

February 24, 2020

Ivanhoe Mines announces that more than 8 kilometres of underground development has been completed at the high-grade Kakula Mine, approximately 1.7 kilometres ahead of schedule

On pace for new monthly development record of more than 1.3 kilometres in February

Construction of the first phase, 3.8-million-tonne-per-annum, copper processing plant at the Kakula Mine is rapidly advancing and remains on track for initial production in Q3 2021

First loads of equipment for Kakula's processing plant delivered

KOLWEZI, DEMOCRATIC REPUBLIC OF CONGO – Ivanhoe Mines (TSX: IVN; OTCQX:IVPAF) Co-Chairs Robert Friedland and Yufeng “Miles” Sun announced today that underground development at the Kakula Copper Mine continues to advance ahead of schedule and that more than eight kilometres of underground development now is completed, which is 1.7 kilometres ahead of plan. This month, the mining team is on pace to set a new monthly development record of 1,310 metres of advancement – 380 metres ahead of plan for the month.

The underground development work at Kakula is being performed by mining crews operating large-capacity, semi-autonomous mining equipment, such as jumbo drilling rigs and 50-tonne trucks.

Mine access drives 1 and 2 – interconnected, parallel tunnels being developed from Kakula's main northern declines that will provide access to Kakula's high-grade ore zones – continue to make excellent progress. The two south perimeter drives – being developed from Kakula southern decline – also are progressing ahead of schedule and have each been advanced more than 250 metres from the bottom of the decline.

The development ore is being transported to surface and stored on pre-production stockpiles, which are expected to grow to approximately 1.5 million tonnes of high-grade ore and an additional 700,000 tonnes of material grading approximately 1% to 3% copper prior to the start of initial production in Q3 2021.

Based on the results of the February 2019 Kakula pre-feasibility study, Kakula's average feed grade over the first five years of operations is projected to be 6.8% copper, and 5.5% copper on average over a 25-year mine life.

In parallel with the construction of Kamo-Kakula's phase 1 Kakula Mine, work is progressing on the independent Kakula definitive feasibility study (DFS) and an updated Integrated Development Plan for the entire Kamo-Kakula mining complex, which is expected to be issued in mid-2020. The Kakula DFS will provide an increased level of accuracy for the project economics for the initial phase of mine development at Kakula. The Integrated Development Plan will include details on the planned expansion phases for the greater Kamo-Kakula mining complex, incorporating updates for mineral resources, production rates and economic analysis.

Wide-angle, aerial view of Kakula's main declines (centre), ore stockpiles (right), Kakula workshops under construction (left) and the first phase of accommodations for 1,000 employees and contractors (upper centre).



Watch a birds-eye drone video of the surface construction progress at the Kakula Mine here: <https://player.vimeo.com/video/387492590>

A few of the new housing units constructed at the Kakula Village, part of the first phase of accommodations for 1,000 employees and contractors.



Mine engineers at the underground ore transfer station at the Kakula Mine, which is expected to be fully operational in April.



High-volume ducts delivering fresh air to Kakula's underground workings through the 5.5-metre diameter Vent Shaft #1, allowing for an increase in the number of mine development crews.



Frans Van Tonder, Supervisor (left), with Hope Kabambi, Operator (right), at Kakula's state-of-the-art operations control room.



Construction progress on the processing plant and other surface infrastructure remains on track for initial production in Q3 2021

Kakula's original 3.0 million-tonne-per-annum (Mtpa) first processing plant module has already been redesigned during the basic engineering phase to a nameplate capacity of 3.8 Mtpa. Purchase orders have been placed for all major long-lead time mechanical equipment, plant earthworks is complete, and plant civil works are advancing rapidly. The contract for the SMPP (structural, mechanical, piping and platework) supply and erection portion of the plant construction has been awarded and steel fabrication is underway. The capital cost estimate related to the construction of the mining infrastructure (underground and surface), processing plant and surface infrastructure has been estimated to a basic engineering level of accuracy and is being used as the control budget estimate for the project.

The first oversized loads of equipment for Kakula's initial 3.8 Mtpa processing plant module being transported from Kolwezi to Kamo-Kakula on the newly constructed road. The equipment, which has been delivered to site, is two low-entrainment flotation cells (Jameson cells) that will be used as cleaner cells to produce a final copper concentrate, before thickening and filtration. This is the first of at least 25 oversized loads of equipment that are scheduled to be delivered to Kamo-Kakula in the coming months.





The current updated estimate of the project's initial capital costs is approximately US\$1.3 billion as of January 1, 2019, which assumes commissioning of the first processing plant module in Q3 2021 and includes expanded plant capacity and pre-production ore stockpiles.

Other engineering and construction activities underway at Kamoia-Kakula include the refurbishment of six turbines at the Mwadingusha hydro-electric power plant and associated 220-kilovolt infrastructure to supply the mine with clean hydro-power, finishing construction of a permanent road between the mine site and the Kolwezi airport, construction of the first phase of accommodations for 1,000 employees and contractors, and other surface infrastructure.

More than 4,400 employees and contractors currently are helping to construct the new Kakula Mine, of which approximately 90% are Congolese nationals

“We’re not just investing in a new mine, roads, hydro-power plants, power lines and other important infrastructure, we’re investing in good-paying jobs and new opportunities for people who live in the DRC. And with our focus on skills training and apprenticeships for young Congolese, we’re helping build the DRC’s next generation of skilled tradespeople,” said Mark Farren, Chief Executive Officer, Kamoia Copper SA.

Excellent progress is being made on the high-volume conveyor system that will transport broken ore from underground to the surface processing plant. The conveyor system is expected to be fully operational in April 2020.



Approximately 90% of Kamoakakula employees and contractors are Congolese nationals. A training program is in place to increase the number of local employees in management positions.



As part of Kamoakakula's extensive training program, apprentice miners learn to operate Kakula's fully-automated double-boom jumbo drills on a computerized simulator in the Project's new training centre.



Kamoakakula focused on producing “green copper”

Together with its joint-venture partners, Ivanhoe is committed to building modern, safe, mechanized mines that will be showcases for responsible, “green” mine development.

“These vast Kamoakakula discoveries are the type of world-scale mineral systems needed to supply the copper for the electrification of the global economy, to usher in the era of the electric car, and the electric everything, in order to reduce our planet’s consumption of hydrocarbons,” Mr. Friedland said.

“In a world deeply concerned with the unabated generation of global warming gases throughout the supply chain, many people of influence in the world’s financial community are becoming aware of the undeniable fact that Copper is the Greenest of the green metals,” he added. “Given the challenges of global environmental priorities, and the trend of urbanization that emerging economies throughout Africa share with many nations, copper is definitely the most important metal of our time.”

Kamoa-Kakula is unique as it combines ultra-high copper grades in thick, shallow and relatively flat-lying deposits — allowing for large-scale, highly-productive, mechanized underground mining operation. The ultra-high copper grades and underground mines mean that Kamoa-Kakula will have a small surface footprint and will use a fraction of the power, water and consumables — and produce far less tailings — than any comparable large, low-grade, open-pit porphyry copper mine currently in operation elsewhere in the world.

Ivanhoe Mines is committed to tailings management that meets or exceeds global best practices for safety during all phases of the mine lifecycle. For example, approximately 55% of the Kakula's tailings will be mixed with cement and pumped back underground to fill voids and help support the underground mine. The remaining 45% of the tailings will be pumped to a tailings storage facility.

Clean, sustainable hydro-electric power for Kamoa-Kakula

Ivanhoe also is committed to powering its mines with clean, sustainable hydro-electricity. Ongoing upgrading work at the Mwadingusha hydro-power plant in the DRC has significantly progressed with major equipment being delivered to site. The progressive re-commissioning of the turbines, fully refurbished and modernized with state-of-the-art control and instrumentation, is underway and is expected to be completed in Q3 2020. The refurbished plant is projected to deliver approximately 72 megawatts (MW) of power to the national power grid.

The work at Mwadingusha is being conducted by engineering firm Stucky of Lausanne, Switzerland, under the direction of Ivanhoe Mines and Zijin Mining, in conjunction with the DRC's state-owned power company, La Société Nationale d'Electricité (SNEL).

“Hydropower, with its virtues of being clean and renewable, is the best energy solution to support our development priorities as we continue to look for ways to reduce our impact on the environment and produce the copper our world requires,” added Mr. Friedland.

Aerial view of the Mwadingusha hydro-power dam in the DRC that Ivanhoe and Zijin are upgrading in a private-public partnership venture with the DRC's state-owned power company, La Société Nationale d'Electricité, to provide long-term, environmentally-friendly electricity for the Kamo-a-Kakula Mine and the Congolese people.



Aerial view of the new gas insulated substation (GIS) high-voltage substation at the Mwadingusha hydro-power plant. The upgrading program is restoring the plant to its installed output capacity of approximately 72 megawatts of clean, sustainable electricity.



Mine development options at Kamoa North being considered

Earlier this month, Ivanhoe issued an updated independently verified Indicated Mineral Resource that increased the combined Kamoa-Kakula Project Indicated Mineral Resource to **423 million tonnes grading 4.68% copper**, at a 3% cut-off. At a lower cut-off of 1%, the combined Kamoa-Kakula Project Indicated Mineral Resource now stands at **1.4 billion tonnes grading 2.7% copper**.

The entire Kamoa Deposit was updated in the new Mineral Resource estimate. The majority of recent drilling, however, targeted the ultra-high-grade Bonanza Zone at Kamoa North, and an approximated north-south corridor of elevated copper grades in the far north of the mining licence area (the Far North Zone).

The new Kamoa Mineral Resource estimate covers approximately 600 metres of strike length in the deeper western portions of the Bonanza Zone (west of the West Scarp Fault), and 1,500 metres of strike length in the shallower eastern portions of the Bonanza Zone, defined by drill sections spaced 50 metres apart on strike in the central section, and 100 metres apart on strike elsewhere.

The new resource estimate includes the initial Indicated Mineral Resource estimate for the Kamoa North Bonanza Zone, which includes **1.5 million tonnes grading 10.7% copper**, at a 5% cut-off. The Bonanza Zone combined with the Kamoa Far North Zone provide an Indicated Mineral Resource of **12 million tonnes at a copper grade of 4.65%**, at a 3% cut-off.

Given the shallow depth, remarkable thickness and massive copper sulphide mineralization discovered within the Kamoa North Bonanza Zone, Kamoa-Kakula's engineers are evaluating potential options to accelerate the development of this new discovery.

Geotechnical and hydrogeological drilling to provide support for future mining studies has been completed and mine planning is underway. A number of metallurgical composites also have been generated for existing coarse reject material that will be used for flotation test work.

Drilling continues to target additional resources in the vicinity of the ultra-high-grade Bonanza Zone and the Far North Zone. Several geophysical studies such as ground gravity, ground magnetics and airborne have been conducted in the Kamoa North area to better understand the controls of the ultra-high-grade mineralization and assist in locating additional targets.

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 DRC government (20%).

Qualified Persons

Disclosures of a scientific or technical nature regarding the revised capital expenditure and development scenarios at the Kamo-a-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 the Head of the Kamo-a Project. Mr. Amos has verified the technical data disclosed in this news release.

Other disclosures of a scientific or technical nature in this news release have been reviewed and approved by Stephen Torr, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of NI 43-101. Mr. Torr is not considered independent under NI 43-101 as he is the Vice President, Project Geology and Evaluation. Mr. Torr has verified the other technical data disclosed in this news release.

Ivanhoe has prepared a current, independent, NI 43-101-compliant technical report for the Kamo-a-Kakula Project, which is available under the company's SEDAR profile at www.sedar.com:

- The Kamo-a-Kakula Integrated Development Plan 2019 dated March 18, 2019, prepared by OreWin Pty Ltd., Amec Foster Wheeler E&C Services Inc. (a division of Wood PLC), SRK Consulting Inc., KGHM Cuprum R&D Centre Ltd., Stantec Consulting International LLC, DRA Global, Golders Associates, and Epoch Resources (Pty) Ltd.

The technical report include relevant information regarding the assumptions, parameters and methods of the mineral resource estimates on the Kamo-a-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.

Information contacts

Investors: Bill Trenaman +1.604.331.9834 / Media: Matthew Keevil +1.604. 558.1034

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, the timing and results of: (i) statements regarding that this month, the mining team is on pace to set a new monthly development record of more than 1,300 metres of advancement; (ii) statements regarding the Kakula Mine remains on track for initial production in Q3 2021; (iii) statements regarding pre-production stockpiles, which are expected to grow to approximately 1.5 million tonnes of high-grade ore and an additional 700,000 tonnes of material grading approximately 1% to 3% copper prior to the start of initial production in Q3 2021; (iv) statements regarding Kakula's average feed grade over the first five years of operations is projected to be 6.8% copper, and 5.5% copper on average over a 25-year mine life; (v) statements regarding expectations that the independent Kakula definitive feasibility study (DFS) and an updated Integrated Development Plan for the entire Kamoakakula mining complex is to be issued in mid-2020; (vi) statements regarding construction on the processing plant and other surface infrastructure remains on track for initial production in Q3 2021; and (vii) statements regarding the upgrading work at the Mwadingusha hydro-power plant is expected to be completed in Q3 2020 and that the refurbished plant is projected to deliver approximately 72 MW of power to the national power grid.

As well, all of the results of the pre-feasibility study for the Kakula copper mine and the updated and expanded Kamoakakula Project preliminary economic assessment 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 projects. Furthermore, with respect to this specific forward-looking information concerning the development of the Kamoakakula 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 develop adequate processing capacity; (v) the price of copper; (vi) the availability of equipment and facilities necessary to complete development; (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) the 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 such projects; (xiv) changes in project scope or design, and (xv) political factors.

This release also contains references to estimates of Mineral Resources. The estimation of Mineral Resources is inherently uncertain and involves subjective judgments about many relevant factors. Estimates of Mineral Reserves provide more certainty but still involve similar subjective judgments. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation (including estimated future production from the company's projects, the anticipated tonnages and grades that will be mined and the estimated level of recovery that will be realized), which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that ultimately may prove to be inaccurate. Mineral Resource or Mineral Reserve estimates may have to be re-estimated based on: (i) fluctuations in copper prices; (ii) results of drilling; (iii) metallurgical testing and other studies; (iv) proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates and/or changes in mine plans; (vi) the possible failure to receive required permits, approvals and licences; and (vii) changes in law or regulation.

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 Q3 2019 MD&A and its annual information form.