp up milling rates once the K3 mine is up to full capacity. They then expect to stabilize at a total milling rate to the end of mine life. The differences in final product tonnes will be based on supplied raw ore grade as it varies throughout the mine workings. Mosaic believes that the site's ability to produce at the increasing rates being forecasted in the LOM plan is supported by a proving run in 2013, when the Esterhazy Facility achieved a production nameplate of 6.3 million tonnes overall.

Metallurgical analysis is performed throughout the Esterhazy processing facilities. Samples are taken by metallurgical or operational personnel. Samples collected by operational personnel are brought to either the K1 or K2 labs for analysis (either chemistry or particle size analysis). Operator Sampling locations and frequencies provide the minimum amount of information to understand process performance. Samples collected by metallurgical personnel may be analyzed for density, percent solids, particle size analysis, chemistry, viscosity etc. Metallurgical samples are collected from a significantly larger set of locations, primarily to understand performance of individual pieces of equipment in the process.

Mineral Resource and Mineral Reserve Estimates

The key mineral resource and mineral reserve assumptions and modifying factors used by Mosaic are listed in the table below.

Key Assumptions and Modifying Factors

Parameter	Value	2021 Technical Report Summary Section
Supporting Information	Regional geologic studies, 59 exploration holes, seismic surveys, in-mine channel samples and 50 years of mining history at K1 and K2.	Section 7
Average total thickness of the potash mineralization	8.55 feet (2.6 m)., based on the ratio of 8.5 feet (2.6 m) t. production panel mining height and 9.0 feet (2.7 m) t. development mining height.	Section 11
Density	129.878 lbs./cu ft. (2,080.446 kg/cu m)	Section 11
In-mine channel samples grade	27.1% K ₂ O	Section 11
Operating Days per Year	365 days	Section 13
Mining Method	Underground room and pillar mining.	Section 13
Production Rate	17.527 million tonnes per year.	Section 13
Cut-off	No cutoff grade is applied.	Section 11
Mining Recovery	27.6%	Section 12, 13
External Dilution	None	Section 12, 13
Processing Method	Two mill facilities that crush, float, screen and compact KCl.	Section 14
Processing Recovery	85 to 88% (86.1% average)	Section 14

Deleterious Elements and Impact	Increased amounts of NaCl can significantly impact production volumes.	Section 10
Environmental Requirements, Permits, etc.	No significant environmental permitting encumbrances.	Section 17
Geotechnical Factors (if any)	No concerns/issues.	Section 13
Hydrological or Hydrogeological Factors (if any)	Undersaturated brines from adjacent aquifers.	Section 13
Commodity Prices	2021 LOM plan KCl commodity prices (US\$): 2022- \$103/tonne, 2023-\$231/tonne, 2024-\$219/tonne, 2025- \$185/tonne, 2026-\$188/tonne and for the LOM \$219/tonne for the economic evaluation of the mineral resources. The following 2022 LOM plan K2O commodity prices were used to assess economic viability for the mineral reserves, but were not used for cut-off purposes, 2023-\$616/tonne, 2024-\$472/tonne, 2025-\$253/tonne, 2026-\$214/tonne, 2027-\$301/tonne and for the LOM plan \$417/tonne.	Section 16
Exchange Rate (US\$/CAD\$)	1.3	Section 16

The Esterhazy Facility's mineral resources are reported as in-situ mineralization and are exclusive of mineral reserves. The mineral resources occur in the Esterhazy, White Bear and Belle Plaine Members. It is assumed that the mineralization is

laterally continuous and consistent, based on publicly available regional geological information and the operators knowledge of the local geology and area.

Mineral resources that are not mineral reserves have not demonstrated economic viability utilizing the criteria and assumptions required at the Esterhazy Facility.

The methodology for estimating mineral resources consists of interpreting the available geological data in plain view using AutoCAD2020 software. The plan is updated to include the current mineral rights status, seismic survey interpretations, the limits of the current mining footprint, known areas (geological anomalies, town sites and other surface infrastructure) that make the mineral resource inaccessible and therefore excluded from the mineral resource estimation process, property boundary pillars, pillars around exploration holes and infrastructure, “no mining” areas in the uncontrolled mineral rights locations and a pillar between the K1 and K2 mining area and the adjacent K4 mineral resource areas.

The following table summarizes potash resources at the Esterhazy Mine as of December 31, 2022, as reported in Mosaic’s 10-K and based on a LOM Plan KCl Price of \$103.4 per tonne^{(a)(b)(c)(d)(e)(h)}

Category	Tonnes (millions)	Grade (%K ₂ O)	Metallurgical Recovery
Measured	255.0	23.3	86.1
Indicated	2,092.0	22.8	86.1
Measured + Indicated	2,347.0	22.9	86.1

(a) Mineral resources are reported exclusive of those mineral resources that have been converted to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

(b) Mineral resources are not mineral reserves and do not meet the threshold for mineral reserve modifying factors, such as estimated economic viability, that would allow for conversion to mineral reserves. There is no certainty that any part of the mineral resources estimated will be converted into mineral reserves.

(c) Mineral resources assume an underground room and pillar mining method.

(d) Mineral resources amenable to underground mining methods are accessed via shaft and scheduled for extraction based on a conceptual room and pillar design using the same technical parameters as for mineral reserves.

(e) No cut-off grade or value based on commodity price is used to estimate mineral resources. This is because the mining method used at Esterhazy is not grade selective. The potash mineralization is mined on one level by continuous miners following the well-defined and continuous beds of mineralization with relatively consistent grades (Section 11.2 of the Technical Report Summary).

(f) %K₂O refers to the total %K₂O of the samples.

(g) Mosaic used the following 2021 LOM plan KCl commodity prices to assess prospects for economic extraction for the mineral resources but are not used for

cut-off purposes: 2022-\$103/tonne, 2023-\$231/tonne, 2024-\$219/tonne, 2025-\$185/tonne, 2026-\$188/tonne, and for the LOM plan \$219/tonne.

(h) Mosaic used a US\$/CAD\$ exchange rate of 1.30 to assess prospects for economic extraction for the mineral resources but was not used for cut-off purposes.

There were no changes to the mineral resources from 2021 to 2022.

The Esterhazy Facility's mineral reserves are reported as in-situ mineralization, accounting for all applicable modifying factors. Mineral reserves meet all the mining criteria required at Esterhazy including, but not limited to mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.

The methodology for estimating mineral reserves consists of post pillar mine design work and scheduling and the application of mining recovery and unplanned dilution. Additional details regarding the estimation methodology are listed in Section 12 of the 2021 Esterhazy Facility Technical Report Summary filed as an Exhibit to the 2021 Form 10-K.

The following table summarizes potash reserves at the Esterhazy Mine as of December 31, 2022, as reported in Mosaic's 10-K and based on a LOM Plan KCl Price of \$103.4 per tonne^{(a)(b)(d)(e)}

Category	Tonnes (millions)	Grade (%K ₂ O)	Metallurgical Recovery %
Proven	110.0	23.9	86.1
Probable	433.0	20.9	86.1
Proven + Probable	543.0	21.3	86.1

(a) The mineral reserves are based on measured and indicated resources only and are reported as in-situ mineralization.

(b) Mosaic used underground mining standards and design criteria to constrain measured and indicated mineral resources within mineable shapes. Only after a positive economic test and inclusion in the LOM plan is the mineral reserve estimate included as mineral reserves.

(c) %K₂O refers to the total %K₂O of the samples.

(d) Mosaic used the following KCl commodity prices to assess economic viability for the mineral reserves, but were not used for cut-off purposes: 2022-\$103/tonne, 2023-\$616/tonne, 2024-\$472/tonne, 2025-\$253/tonne, 2026-\$214/tonne, 2027-\$301/tonne and for the LOM plan \$417/tonne. (e) Mosaic used a US\$/CAD\$ exchange rate of 1.30 to assess economic viability for the mineral reserves but was not used for cut-off purposes.

Mosaic's mineral reserves decreased by 3% to 543 million tonnes at December 31, 2022 compared to 557 million tonnes at December 31, 2021. Year over-year changes are due to mining depletion.

Mining Operations

At the Esterhazy Facility, potash is extracted by underground mining using the room-and-pillar method. Current mine design allows for the planned extraction of 27.6% of the in-situ ore. Pillars are left in place between mining rooms to support overlying strata and prevent failure of the upper rock formations or an inflow of brine from any water-bearing zones above.

The LOM plan for the Esterhazy Facility includes the K₃ mineral reserves. The K₄ mineral resources are currently scheduled after depletion of the K₃ mineral resources. Production is based on an average production rate of 17.527 million tonnes per year based on 365 production days per year.

Mosaic expects the K₃ mineral reserves production to ramp up to full production by 2024. Mosaic expects the mine to ramp down starting in 2051, with mining anticipated to be completed in 2054.

Mosaic's current schedule to begin mining the K₄ mineral resources is to start mining in 2050. Mosaic expects the mine to ramp up to full production in 2055 and end in 2090.

Processing and Recovery Operations

The Esterhazy Facility's processing plant consists of two separate mill facilities, designated as K1 and K2. Each mill processes the raw ore feed stock received from the underground mining operations through crushing, separation, screening and compaction unit operations to produce on-grade, saleable product. The plants utilize online grade analyzers to monitor the process as well as routine samples that are analyzed by the onsite lab. The milling can be broken down into two main functions: the wet end separates potash and salt, while the dry end sizes potash for sale.

The wet end of the mill begins with raw ore sizing and crushing to prepare it for the separation processes. In heavy media, the larger size fraction is separated into potash and salt through dense media separation that is driven by differences of buoyancy in salt and potash. Flotation receives the smaller size fraction and has specific reagents added that allow the potash crystals to float while the salt is rejected as tailings material. At K2 there is also a crystallizer circuit that produces potash using solubility, temperature, and pressure differences. Dewatering and drying is the final stage in the wet end, where potash is sent through centrifuges and industrial driers to remove all moisture.

Once the product is dried, it is sent to a screen to separate right-sized material from the over and undersized material for all the different product grades. Oversized material is sent through a crushing circuit to break it down to right-sized material. The undersized material is upgraded through compaction to a larger product.

Mosaic plans to ramp up milling rates once the K3 mine is up to full capacity. Mosaic then expects to stabilize at a total milling rate to the end of mine life. The differences in final product tonnes will be based on supplied raw ore grade as it varies throughout the mine workings. Mosaic believes that the site's ability to produce at the increasing rates being forecasted in the LOM plan is supported by a proving run in 2013, when the Esterhazy Facility achieved a production nameplate of 6.3 million tonnes overall.

Infrastructure, Permitting and Compliance Activities

The Esterhazy Facility consists of an underground mine and two processing plants that started production in 1962. The mine has an additional expected life, based on mineral reserves of 33 years, to 2054. The Esterhazy Facility has the infrastructure in place to meet the current production goals and LOM plan. The current infrastructure includes major road and highway access; railway support from CNR and CPR; SaskPower supplied electricity; TransGas and SaskEnergy supplied natural gas; and potable and non-potable water supplied from local fresh water sources. The long-term TMA development plan is being revised to support production at the levels indicated in the LOM plan.

Process and potable water for the K1 mill is provided by three approximately 61 meter deep wells drilled into the upper Dundurn aquifer. The K2 mill water supply comes from the Cutarm Creek dam reservoir that is owned and operated by Mosaic. Located 2.4 kilometers northeast of the K2 site, the dam forms a reservoir approximately 8.9 kilometer long and 198.1 meter wide. K3 mine water is supplied from K2 via a 11.9 kilometer-long pipeline.

The power to operate the Esterhazy Potash Facility is supplied by the provincial utility, SaskPower. The K1 mill is serviced by a 72 kV line with approximately 36 MVA capacity. The K2 mill has two services at 72 kV and 138 kV respectively, with a combined capacity of 125 MVA. The K3 mine is serviced by a 230 kV line from SaskPower with 140 MVA capacity. Two transformers step down the voltage, each rated at 70 MVA.

TransGas is the primarily supplier of an uninterrupted supply of natural gas to the Esterhazy Potash Facility. Esterhazy has regulator stations for the natural gas at each of the sites, with a low-pressure distribution piping network.

The K1 and K2 sites are serviced by the CNR main line, and by spur lines to the CPR. The surrounding area is developed for agriculture with a road network, villages and towns.

Regina International Airport is 225 kilometers by highway west of the Esterhazy Facility, while Yorkton municipal airport is 88 kilometers to the northwest. The Town of Esterhazy maintains a paved 914.0 meter long airstrip, located 13 kilometers southwest of the K1 mill.

The Esterhazy Facility's workforce lives throughout the area, generally within 100 kilometers of the mine sites. This includes the Russell and Binscarth areas of western Manitoba. Education and healthcare facilities are in Esterhazy, Russell, Melville, and Yorkton.

The province of Saskatchewan offers a large variety of suppliers for the potash mine operators. The potash industry in Saskatchewan is very mature, making it easier to attract vendors to support the needs of the various mine sites throughout the province.

Saskatoon and Regina have large industrial sectors with a variety of machine shops and industrial support services. Some specialty services are provided from the Alberta oil and gas industry.

Supplies are sourced locally, regionally, and internationally based on availability or commercial considerations. Lead times and on-hand inventory are balanced to meet the needs of the site.

Capital and Operating Costs

The capital and operating cost estimates for Esterhazy as reported in the Mosaic 10-K, Exhibit 96.2 “Esterhazy Technical Report Summary” are presented below.

The capital cost estimates for Esterhazy Potash Facility 2021 LOM plan based on mineral reserves are listed by category in the table below. The total capital for the 2021 LOM plan (2022 to 2054) is estimated at US\$2,993. Historical costs from 2017 to 2020 and a forecast for 2021 are included.

Year	Status	Expansion M US\$	Mine Sustaining M US\$	Processing Plant M US\$	Other M US\$	Total M US\$
2017	Actual	221	12	41	13	287
2018	Actual	269	11	45	13	338
2019	Actual	325	10	46	7	388
2020	Actual	321	2	46	13	383
2021	Fcast.	207	0	80	16	303
2022	Plan	77	0	82	21	179
2023	Plan	53	0	54	24	131
2024	Plan	77	0	46	23	147
2025	Plan	19	0	45	22	86
2026	Plan	0	20	41	15	76
2027 to 2054	Plan	0	402	1,690	281	2,374
LOM Total	Plan	226	422	1,958	386	2,993

The total operating costs supporting the 2021 LOM plan are estimated for 2022 to 2054 at US\$ 14,909 M. The table below summarizes the Esterhazy Potash Facility mine historical and LOM operating and processing costs (US\$/tonne). Due to closing of the K1 and K2 mines effective June 4, 2021, there is no brine management costs in the 2021 LOM plan.

Year	Status	Production M tonnes	Mining MOP Cash Costs M US\$	Brine Cash Costs M US\$	Processing Cash Costs M US\$	Other Operating Costs M US\$	Resource Taxes, Royalties and Other Government Levies or Interests M US\$	Total Cash Costs of Production M US\$
2017	Actual	4.3	74	120	84	62	47	386
2018	Actual	4.6	76	123	105	71	59	434
2019	Actual.	3.9	93	101	99	65	68	426
2020	Actual	5.0	105	74	131	69	78	457
2021	Fcast.	4.4	86	28	144	75	110	442
2022	Plan	5.7	75	0	157	54	216	502
2023	Plan	5.8	81	0	164	56	180	481
2024	Plan	5.8	85	0	169	58	169	482
2025	Plan	5.8	88	0	175	59	136	457
2026	Plan	5.8	90	0	179	59	142	471
2027 to 2054	Plan	135.8	2,366	0	4,512	1,570	4,068	12,515
Total LOM	Plan	165	2,784	-	5,356	1,856	4,913	14,909

Exploration, Development, and Production

During the second quarter of 2021, due to increased brine inflows, Mosaic made the decision to accelerate the timing of the shutdown of the K1 and K2 mine shafts at Esterhazy. Closing the K1 and K2 shafts are key pieces of the transition to the K3 shaft, but the timeline for the closure was accelerated by approximately nine months. In the third quarter of 2021, Mosaic resumed production at the previously idled Colonsay potash mine to offset a portion of the production lost by the early closure of the K1 and K2 shafts at Esterhazy. In December 2021, the K3 shaft became fully operational and reached its targeted initial annual run rate of 5.5 million tonnes in the first half of 2022. Output was further expanded with the addition of an eleventh miner, which entered service in the fourth quarter. A twelfth miner is currently being commissioned, and the final thirteenth miner is expected to enter service in the second half of 2023. Upon completion, these three additional miners will add one million tonnes of annual capacity. The decommissioning of the K1 and K2 shafts was also completed during 2022 with the capacity and production from these shafts replaced by the K3 expansion.

The following table shows the production tonnage and grade for the Esterhazy property for 2022, 2021 and 2020:

		December 31,							
		2022		2021		2020			
Facility	Annualized Proven Peaking Capacity (tonnes) ^{(a)(b)}	Annual Operational Capacity (tonnes) ^{(b)(c)(d)}	Ore Mined (tonnes)	Grade % K ₂ O ^(e)	Ore Mined (tonnes)	Grade % K ₂ O ^(e)	Ore Mined (tonnes)	Grade % K ₂ O ^(e)	
Esterhazy – MOP ^(f)	6.3	6.0	13.7	24.5	13.3	23.9	15.0	24.1	

(a) Represents full capacity based on 350 operating days per annum.

(b) Capacity is based on finished goods capacity, not ore mined. The annualized proven peaking capacity shown above is the capacity currently used to determine our share of Canpotex sales. Canpotex members' respective shares of Canpotex sales are based upon the members' respective proven peaking capacities for producing potash. When a Canpotex member expands its production capacity, the new capacity is added to that member's proven peaking capacity based on a proving run at the maximum production level. Alternatively, after January 2017, Canpotex members may elect to rely on an independent engineering firm and approved protocols to calculate their proven peaking capacity. The annual operational capacity reported in the table above can exceed the annualized proven peaking capacity until the proving run has been completed.

(c) Annual operational capacity is the expected average long-term annual capacity considering constraints represented by the grade, quality and quantity of the reserves being mined as well as equipment performance and other operational factors.

(d) Actual production varies from annual operational capacity shown in the above table due to factors that include, among others, the level of demand for our products, the quality of the reserves, the nature of the geologic formations we are mining at any particular time, maintenance and turnaround time, accidents, mechanical failure, weather conditions, and other operating conditions, as well as the effect of recent initiatives intended to improve operational excellence.

(e) Grade % K_2O is a traditional reference to the percentage (by weight) of potassium oxide contained in the ore. A higher percentage corresponds to a higher percentage of potassium oxide in the ore.

SCHEDULE “D” - Audit Committee Charter

I. INTRODUCTION

1. The purpose of the Audit Committee (the “Committee”) is to assist the Board of Directors of the Corporation (the “Board”) in fulfilling its oversight responsibilities by reviewing the financial information which will be provided to shareholders of the Corporation and others, the systems of corporate financial controls which Management and the Board have established and the audit process.
2. The Committee will oversee the Corporation’s financial reporting process on behalf of the Board and report the results to the Board.
3. While the Committee has the responsibilities and powers set forth in this mandate, it is not the duty of the Committee to plan or conduct audits or to solely determine that the Corporation’s financial statements are complete and accurate and are in accordance with International Financial Reporting Standards (IFRS). Management is responsible for preparing the Corporation’s financial statements and the independent auditors are ultimately accountable to the Board and the Committee, as representatives of the Corporation’s shareholders.

II. DEFINITIONS

1. “Management” refers to the Officers of the Corporation, and the other members of the senior management team of the Corporation as may be determined from time-to-time by the Chief Executive Officer and communicated to the Board.
2. “Officers” refers to those employees who are appointed as officers by the Corporation.
3. “Reports” refers to all documents publicly filed on SEDAR, including but not limited to Audited Annual Financial Statements, Interim Financial Statements, Managements’ Discussion and Analysis for the respective periods, News Releases relating to the release of financial information, Annual Information Form, Compliance Certificates, and Material Change Reports.

III. DUTIES AND RESPONSIBILITIES

- I. Financial Reporting
 - (a) Review with Management and with the independent auditor as applicable the Reports prior to their public filing;
 - (i) Include in this review discussions regarding their judgment on the quality, not just the acceptability, of significant accounting principles, the reasonableness of significant judgments, and the clarity of the disclosures in the financial statements;

- (ii) Discuss the results of the review and any other matters required to be communicated to the Committee by the independent auditor under IFRS if a review engagement of the interim financial statements is requested by the Committee; and
 - (iii) Ensure the Corporation's compliance with legal and regulatory requirements relating to financial disclosure.
- (b) Review any new financial appointments to senior positions of the Corporation;
 - (c) Review reports from senior officers of the Corporation outlining any significant changes in financial risks facing the Corporation;
 - (d) Review all Risk Assessment reports prepared from time to time by Management to determine if risk assessment has been properly managed and if any issues need to be reported to the Board;
 - (e) Review interim and annual financial statements, interim and annual management discussions and analyses, all financial news releases;
 - (f) Submit quarterly and annual financial statements to the Board for approval unless, in the case of any quarterly financial statements, the Board is unavailable or approval by them is impractical, all quarterly issues have been satisfactorily resolved and the Audit Committee has approved them;
 - (g) Be satisfied that adequate procedures are in place for the review of the Corporation's public disclosure of financial information extracted or derived from the Corporation's financial statements, other than the discourse provided in this section 1(e);
 - (h) Review quarterly the expense reports of the Chief Executive Officer and the Executive Chairman; and
 - (i) Review the financial metric component of the annual management compensation plan, both as a Committee and with the independent auditor, to ensure reasonableness of the calculation as well as compliance with the Corporation's debt covenants, prior to presentation to the Board for approval.

2. External Audit

- (a) Recommend to the Board the external auditor, subject to shareholders' approval, to be appointed for purposes of preparing or issuing an auditor's report or performing other audit reviews or attestation services;

- (b) Review the terms of the external auditor's engagement, the appropriateness and reasonableness of proposed audit fees, pre-approval of non audit services and any issues relating to the payment of audit fees, and make a recommendation to the Board with respect to the compensation of the external auditor;
- (c) Review the independence of the external auditor including the quarterly and annual reports prepared by the external auditor regarding its independence;
- (d) Review the audit plan with the external auditor and discuss the overall scope and plans for the audit, including the adequacy of staffing and compensation;
- (e) Review with the external auditor and Management any changes in IFRS that may be material to the Corporation's financial reporting; and
- (f) Meet separately with the external auditor, with and without Management present, to discuss the results of the examinations and provide sufficient opportunity for the auditor to meet privately with members of the Committee.

3. Internal Procedures Review

- (a) Annually review with the external auditor and Management any internal procedures and control deficiencies identified for the past year; and
- (b) Annually review with the external auditor and Management any proposed internal procedures and control modifications for the coming year.

4. Risk Oversight

In performing its duties and exercising its powers, the Committee shall consider and address the risks related to the establishment, maintenance and implementation of disclosure controls and procedures and internal control over financial reporting in relation to disclosure by the Corporation in accordance with applicable law. The Committee shall also provide oversight as to the risks assessed with each new investment according to the Board approved risk criteria.

The Committee shall review and oversee the cyber security framework implemented by the Corporation including evaluation of the system of standards, guidelines and best practices to manage risk that arise in the digital world. The Committee shall receive updates by Management of any changes or issues within the framework quarterly and report to the Board if applicable.

5. Financial Complaints Handling Procedures

The Committee shall establish procedures for:

- (a) The receipt, retention and treatment of complaints received by the Corporation regarding accounting, internal accounting controls or auditing matters; and
- (b) The confidential, anonymous submission by employees of the Corporation of concern regarding questionable accounting or auditing matters.

6. Miscellaneous

Perform any other matters referred to the Committee or delegated to it by the Board.

7. Director Responsibilities and Performance

(a) Committee Duties

- (i) Act honestly and in good faith with a view to the best interests of the Corporation and to exercise the care, diligence and skill that a reasonable prudent person would exercise in comparable circumstances.

(b) Committee Values

- (i) Assist the Corporation to operate in compliance with all corporate policies and codes, and all laws and regulations governing the Corporation; and
- (ii) Maintain strong financial reporting and control processes.

(c) Reliance on Experts

- (i) Place appropriate reliance in good faith on reports that the financial statements of the Corporation represented to each member of the Committee by an Officer of the Corporation or in a written report of the external auditor present fairly the financial position of the Corporation in accordance with IFRS; and on any report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by any such person.

IV. OPERATION OF THE COMMITTEE

1. Reporting

The Committee shall report to the Board.

2. Composition of Committee

The Committee shall consist of not less than three directors, all shall qualify as “independent” as defined in multilateral instrument 52-110 Audit Committees and all shall be deemed to be “financially literate”.

3. Appointment of Committee Members

Members of the Committee shall be appointed at a meeting of the Board, typically held immediately after the annual shareholders’ meeting, provided that any member may be removed or replaced at any time by the Board and shall in any event cease to be a member of the Committee upon ceasing to be a member of the Board.

4. Vacancies

Where a vacancy occurs at any time in the membership of the Committee, it may be filled by the Board.

5. Chair of the Committee

The Board shall designate the Chair of the Committee. The Chair shall have responsibility for overseeing that the Committee fulfills its mandate and its duties effectively. In the absence of the Chair of the Committee, the members will appoint an acting Chair.

6. Secretary

Unless the Committee otherwise specifies, the secretary of the Corporation will act as secretary of all meetings of the Committee.

7. Committee Meeting

(a) The Committee will meet at least four times annually (or more frequently as circumstances dictate).

(b) Committee meetings may be held in person, by video-conference, by means of telephone or by any combination any of the foregoing.

8. Notice of Meeting

(a) Notice of the time and place of every meeting may be given orally, in writing, by facsimile or by e-mail to each member of the Committee at least 48 hours prior to the time fixed for such meeting.

(b) A member may in any manner waive notice of the meeting. Attendance of a member at the meeting shall constitute waiver of notice of the meeting except where a member attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting was not lawfully called.

9. Quorum

A quorum will be a majority of the members of the Committee present in person, by video-conference, by telephone or by a combination thereof.

10. Attendance at Meetings

- (a) The Chief Financial Officer is expected to be available to attend meetings, but a portion of every meeting can be reserved for in camera discussion without the Chief Financial Officer or any other member of Management, being present.
- (b) The Committee may by specific invitation have other resource persons in attendance.
- (c) The Committee shall have the right to determine who shall and who shall not be present at any time during a meeting of the Committee.

11. Meeting Agenda

Committee meeting agendas shall be set by the Chair of the Committee in consultation with Committee members, Management if appropriate, and the external auditor if appropriate.

12. Minutes

The Committee shall keep regular minutes of proceedings and shall cause them to be recorded in books kept for that purpose.

13. Outside Advisors

The Committee is empowered to engage and compensate any outside advisors as it deems advisable to permit it to carry out its duties, at the expense of the Corporation.

14. Reporting to the Board

The Committee, through its Chair, will report regularly to the Board, and in any event no less frequently than on a quarterly basis.

V. REVIEW

The Governance and Sustainability Committee will review this Charter at least every two years to determine if additions, deletions or amendments as required.

VI. HISTORY

This Charter was:

- (a) Initially adopted by the Board on October 31, 2007
- (b) Reviewed and amended by the Board on May 13, 2022