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**Kamoa Copper's Phase 2 concentrator plant approaching 93% completion; hot commissioning of the Phase 2 concentrator plant to begin in April 2022**



**Dedicated engineering team appointed with goal of boosting combined Phase 1 and Phase 2 copper production up to 450,000 tonnes per annum**



**Mark Farren, Chief Executive Officer of Kamoa Copper, to retire following the commissioning of Phase 2**

**KOLWEZI, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX: IVPAF) Co-Chairs Robert Friedland and Yufeng “Miles” Sun announced that Kamoa-Kakula’s Phase 2, 3.8-million-tonne-per-annum (Mtpa) concentrator plant is expected to be 93% complete by January 31, 2022, with hot commissioning of the concentrator on track to begin in April 2022, at the front end of the Q2 2022 previous guidance and several months ahead of the original schedule.**

**Hot commissioning involves introducing first ore into the plant at a reduced feed rate to set equipment parameters and test performance. Feed rate is then steadily increased.**

**Kamoa Copper continues to make significant construction progress on the Phase 2 concentrator plant, and the plant is expected to be approximately **93% complete by the end of January**. Hot commissioning now is expected to commence in April, and the first copper concentrate produced from the Phase 2 plant is expected approximately one week after ore is fed into the ball mills.**

**The Phase 2 plant is identical to the Phase 1 3.8-Mtpa concentrator plant and a faster ramp-up profile is expected, with the added benefit of operational knowledge gained during the commissioning of Phase 1.**

**For comparison, the Phase 1 concentrator reached monthly design throughput during September 2021, which was the fourth full month of operation. First ore was introduced into Kamoa Copper’s Phase 1 concentrator plant on May 20, 2021, and first concentrate was produced from the Phase 1 plant on May 25, 2021. The Phase 1 concentrator currently is running at a throughput that is in excess of its**

design capacity of 3.8-Mtpa by more than 15%, with 117% of design throughput achieved in December. Copper recoveries also are being achieved that are in excess of design recovery of 86%, depending on feed grade, with December's recoveries approximately 2% higher.

A dedicated project team has been appointed to de-bottleneck both the Phase 1 and Phase 2 concentrators (after commissioning), with targeted improvements aimed at increasing plant throughput from the design of 7.6 million tonnes per annum to 9.0 million tonnes per annum and producing **up to 450,000 tonnes per annum** of copper in concentrate from the first two plants once steady-state is achieved.

As announced earlier this month, the 2022 production guidance for the Kamoakakula Copper Complex is between 290,000 to 340,000 tonnes of copper in concentrate. The figures are on a 100%-project basis and copper reported in concentrate is prior to refining losses or deductions associated with smelter terms.

“While most of the mining industry struggles to meet construction timelines and budgets, Kamoakakula Copper continues to exceed expectations in delivering on the project's first two development phases,” said Mr. Friedland. “Kamoakakula represents only the beginning of our undertaking to unlock the potential of this remarkable new copper province, which has the unique combination of outstanding scale, grade, mine life, and environmental, social, and governance credentials.”

The Phase 3 expansion, which is expected to be commissioned in **Q4 2024**, also is advancing, with work ongoing on a new box cut to access the Kamoakakula Mine. An updated pre-feasibility study, including the Phase 3 expansion, is expected in **Q3 2022**.

### **Mark Farren to retire as Kamoakakula Copper's CEO following commissioning of Phase 2 expansion; successor search underway**

Mr. Friedland and Mr. Sun also announced that Mark Farren, Kamoakakula Copper's Chief Executive Officer, will retire from his position at Kamoakakula Copper following the commissioning of the Phase 2 expansion project. Kamoakakula Copper has initiated a search for Mr. Farren's replacement, and Mr. Farren will help support a smooth and seamless transition.

Mr. Farren first joined Ivanhoe Mines in June 2014 as Executive Vice President, Operations, before his appointment as Chief Executive Officer of Kamoakakula Copper in October 2019. During his time as Kamoakakula Copper's CEO, Mr. Farren oversaw the construction, commissioning and operation of the Phase 1 mine and concentrator at Kamoakakula, as well as the project's Phase 2 and 3 expansions.

**“Mark has accomplished a great deal during his time with Ivanhoe Mines and Kamo Copper, including delivering the Phase 1 project on budget and ahead of schedule in an unprecedented macroeconomic environment. Under his watch, the Phase 1 ramp-up was exceptionally smooth, and the Phase 2 expansion project is running ahead of schedule. Before he leaves, he will have successfully overseen the development of the Kamo-Kakula complex into one of the ten largest copper producers on the planet,” said Mr. Friedland.**

**“From all of us at Ivanhoe Mines, together with our partner Zijin Mining, we owe Mark a debt of gratitude for his efforts. We wish him all the best in his well-deserved retirement, in which he plans to spend more time fishing.**

**“It is a well-known adage that time spent fishing is not deducted from one’s lifespan; as such, when Mark gets bored catching fish, we will gladly welcome him back in a senior role with any of the Ivanhoe group of companies.”**

**Yufeng “Miles” Sun added: “Kamo-Kakula has become an industry benchmark under Mark’s leadership, especially given the challenges posed by the COVID-19 pandemic. I salute Mark’s significant contributions and wish him continuous success.”**

**Jinghe Chen, Chairman of Zijin Mining, said: “Zijin Mining sincerely appreciates Mark’s diligent work and his magnificent achievements in transforming Kamo-Kakula into one of the world’s top copper producers. I wish Mark and his family all the best in his retirement.”**

**Ben Munanga, Chairman of the Board of Directors of Kamo Copper, also commented: “Kamo Copper’s outstanding success to date is a product of the culture and values promoted throughout the organization under Mark’s guidance. Mark has been instrumental in developing strong managerial talent at Kamo Copper, and we are confident that his legacy will continue for many years to come.”**

**Mr. Farren commented: “I have had a long-term goal to retire while I am healthy and able to pursue my hobbies and new adventures. Working with the Ivanhoe Mines and Kamo Copper teams over the last decade exceeded my expectations and I could not have asked for better co-workers or a more supportive ownership and Board of Directors.**

**“I am incredibly proud of playing a part in Kamo-Kakula’s success, and I’m convinced that the best is still to come. I will continue to work with my successor and the rest of the team to ensure the smooth commissioning of the Phase 2 expansion.”**

**Kamoa-Kakula's Phase 1 (left) and Phase 2 concentrator plants.**



**Electrician Tresor Nawej Tshimwish installing an electrical cable at the Phase 2 high-pressure-grinding-rolls (HPGR) substation. More than 83% of the Phase 2 electrical cable has been installed.**



**Mardoche Muswamba (left) and Kakeya Tshidjamba installing electrical wiring to the pneumatic control valves on the Phase 2 primary mill cyclones. More than 75% of the Phase 2 instruments have been installed.**



**Ilunga Geplige strapping cables at the Phase 2 secondary crusher. Approximately 170,000 metres of copper electrical cable will be used to wire Kamoakakula's Phase 2 plant.**



## About the Kamoa-Kakula Copper Complex

Kamoa-Kakula is projected to be the world's highest-grade major copper complex, with an initial mining rate of 3.8 Mtpa at an estimated, average feed grade of more than 6.0% copper over the first five years of operations, and 5.9% copper over the initial 10 years of operations. Phase 1 is expected to produce approximately 200,000 tonnes of copper per year, while the Phase 2 expansion is forecast to increase production to more than 400,000 tonnes of copper annually. Based on independent benchmarking, the project's phased expansion scenario to 19 Mtpa would position Kamoa-Kakula as the world's second-largest copper mining complex, with peak annual copper production of more than 800,000 tonnes.

The Kamoa-Kakula Copper Project is a joint venture between Ivanhoe Mines (39.6%), Zijin Mining Group (39.6%), Crystal River Global Limited (0.8%) and the Government of the Democratic Republic of Congo (20%). A 2020 independent audit of Kamoa-Kakula's greenhouse gas intensity metrics performed by Hatch Ltd. of Mississauga, Canada, confirmed that the project will be among the world's lowest greenhouse gas emitters per unit of copper produced.

## Qualified Persons

Disclosures of a scientific or technical nature regarding development scenarios at the Kamoa-Kakula Project in this news release 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 NI 43-101. Mr. Amos is not considered independent under NI 43-101 as he is Kamoa Copper's Head of Projects. Mr. Amos has verified the technical data disclosed in this news release.

Ivanhoe has prepared an independent, NI 43-101-compliant technical report for the Kamoa-Kakula Project, which is available on the company's website and under the company's SEDAR profile at [www.sedar.com](http://www.sedar.com):

- Kamoa-Kakula Integrated Development Plan 2020 dated October 13, 2020, prepared by OreWin Pty Ltd., China Nerin Engineering Co., Ltd., DRA Global, Epoch Resources, Golder Associates Africa, KGHM Cuprum R&D Centre Ltd., Outotec Oyj, Paterson and Cooke, Stantec Consulting International LLC, SRK Consulting Inc., and Wood plc.

The technical report includes relevant information regarding the assumptions, parameters and methods of the mineral resource estimates on the Kamoa-Kakula 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.

## About Ivanhoe Mines

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the development of major new, mechanized, underground mines at the Kamoakakula copper discoveries in the Democratic Republic of Congo and at the Platreef palladium-rhodium-platinum-nickel-copper-gold discovery in South Africa; and the extensive redevelopment and upgrading of the historic Kipushi zinc-copper-germanium-silver mine, also in the Democratic Republic of Congo.

Kamoakakula began producing copper concentrates in May 2021 and, through phased expansions, is positioned to become one of the world's largest copper producers. Kamoakakula is being powered by clean, renewable hydro-generated electricity and is projected to be among the world's lowest greenhouse gas emitters per unit of metal produced. Ivanhoe Mines has pledged to achieve net-zero operational greenhouse gas emissions (Scope 1 and 2) at the Kamoakakula Copper Mine. Ivanhoe also is exploring for new copper discoveries on its Western Foreland exploration licences in the Democratic Republic of Congo, near the Kamoakakula Project.

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### Forward-looking statements

Certain statements in this 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 by the use of 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 release.

Such statements include without limitation, (i) statements regarding hot commissioning of the Phase 2 concentrator is on track to begin in April 2022; (ii) statements regarding the first copper concentrate produced from the Phase 2 plant is expected approximately one week after ore is fed into the ball mills; (iii) statements regarding the 2022 production guidance for the Kamoakakula Copper Complex is between 290,000 to 340,000 tonnes of copper in concentrate; (iv) all statements regarding the Phase 3 expansion is expected to be commissioned in Q4 2024; (v) statements regarding an updated pre-feasibility study for the Kamoakakula Project, including the Phase 3 expansion, is expected in Q3 2022; (vi) statements regarding Kakula is projected to

be the world's highest-grade major copper mine, with an initial mining rate of 3.8 Mtpa at an estimated, average feed grade of more than 6.0% copper over the first five years of operations and 5.9% copper over the initial 10 years of operations; (vii) statements regarding Kamoakakula's Phase 1 is expected to produce approximately 200,000 tonnes of copper per year, and Phases 1 and 2 combined are forecast to produce up to 450,000 tonnes of copper per year; (viii) statements regarding based on independent benchmarking, the project's phased expansion scenario to 19 Mtpa would position Kamoakakula as the world's second largest copper mining complex, with peak annual copper production of more than 800,000 tonnes; and (ix) statements regarding Kamoakakula will be among the world's lowest greenhouse gas emitters per unit of copper produced.

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 or not such results will be achieved. A number of 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 below and under "Risk Factors", and elsewhere in this 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 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 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 release. The company's actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors set forth below in the "Risk Factors" section in the company's 2021 Q3 MD&A and its current annual information form.