

# September 2022 PROGRESS GALLERY **Building A Tier One, Diversified Producer**



Civil construction work continues at the Kamoa-Kakula processing plant as the scavenger platform is hoisted into place. The flotation scavenger cleaner is a key component of Kamoa-Kakula's de-bottlenecking expansion program. Expanding production from the world's highest-grade, major copper mine; building the next great PGM and zinc mines and exploring for the next copper giant in Southern Africa's legendary mineral fields.

## **WESTERN FORELAND**

Outstanding copper exploration potential adjacent to Kamoa-Kakula

Democratic Republic of Congo's Central African Copperbelt

# **PLATREEF**

First production expected in 2024 at the world's largest precious metals development

South Africa's Bushveld Complex

#### KAMOA-KAKULA

Expanding production at world's highest-grade major copper mine

Democratic Republic of Congo's Central African Copperbelt

## **KIPUSHI**

Development underway at ultrahigh-grade zinc, copper, silver and germanium mine

Democratic Republic of Congo's Central African Copperbelt

# KAMOA-KAKULA, DRC

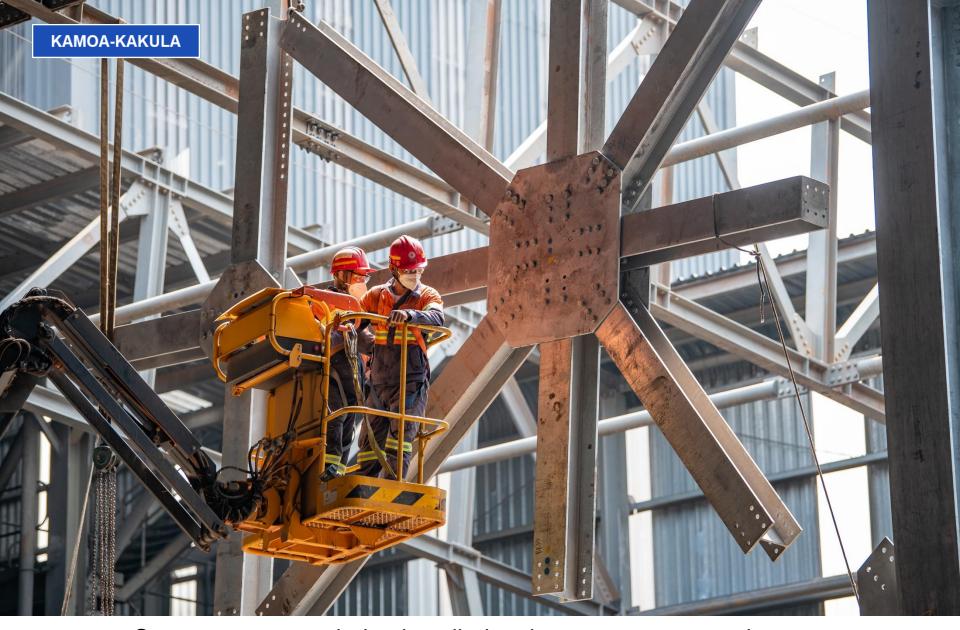


Platework installation for the additional concentrate thickener is nearing completion (red arrow). This is another part of Kamoa-Kakula's de-bottlenecking program to boost Phase 1 and Phase 2 copper production to approx. 450,000 tonnes per year by Q2 2023.





Two additional tailings lines (yellow) for the debottlenecking program, which is progressing to schedule for Q2 2023. The de-bottlenecking program will boost ore throughput for Kamoa-Kakula's first two phases to approx. 9.2 million tonnes per annum.



Support structures being installed at the concentrate warehouse for Kamoa-Kakula's fourth Larox filter by contractor KKCC. (L-R) riggers Wai Da Min and Chan Ha.



In early September, Zijin Mining Vice President, Mr. Lin Hongfu, toured the Kamoa-Kakula Mining Complex. Kamoa-Kakula is a joint venture between Ivanhoe Mines, Zijin Mining, both holding 39.6%, Crystal River Global Ltd. (0.8%) and the DRC government (20%).



High Pressure Grinding Roll (HPGR) stockpile in the foreground and run-of-mine (ROM) stockpile in the background.



Earthworks and significant advancement in the construction of retaining walls for Kamoa-Kakula's Phase 3, 500,000-tonne-per-annum, direct-to-blister flash smelter.





Slope protection work at the site of the new direct-to-blister flash smelter. The smelter will be commissioned by the end of Q4 2024 and will be the largest copper flash smelter in Africa.



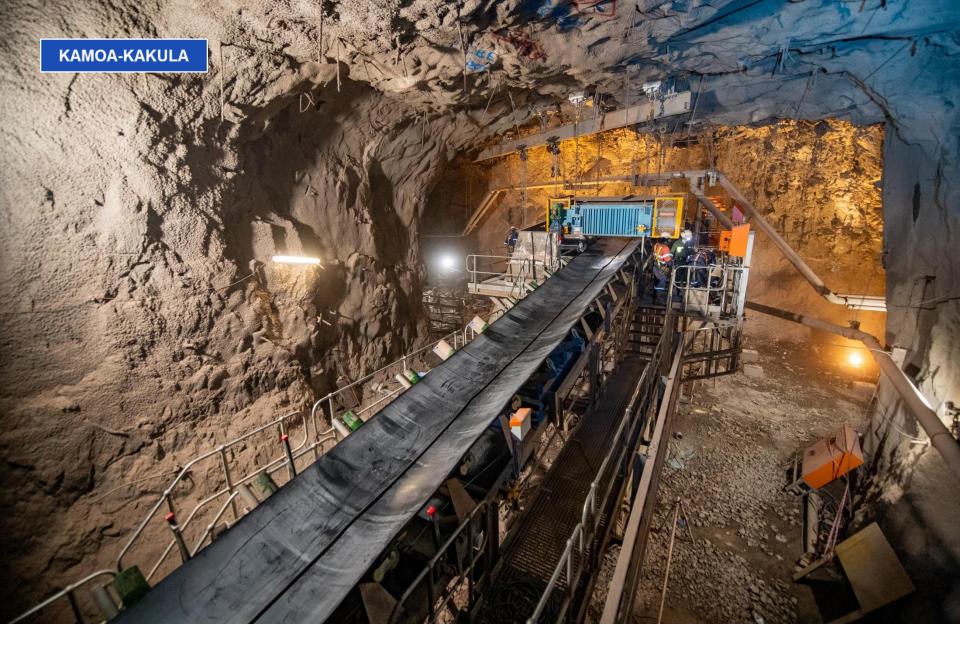
Abraham Li, Director and General Manager (left) explaining construction methodology of the eastern conveyor at Kakula underground.



Pictured is the construction of the storm water flow speed reduction structure for the box cut sump at the Kamoa decline ramp.



Aerial view of the Kamoa 1 and 2 box cut (which now is complete) and decline ramp. Production from Phase 3 is expected to boost annualized copper production to approximately 600,000 tonnes by the end of 2024.



Conveyor capacity expansion continues underground at Kakula.



New safety gear and equipment for rapid vehicle intervention and hazardous materials is presented by (L-R) Sean Wienand, Greg Hillen, Ray Ellis, Anita Ngxumza, Harxel Ngongo.





Surface construction crews at work on Kamoa-Kakula's tailings dam expansion.



Surface construction work continues at the direct-to-blister smelter site where the installation of rebar for acid tanks advances on schedule.



The Kamoa team paid a visit to Kolwezi high school this month to encourage students to apply for the full bursary program offered by the Kamoa Centre of Excellence. The program commences in September 2023.<sup>17</sup>



The Minister of Education, Kantenga Kapenda Alain, opened the Musoka Early Child Development School. Approximately 80 children from nearby communities will attend the school that was constructed as an education initiative by Kamoa Copper.



Construction activities at Shaft 2 are proceeding well, with preparations for the shaft sinking stage and raise boring underway.



Platreef crews lower and secure the Shaft 2 sling. The shaft will have the capacity to hoist up to six million tonnes per year of ore and waste rock. Shaft 2 is expected to be commissioned by 2027.



Aerial view of the Platreef mine site. In the foreground, earthworks for a 700,000 tonnes per annum concentrator plant continue on schedule.



Delivery of the underground electric fleet continues. Thabo Madimala (rigger) left and Lesiba Monama (onsetter assistant) discuss the slinging of the first battery electric M2C Boomer drill rig down to the 750 level.



The Manitou underground fleet of electric vehicles are hoisted by crane and lowered down Shaft 1, which will also be Platreef's initial production shaft.



Weekly mining development team safety huddle and toolbox meeting at the 950 level.



Mine development advances with the battery electric, zeroemissions fleet of vehicles. Platreef is the world's largest precious metals deposit under development and has substantial quantities of nickel and copper.



The *Keep A Girl Child in School* program was the idea of Maropeng Ramoshaba, Project Manager, Social and Legal Compliance at Platreef. The initiative provides young girls with necessary heath and sanitary supplies, so they don't regularly miss school. The donations collected supported over 600 girls at six community schools.



Ivanplats celebrated Arbor Month in September, an initiative promoted by the Department of Forestry, Fisheries and Environment. Over 90 children from Ga-Magongoa Village participated by planting trees in the local community.



Kipushi employee Bamanya Samuel Bielanshi (winding engine driver), at the winder control desk which transports up to 30 people in the shaft cage from surface to the 1150-level underground.



Surface crew work to bring the historic Kipushi zinc-copper-germanium-silver mine back into operation. Kipushi is expected to be among the world's largest zinc producers with the footprint of a much smaller mine.



Mining at Kipushi will be performed using highly productive, mechanized methods and cemented rock fill will be utilized to fill open stopes. Material generated underground will be trucked to the base of the P5 shaft, crushed and hoisted to surface.



The Kipushi 2022 Feasibility Study evaluates the development of an 800,000-tonne-per-annum underground mine and concentrator, with a mine life of approx.14 years.