# N E W H O R I Z O N S

July 23, 2020

# Platreef mine development work now focused on equipping recently-completed Shaft 1 for first production

### Updated Definitive Feasibility Study due this quarter; will include a Preliminary Economic Assessment on phased-development production strategy

## Strong palladium, platinum, gold and rhodium prices continue to propel Platreef's 'metals-price basket' higher

MOKOPANE, SOUTH AFRICA – Ivanhoe Mines' (TSX: IVN; OTCQX: IVPAF) Co-Chairmen Robert Friedland and Yufeng "Miles" Sun announced today that the company's South African subsidiary, Ivanplats, has completed construction of the 996-metre-level station at the bottom of the project's Shaft 1 – well ahead of the contractual schedule.

Shaft 1 now is positioned to be equipped as Platreef's initial production shaft, if Ivanhoe chooses to proceed with phased development to expedite production at the tier-one palladium-platinum-nickel-copper-rhodium-gold project on the Northern Limb of South Africa's Bushveld Complex.

"Given the flurry of recent transactions in precious metals markets, we are actively exploring a number of options that can help us unlock Platreef's extraordinary value for the benefit of all Ivanhoe stakeholders," said Mr. Friedland. "After all, Platreef is among this planet's largest precious metals deposits."

"Platreef now has a completed shaft within a few hundred metres of the initial highgrade mining zone. We have a mining licence, we have water, and we have a team of highly-skilled employees. The deposit has enormous quantities of palladium, platinum, rhodium, nickel and copper; and it has more ounces of gold than many leading gold mines," Mr. Friedland added. "Given the current precious metals environment, I am confident that the pending studies will showcase the exceptional economics that one would expect from such a thick, high-grade and flat-lying deposit." Platreef's current Indicated Mineral Resources are 346 million tonnes grading 3.77 grams per tonne (g/t) 3PE+gold (1.68 g/t platinum, 1.70 g/t palladium, 0.11 g/t rhodium, 0.28 g/t gold), 0.32% nickel and 0.16% copper at a 2.0 g/t 3PE+gold cut-off.

Platreef's current Indicated Mineral Resources contain an estimated 26.8 million ounces of palladium, 25.6 million ounces of platinum, 4.5 million ounces of gold, and 1.8 million ounces of rhodium (a combined 58.8 million ounces of PGMs plus gold), plus 4.1 billion pounds of nickel and 2.1 billion pounds of copper, at a cut-off grade of 1 gram per tonne.

Platreef's current Inferred Mineral Resources are 506 million tonnes at a grade of 3.24 g/t 3PE+gold (1.42 g/t platinum, 1.46 g/t palladium, 0.10 g/t rhodium, 0.26 g/t gold), 0.31% nickel and 0.16% copper.

Platreef's current Inferred Mineral Resources contain an additional 43.0 million ounces of palladium, 40.4 million ounces of platinum, 7.8 million ounces of gold, and 3.1 million ounces of rhodium (a combined 94.3 million ounces PGMs plus gold), plus 7.7 billion pounds of nickel and 4.1 billion pounds of copper, also at a cut-off grade of 1 gram per tonne.

Current prices for the metals contained in the Platreef Mineral Resources, in US dollars, are approximately: palladium \$2160/oz., platinum \$910/oz., gold \$1867/oz., rhodium \$8,900/oz., nickel \$5.96/lb. and copper \$2.96/lb.

Information on the Platreef Project's geology and mineralization, including a full tabulation of the Mineral Resource estimate at various cut-offs, is contained in the Platreef Project National Instrument (NI) 43-101 Technical Report dated September 4, 2017, available on SEDAR at www.sedar.com and on the Ivanhoe Mines website at <u>www.ivanhoemines.com</u>.

Platreef's Mineral Resources are reported on a 100%-ownership basis and have an effective date of April 22, 2016. The Qualified Persons for the Mineral Resource estimate are Dr. Harry Parker, RM SME, and Mr Timothy Kuhl, RM SME. Mineral Resources are reported inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Mineral Resources have been estimated using core drill data and conform to the requirements of the CIM Definition Standards, 2014. The 2 g/t 3PE+gold cut-off is considered the base case (3PE+Au = (platinum+ palladium + rhodium) + gold). Mineral Resources are stated from a depth of approximately 500 metres to 1,350 metres below surface. Indicated Mineral Resources are drilled on approximately 100 x 100-metre spacing; Inferred Mineral Resources are drilled on 400 x 400-metre (locally to 400 x 200-metre and 200 x 200-metre) spacing.

Reasonable prospects for eventual economic extraction were determined using the following assumptions. Assumed commodity prices for the Mineral Resource estimate are platinum: \$1,600/oz., palladium: \$815/oz., gold: \$1,300/oz., rhodium: \$1,500/oz., copper: \$3.00/lb and nickel: \$8.90/lb. It was assumed that payable metals would be 82% from smelter/refinery and that mining costs (average \$34.27/t) and process, G&A, and concentrate transport costs (average \$15.83/t of mill feed for a 4 Mtpa operation) would be covered. The processing recoveries vary with block grade, but typically would be 80%–90% for platinum, palladium and rhodium; 70-90% for gold, 60-90% for copper, and 65-75% for nickel.

### Updated DFS is due this quarter, which will include a PEA on the phaseddevelopment production plan for the Platreef Project

Ivanhoe is updating the Platreef Project's 2017 definitive feasibility study (DFS) to take into account development schedule advancement since 2017 when the DFS was completed, as well as updated costs and refreshed metal prices and foreign exchange assumptions.

Concurrently, Ivanhoe is finalizing a Preliminary Economic Assessment (PEA) for the phased-development production plan for the Platreef Project. The plan targets significantly lower initial capital, to accelerate first production by using Shaft 1 as the mine's initial production shaft, followed by expansions to the production rate as outlined in the 2017 DFS.

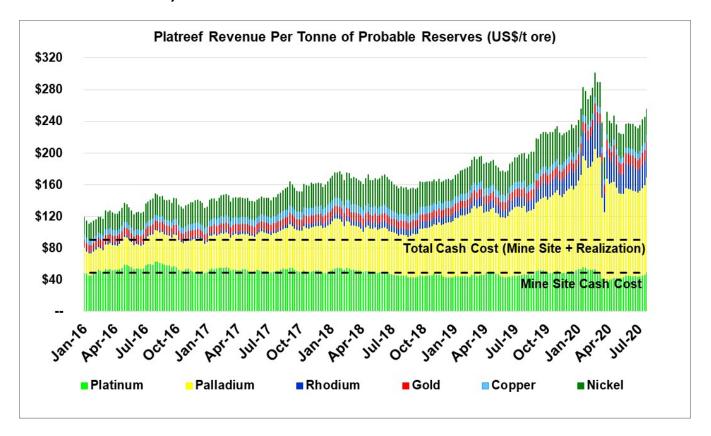
The re-evaluation is being done in parallel with the ongoing mine development work to access the thick, high-grade, flat-lying Flatreef deposit that was discovered in 2010 and outlined in the Platreef 2017 Feasibility Study.

The new auxiliary winder for the 7.25-metre diameter Shaft 1, which is scheduled to be delivered to Platreef later this year, will be used to assist in equipping the shaft; and thereafter for logistics, shaft examination and auxiliary functions. The auxiliary winder will provide a second means of ingress and egress from the shaft after removal of the stage winder. Shaft 1 is located approximately 350 metres away from a high-grade area of the Flatreef orebody, planned for bulk-scale, mechanized mining.

The Platreef Project remains 'Fall-of-Ground' incident free since shaft-sinking operations began in July 2016, which is a tribute to the excellent work by the Platreef Project team and its South African sinking contractor, Moolmans. In June, 2020, the team achieved South African shaft-sinking industry leader status in terms of safety performance.

### Revenue per tonne of ore at the Platreef Project in South African Rand near alltime highs

Significant increases in the price of palladium, rhodium, gold and nickel over the last three years has resulted in the weighted price of the 'basket' of metals contained in the ore at the Platreef palladium-platinum-rhodium-nickel-copper-gold project to rise to levels that are significantly higher than when the 2017 DFS was completed. In addition, the South African Rand has depreciated significantly against the US dollar in recent years, resulting in the weighted price of Platreef's 'basket' of metals in South African Rand trading near all-time highs.



### Figure 1. Revenue per tonne of ore at the Platreef Project since 2016 (shown in US dollars)

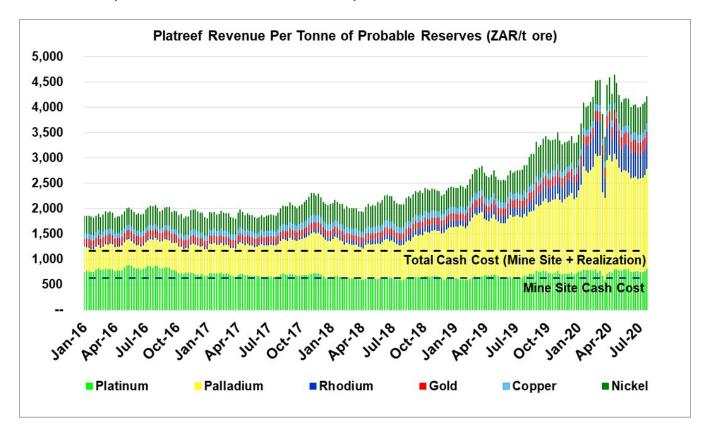


Figure 2. Revenue per tonne of ore at the Platreef Project has risen significantly since 2016 (shown in South African rand).

Source for figures 1 & 2: Bloomberg. Based on historical weekly commodity prices at the end of each week.

Notes for Figures 1 and 2:

- 1. Based on Platreef Mineral Reserves with an effective date of May 24, 2017.
- 2. Probable Mineral Reserve of 124.7 million tonnes at a grade of 1.95 grams per tonne (g/t) platinum, 2.01 g/t palladium, 0.30 g/t gold, 0.14 g/t rhodium, 0.34% nickel and 0.17% copper.
- 3. A declining NSR cut-off of \$155 per tonne (t) to \$80/t was used for the Mineral Reserve estimates.
- 4. The NSR cut-off is an elevated cut-off above the marginal economic cut-off.
- Metal prices used in the Mineral Reserve estimate: US\$1,600 per ounce (oz) platinum, US\$815/oz palladium, US\$1,300/oz gold, US\$1,500/oz rhodium, US\$8.90 per pound (lb) nickel and US\$3.00/lb copper.
- 6. Tonnage and grade estimates include dilution and mining recovery allowances.
- 7. Applies life-of-mine average recoveries of 87.4% for platinum, 86.9% for palladium, 78.6% for gold, 80.5% for rhodium, 87.9% for copper and 71.9% for nickel.
- 8. Total cash cost includes mine site costs, plus realization costs such as treatment and refining charges, royalties and transportation.

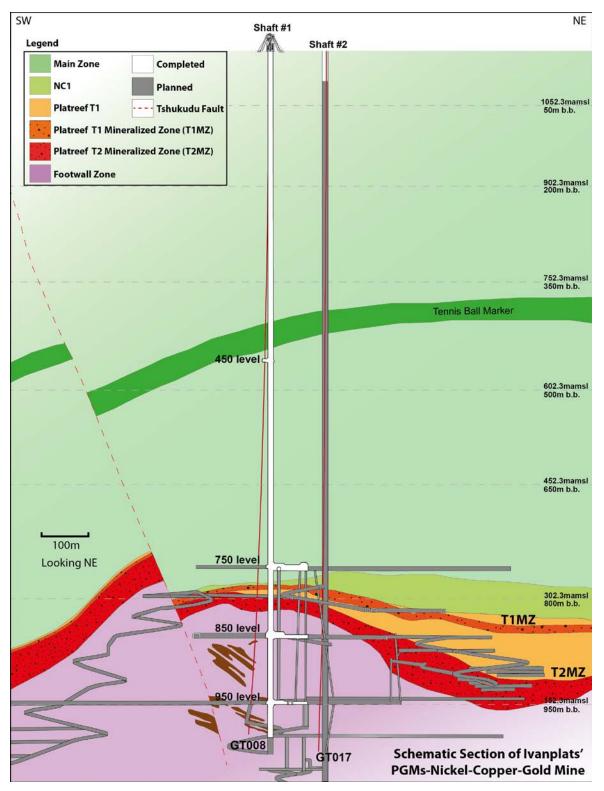
On July 15, 2020, members of the Platreef team celebrated the completion of shaft sinking and the 996-metre-level station development work in Shaft 1.



Rigger Lawrence Mokoena, a member of Platreef's shaft-sinking team, with his new jacket awarded in recognition of the team's outstanding safety performance.



Figure 3: Schematic section of the Platreef Mine, showing Flatreef's T1 and T2 thick, high-grade mineralized zones (red and dark orange), underground development work completed to date in shafts 1 and 2 (white) and planned development work (gray).



### **About the Platreef Project**

The Platreef Project is owned by Ivanplats (Pty) Ltd, which is 64%-owned by Ivanhoe Mines. A 26% interest is held by Ivanplats' historically-disadvantaged, broad-based, black economic empowerment (B-BBEE) partners, which include 20 local host communities with approximately 150,000 people, project employees and local entrepreneurs. A Japanese consortium of ITOCHU Corporation, Japan Oil, Gas and Metals National Corporation and Japan Gas Corporation owns a 10% interest in Ivanplats, which it acquired in two tranches for a total investment of \$290 million.

### **Qualified Person**

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 technical data disclosed in this news release.

Ivanhoe has prepared a current, independent, NI 43-101-compliant technical report for the Platreef Project, titled The Platreef 2017 Feasibility Study Technical Report dated September 4, 2017, prepared by DRA Global, OreWin Pty. Ltd., Amec Foster Wheeler, Stantec Consulting, Murray & Roberts Cementation, SRK Consulting, Golder Associates, and Digby Wells Environmental. This technical report include relevant information regarding the effective dates and the assumptions, parameters and methods of the mineral resource estimates on the Platreef 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 in respect of the Platreef Project.

### **About Ivanhoe Mines**

Ivanhoe Mines is a Canadian mining company focused on advancing its three principal projects in Southern Africa: the development of new mines at the Kamoa-Kakula copper discoveries in the Democratic Republic of Congo (DRC) and the Platreef palladium-platinum-nickel-copper-rhodium-gold discovery in South Africa; and the extensive redevelopment and upgrading of the historic Kipushi zinc-copper-germanium-silver mine, also in the DRC. Ivanhoe also is exploring for new copper discoveries on its wholly-owned Western Foreland exploration licences in the DRC, near the Kamoa-Kakula Project.

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#### Cautionary statement on forward-looking information

Certain statements in this news 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", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements in this release include, but are not limited to: (1) statements regarding the updated Platreef Definitive Feasibility Study (DFS) is due this quarter, which will include a preliminary economic assessment (PEA) on the phased-development production plan; (2) statements regarding the new auxiliary winder for Shaft 1 is scheduled to be delivered to Platreef later this year.

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 under "Risk Factors" and elsewhere in the company's MD&A, as well as the inability to obtain regulatory approvals in a timely manner; the potential for unknown or unexpected events to cause contractual conditions to not be satisfied; 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.

This news 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. 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, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral Resource estimates may have to be reestimated based on, among other things: (i) fluctuations in platinum, palladium, gold, rhodium, copper, nickel or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licences.

Although the forward-looking statements contained in this news 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 news 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 news 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 in the "Risk Factors" section and elsewhere in the company's MD&A for the quarter ended March 31, 2020 and its current Annual Information Form.