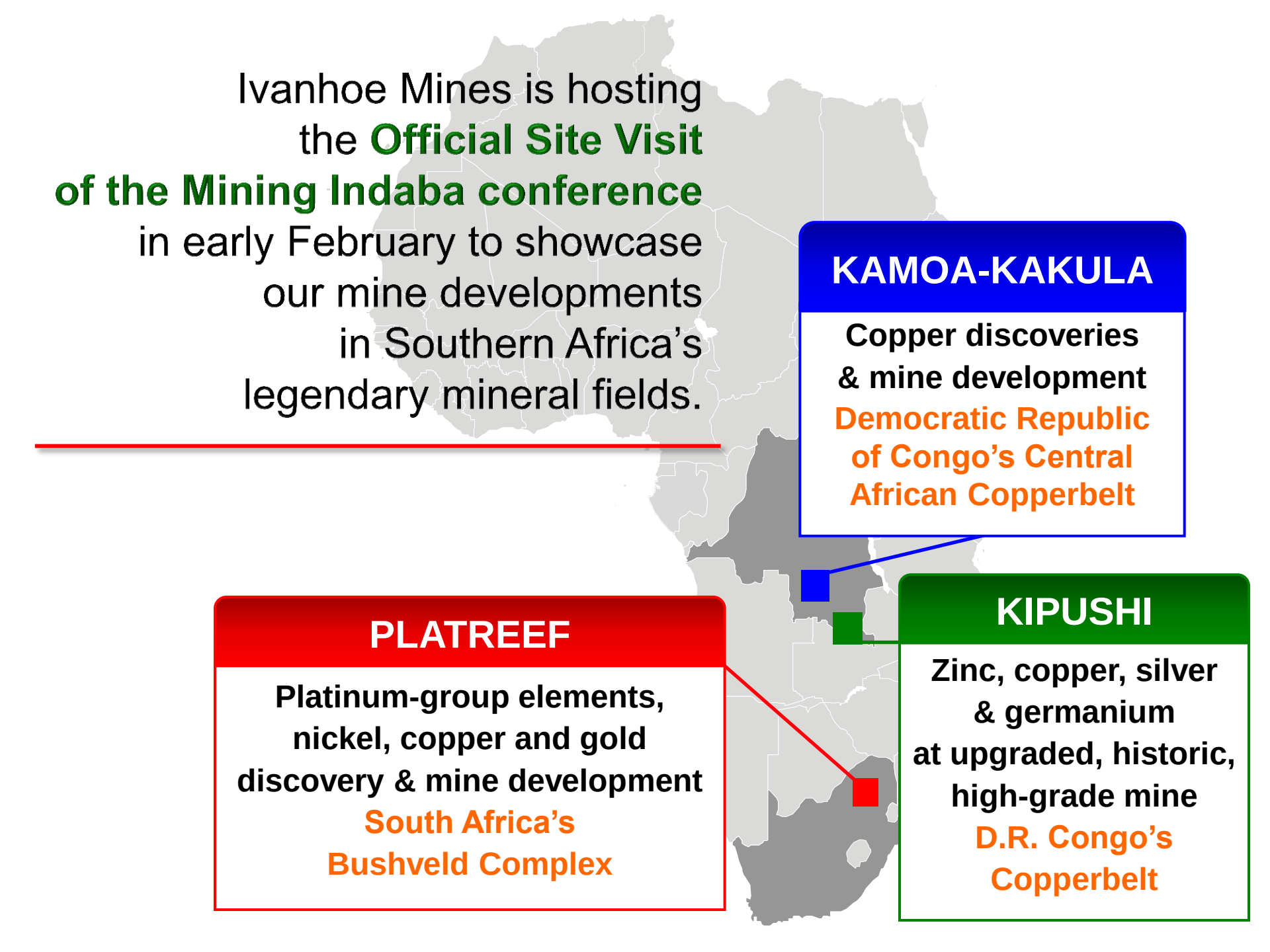
Triggering the first blast to start Kakula Mine's twin declines

November 23, 2017. Ignition of the detonating cord for the first blast marked the start of development of the twin declines to access the ultra-high-grade Kakula Copper Discovery on the Tier One Kamoa-Kakula Copper Project in the Democratic Republic of Congo.

Ivanhoe Mines is hosting
the **Official Site Visit**
of the Mining Indaba conference
in early February to showcase
our mine developments
in Southern Africa's
legendary mineral fields.



KAMOA-KAKULA

Copper discoveries
& mine development
Democratic Republic
of Congo's Central
African Copperbelt

KIPUSHI

Zinc, copper, silver
& germanium
at upgraded, historic,
high-grade mine
D.R. Congo's
Copperbelt

PLATREEF

Platinum-group elements,
nickel, copper and gold
discovery & mine development
South Africa's
Bushveld Complex

Kamoa-Kakula

Left. Ivanhoe's Kamoa-Kakula team members received the **Outstanding Project Award** in a recent ceremony at Zijin Mining's 5th Scientific and Technological Conference in China. Shown (from left) are Steve Amos, Head of Projects, DRC; Jess Harding, Vice President, Strategic Development; Mark Farren, Executive Vice President, Operations; Chairman Chen, Zijin Mining; Didier Masengo, Project Geologist; Zhilin (Abraham) Li, Deputy GM, Kamoa Copper SA; and Qixue (George) Fang, Executive Director, Zijin Mining.

Right. Project Geologist Didier Masengo accepted the ***Outstanding Individual Award*** on behalf of Geology Manager David Edwards, who could not attend the ceremony.

Kamoa-Kakula, DRC

David Edwards (left), Geology Manager of the Kamoa Copper Project, received Zijin Mining's 2017 ***Outstanding Individual Award*** in recognition for his work that led to the Kakula Discovery.

He was congratulated by Zijin's Chairman Chen (right) in a subsequent meeting at the project site.

Zijin and Ivanhoe Mines each hold an indirect 39.6% interest in the Kamoa-Kakula discovery and mine development project.

Kamoa-Kakula – Kakula Mine

Loading explosives into the wall at the Kakula box cut in preparation for the first blast at the twin declines.

Kamoa-Kakula – Kakula Mine

After the blast, support holes were drilled at the entrance to the Kakula service decline.

Kamoa-Kakula – Kakula Mine

Construction of the twin declines now is well underway to provide access to the Kakula Discovery's high-grade copper.

Kamoa-Kakula

Newly constructed road from Kakula to the Kakula West discovery area passes the site of drill hole DD1286.

Kamoa-Kakula

Construction of a new shed to store Kakula drill core at the Kamoa camp.

Kamoa-Kakula

Chalcocite-rich, bedded siltstone core from hole DD1289.

Chalcocite is opaque, dark-grey to black, and contains 80% copper by weight.

Kamoa-Kakula

Core-log training at the Kamoa camp.

More than 100,000 metres have been drilled at the Kamoa-Kakula discoveries.

Kamoa-Kakula

Maintenance of one of the load-haul-dump (LHD) underground mining vehicles used to remove blasted rock from the twin declines under development at the Kakula Discovery.

Kamoa-Kakula – Kansoko Mine

Progress inspection at the face of the Kansoko Mine's high-grade, chalcopyrite ore.

Platreef, South Africa

View down Shaft 1 to the sinking stage, an adjustable work platform suspended on steel cables.

Shaft 1 has reached a depth of more than 556 metres below surface, more than half way to the planned final depth of 980 metres.

Platreef

Ivanhoe's new generation of miners…

Platreef's engineers preparing to go underground at Shaft 1.

Shaft 1 will provide initial access to the Flatreef Deposit and enable initial underground development. The shaft is scheduled to intersect the top of the Flatreef Deposit, at a depth of 783 metres, in the third quarter of 2018.

Click here to watch a short video on Ivanhoe's Platreef Project.

Shaft 1’s first station at a depth of 450 metres below surface.

As shaft sinking advances, an additional three shaft stations will be developed at depths of 750 metres, 850 metres and 950 metres.

Members of the Shaft 1 sinking team being lowered underground for ongoing mine-development work.

Workers installing steel strapping and wire mesh to exposed walls in Shaft 1 as a safety measure to prevent loose rocks from falling during sinking activities.

Jeanine Ceronio, Winding Operator, operating the hoist (winder) used to move people and equipment in and out of Shaft 1.

Live images of underground shaft-sinking personnel are transmitted to surface via a closed-circuit TV system and displayed on a large screen directly in front of the operator.

Platreef

Muck-clearing operations during a cleaning cycle in ongoing sinking work at Shaft 1.

Platreef

Sinah Tjale, a Health and Safety Representative at the Platreef Project, conducts a pre-shift safety meeting with members of the shaft-sinking team.

Employees from local communities, who had no previous mining experience, now comprise about 40% of Platreef's shaft-sinking team. New employees receive intensive, on-site training for underground mining and complete a workplace-safety induction program.

Kipushi, DRC

Machining a new motor shaft at Kipushi’s extensive workshop as part of the ongoing upgrading at the historic, high-grade zinc-copper-silver-germanium mine in the DRC’s Copperbelt.

Kipushi

Logging drill core from the recently completed underground diamond drilling program at the Kipushi Project.

Kipushi

Examination of high-grade copper-zinc drill core from underground drilling at Kipushi using an XRF mineral analyzer.

Kipushi

Pipes and stands being upgraded at the main pump station on the 1,200-metre level.

Kipushi

New idlers being installed on the ore conveyor belt as part of Kipushi’s upgrading.

Kipushi

Repairing a floating spring on the main rock-winder gearbox, a mechanical component of the hoisting winder at Kipushi’s Shaft 5.

Kipushi

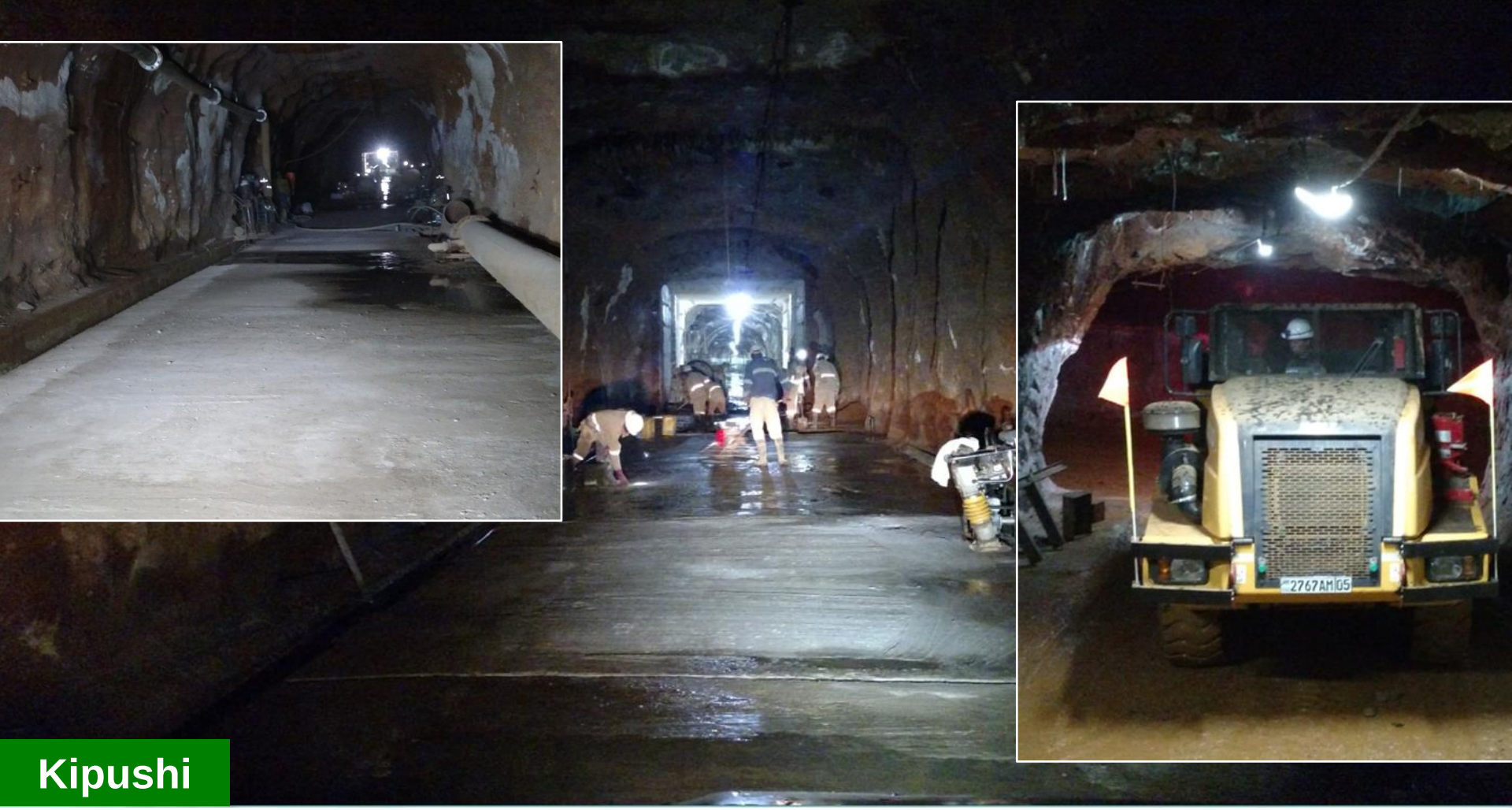
A 30-tonne crane, being upgraded with a new hoist drum and gearbox, will be used to install the new rock crusher at the 1,150-metre level.

Kipushi

New Vogel water pump being installed at Kipushi's potable-water pump station, which provides drinking water to the residents of the town of Kipushi, as part of Ivanhoe's community-support initiatives.

Kipushi

A construction crew from Lubumbashi-based contracting company, Building Enterprise Congo (Benco), prior to beginning work on a new auditorium at the Kipushi Mine. The multi-purpose, theatre-style auditorium is part of Ivanhoe's improvements to Kipushi's surface infrastructure, while underground upgrading is nearing completion.



Kipushi

New concrete haulage roadway being finished on the 1,150-metre level of Kipushi's underground mine.

Inset, right: Drivers now are being trained to operate trucks underground that will haul ore from the Big Zinc Deposit to the conveyor belt.