

IVANHOE MINES

NEW HORIZONS

- **Over 20** years in Southern Africa.
- **3** advanced, unique projects.
- Positioned to realize urbanization's resource opportunities with minerals to help build a better world.



Platreef discovery & mine development

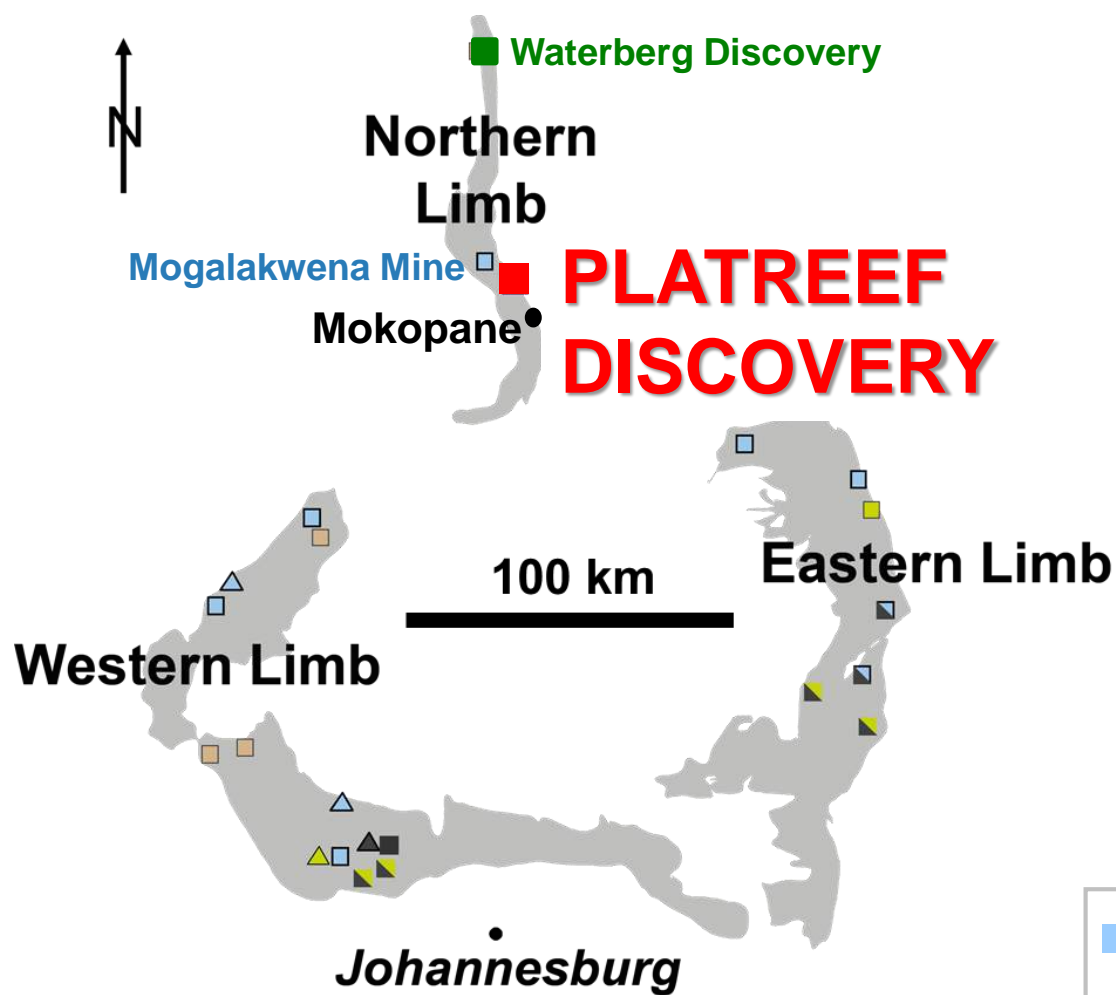
South Africa

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The Bushveld Complex produces ~70% of global platinum

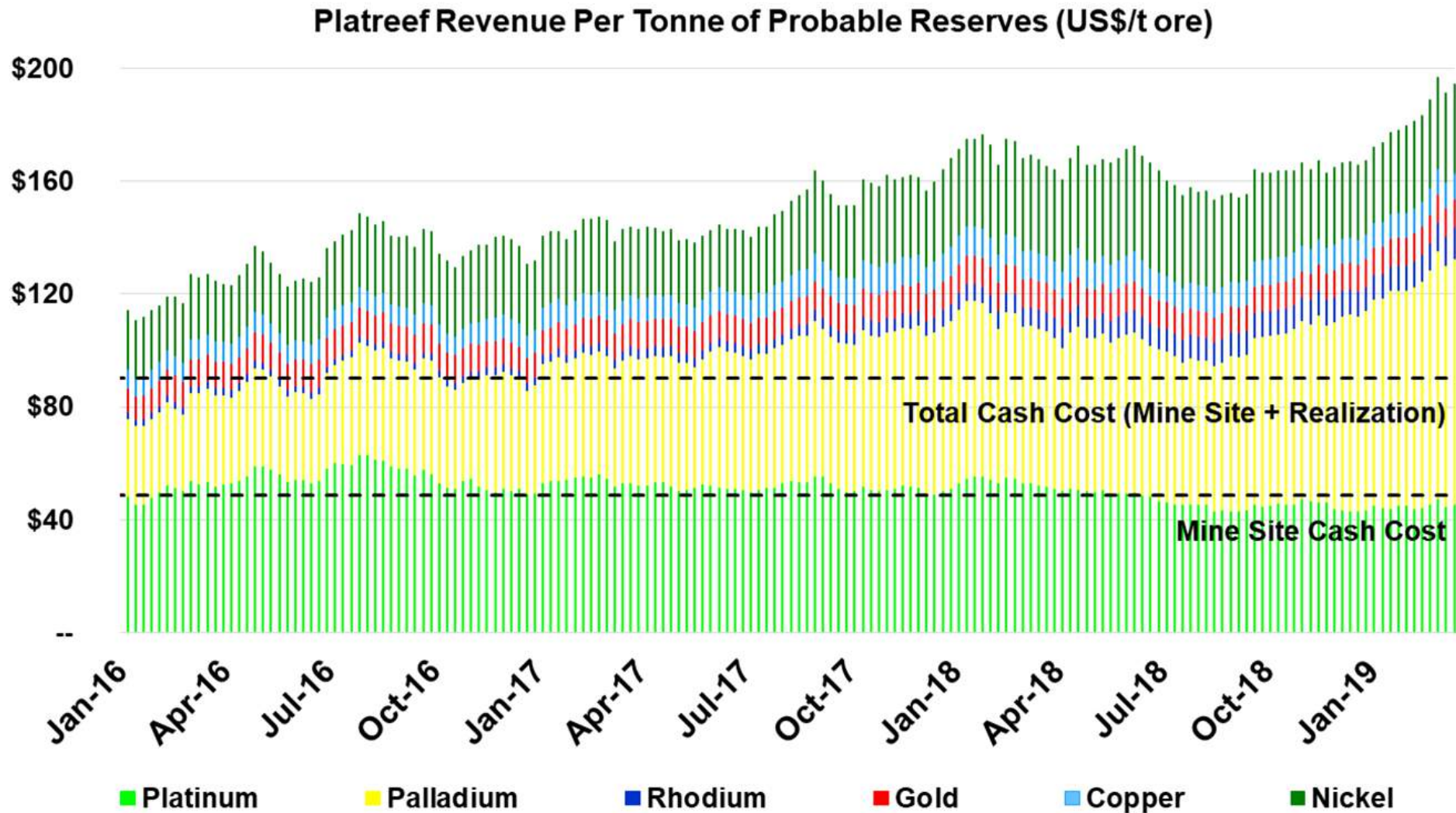
PLATREEF



“The opening up of the Northern Limb may be the most significant change in the economics of any commodity since the introduction of bulk mining techniques of the USA’s copper porphyries in the 1920s.”

- | | | |
|---|---|--|
| ■ Amplats | ■ Impala | ■ PTM |
| ■ Lonmin | ■ Other | |
| ● Town / City | ▲ Smelter / refinery | |

Revenue per tonne of ore at the Platreef Project has risen steadily since 2016



Source: Bloomberg. Based on historical weekly commodity prices at the end of each week.

750-metre and 850-metre stations on Shaft 1 will provide underground access to the high-grade Flatreef orebody



Platreef's underground mine development team includes three members from local communities (from left): Nkone Madubana, Learner Sinkers; Katlego Nkwana, Learner Sinkers; and Caroline Dzivhani, Geologist – who recently became fully certified underground miners



Platreef's Shaft 2 box cut, with Shaft 1 headframe in the background

PLATREEF



Platreef's Shaft 2 box cut, with the 11.5-metre shaft ring set-up for the 10-metre internal diameter shaft.

PLATREEF



December 2018: Ivanhoe Mines secured long-term supply of treated bulk water to process ore



Agreement provides a minimum of five million litres of treated water a day for 32 years, beginning in 2022, from the town of Mokopane's new Masodi Treatment Works.

Recycling of local, treated water is part of a sustainable approach to minimize Platreef's environmental footprint.

Agreement signing attended by (from left) Ivanplats Managing Director Dr. Patricia Makheshu (standing); Ivanhoe CFO Marna Cloete (seated); Municipal Technical Director William Nkuna; Acting Municipal Manager Marcus Mthombeni; and Mogalakwena Mayor Andrina Matsemela.

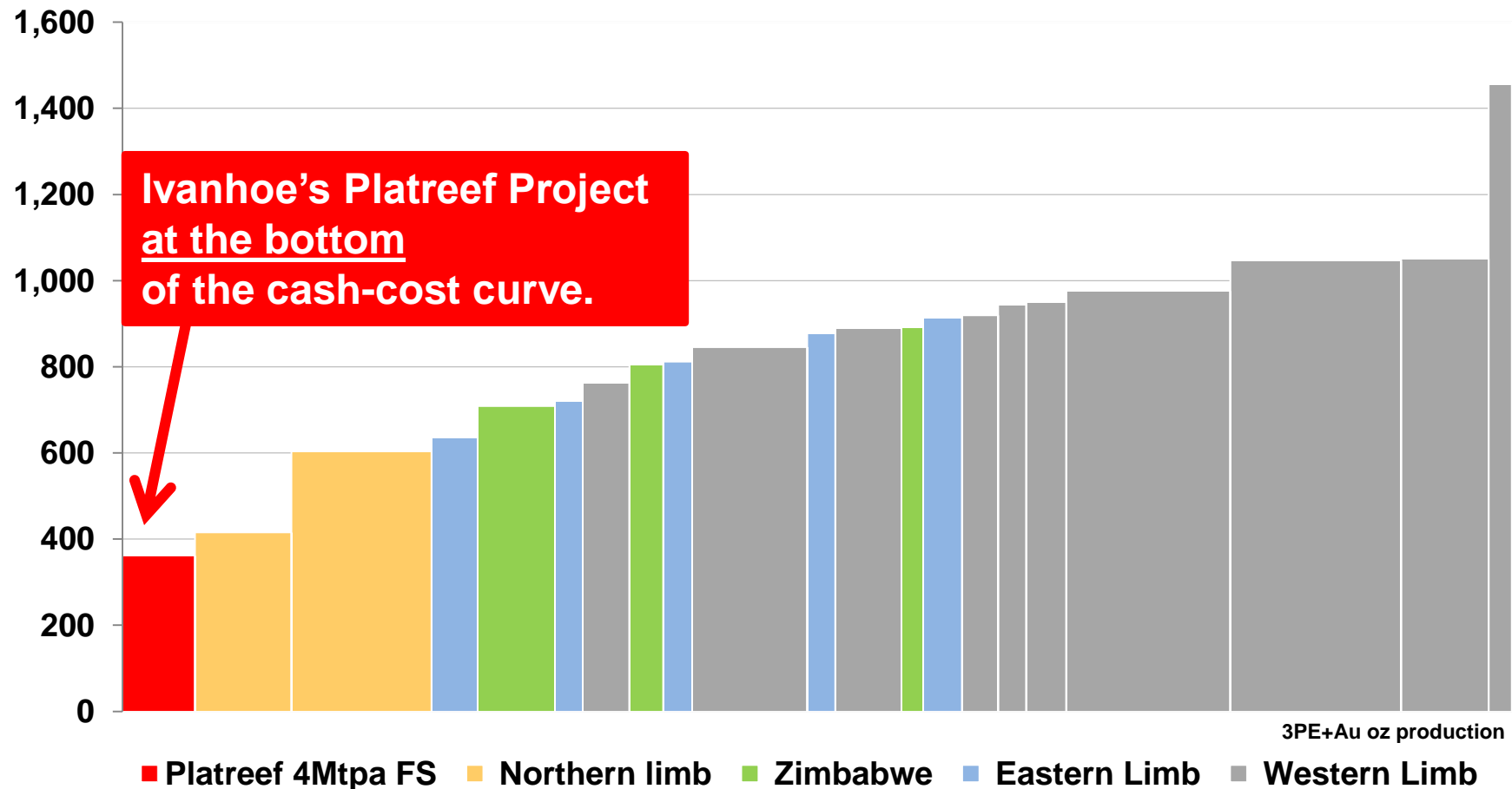
July 31, 2017: Definitive feasibility study issued for Platreef Project

- First phase envisages annual throughput rate of four million tonnes of ore per year, producing 476,000 ounces of platinum, palladium, rhodium and gold (3PE+Au), plus 33 million pounds of nickel and copper.
- Projected to be Africa's lowest-cost producer of 3PE+Au, with a cash cost of US\$351 per ounce of 3PE+Au.



Platreef's potential US\$351 per 3PE+Au ounce (net of base-metal by-products) at the bottom of the world's cash-cost curve

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Source: SFA (Oxford). Data for Platreef Project and Waterberg are based on each project's reported DFS and PFS parameters respectively, and are not representative of SFA's view.

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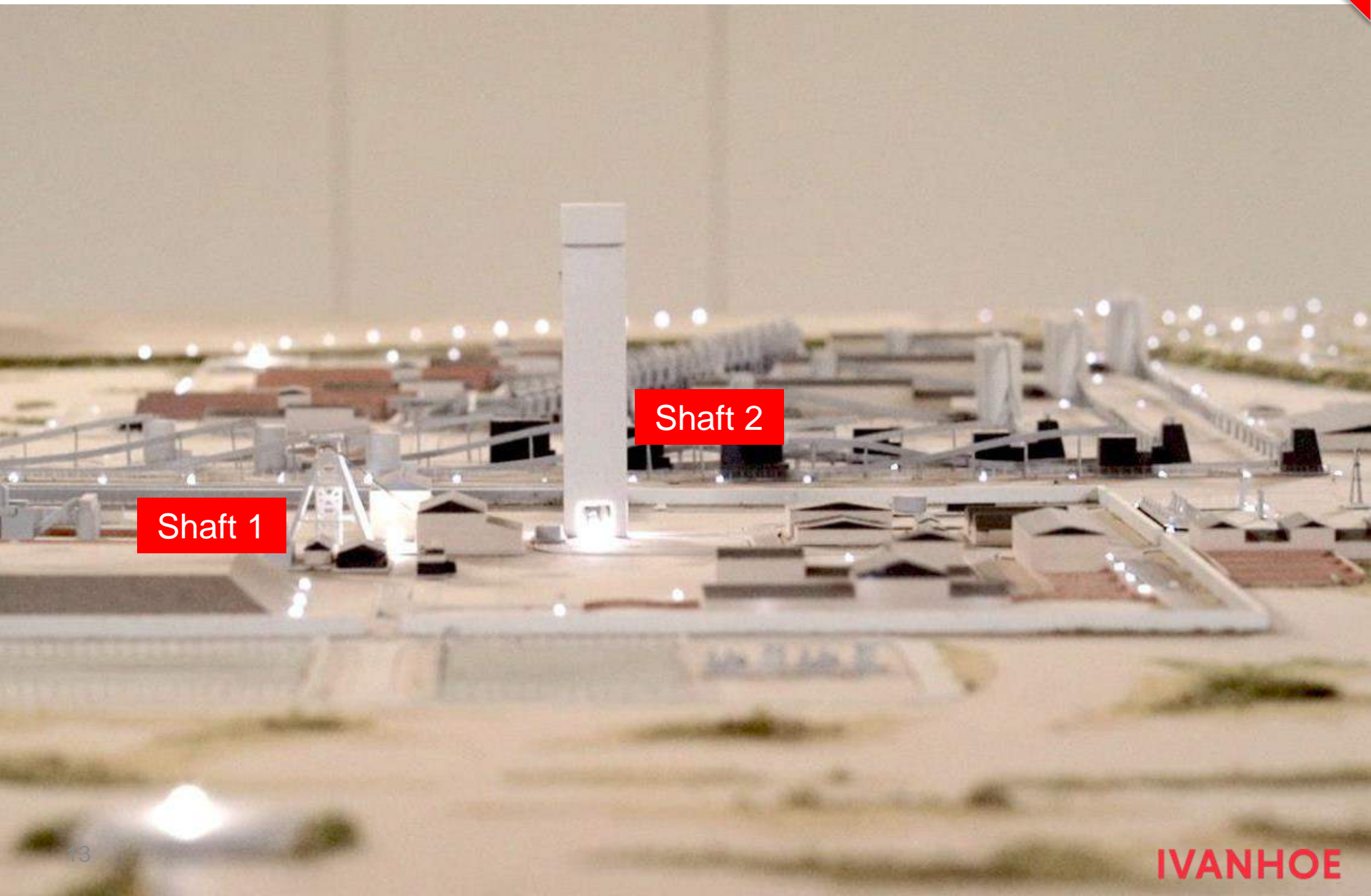
PLATREEF SHAFT 2

LARGEST HOISTING CAPACITY PRODUCTION SHAFT IN THE PRECIOUS METALS INDUSTRY

Illustration shows two cut-away perspectives of Shaft 2's 103-metre-tall concrete headframe and internal permanent hoisting facilities.

A model of the planned Platreef Mine

PLATREEF



Platreef's B-BBEE partnership a top performer in South Africa's platinum sector

Platreef 26% ownership stake by Black Economic Empowerment (BBE) partners is one of the broadest empowerment transactions ever settled in South African mining.

- **20%** held by a trust to benefit 20 local host communities, with estimated combined population of 150,000, in the vicinity of Platreef mine.
- **3%** held by a trust for Platreef's historically disadvantaged, non-managerial South African employees.
- **3%** held by a consortium of 187 local entrepreneurial companies and 333 individual shareholders.

In 2018, Ivanplats reconfirmed its Level 3 status in its fourth verification assessment on a Broad-Based BEE scorecard.

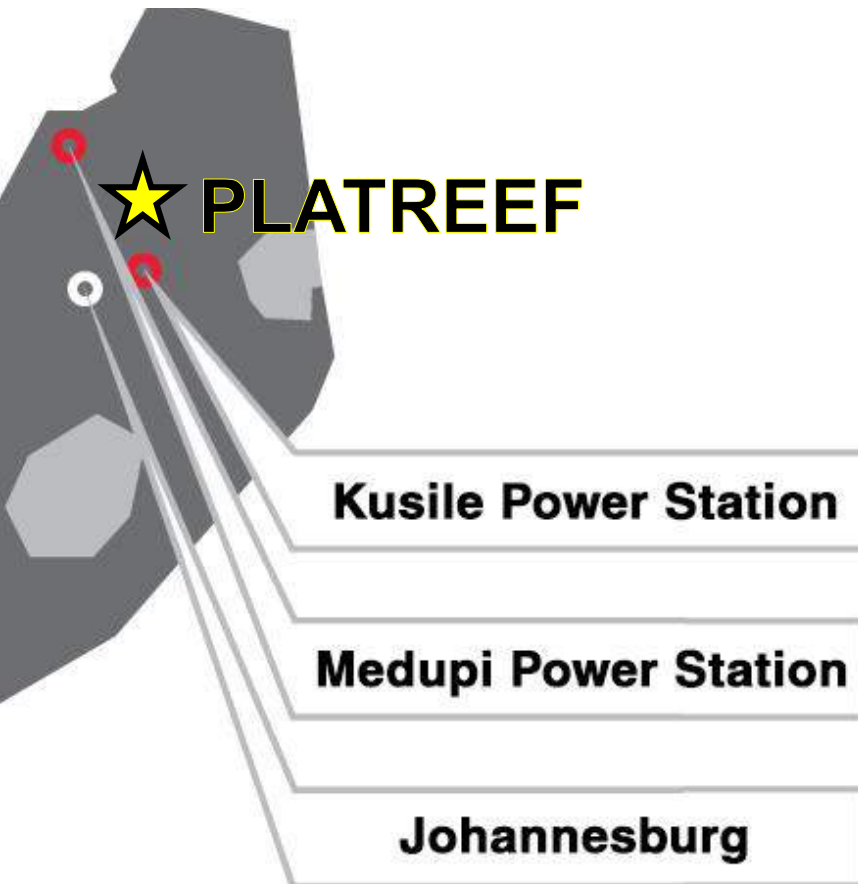
May 2016: 42 million oz. of PGMs in Indicated plus 58 million oz. of PGMs in Inferred Resources

- Indicated Mineral Resources contain an estimated **42.0 million oz. of PGMs plus gold** – with an extra **52.8 million ounces** in Inferred Resources, at the base case cut-off grade of 2 g/t.
- Indicated Mineral Resources contain an estimated **58.8 million oz. of PGMs plus gold**, plus an estimated additional **94.3 million ounces** in Inferred Resources, at 1 g/t cut-off grade.
- Amec Foster Wheeler has defined four targets for further exploration totalling between **245 – 410** million tonnes in areas that are contiguous with the current Mineral Resource areas.
- In addition, there are approximately **48 km²** of unexplored ground beyond these exploration target areas on the property under which the prospective stratigraphy is projected to lie.

Bulk power from Eskom, South Africa's state utility

Medupi power station started generating power in March 2015; expected to be fully operational by 2020, providing 4,800 MW of power to national grid.

Kusile started generating power in Dec 2016; expected to provide a total of 4,800 MW of power by 2022.



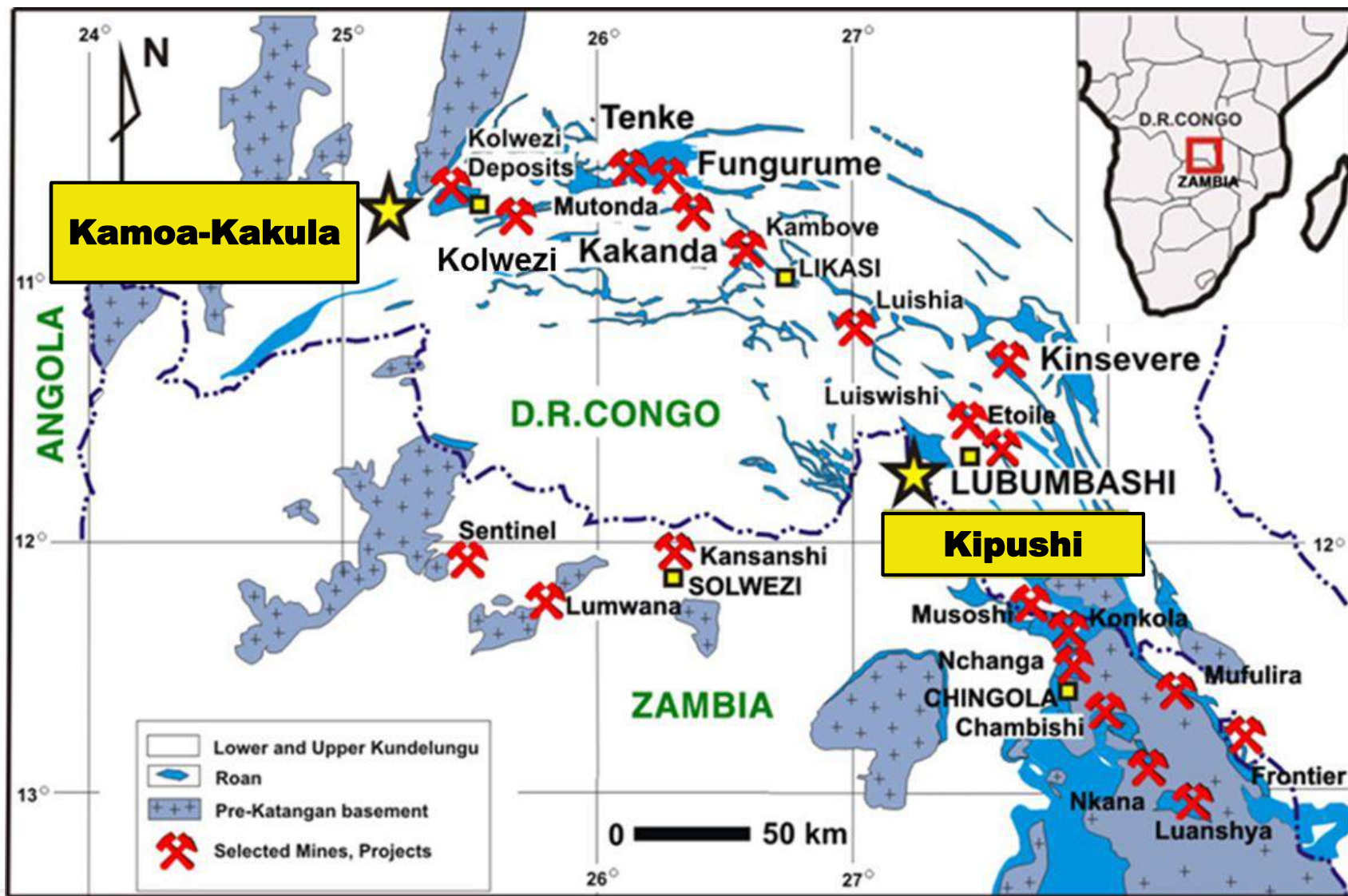


Kipushi Mine development & upgrading for a new era

Democratic Republic
of Congo

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Kipushi: world's highest grade zinc-copper-silver-germanium mine in southeast DRC on the Zambian border



March 2019: LME zinc inventories fall to lowest in more than a decade



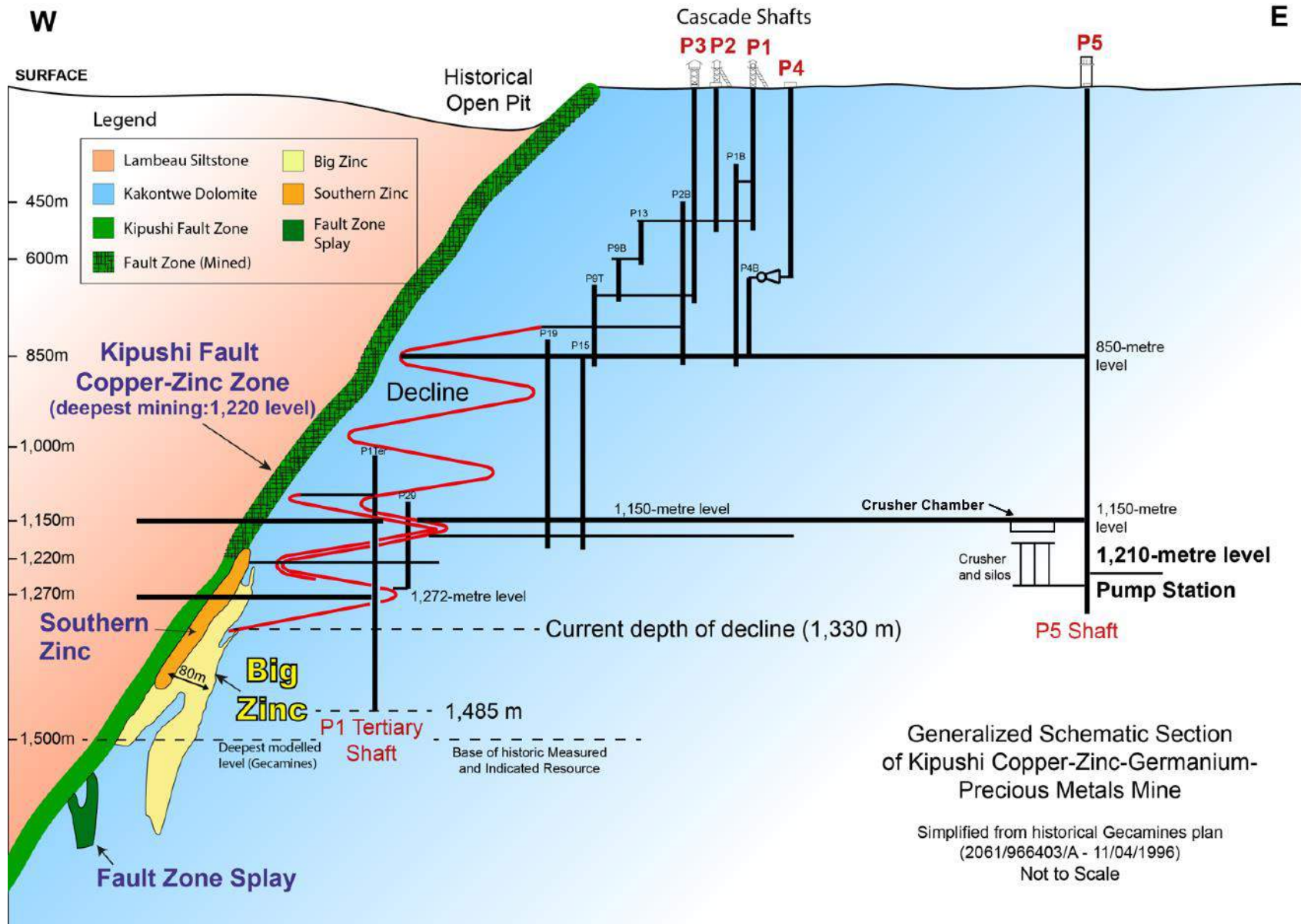
December 13, 2017: Ivanhoe announced a pre-feasibility study for the rebirth of the historic Kipushi zinc-copper-silver-germanium mine

KIPUSHI

The planned return to production would establish Kipushi as the world's highest-grade major zinc mine.

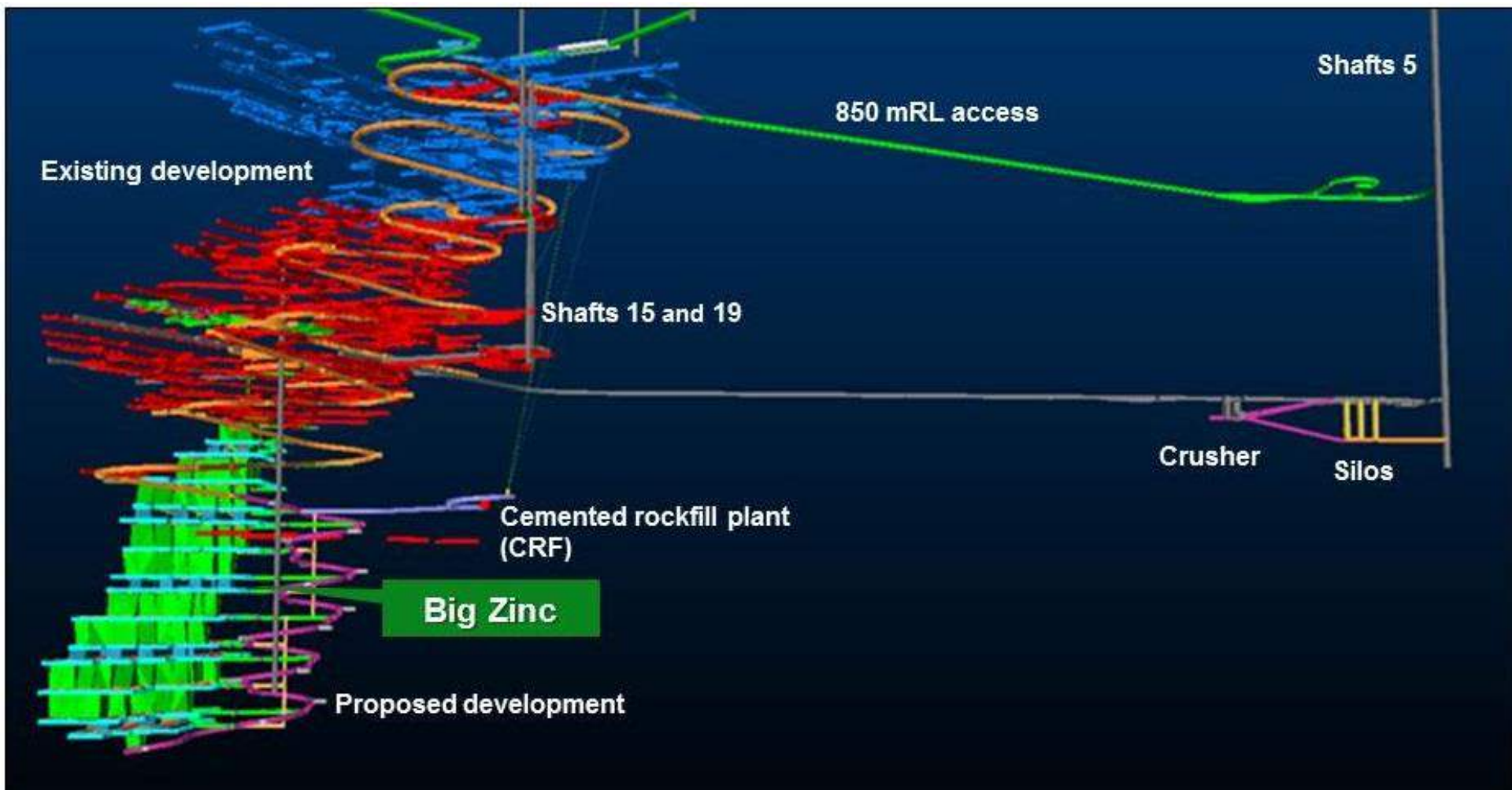


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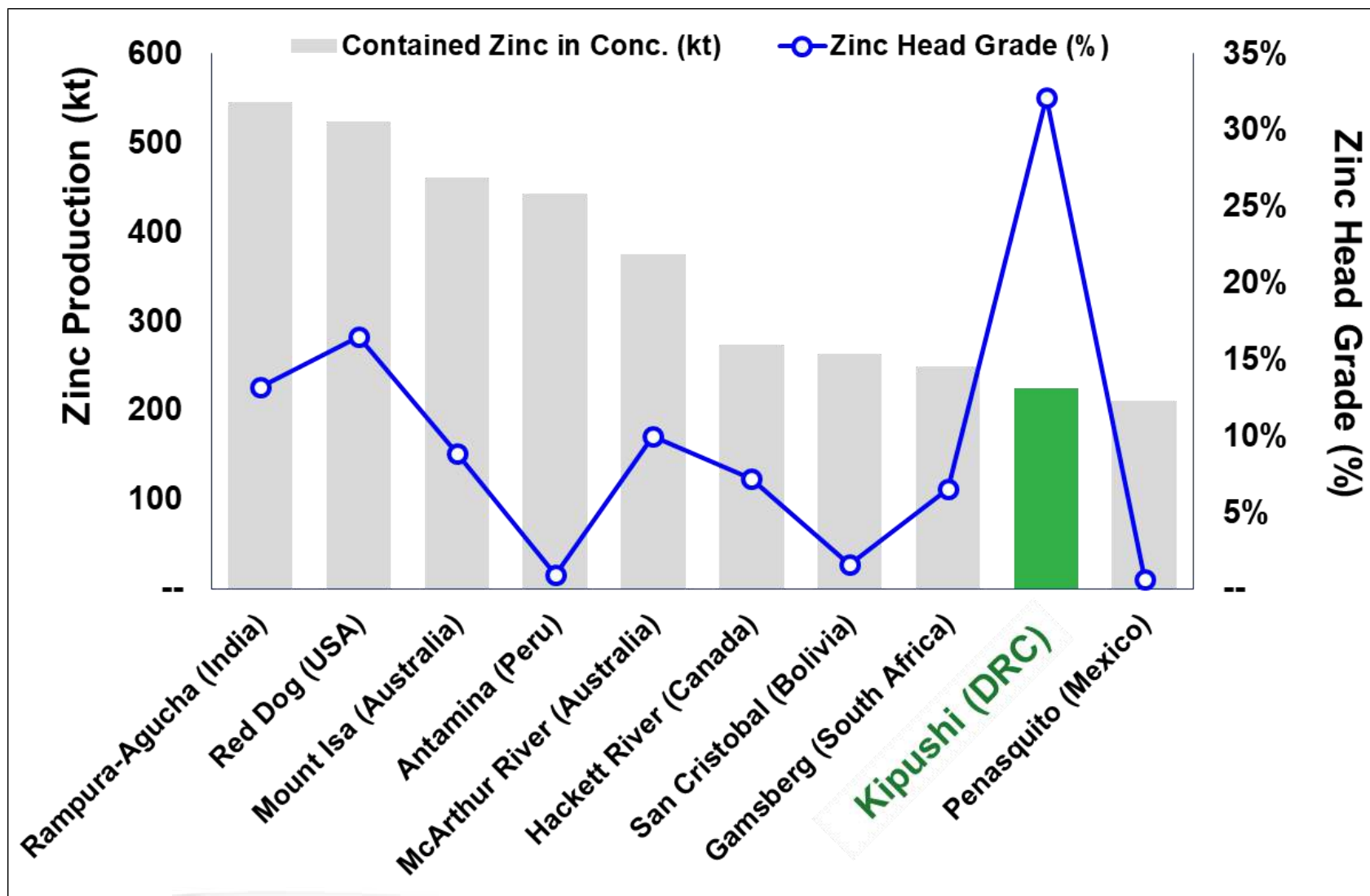


- Kipushi Fault Zone was mined 1924-1993 to approx. 1,150-metre level.
- Big Zinc discovered prior to 1993 closure; never mined.

Planned and existing development at Kipushi



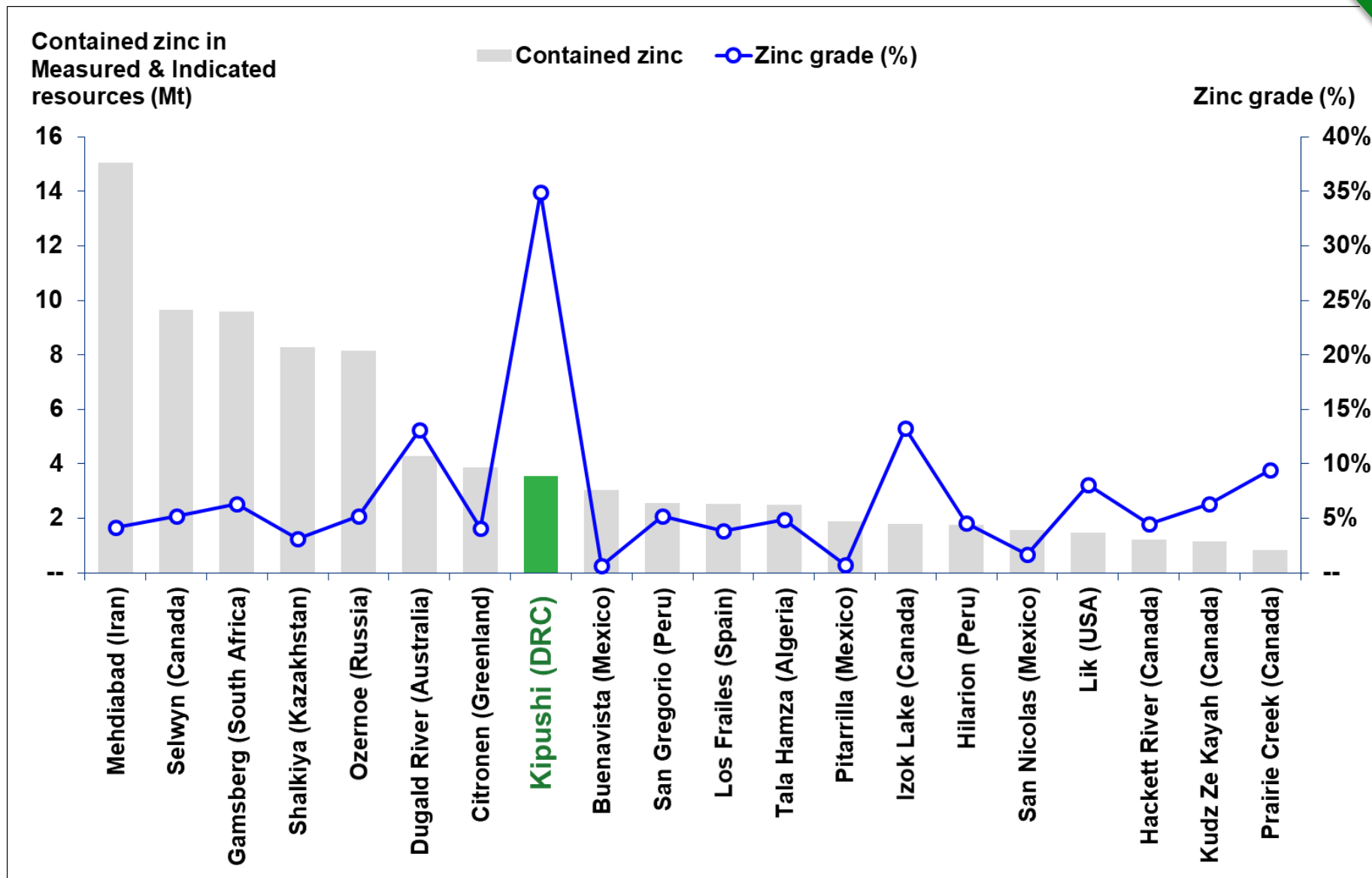
World's major zinc mines, showing estimated annual zinc production and zinc head grades



Source: Wood Mackenzie. Independent research by Wood Mackenzie concludes that at the forecast production and head grade, the Kipushi Project, once in production, will rank among the world's largest zinc mines. Wood Mackenzie compared the Kipushi Project's life-of-mine average annual zinc production and zinc head grade of 225,000 tonnes and 32%, respectively, against production and zinc head grade forecasts for 2020.

Top 20 zinc projects by contained zinc

KIPUSHI

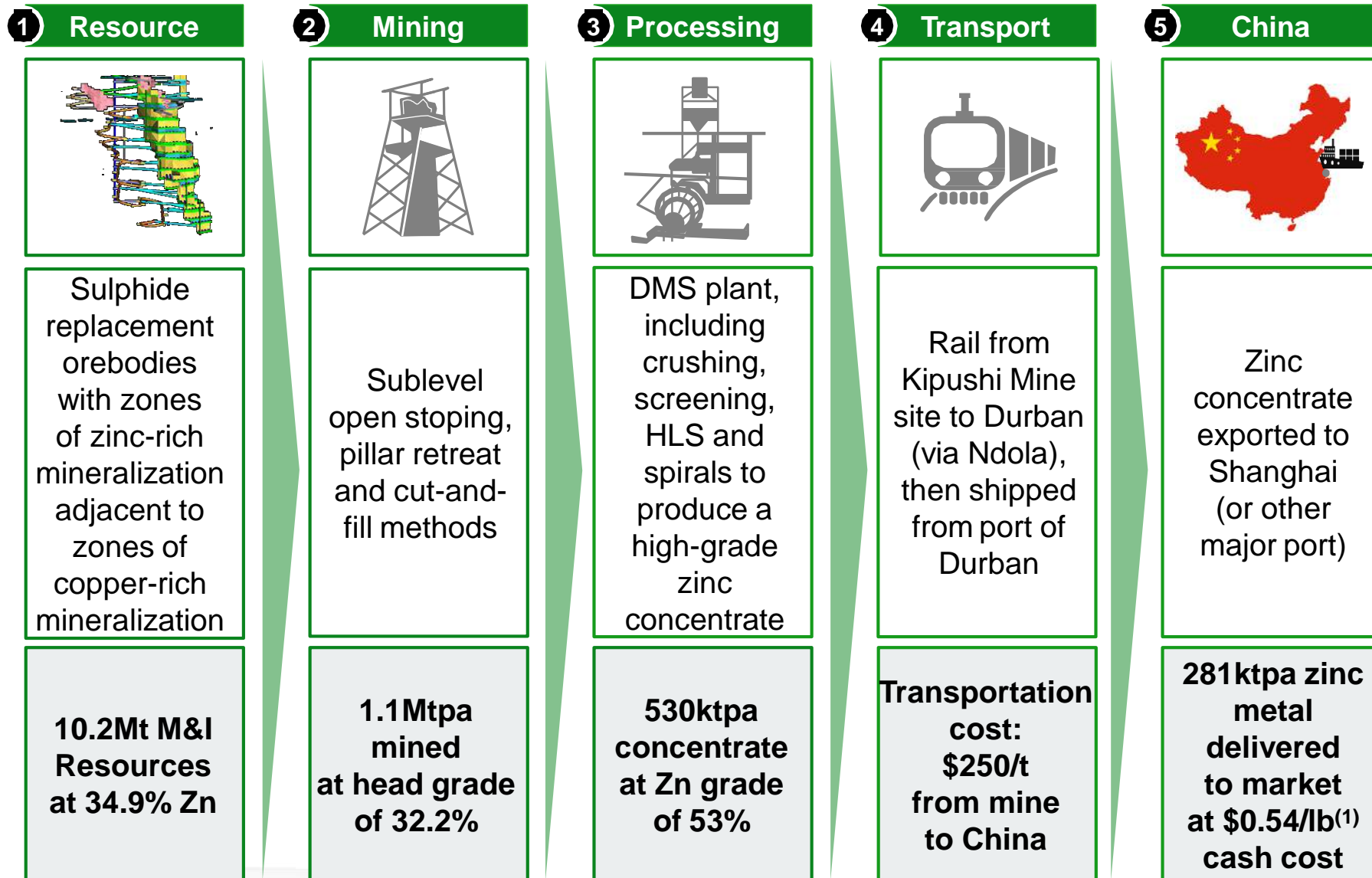


Source: Wood Mackenzie. Note: All tonnes and zinc grades of the above-mentioned projects (except for Kipushi) are based on public disclosure and have been compiled by Wood Mackenzie.

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Kipushi mine-to-market overview

KIPUSHI

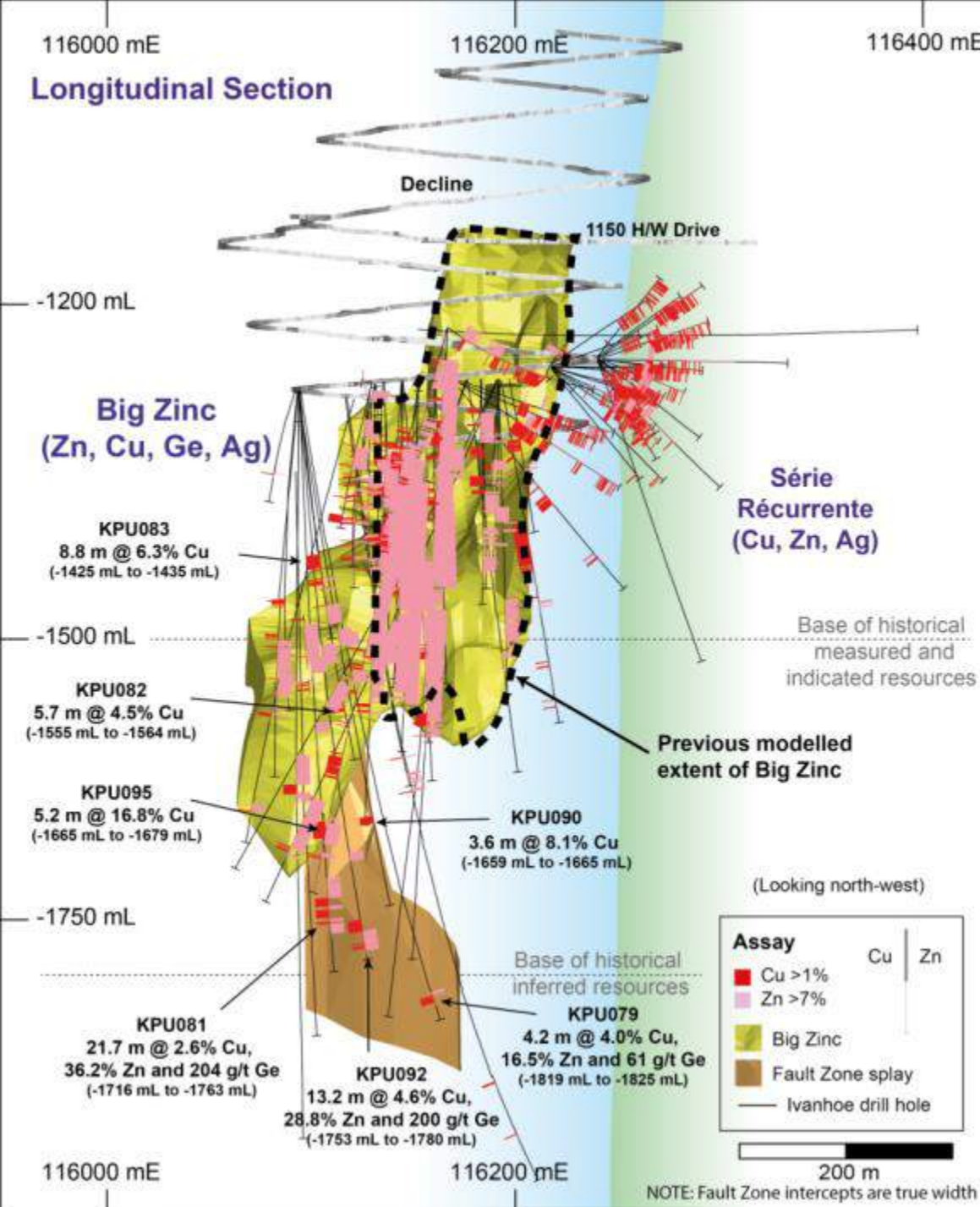


Notes:

1 Life-of-mine average cash cost after copper credits (before credits: \$0.56/lb Zn).

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Longitudinal Section



Big Zinc Mineral Resource outline and Fault Zone and Fault Zone Splay copper intercepts in recent drill holes

Primary rock crusher 1,150 metres underground, ready for production

KIPUSHI



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New lighting installed at 1,200-metre level

KIPUSHI



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Control room operators at Kipushi's Shaft 5

KIPUSHI



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Shaft 5 main pumping station at the 1,200-metre level

KIPUSHI



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Shaft 5 hoisting winder

KIPUSHI



Community adult literacy program at Kipushi, sponsored by Ivanhoe Mines and implemented in partnership with AlfaCongo

KIPUSHI



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World's best drill hole?

Our geology team holding hands and showing
Big Zinc intersection of **44.8% zinc over 340 metres**



Kamoa-Kakula: Our world's best copper discovery

Hole DD1450, which intersected **22.3 metres of 13.05% copper**

Kinshasa, March 15, 2019 Ivanhoe Mines delegation meets with DRC President Tshisekedi



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ActuVIDEO: Kgalema Mothlante, ancien
Président sud-africain reçu en audience par le
Chef de l'Etat S.E. Félix-Antoine Tshisekedi.



Independent pre-feasibility study (PFS) for the Kakula copper mine announced on February 6

Democratic Republic of Congo

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The stage one, 6 Mtpa operation at Kakula, with estimated development capital of US\$1.1 billion, yields an **after-tax NPV8% of US\$5.4 billion** and an IRR of 47% over a 25-year mine life.



The Kakula Mine's first stage will average **6.8% copper over the first 5 years**, with mine-site cash costs of **US\$0.43/lb copper**.



Updated independent preliminary economic assessment (PEA) completed for an expanded Kakula-Kamoa **production rate of 18 Mtpa**, supplied initially by **a 6 Mtpa mine at Kakula**, followed by **two 6 Mtpa mines at Kansoko and Kakula West**, and a world-scale direct-to-blister smelter.



The PEA envisions the staged mine expansions and smelter will be funded from internal cash flows and yields an **after-tax NPV8% of US\$10.0 billion and an IRR of 41%.**

Democratic Republic of Congo

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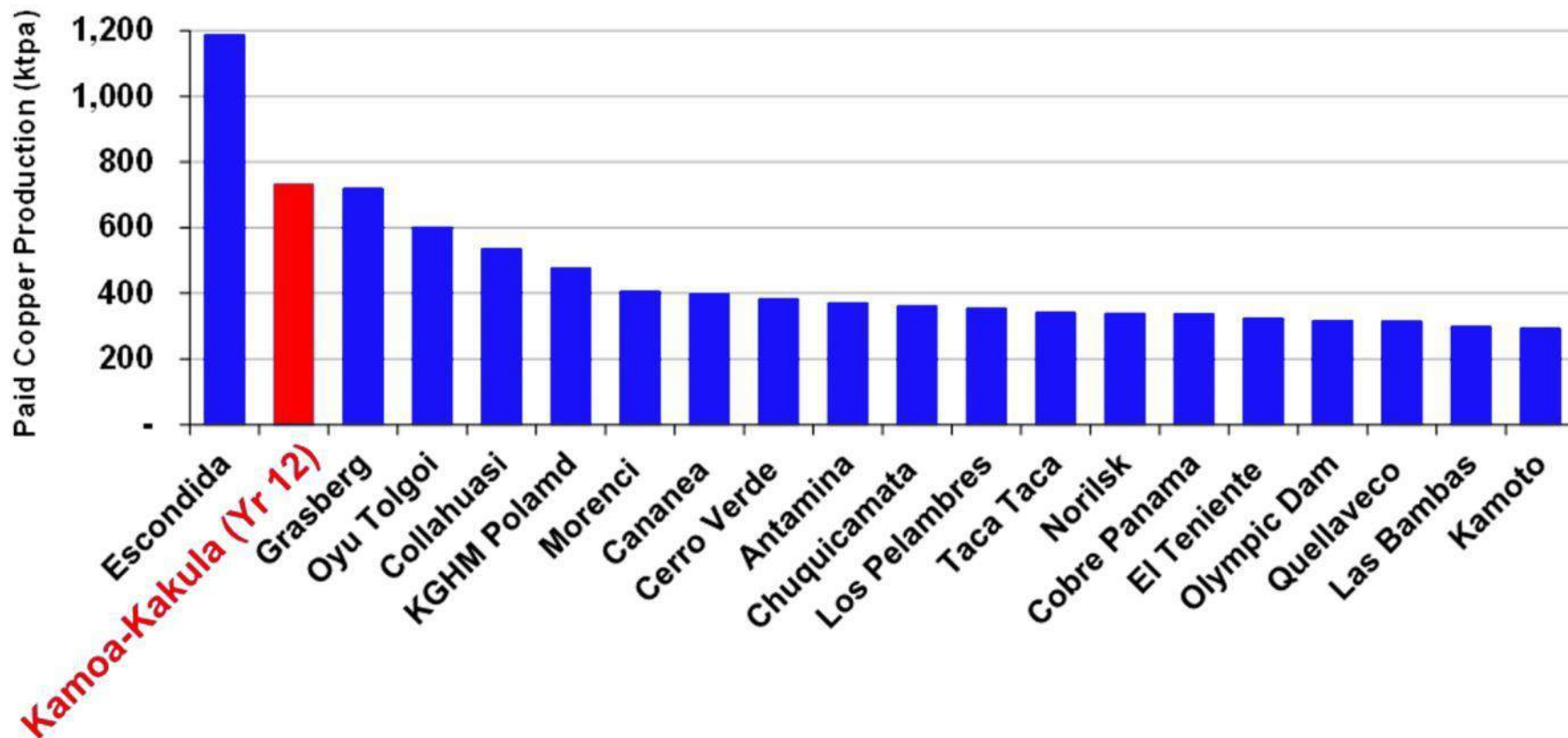


Once the expanded PEA production rate of 18 Mtpa is achieved, Kamoakakula is projected to become the **world's second largest copper mine**, with peak annual production of **more than 700,000 tonnes of copper**.



Projected 18 Mtpa Kamoia-Kakula PEA production (year-12 peak copper production shown) compared world's projected top 20 producing mines in 2025 by paid copper production

KAMOA-KAKULA

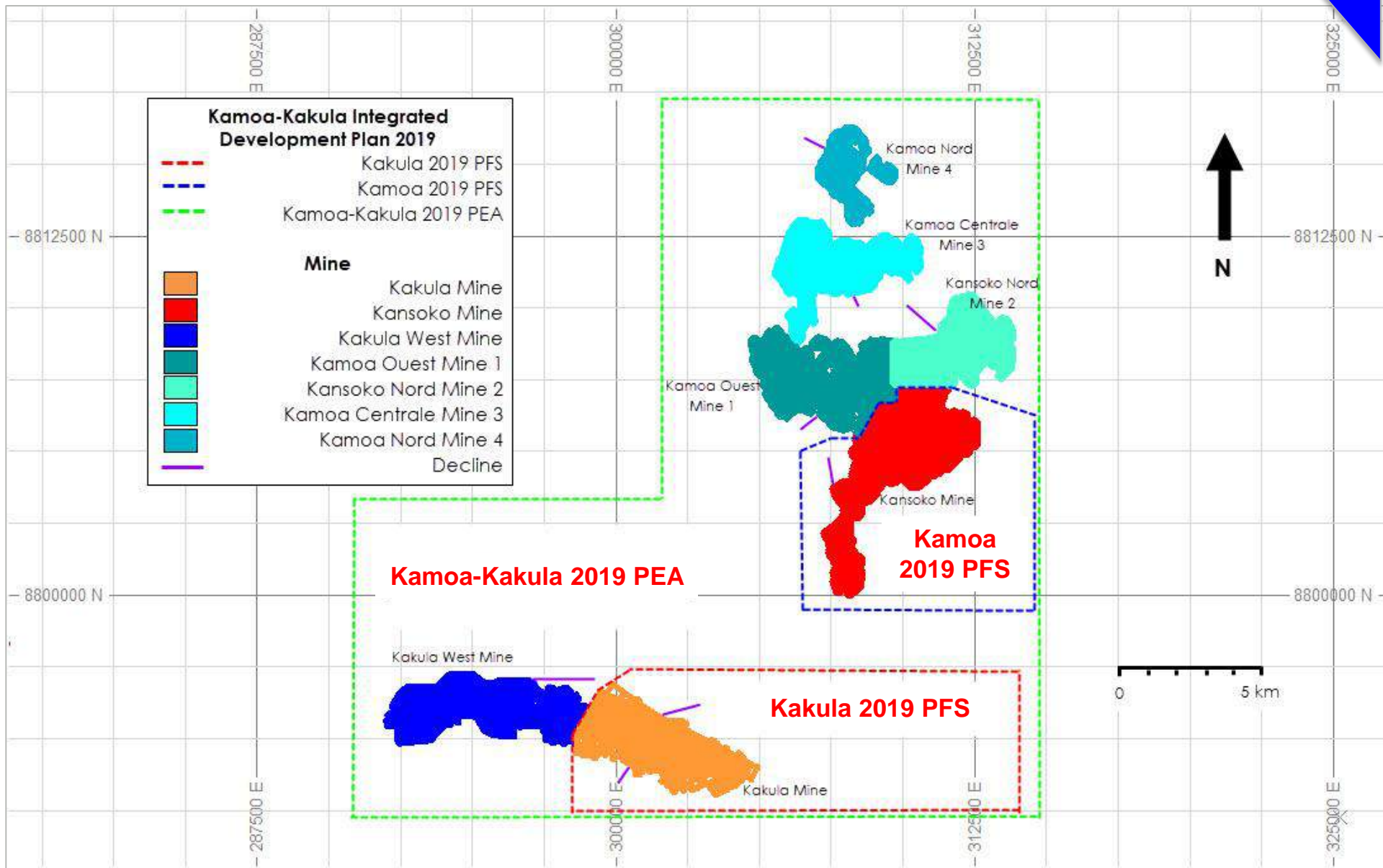


Note: Kamoia-Kakula 2019 PEA production based on projected peak copper production (which occurs in year 12) of the 18 Mtpa alternative development option. Source: Wood Mackenzie (based on public disclosure, the Kakula 2019 PFS has not been reviewed by Wood Mackenzie).

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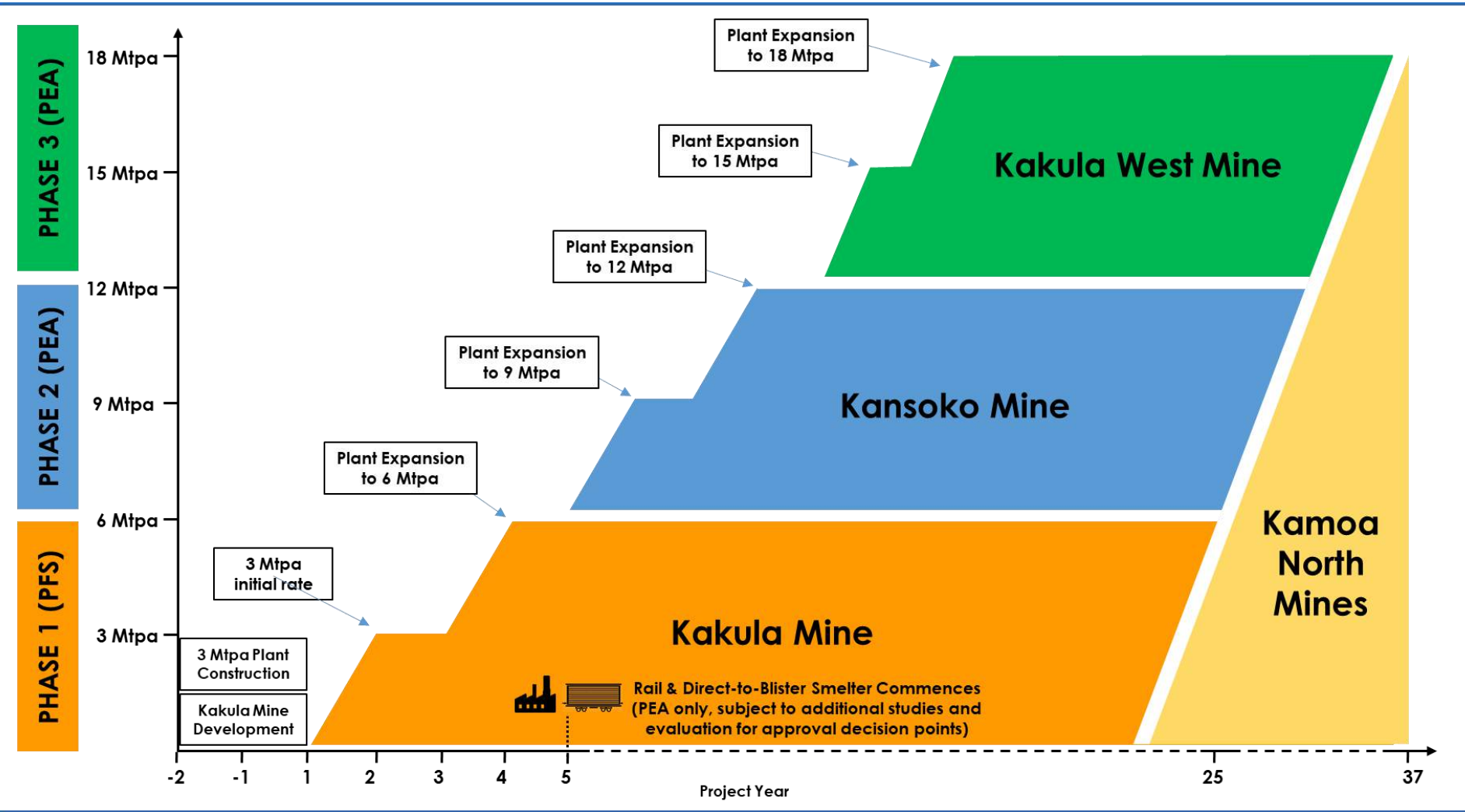
Kamoa-Kakula study overview

KAMOA-KAKULA



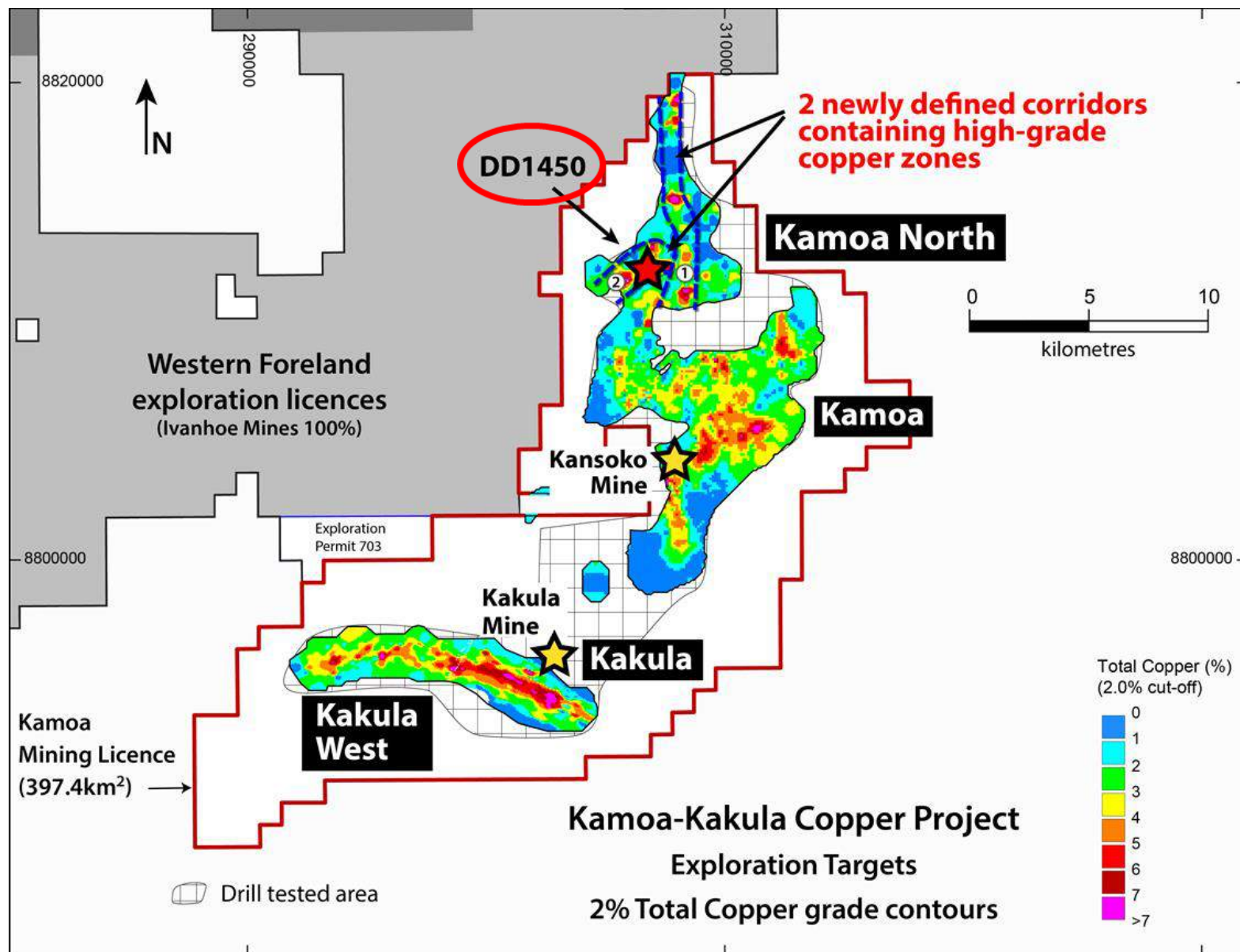
Kamoa-Kakula 18 Mtpa development plan

KAMOA-KAKULA



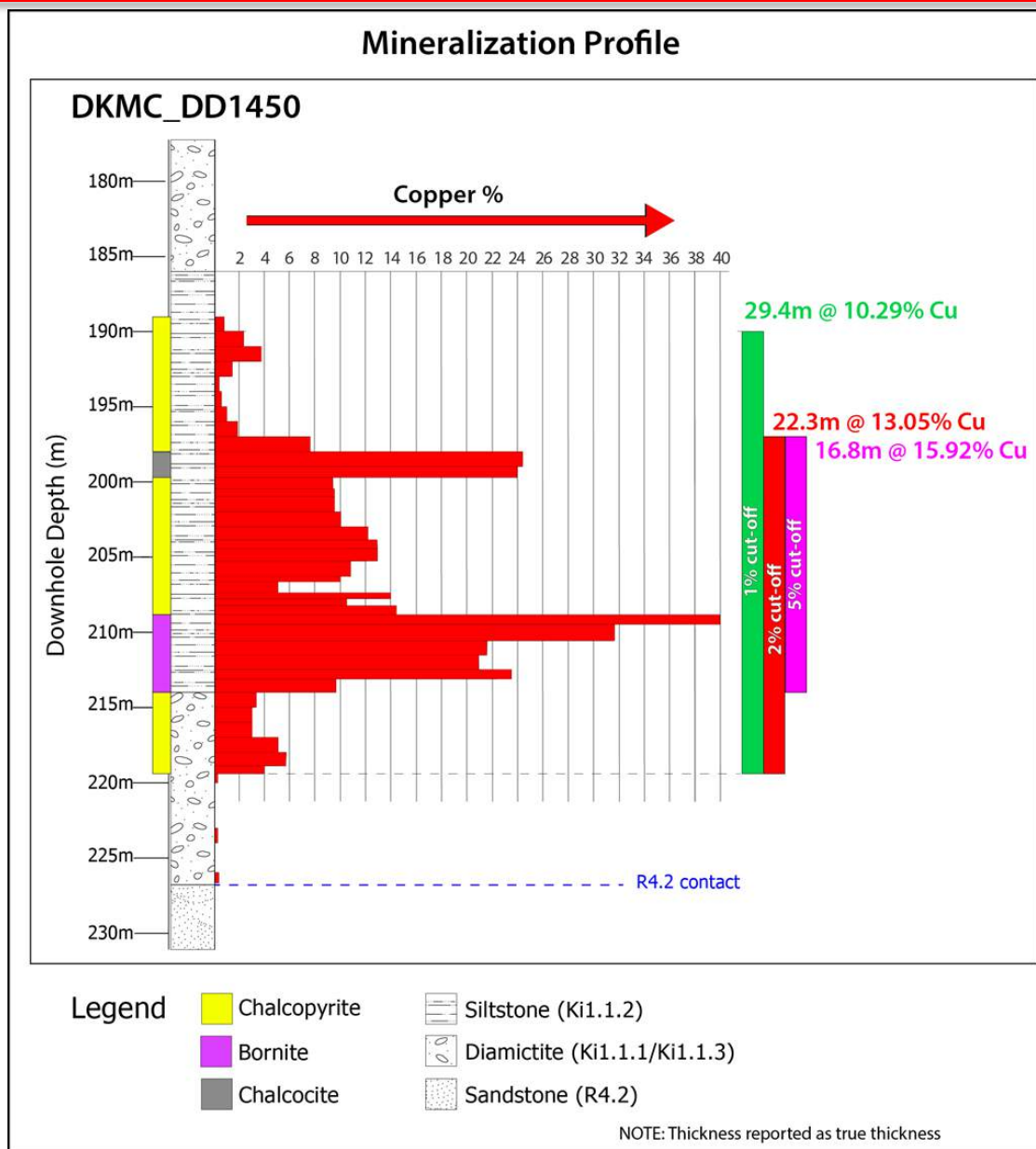
Kamoa North – two new high-grade corridors trending onto Ivanhoe's 100%-owned ground

KAMOA-KAKULA



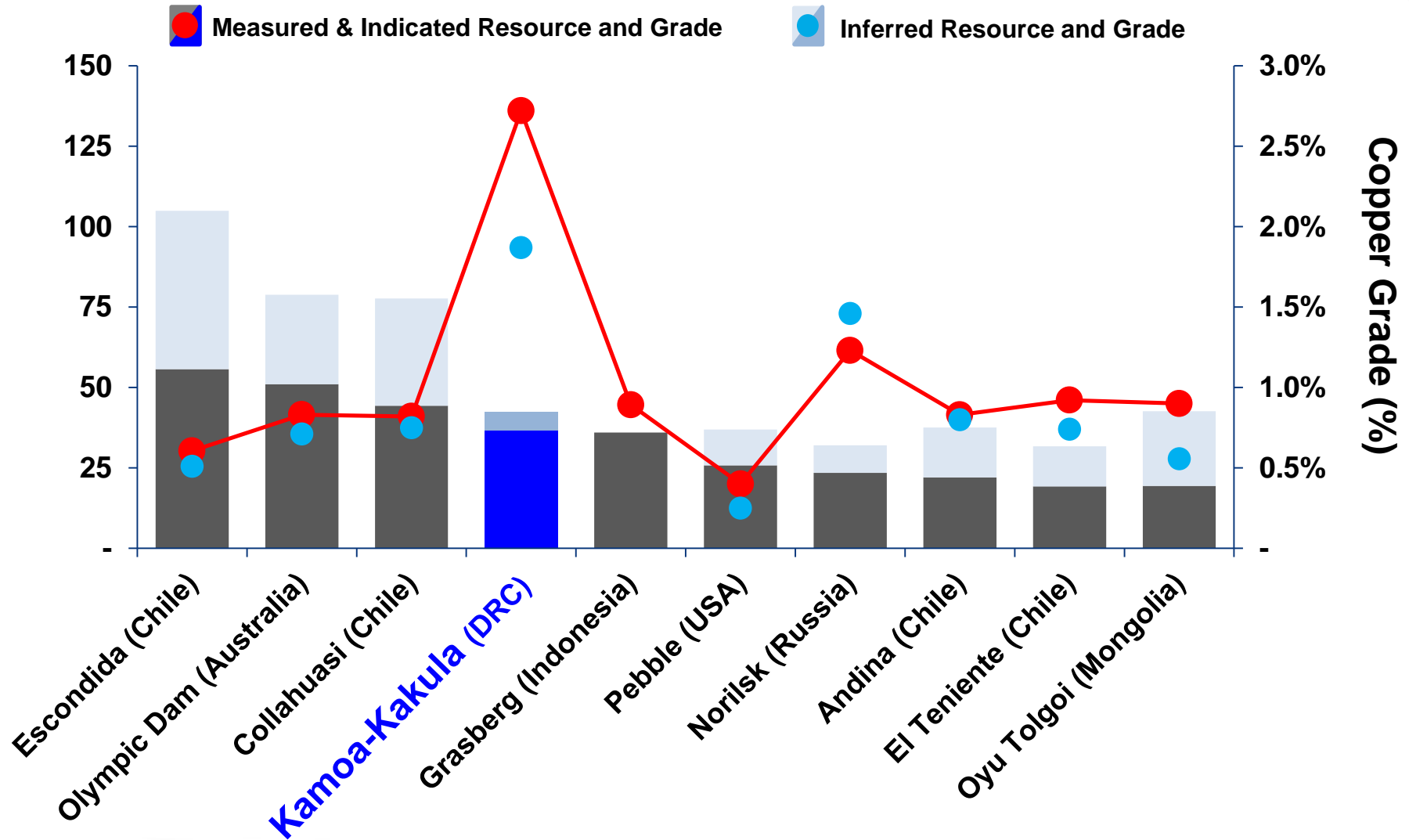
Kamoa North DD1450: 22.3 metres of 13.05% copper in shallow, flat-lying discovery hole

KAMOA-KAKULA



Among the world's largest copper deposits, Kamo-a-Kakula also has the highest copper grades

KAMOA-KAKULA



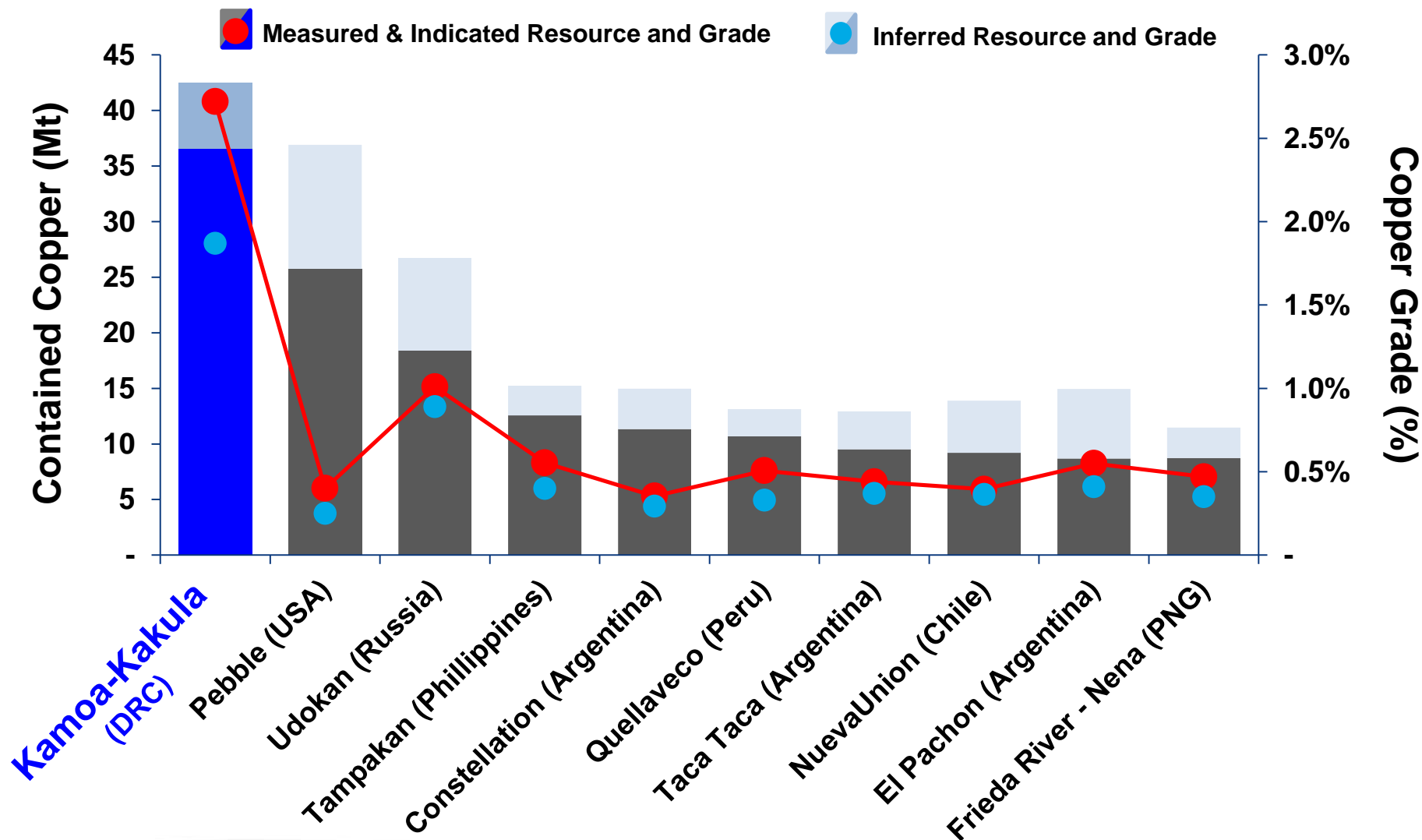
Source: Wood Mackenzie

*Note: Selected based on contained copper (Measured & Indicated Resources, inclusive of Mineral Reserves, and Inferred Resources), ranked on contained copper in Measured & Indicated Resources.

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Kamoa-Kakula is the largest undeveloped copper deposit in the world

KAMOA-KAKULA



Source: Wood Mackenzie

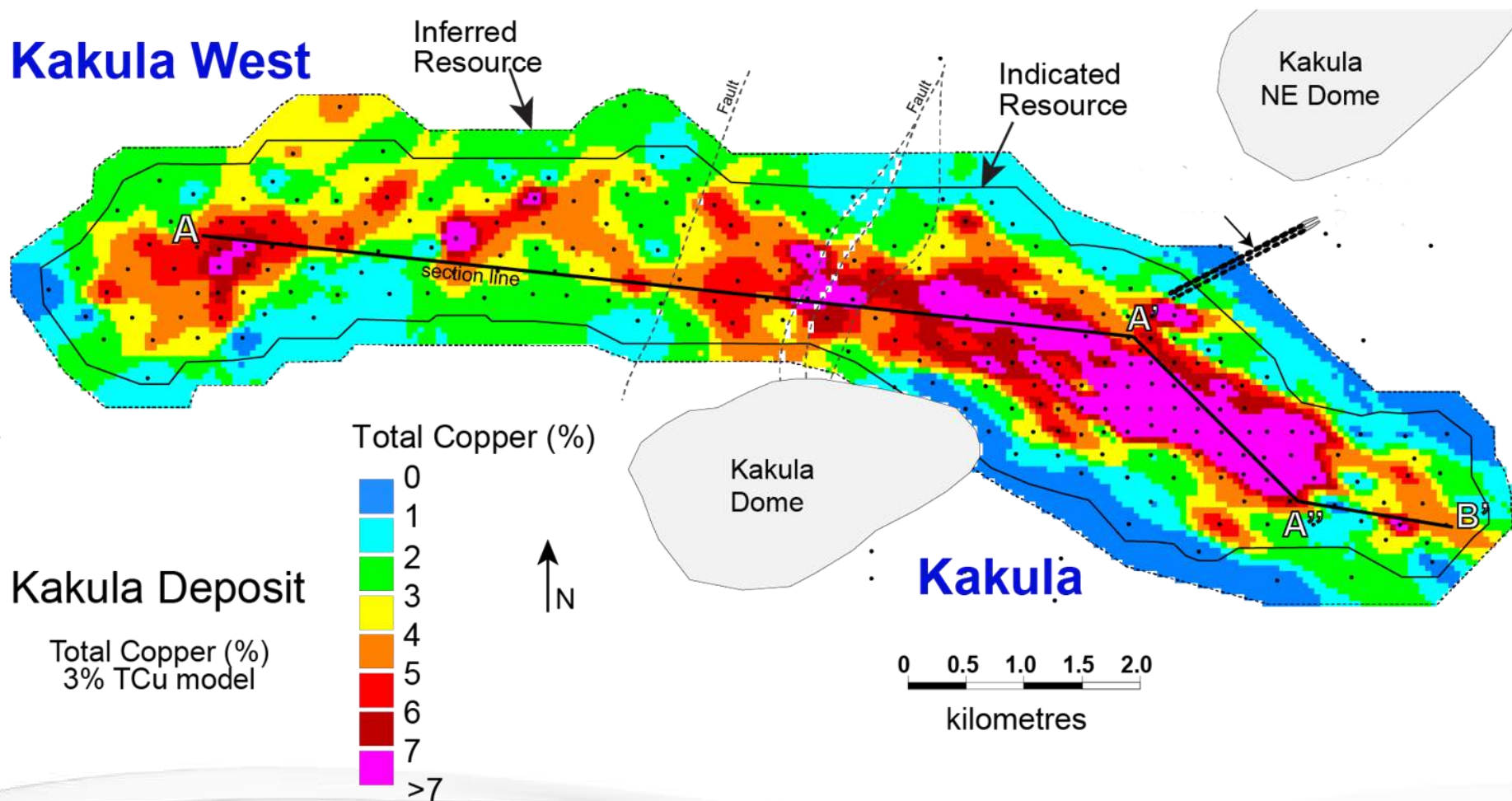
*Note: Contained copper in undeveloped deposits (Measured & Indicated Resources, inclusive of Mineral Reserves, and Inferred Resources), ranked on contained copper in Measured & Indicated Resources.

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Kakula and Kakula West discovery areas showing grades of Indicated and Inferred Mineral Resource blocks at a 3% copper cut-off

KAMOA-KAKULA

Kakula West



Kakula's new, southern box cut is nearing completion. A third decline tunnel will be driven from the bottom of the box cut to provide access and ventilation to the southern side of the underground, high-grade Kakula Deposit

**KAMOA-
KAKULA**



Construction of new, 20-kilometre by-pass road linking the Kamo-a-Kakula Project to Kolwezi

KAMO-A-KAKULA



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Chickens and eggs are among successes of the KamoA-Kakula Sustainable Livelihoods Project, contributing to prospering economies in 14 communities near Ivanhoe's DRC projects.

**KAMOA-
KAKULA**



Nine fish ponds near Kamo-a-Kakula are designed to teach aquaculture skills to local communities, help enhance nutrition, and provide opportunities for earning additional income

**KAMO-A-
KAKULA**



The opening assembly for the new Kaponda secondary school constructed by Kamoa Copper in a local community near the Kamoa-Kakula Project

KAMOA-
KAKULA



Mwadingusha hydroelectric plant upgrade

KAMOAKAKULA

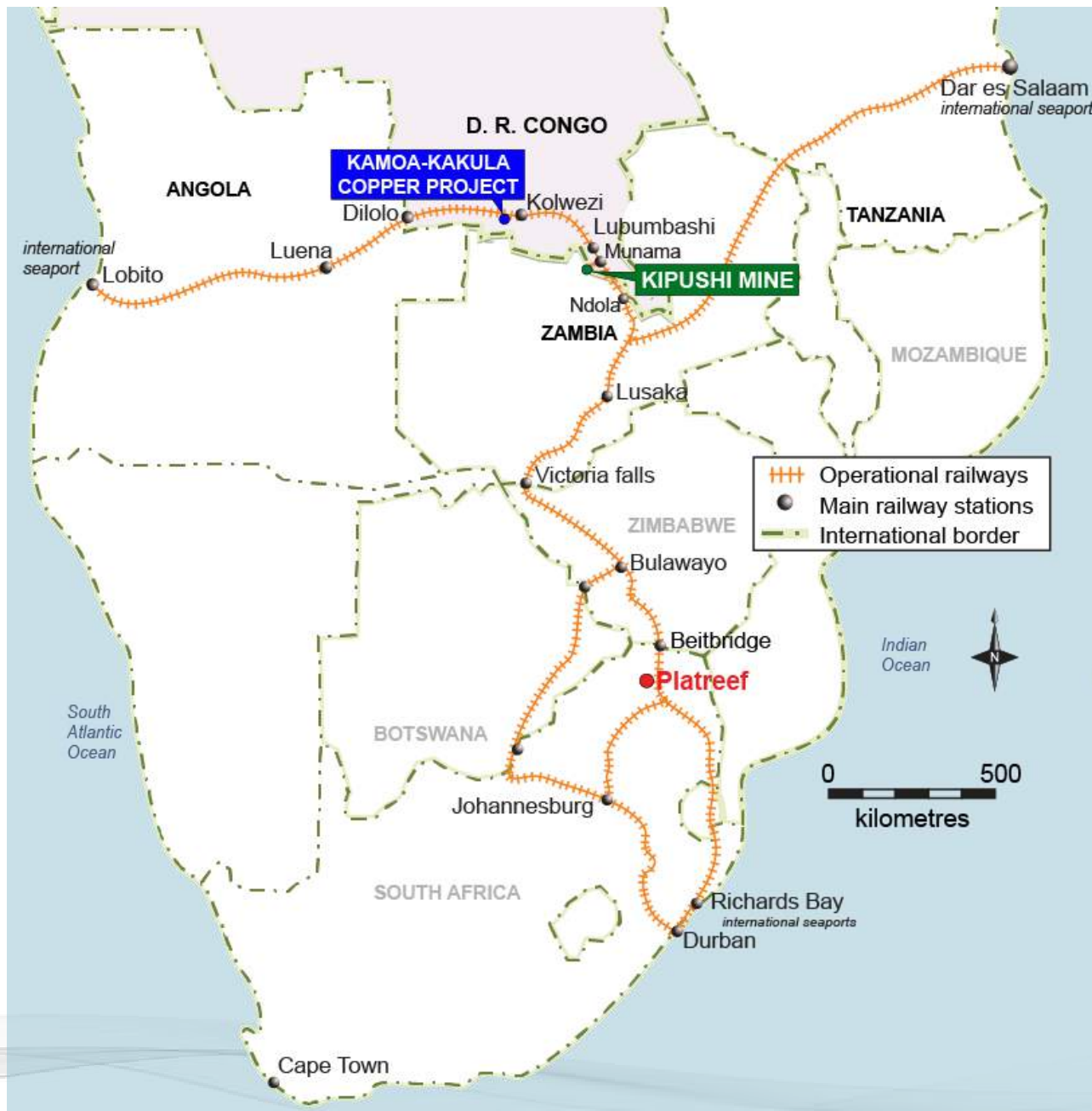
- Mwadingusha is the first of three hydroelectric power plants in the DRC being upgraded by Ivanhoe, Zijin and SNEL to secure a supply of **clean, sustainable electricity for the development of Kamo-Kakula.**
- Its output has tripled, to 32 megawatts (MW), and should be fully restored to its 71 MW capacity by the end of 2019.
- The Mwadingusha, Koni and Nzilo 1 plants will have combined, installed capacity of approximately **200 MW** for the national grid.



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National railways linking DRC mines with international seaports

KAMOA-KAKULA



Makoko Drilling Area – Western Foreland

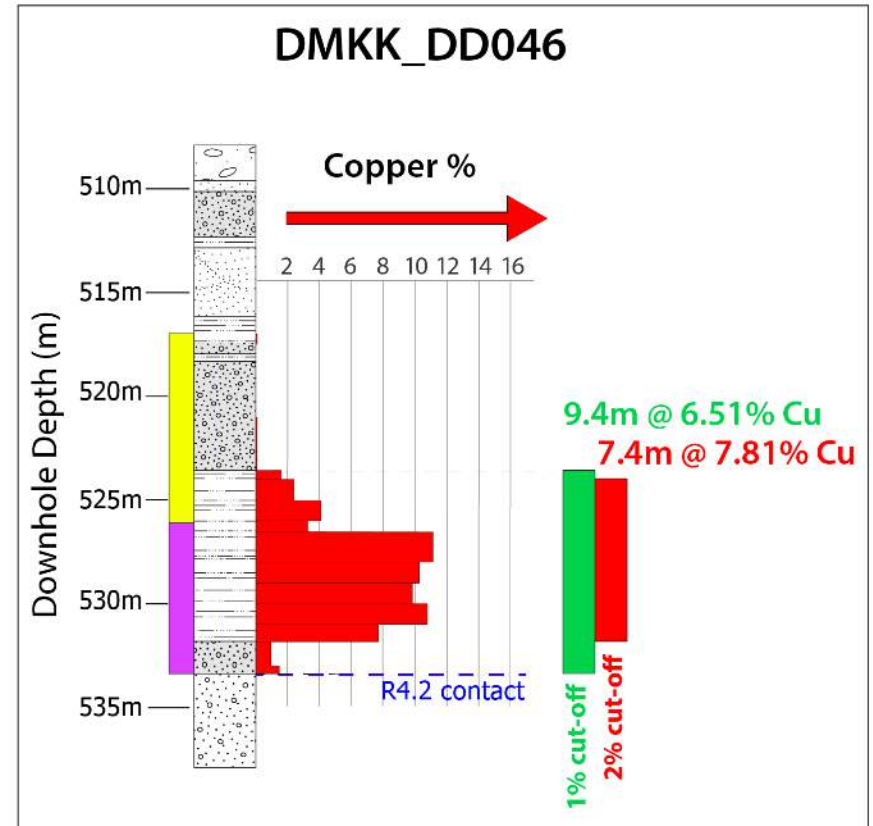
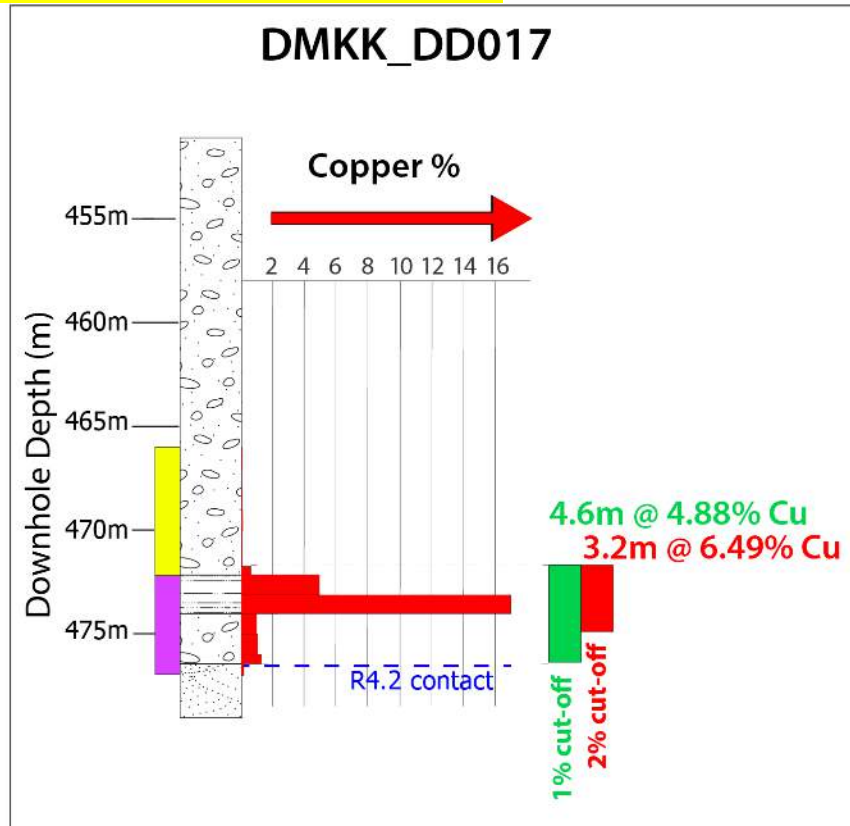


A drilling rig in operation at Ivanhoe's 100%-owned Western Foreland exploration area, located to the west of the Kamoa-Kakula Project. Ivanhoe is exploring for Kamoa-Kakula-style copper mineralization on high-priority targets identified from an airborne gravity survey and detailed ground-based geophysics.

Makoko high-grade copper shows characteristics identical to tier-one Kamo-a-Kakula Discoveries

Western Foreland

Mineralization Profiles



Legend

- Chalcopryite
- Bornite
- Chalcocite

- Diamictite
- Siltstone
- Sandstone

- Roan Conglomerate
- Ki1.1.1 Conglomerate

NOTE: Thickness reported as true thickness



Thank you.

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