

IVANHOE MINES

July 2, 2024

Ivanhoe Mines completes construction of Kipushi concentrator ahead of schedule

■
First ore to Kipushi concentrator achieved on May 31; first concentrate produced on June 14

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Kipushi sets 2024 production guidance at between 100,000 and 140,000 tonnes of zinc in concentrate

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Kipushi zinc production capacity to average 278,000 tonnes per annum over first five years, making Kipushi the fourth-largest zinc mine globally

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Basic engineering underway to increase processing capacity of concentrator by 20% to 960,000 tonnes per annum

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Off-take agreements signed with CITIC Metal and Trafigura, plus \$170 million in financing facilities agreed

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Kipushi reconfirmed as the world's lowest carbon-emission intensive zinc mine on a Scope 1 and 2 basis

KIPUSHI, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Executive Co-Chair Robert Friedland and President Marna Cloete announce today the completion of construction and the restart of the historic ultra-high-grade Kipushi zinc-copper-lead-germanium mine in the Democratic Republic of the Congo (DRC), 100 years after it first operated, and 31 years since it was placed on care and maintenance. First feed of ore into the new concentrator was achieved on May 31, 2024, with first concentrate subsequently produced on June 14, 2024.

Off-take agreements for Kipushi's high-grade zinc concentrate have been signed with CITIC Metal (HK) Limited of Hong Kong and Trafigura Asia Trading of Singapore. Further off-take agreements are expected to be signed in the coming months. In addition, financing facilities totaling \$170 million provided by CITIC

Metal, Trafigura and First Bank DRC of Kinshasa, DRC have been arranged, with \$50 million drawn to date.

Kipushi Corporation SA (KICO) is 68% owned by Kipushi Holding, a wholly owned subsidiary of Ivanhoe Mines, with the remaining 32% of KICO owned by Gécamines. As per the terms of the *Joint-Venture Agreement* between Kipushi Holding, KICO, and Gécamines, as announced on [January 16, 2024](#), Gécamines will acquire an increasing percentage of the share capital and voting rights in KICO over time, subject to completing conditions precedent.

Watch a video showing the completion of the Kipushi concentrator and production of first concentrate:

<https://vimeo.com/960461099/60827dd468?share=copy>



Ivanhoe Mines' Founder and Executive Co-Chairman Robert Friedland commented:

"Returning the historic Kipushi zinc-copper-lead-germanium-gallium mine to production alongside our DRC state-owned joint-venture partner Gécamines marks a century after Kipushi's first operations. The rebirth of the mine is a major and state-of-the-art achievement for our operations team, the people of the Democratic Republic of the Congo and the local community in Kipushi Town. We commend and congratulate everyone involved, especially the hardworking Congolese workforce, for their exceptional contributions towards this example of industry-leading execution ... with the construction and first concentrate milestones delivered substantially ahead of schedule. Kipushi will be one of the

world's leading producers of high-grade, low-emissions zinc and associated metals. The mine will follow Kamoa-Kakula's example of being a leading employer and social driver for the region where we operate while maintaining Ivanhoe's focus on strong community relations and sustainability.

"The Kipushi mine is a significant example of the growing importance of the Democratic Republic of the Congo as a provider of high-quality, vital strategic minerals for global markets. The mine also demonstrates the tier-one quality of the ore body and workforce that make the Central African Copperbelt the best place on our planet to build world-leading mining operations. We are very proud to witness the rebirth of this legendary mining operation for the first time in three decades. Kipushi joins Kamoa-Kakula as a major addition to Ivanhoe's rapidly growing green metals business. We celebrate this significant step on our aggressive journey to become the world's next great, diversified major mining company."

Gécamines' Chairman, Guy-Robert Lukama Nkunzi commented:

"The resumption of operations at the Kipushi Mine, after more than three decades of inactivity, is a source of great pride for Gécamines and of renewed joy among the Province of Haut-Katanga's population. This outcome is yet another indication of Gécamines' efforts for the revival of mining activity and community development in Haut-Katanga.

"It is not only high zinc grades that make Kipushi an extraordinary mine. Whilst at this stage only the Big Zinc deposit has been certified, the mine shows great potential for other metals that are critical to meet today's global industrial needs. Through the renewed KICO project, achieved in cooperation with our partner Ivanhoe Mines, whose unwavering commitment and expert skills led to the site's revival, Gécamines will be in a position to play a greater role than in the past. Concurrently with the mine's reconstruction, our partnership has been significantly restructured in terms of the project's governance. As a result, Gécamines' shareholding in the project has been reinforced, which gives us increased power to influence key decisions, the possibility of acquiring KICO's products to ensure local processing and, above all, the prospect of becoming a majority shareholder again after the Big Zinc is depleted.

"All of these achievements are in line with the wish of His Excellency the President of the Republic, Mr Félix-Antoine Tshisekedi Tshilombo, that the Democratic Republic of Congo enters into balanced mining partnerships that will make our country a key player in the revolutionary transition to green energy."

(L-R) Ivano Manini, General Manager, KICO; Olivier Binyingo, Executive Vice President, DRC, Ivanhoe Mines and Chairman, KICO; and, Gaetan Luabeya, Deputy General Manager, KICO holding first concentrate from the Kipushi Concentrator on June 14, 2024.



The Kipushi ball mill rotating with the first feed of ore during the night of May 31, 2024, with the historic, headframes (P1, P2 and P3) in the background. The restart of the Kipushi mine has taken place 100 years after it was originally opened, in 1924.



2024 Production Guidance for the Kipushi Mine

Kipushi's 2024 production guidance is based on several assumptions and estimates as of July 2, 2024, including among other things, assumptions about the timing of ramp-up of the new 800,000-tonne-per-annum Kipushi concentrator. Guidance involves estimates of known and unknown risks, uncertainties and other factors that may cause the actual results to differ materially.

Kipushi Mine 2024 Guidance

Contained zinc in concentrate (tonnes)

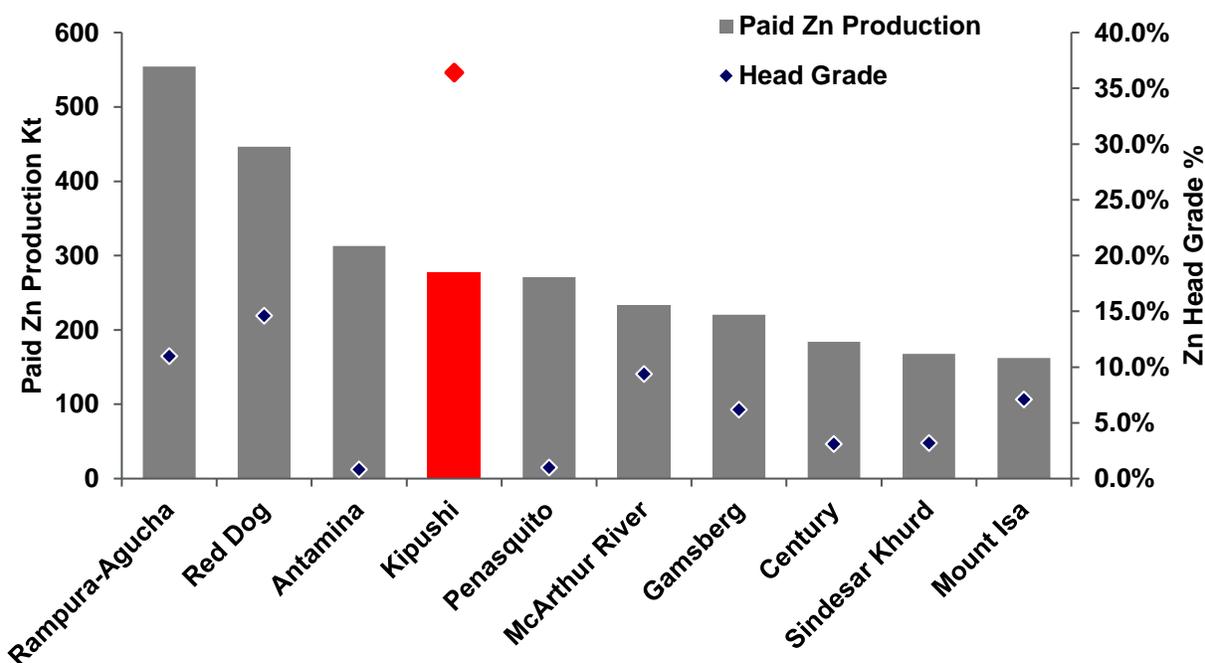
100,000 - 140,000

All figures are on a 100%-project basis and metal reported in concentrate is before treatment losses or payability deductions associated with smelter terms.

Ivanhoe Mines will provide 2024 guidance ranges for C1 cash cost (C1) per pound of payable zinc once ramp-up to steady-state production has been achieved.

As per the 2022 Kipushi Feasibility study, released on [February 14, 2022](#), over the first five years annualized production is expected to average 278,000 tonnes of zinc in concentrate, positioning Kipushi as the world's fourth-largest zinc mine and the largest on the African continent. See Figure 1.

Figure 1. World's top 10 zinc mines estimated for 2025, by paid zinc production per annum ('000 tonnes) with head grade (% zinc).



Source: Wood Mackenzie, 2024, Ivanhoe Mines. Production and grade assumptions for Kipushi are the first five-year average as stated in the 2022 Feasibility Study.

Dry commissioning of the new 800,000-tonne-per-annum Kipushi concentrator commenced in early May, with first ore from the surface run-of-mine (ROM) stockpiles fed through the ball mill during the evening of May 31, 2024. The first batch of concentrate production was achieved on June 14, 2024. Ramp-up to steady-state production is expected in the third quarter.

Basic engineering underway to increase processing capacity of Kipushi concentrator by 20% to 960,000 tonnes per annum

Basic engineering of a de-bottlenecking program is underway, targeting a 20% increase in processing capacity of the newly constructed Kipushi concentrator. The debottlenecking program is expected to increase the processing capacity to 960,000 tonnes per annum. Since mining commenced in late 2023, there is sufficient capacity to increase mining and hoisting rates to support an upsized concentrator. The de-bottlenecking program is expected to take approximately nine months, based on the ready availability of equipment.

Run-of-mine stockpiles to support ramp-up to steady-state production, with mining rates to increase throughout H2 2024

As of June 30, 2024, a total of approximately 336,000 tonnes of ore at an average grade of 23.4% zinc was stored in surface ROM stockpiles adjacent to the Kipushi concentrator. This includes approximately 150,000 tonnes of “high-grade” ore at an average grade of over 30% zinc. The stockpiled ore, which contains nearly 80,000 tonnes of zinc that is currently trading at approximately \$3,000 per tonne, is now being used for the ongoing hot commissioning and ramp-up of the Kipushi concentrator.

Underground mining rates are expected to significantly increase throughout the second half of the year to match the steady-state processing rate of the Kipushi concentrator. Year-to-date underground mining rates have averaged just over 20,000 tonnes per month, with rates expected to increase to 75,000 tonnes per month, at an average grade of over 40% zinc, by year-end.

Off-take agreements for Kipushi concentrate signed, plus \$170 million in financing facilities secured

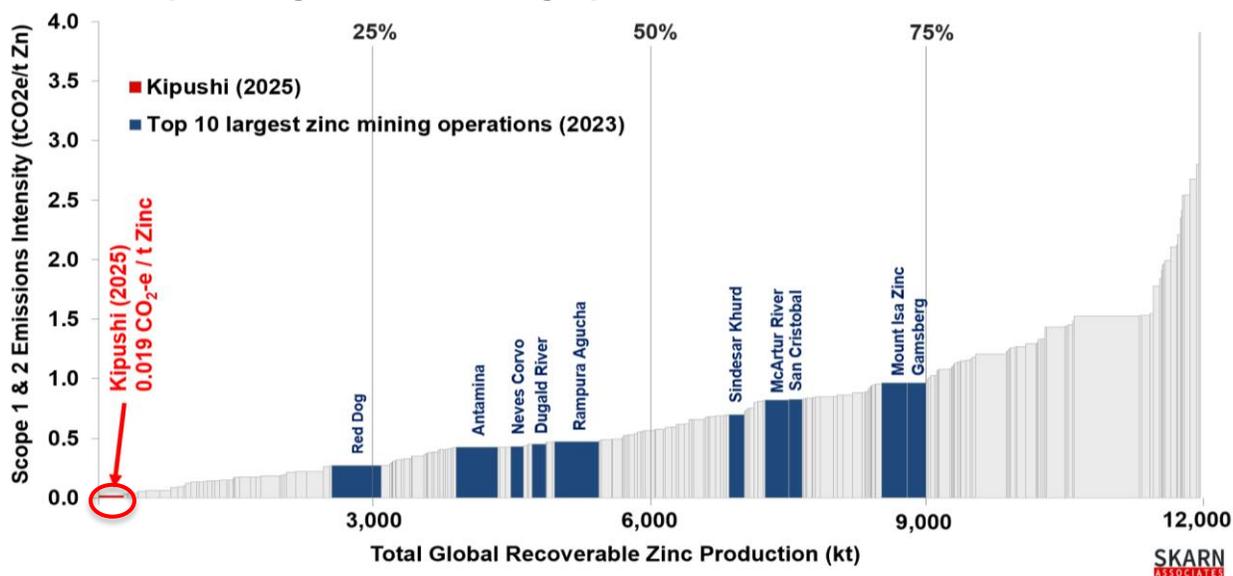
Ivanhoe Mines has recently established a wholly-owned subsidiary, Ivanhoe Marketing (Pty) Ltd (“Ivanhoe Marketing”), to manage the in-land logistics across the African continent. Ivanhoe Marketing will be responsible for arranging the transportation of zinc concentrate from mine gate to the point of delivery. Initially, it is expected that approximately 50% of Kipushi’s concentrate will be delivered to Europe for smelting on a Cost, Insurance and Freight (CIF) basis, exported via the port of Walvis Bay. The remaining 50% will be a Delivered at Place (DAP) to the port of Durban.

Ivanhoe Marketing has entered into off-take agreements with CITIC and Trafigura for the sale of Kipushi concentrate. The Kipushi concentrate is expected to contain approximately 55% zinc, with low levels of impurities. To date, off-take agreements for approximately two-thirds of Kipushi's zinc concentrates over a five-year term have been agreed. The off-take agreements contain standard, international commercial terms, including payables and treatment charges based on the zinc industry's annual benchmark. The 2024 annual treatment charge benchmark is currently \$165 per tonne of concentrate. Given an international shortage of clean zinc concentrates to feed the world's zinc smelters, the current spot rate for zinc treatment charges is significantly lower than the \$165 per tonne benchmark rate. Off-take agreements for the remaining concentrate are expected to be placed in the coming months.

In addition to the off-take agreements, Trafigura and CITIC Metal will each provide a loan facility to KICO for \$60 million over the term of the off-take contract, at a rate of interest SOFR, plus 6%. A bank facility has also been signed with domestic lender FirstBank DRC for \$50 million at SOFR plus 4.5%.

Kipushi is the world's lowest carbon-emitting major zinc mine on a Scope 1 and 2 basis

2023 Scope 1 & 2 zinc GHG emissions intensity curve, highlighting Kipushi and the top 10 largest zinc mining operations in 2023.



Notes: Kipushi and industry peer Scope 1 and 2 GHG emissions data are estimates by Skarn Associates. Estimates include all direct and indirect emissions to produce contained zinc from ore to mine gate. The horizontal width of each bar represents the quantity of each operation's 2023 zinc production in '000 tonnes. 2025 Kipushi production is estimated to be 278,000 tonnes of payable zinc in concentrate, based on the 2022 feasibility study. 2025 zinc production is not forward guidance. It is estimated that operations will emit a total of 5,047 equivalent tonnes of CO₂, thereby producing 0.019 equivalent tonnes of CO₂ per tonne of zinc produced. Chart sources: Skarn Associates, Ivanhoe Mines.

The updated Greenhouse Gas emissions assessment recently completed by Skarn Associates confirms that Kipushi will be the lowest carbon emitter per unit of zinc production in the world.

The fact that Kipushi will be the lowest greenhouse gas emitter per tonne of zinc produced is partially due to the ultra-high-grade Big Zinc orebody, which has an average head grade of over 36% zinc over the first five years of operation. The Kipushi head grade is more than 6.5 times higher than the average head grade of the top 20 zinc mining operations in 2023. A high head grade means significantly less rock is mined, hauled and milled for the same tonne of zinc produced. The total peak power required by the mining and milling operation is only 23 megawatts (MW).

The low carbon emissions intensity is also a function of the DRC grid being among the world's cleanest, with 99.5% of grid power generated from hydroelectricity, according to the U.S. Energy Information Administration.

On a Scope 1 and 2 basis (reported from ore to mine gate), Kipushi's greenhouse gas (GHG) emissions intensity for 2025 is expected to be 0.019 equivalent tonnes of carbon dioxide per tonne of contained zinc produced (t CO₂-e / t Zn). This comfortably ranks Kipushi near the bottom of the Scope 1 and 2 GHG emissions curve, as shown in Figure 1. For comparison, the 2022 Scope 1 and 2 GHG emissions intensity for Kamoakakula, which is the lowest carbon-intensive major copper mine globally, was 0.16 equivalent tonnes of carbon dioxide per tonne of contained copper produced (t CO₂-e / t Cu).

Industry-leading health and safety performance achieved during the construction of Kipushi

During the 3.3 million man-hours worked on the construction of the Kipushi concentrator, not a single lost time injury (LTI) was recorded. Therefore, the lost time injury frequency rate (LTIFR) for the concentrator during construction was zero. The recently completed Phase 3 concentrator at Kamoakakula also completed construction with an LTIFR of zero, a rare industry achievement.

Zinc's role is vital in supporting the energy transition

Zinc's primary use is for protecting steel against corrosion, which accounts for over 60% of the metal's worldwide use. In 2023, according to Worldsteel data, global crude steel production was approximately 19 billion tonnes. Zinc's use in the energy transition is primarily in the generation and transmission infrastructure, as well as in the emerging battery storage technology.

Zinc is vital in the protection of solar panel fixtures and wind turbine structures from extreme weather and in preventing rust. Each 100 MWh solar installation is estimated to use approximately 230 tonnes of zinc and each 100 MWh offshore wind turbine installation is estimated to require approximately 40 tonnes of zinc.

Technologies are also emerging for zinc in battery storage. According to industry consultant CRU and the International Renewable Energy Agency (IRENA), zinc's use in battery storage is expected to increase by 10 times to over 130,000 tonnes per annum by 2030, taking the total zinc used in renewable energy generation and storage to over 360,000 tonnes per annum.

Sikabwe Munga Hermano, Long Hole Drill Operator, remotely conducting production drilling on the Big Zinc orebody. Underground mining is tracking ahead of schedule, with approximately 336,000 tonnes of ore in surface ROM stockpiles, derisking the commissioning of the Kipushi concentrator.



Workers gather around the concentrator's ball mill to celebrate the restart of the Kipushi mine, 31 years after being placed on care and maintenance.



A ceremony was also held on June 14, 2024, for the official opening of the all-weather 'Kicodrome' community football pitch adjacent to the Kipushi mine.



The opening ceremony included a parade of the newly established men's and women's football teams that will play at the stadium.



All figures are in U.S. dollars unless otherwise stated.

Qualified Persons

Disclosures of a scientific or technical nature in this news release regarding the Kipushi Project have been reviewed and approved by Steve Amos, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (NI 43-101). Mr. Amos is not considered independent under NI 43-101 as he is the Executive Vice President, Projects, at Ivanhoe Mines. Mr. Amos has verified the technical data related to the foregoing disclosed in this news release.

Other disclosures of a scientific or technical nature regarding the stockpiles in this news release have been reviewed and approved by Joshua Chitambala, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of NI 43-101. Mr. Chitambala is not considered independent under NI 43-101 as he is the Resource Manager for Ivanhoe Mines. Mr. Chitambala has verified the other technical data regarding the surface stockpiles disclosed in this news release.

Ivanhoe has prepared an independent, NI 43-101-compliant technical report for the Kipushi Project, which is available on the company's website and under the company's SEDAR+ profile at www.sedarplus.ca:

- The Kipushi 2022 Feasibility Study dated February 14, 2022, prepared by OreWin Pty Ltd., MSA Group (Pty) Ltd., SRK Consulting (South Africa) (Pty) Ltd, and METC Engineering (Kipushi 2022 Feasibility Study).

This technical report includes relevant information regarding the effective date and the assumptions, parameters and methods of the mineral resource estimates on the Kipushi Project cited in this news release, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this news release in respect of the Kipushi Project.

About Ivanhoe Mines

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa; the expansion of the Kamao-Kakula Copper Complex in the DRC, the construction of the tier-one Platreef palladium-nickel-platinum-rhodium-copper-gold project in South Africa; and the restart of the historic ultra-high-grade Kipushi zinc-copper-germanium-silver mine, also in the DRC.

Ivanhoe Mines also is exploring across circa 2,650 km² of highly prospective, 60-100% owned exploration licences in the Western Forelands, located adjacent to the Kamao-Kakula Copper Complex in the DRC. Ivanhoe is exploring for new sedimentary copper discoveries, as well as expanding and further defining its high-grade Makoko, Kiala, and Kitoko copper discoveries as the company's next major development projects.

Follow Robert Friedland ([@robert_ivanhoe](#)) and Ivanhoe Mines ([@IvanhoeMines_](#)) on X.

Information contacts

Investors

Vancouver: Matthew Keevil +1.604.558.1034

London: Tommy Horton +44 7866 913 207

Media

Tanya Todd +1.604.331.9834

Website www.ivanhoemines.com

Forward-looking statements

Certain statements in this news release constitute “forward-looking statements” or “forward-looking information” within the meaning of applicable securities laws. Such statements and information involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company, its projects, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified using words such as “may”, “would”, “could”, “will”, “intend”, “expect”, “believe”, “plan”, “anticipate”, “estimate”, “scheduled”, “forecast”, “predict” and other similar terminology, or state that certain actions, events, or results “may”, “could”, “would”, “might” or “will” be taken, occur or be achieved. These statements reflect the company’s current expectations regarding future events, performance and results and speak only as of the date of this news release.

Such statements include, without limitation: (i) statements that production guidance for 2024 from Kipushi Project is set between 100,000 and 140,000 tonnes of zinc in concentrate; (ii) statements that Kipushi zinc production capacity will average 278,000 tonnes per annum over first five years, making Kipushi the fourth-largest zinc mine globally; (iii) statements that Gécamines will acquire an increasing percentage of the share capital and voting rights in KICO over time, subject to completing conditions precedent; (iv) statements that Kipushi will be one of the world's leading producers of high-grade, low-emissions zinc and will be a leading employer and social driver for the region; (v) statements that ramp-up to steady-state production is expected in the third quarter 2024; (vi) statements that basic engineering is underway to increase processing capacity of Kipushi concentrator by 20% to 960,000 tonnes per annum and that the de-bottlenecking program is expected to take approximately nine months, based on the ready availability of equipment; (vii) statements that underground mining rates are expected to significantly increase throughout the second half of 2024 to 75,000 tonnes per month, at an average grade of over 40%, by end of 2024; (viii) statements that Ivanhoe Marketing will be responsible for arranging the transportation of zinc concentrate from mine gate to the point of delivery; (ix) statements that it is expected that approximately 50% of Kipushi’s concentrate will be delivered to Europe for smelting on a CIF basis, exported via the port of Walvis Bay, and that the remaining 50% will be a DAP delivery to the port of Durban; (x) statements that Kipushi concentrates are expected to contain approximately 55% zinc, with low levels of impurities; and (xi) statements that further off-take agreements are expected to be signed in the coming months; and (xii) statements that Kipushi’s GHG emissions intensity for 2025 is expected to be 0.019 equivalent tonnes of carbon dioxide per tonne of contained zinc produced.

Also, all of the results of the Kipushi 2022 Feasibility Study constitute forward-looking statements or information and include future estimates of internal rates of return, net present value, future production, estimates of cash cost, proposed mining plans and methods, mine life estimates, cash flow forecasts, metal recoveries, estimates of capital and operating costs and the size and timing of phased development of the Kipushi Project.

Furthermore, concerning this specific forward-looking information regarding the operation and development of the Kipushi Project, the company has based its assumptions and analysis on certain factors that are inherently uncertain. Uncertainties include: (i) the adequacy of infrastructure; (ii) geological characteristics; (iii) metallurgical characteristics of the mineralization; (iv) the ability to access adequate downstream processing capacity; (v) the price of zinc, copper, silver, germanium and gallium; (vi) the availability of equipment and facilities necessary to complete development and exploration; (vii) the cost of consumables and mining

and processing equipment; (viii) unforeseen technological and engineering problems; (ix) accidents or acts of sabotage or terrorism; (x) currency fluctuations; (xi) changes in regulations; (xii) compliance by joint venture partners with terms of agreements; (xiii) the availability and productivity of skilled labour; (xiv) the regulation of the mining industry by various governmental agencies; (xv) the ability to raise sufficient capital to develop the project; (xvi) changes in project scope or design; (xvii) recoveries, mining rates and grade; (xviii) political factors; (xviii) water inflow into the mine and its potential effect on mining operations, and (xix) the consistency and availability of electric power.

Forward-looking statements and information involve significant risks and uncertainties, should not be read as guarantees of future performance or results and will not necessarily be accurate indicators of whether such results will be achieved. Many factors could cause actual results to differ materially from the results discussed in the forward-looking statements or information, including, but not limited to, the factors discussed above and under the “Risk Factors” section in the company’s MD&A for the three months ended March 31, 2024, and its current annual information form, and elsewhere in this news release, as well as unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts with the company to perform as agreed; social or labour unrest; changes in commodity prices; and the failure of exploration programs or studies to deliver anticipated results or results that would justify and support continued exploration, studies, development or operations.

Although the forward-looking statements contained in this news release are based upon what management of the company believes are reasonable assumptions, the company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this news release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this news release.

The company’s actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors outlined in the “Risk Factors” section in the company’s MD&A for the three months ended March 31, 2024, and its current annual information form.