IVANHOE MINES

NEW HORIZONS

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEAR ENDED DECEMBER 31, 2022

DATED: MARCH 10, 2023

INTRODUCTION

This management's discussion and analysis (MD&A) should be read in conjunction with the audited consolidated financial statements of Ivanhoe Mines Ltd. ("Ivanhoe", "Ivanhoe Mines" or the "Company") for the years ended December 31, 2022 and 2021, which have been prepared in accordance with International Financial Reporting Standards (IFRS). All dollar figures stated herein are in U.S. dollars, unless otherwise specified. References to "C$" mean Canadian dollars and references to "R" mean South African Rands.

The effective date of this MD&A is ***March 10, 2023***. Additional information relating to the Company is available on SEDAR at www.sedar.com. Certain statements contained in the MD&A are forward-looking statements that involve risks and uncertainties. See "*Forward-Looking Statements*" and "*Risk Factors*".

This MD&A includes references to earnings before interest, tax, depreciation and amortization (EBITDA), and "Cash costs (C1) per pound" which are non-GAAP financial performance measures. For a detailed description of each of the non-GAAP financial performance measures used in this MD&A, and a detailed reconciliation to the most directly comparable measure under IFRS, please refer to the non-GAAP Financial Performance Measures section of this MD&A starting on page 47. The non-GAAP financial performance measures set out in this MD&A are intended to provide additional information to investors and do not have any standardized meaning under IFRS, and therefore may not be comparable to other issuers, and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with IFRS.

FOURTH QUARTER HIGHLIGHTS

- Production at the Kamoa-Kakula Copper Complex ("Kamoa-Kakula") for the fourth quarter of 2022 was 92,761 tonnes of copper in concentrate, compared to 97,820 tonnes in Q3 2022, 87,314 tonnes in Q2 2022 and 55,602 tonnes in Q1 2022.

- During Q4 2022, Kamoa-Kakula sold 92,208 tonnes of payable copper and recognized revenue of $673 million, with an operating profit of $418 million and an EBITDA of $451 million.

- Kamoa-Kakula's cost of sales per pound (lb.) of payable copper sold was $1.08/lb. for Q4 2022 compared with $1.05/lb. and $1.15/lb. in Q3 2022 and Q2 2022 respectively. Cash costs (C1) per pound of payable copper produced in Q4 2022 totalled $1.42/lb., compared to $1.43/lb. and $1.42/lb. in Q3 2022 and Q2 2022 respectively.

- Debottlenecking program of Kamoa-Kakula's Phase 1 and Phase 2 concentrators completed ahead of schedule, increasing nameplate processing capacity by 22% to a combined total of 9.2 million tonnes of ore per annum. The final installation and commissioning of a fourth Larox filter press is now also complete, increasing copper production capacity to 450,000 tonnes per annum.

- Ivanhoe Mines recorded a profit of $37 million for Q4 2022, compared to a profit of $48 million for the same period in 2021. The profit in the quarter includes Ivanhoe Mines' share of profit and finance income from the Kamoa-Kakula joint venture of $130 million for Q4 2022.

- Ivanhoe Mines has a strong balance sheet with cash and cash equivalents of $597 million on hand as at December 31, 2022, and expects Kamoa-Kakula's Phase 1 and Phase 2 cashflow to be sufficient to fund the expansion capital cost requirements at current copper prices.

- Ivanhoe continues its expansive copper exploration program on its Western Foreland licences that cover approximately 2,407 square kilometres adjacent to Kamoa-Kakula. The 2023 exploration program is budgeted at approximately $19 million and includes up to 70,000 metres of total drilling.

REVIEW OF OPERATIONS

Ivanhoe Mines is a mining, exploration and development company. At present, the Company's financial performance is primarily affected by ongoing mining operations at its Kamoa-Kakula Copper Complex, and ongoing exploration and development activities being conducted at its three material properties and the highly prospective Western Foreland Exploration Project. These consist of:

- **The Kamoa-Kakula Copper Complex.** A joint venture between Ivanhoe Mines and Zijin Mining Group Co., Ltd., ("Zijin" or "Zijin Mining") within the Central African Copperbelt in the Democratic Republic of Congo's (DRC) southern Lualaba province. Ivanhoe Mines and Zijin Mining each hold an indirect 39.6% interest in the Kamoa-Kakula Copper Complex, Crystal River Global Limited (Crystal River) holds an indirect 0.8% interest and the DRC government holds a direct 20% interest. The Kamoa-Kakula Copper Complex began producing copper in May 2021 and, through phased expansions, is positioned to become one of the world's largest copper producers. (See "Kamoa-Kakula Copper Complex")

- **The Platreef Project.** Construction of the planned Platreef Mine on the Company's discovery of palladium, rhodium, platinum, nickel, copper and gold, on the Northern Limb of South Africa's Bushveld Igneous Complex is in progress. Ivanhoe Mines holds a 64% interest in Platreef, the South African beneficiaries of a broad-based, black economic empowerment structure have a combined 26% stake in the Platreef Project and the remaining 10% is owned by a Japanese consortium of ITOCHU Corporation, Japan Oil, Gas and Metals National Corporation; and Japan Gas Corporation. (See "Platreef Project")

- **The Kipushi Project.** The existing Kipushi Mine is located on the Central African Copperbelt in the DRC's southern Haut-Katanga province, one of Africa's major mining hubs. The mine, which operated between 1924 and 1993, is approximately 30 kilometres southwest of the provincial capital, Lubumbashi, and less than one kilometre from the DRC-Zambia border. Ivanhoe Mines holds a 68% interest in Kipushi; the state-owned mining company, La Générale des Carrières et des Mines (Gécamines), holds the remaining 32% interest. (See "Kipushi Project")

- **The Western Foreland Exploration Project.** A group of exploration licences totalling approximately 2,407 km^2 and located in close proximity to the Kamoa-Kakula Copper Complex, the majority of which are 90%-100%-owned. Ivanhoe's DRC exploration group is targeting Kamoa-Kakula-style copper mineralization through a regional exploration and drilling program. (See "DRC Western Foreland Exploration Project")

KAMOA-KAKULA COPPER COMPLEX

The Kamoa-Kakula Copper Complex operated as the Kamoa Holding joint venture between Ivanhoe Mines and Zijin Mining, has been independently ranked as the world's fourth-largest copper deposit by international mining consultant Wood Mackenzie from 2025. The project is approximately 25 kilometres southwest of the town of Kolwezi and about 270 kilometres west of Lubumbashi. Kamoa-Kakula Copper Complex's Phase 1 concentrator began producing copper in May 2021 and achieved commercial production on July 1, 2021. The Phase 2 concentrator, which doubled nameplate production capacity, was commissioned in April 2022.

Ivanhoe sold a 49.5% share interest in Kamoa Holding Limited (Kamoa Holding) to Zijin Mining and a 1% share interest in Kamoa Holding to privately-owned Crystal River in December 2015. Kamoa Holding holds an 80% interest in the project. Since the conclusion of the Zijin transaction, each shareholder has been required to fund expenditures at Kamoa-Kakula in an amount equivalent to its proportionate shareholding interest. Ivanhoe and Zijin Mining each hold an indirect 39.6% interest in Kamoa-Kakula, Crystal River holds an indirect 0.8% interest, and the DRC government holds a direct 20% interest.

Kamoa-Kakula summary of operating and financial data

	FY 2022	Q4 2022	Q3 2022	Q2 2022	Q1 2022
Ore tonnes milled (000's tonnes)	**7,121**	**2,006**	2,082	1,950	1,083
Copper ore grade processed (%)	**5.54%**	**5.40%**	5.60%	5.44%	5.91%
Copper recovery (%)	**85.6%**	**86.1%**	85.9%	84.0%	87.1%
Copper in concentrate produced (tonnes)	**333,497**	**92,761**	97,820	87,314	55,602
Payable Copper sold (tonnes)	**323,733**	**92,208**	93,812	85,794	51,919
Cost of sales per pound ($ per lb.)	**1.09**	**1.08**	1.05	1.15	1.08
Cash cost (C1) ($ per lb.)	**1.39**	**1.42**	1.43	1.42	1.21
Realized copper price	**3.79**	**3.54**	3.50	4.34	4.51
Sales revenue before remeasurement ($'000)	**2,357,335**	**619,997**	570,504	699,381	467,453
Remeasurement of contract receivables ($'000)	**(209,664)**	**53,473**	(110,031)	(205,248)	52,142
Sales revenue after remeasurement ($'000)	**2,147,671**	**673,470**	460,473	494,133	519,595
EBITDA ($'000)	**1,391,497**	**451,371**	254,423	286,313	399,391
EBITDA margin (% of sales revenue)	**65%**	**67%**	55%	58%	77%

All figures in the above tables are on a 100%-project basis. Metal reported in concentrate is before refining losses or deductions associated with smelter terms. This MD&A includes "EBITDA", "Adjusted EBITDA", "EBITDA margin" and "Cash costs (C1)" which are non-GAAP financial performance measures. For a detailed description of each of the non-GAAP financial performance measures used herein and a detailed reconciliation to the most directly comparable measure under IFRS, please refer to the non- GAAP Financial Performance Measures section of this MD&A starting on page 47.

C1 cash cost per pound of payable copper produced can be further broken down as follows:

		FY 2022	Q4 2022	Q3 2022	Q2 2022	Q1 2022
Mining	($ per lb.)	0.39	0.40	0.41	0.39	0.30
Processing	($ per lb.)	0.14	0.16	0.12	0.14	0.15
Logistics charges (delivered to China)	($ per lb.)	0.50	0.50	0.56	0.51	0.36
Treatment, refining and smelter charges	($ per lb.)	0.21	0.23	0.21	0.21	0.20
General and administrative expenditure	($ per lb.)	0.15	0.13	0.13	0.17	0.20
C1 cash cost per pound of payable copper produced	**($ per lb.)**	**1.39**	**1.42**	**1.43**	**1.42**	**1.21**

C1 cash costs are prepared on a basis consistent with the industry standard definitions by Wood Mackenzie cost guidelines but are not measures recognized under IFRS. In calculating the C1 cash cost, the costs are measured on the same basis as the Company's share of profit from the Kamoa Holding joint venture that is contained in the financial statements. C1 cash costs are used by management to evaluate operating performance and include all direct mining, processing, and general and administrative costs. Smelter charges and freight deductions on sales to the final port of destination, which are recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of delivered, finished metal. C1 cash costs exclude royalties and production taxes and non-routine charges as they are not direct production costs.

Kamoa-Kakula produced 333,497 tonnes of copper in 2022, an increase of 215% compared with 2021

Kamoa-Kakula's Phase 1 and 2 concentrator plants milled approximately 2.0 million tonnes of ore during the fourth quarter at an average feed grade of 5.4% copper, for a total of 7.1 million tonnes at an average grade of 5.5% copper for the year ended December 31, 2022. This included high-grade, run-of-mine ore from the Kakula Mine, supplemented with ore from the surface stockpiles to meet the throughput over design capacity. In line with design parameters, copper recoveries averaged approximately 86% for the year.

The Kamoa-Kakula Copper Complex produced 92,761 tonnes of copper in concentrate in the fourth quarter of 2022, for a total of 333,497 tonnes of copper in concentrate for the year. This represents an increase of 215% compared with 2021 due to the successful commissioning of the Phase 2 concentrator in April 2022 and achieved the upper end of 2022 guidance.

All figures are on a 100% project basis and metal reported in concentrate is before refining losses or deductions associated with smelter terms.

Phase 1 and Phase 2 debottlenecking program to boost throughput to 9.2 million tonnes of ore per year is complete

In late February 2023, the debottlenecking of Kamoa-Kakula’s Phase 1 and 2 concentrators was completed ahead of schedule. The program increases the combined design processing capacity of the Phase 1 and 2 concentrator plants by 22%, from 7.6 to 9.2 million tonnes per annum (Mtpa).

Commissioning of the fourth filter press took place on March 4, 2023. The debottlenecking program boosts Kamoa-Kakula's annual production capacity to approximately 450,000 tonnes of copper in concentrate.

Since the completion of the debottlenecking, the concentrator has achieved record daily throughput of 27,796 tonnes and a record daily copper production of 1,505 tonnes. However, since December and persisting during the first quarter of 2023, Kamoa-Kakula has experienced intermittent grid stability issues in the DRC, impacting the ability to run the Phase 1 and 2 concentrators continuously. The issues have been prevalent across the southern grid power system in the DRC Copper Belt.

Kamoa Copper is liaising with the DRC’s state-owned power company La Société Nationale d’Electricité (SNEL), to identify the issues and assist with potential solutions, as well as evaluate options to insulate Kamoa-Kakula from future disruptions.

Photo: Representatives from DRA Global and Outotec standing in front of the first batch of concentrate produced from the newly installed fourth Larox filter press. The commissioning of the filter press ahead of schedule marks the completion of the debottlenecking program.

Outstanding economic results of updated, independent Integrated Development Plan (2023 IDP) for world-leading Kamoa-Kakula Copper Complex

After the end of the quarter on January 30, 2023, Ivanhoe Mines announced the results of an updated independent Integrated Development Plan (2023 IDP) for the Kamoa-Kakula Copper Complex. The 2023 IDP consists of a Pre-Feasibility Study (Kamoa-Kakula 2023 PFS) for the Phase 3 and Phase 4 expansions of the Kamoa-Kakula Copper Complex over a 33-year mine life, as well as an updated Preliminary Economic Assessment (Kamoa-Kakula 2023 PEA) that includes a life-of-mine extension case to 42 years overall.

The Kamoa-Kakula 2023 PFS (Phase 3 and 4 expansion) plans for a staged increase in nameplate processing capacity from the current combined capacity of 9.2 Mtpa, up to a total of 19.2 Mtpa. The Phase 1 and 2 concentrators will continue to process ore from the Kakula Mine, as well as the new adjacent Kakula West Mine from 2029. The Phase 3, 5.0 Mtpa concentrator, which is under construction and on target for the first concentrate in Q4 2024, will be fed with ore from the existing Kansoko Sud Mine (formerly Kansoko Mine), as well as new mines currently under development in the Kamoa area, known as Kamoa 1 and 2. The Phase 4 expansion consists of an additional 5.0 Mtpa concentrator that will take the total processing capacity of the Kamoa-Kakula Copper Complex up to 19.2 Mtpa. The Phase 4 concentrator will be fed by new mines in the Kamoa area.

The completion of the Phase 3 expansion in Q4 2024 is planned to coincide with the commissioning of an on-site, direct-to-blister flash copper smelter capable of producing 500,000 tonnes per annum of copper anode.

Highlights of the Kamoa-Kakula 2023 PFS (Phase 3 and 4 expansion) include:

- Phase 1 and 2 at steady-state production (9.2 Mtpa) for the first two years, following the completion of the debottlenecking program by Q2 2023, generating cash flow to fund the ongoing capital expenditures.

- Phase 3 expansion to 14.2 Mtpa processing capacity from late 2024 drives a significant increase in copper production, which is forecast to average 620,000 tonnes during the first ten years.

- Commissioning of the 500,000 tonne-per-annum smelter in conjunction with Phase 3 results in a significant improvement in operating cost.

- A significant period of cash flow generation in the first five years following Phase 3 (2025 to 2029) with copper production averaging approximately 650,000 tonnes at a cash cost (C1) of $1.15/lb.

- Phase 4 expansion, ramping up 19.2 Mtpa production capacity after 2030, will allow sustained copper production of over 500,000 tonnes per year through 2047.

- The remaining Phase 3 capital cost, including contingency, is $3.04 billion, excluding $255 million already spent through December 2022. Of the $3.04 billion, $2.53 billion is spent during 2023 and 2024 up to the commissioning of the Phase 3 concentrator, with the remaining capital cost for the continuing ramp-up of the mining operations thereafter.

- After-tax NPV, at an 8% discount rate, of $19.1 billion and a mine life of 33 years at a long-term copper price of $3.70/lb.

The Kamoa-Kakula 2023 PEA (Life-of-mine extension case) projects a nine-year mine life extension of the Kamoa-Kakula Copper Complex, in addition to the Kamoa-Kakula 2023 PFS. This case includes the addition of four new underground mines in the Kamoa area (called Kamoa 3, 4, 5 and 6) to maintain the overall production rate of up to 19.2 Mtpa.

Highlights of the Kamoa-Kakula 2023 PEA (Life-of-mine extension case) include:

- Life-of-mine extension case shows the potential to maintain the production rate at up to 19.2 Mtpa for an additional 9 years beyond the 33 years in the Kamoa-Kakula 2023 PFS.

- The sequential ramp-up of four new underground mines in the Kamoa area (called Kamoa 3, 4, 5 and 6) providing an additional 181.2 Mt of feed to the Kamoa and Kakula concentrators at an average grade of 3.1% copper, producing an additional 4.8 Mt of contained copper in concentrate.

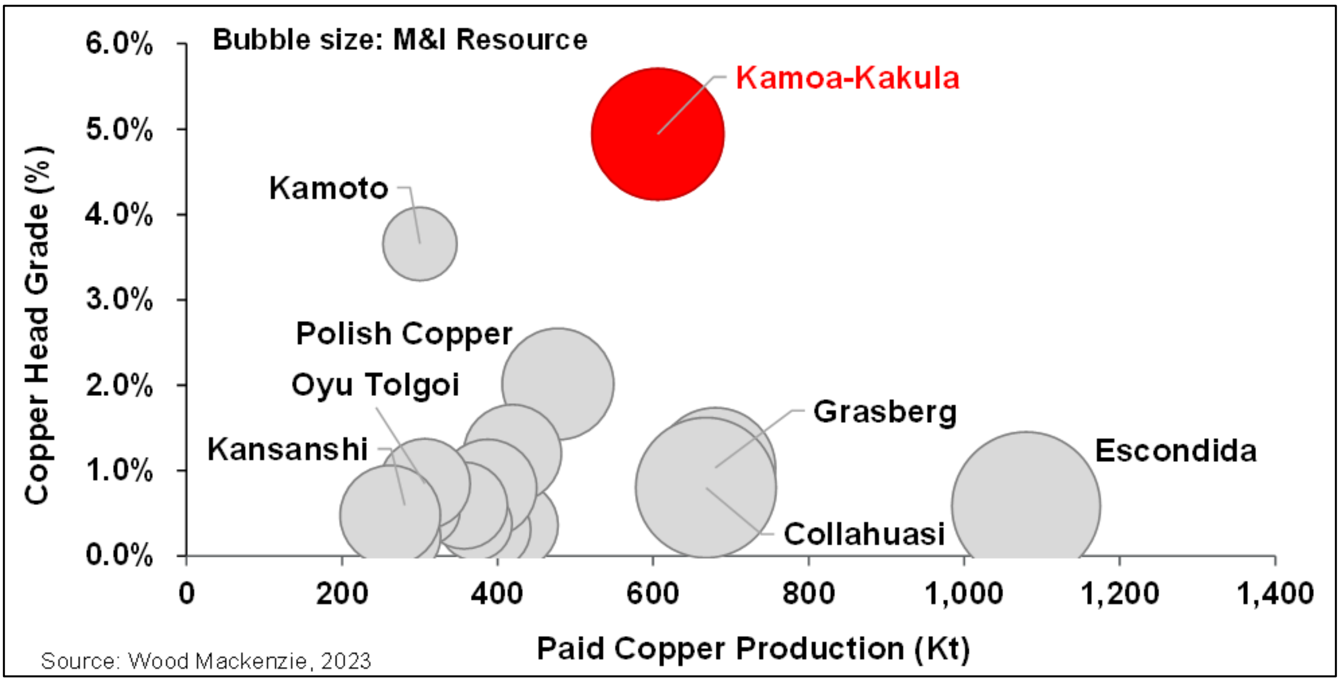
- After-tax NPV, at an 8% discount rate, of $20.2 billion and mine life of 42 years.

The Kamoa-Kakula 2023 PEA is preliminary and includes an economic analysis that is based, in part, on Inferred Mineral Resources. Inferred Mineral Resources are considered too speculative geologically for the application of economic considerations that would allow them to be categorized as Mineral Reserves – and there is no certainty that the results will be realized. Mineral Resources do not have demonstrated economic viability and are not Mineral Reserves.

The Kamoa-Kakula 2023 PFS and Kamoa-Kakula 2023 PEA were independently prepared by OreWin Pty Ltd. of Adelaide, Australia; China Nerin Engineering Co., Ltd., of Jiangxi, China; DRA Global of Johannesburg, South Africa; Epoch Resources of Johannesburg, South Africa; Golder Associates Africa of Midrand, South Africa; Metso-Outotec Oyj of Helsinki, Finland; Paterson and Cooke of Cape Town, South Africa; SRK Consulting Inc. of Johannesburg, South Africa; and MSA Group of Johannesburg, South Africa.

A National Instrument 43-101 technical report will be filed on SEDAR at www.sedar.com and the Ivanhoe Mines website at www.ivanhoemines.com on March 16, 2023.

Figure 1: World's projected top 20 copper mines in 2025, by key metrics.



Notes: Kamoa-Kakula production and grade are based on average paid copper production and average copper feed grade during the first 10 years as detailed in the Kamoa-Kakula 2023 PFS. Kamoa-Kakula resource is based on the contained copper in the Measured & Indicated category in the Kamoa-Kakula 2023 PFS. The 'Copper Head Grade' reflects the average reserve grade. 2025 Measured & Indicated resources take into account 2023-2024 production figures (which have been subtracted from the starting 2023 M&I resources balance). Measured & Indicated resources are inclusive of reserves and are on a 100% basis. Source: Wood Mackenzie (based on public disclosure, the Kamoa-Kakula 2023 PFS has not been reviewed by Wood Mackenzie).

Figure 2: Kamoa-Kakula 2023 IDP life-of-mine development plan by deposit.

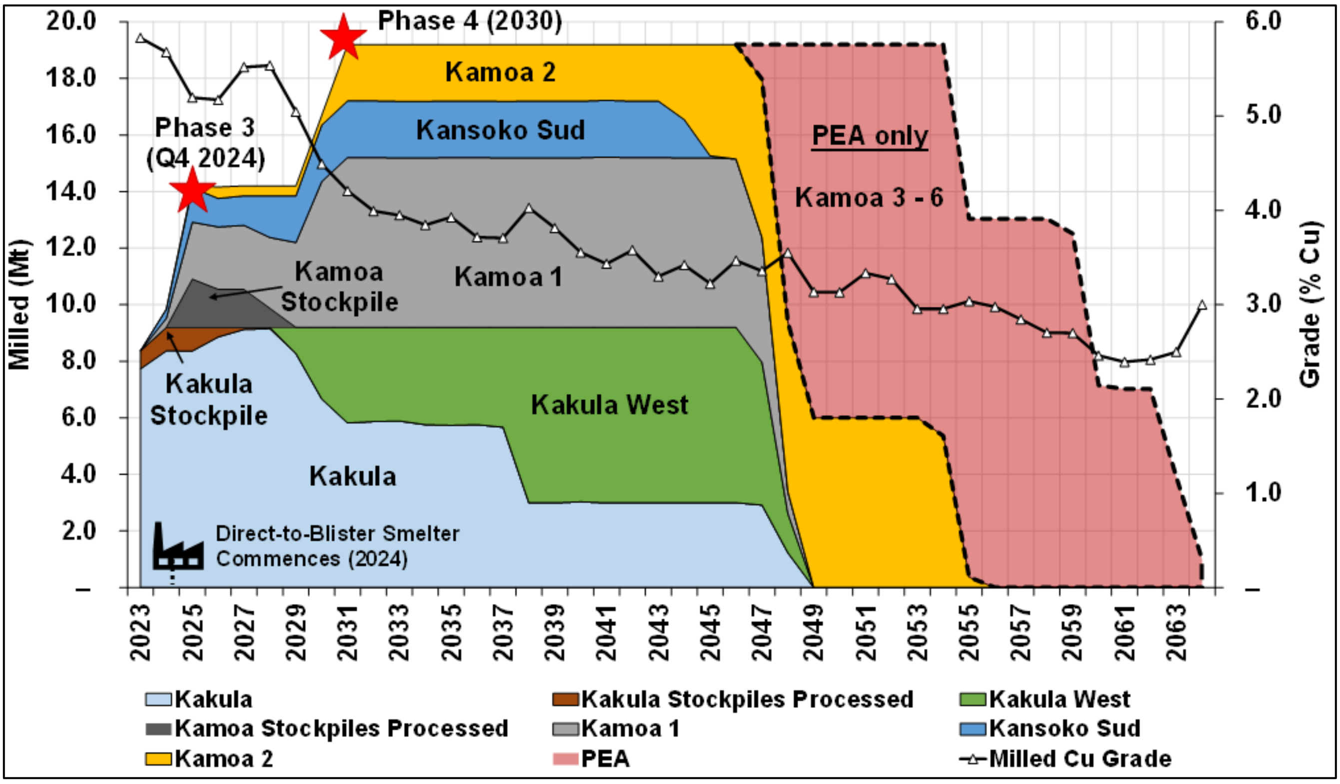


Figure by OreWin, 2023.

Surface earthworks for the Phase 3 concentrator plant and associated infrastructure are well advanced with civil works advancing on schedule

The Phase 3 expansion includes a new 5.0 Mtpa concentrator at Kamoa, which is located approximately 10 kilometres north of the Phase 1 and 2 concentrators.

The process design of the Phase 3 concentrator is very similar to that of the Phase 1 and 2 concentrators, only larger. The front end of the concentrator (stockpile, crushing and screening) will be built to a capacity of 10 Mtpa, double the required capacity for Phase 3, in anticipation of the future Phase 4 expansion. This follows the same construction philosophy as that of Phase 1 and Phase 2. The bulk of the equipment is the same or similar to that installed in the Phase 1 and 2 concentrators, resulting in a commonality of spare parts, while leveraging prior operational and maintenance experience.

Detailed design and procurement activities are on schedule with all major equipment ordered and the first steel erection expected around June 2023. Earthworks are essentially complete and civil construction is well-advanced.

Following the commissioning of Phase 3, expected by the end of 2024, Kamoa-Kakula will have a total processing capacity of over 14 Mtpa. The completion of Phase 3 is expected to increase annualized copper production to an average of approximately 620,000 tonnes per year over the next ten years, which will position Kamoa Copper as the world's fourth-largest copper mining complex, and the largest copper mine on the African continent.

Photo: Construction of the concentrate foundations for the flotation cells on the Phase 3 concentrator

Kamoa-Kakula's Phase 3 expansion also includes the replacement of Turbine #5 at the Inga II hydroelectric power station. The turbine replacement will supply an additional 178 megawatts (MW) of clean hydroelectric power to the national grid and provide power for Phase 3.

Kamoa-Kakula's Phase 3 expansion includes a direct-to-blister flash copper smelter that will incorporate leading-edge technology supplied by Metso Outotec of Espoo, Finland. It is projected to be one of the largest, single-line copper flash smelters in the world, and the largest in Africa, with a production capacity of 500,000 tonnes per annum of blister copper anodes. The 100-hectare smelter complex is being constructed adjacent to the Phase 1 and Phase 2 concentrator plants and is designed to meet the International Finance Corporation's (IFC) emissions standards.

The smelter will have a processing capacity of approximately 1.2 Mtpa of dry concentrate feed and is designed to run on a blend of concentrate produced from the Kakula (Phase 1 and 2) and Kamoa (Phase 3 and future Phase 4) concentrators. Under the Kamoa-Kakula 2023 PFS, the smelter is projected to accommodate approximately 80% of Kamoa-Kakula's total concentrate production, including that from Phase 3 and the future Phase 4 expansion. Kamoa-Kakula will continue to toll-treat concentrates under the 10-year agreement with the Lualaba Copper Smelter, located near the town of Kolwezi approximately 50 kilometres from Kamoa-Kakula, which is expected to account for approximately 150,000 tonnes of copper concentrate annually. The balance of copper production will be exported as concentrate.

As a by-product, the smelter will also produce between 650,000 and 800,000 tonnes per annum of high-strength sulphuric acid that is expected to be sold in the domestic DRC market.

Image: 3D rendered image of the on-site, 500,000 tonnes per annum direct-to-blister flash copper smelter. It is projected to be one of the largest, single-line copper flash smelters in the world, and the largest in Africa.

The bulk of the terracing earthworks for the smelter complex were completed in 2022 and the civil construction is now well advanced with all piling complete and foundations for the direct-to-blister flash smelting furnace and downstream electric slag cleaning furnace nearing completion. The erection of structural steel and the furnace is due to start in March 2023. The first batch of furnace steel arrived on site in January 2023. All major equipment has been ordered and is now being manufactured, while construction is on schedule to commission the smelter by the end of 2024.

Photo: Aerial view of the smelter construction site. Civil works and foundation construction are well underway. There will be approximately four times more steel used in the construction of the smelter compared with the Phase 1 concentrator.

Photo: Civil construction for Kamoa-Kakula's Phase 3 direct-to-blister flash smelter is advancing well, including the foundation for the direct-to-blister furnace pictured below.

Decline development for the Kamoa 1 and 2 mines progressing well

Construction of the twin declines to the Kamoa 1 and Kamoa 2 underground mines and excavation to access the Phase 3 mining areas is advancing well. The Kamoa 1 and Kamoa 2 mines share a single box cut with twin declines (service and conveyor). Construction of the declines is well advanced, with over 1,300 metres of development completed to date. Underground mining activities are expected to commence at Kamoa 1 in 2023 and Kamoa 2 in 2025, which will both involve the same mechanized drift-and-fill mining methods employed at the Kakula Mine.

Photo: Kamoa-Kakula's Inbound Logistics Team receiving the new 450-tonne crane in their yard. (L-R) Ruddy Mutombo, Marc Muteba, Marc Kafwata, David Kara, Richard Yatha, and Salis Kayumba.

Kamoa-Kakula undertaking optimization of logistics costs

Kamoa-Kakula continues to work alongside its offtake partners, Zijin Mining, CITIC Metal and Trafigura, as well as the government of the DRC, on initiatives to optimize the transportation of Kamoa-Kakula's products.

These initiatives include working with Kamoa-Kakula's offtake partners, logistics service providers and local entrepreneurs to increase regional trucking capacity, improve processes for clearing products for export and the opening of new border crossings between the DRC and Zambia. Kamoa-Kakula is also continuing to explore the optionality of using a greater number of ports for exporting concentrate. These include Durban in South Africa, Dar es Salaam in Tanzania, Walvis Bay in Namibia and Beira in Mozambique, and longer-term the port of Lobito in Angola.

Cost pressures associated with logistics have occurred since Kamoa-Kakula's Phase 2 concentrator declared commercial production four months ahead of schedule in early Q2 2022. While concentrate production doubled, this was not met with a sufficient supply of trucking capacity and this led to an increase in trucking contractor market pricing. In addition, the Lualaba Copper Smelter was closed in June 2022 for maintenance. This further increased trucking demand.

Under normal operating conditions, the cycle time of trucking concentrate from the mine gate to the port, and back, is approximately 45 days to the port of Durban. Congestion experienced in the past three quarters saw this cycle time increase to as high as 70 days. This, in turn, increased trucking demand by an additional 50%, further pushing up trucking contractor market pricing. The cycle time is shorter for the ports of Dar es Salaam, Walvis Bay and Beira. Some relief in the constrained trucking capacity was experienced in Q4 2022 due to certain other DRC operators utilizing a reduced number of trucks during the period.

During September 2022, the operating hours of the Kasumbalesa border, located in Haut-Katanga province, were increased from 6 hours to 12 hours. The extended operating hours are expected to be permanent. Congestion at the Kasumbalesa border crossing is still being experienced and extended queues are causing delays in customs clearing. These delays incurred additional standby costs as well as demurrage charges.

During the third quarter, two new commercial border crossings opened on the DRC-Zambia border. A border crossing at Sakania, located approximately 150 kilometres by road southeast of Kasumbalesa, opened for commercial exports and imports. In addition, the Mokambo border crossing, located halfway between Kasumbalesa and Sakania opened for commercial imports.

Reopening of Lualaba Copper Smelter in September reducing trucking demand

The Lualaba Copper Smelter, located approximately 50 kilometres from the Kamoa-Kakula Copper Complex, completed its scheduled maintenance, which commenced in Q2 2022, in early September and the transportation of copper concentrates to the facility recommenced shortly thereafter. While undergoing scheduled maintenance, Kamoa-Kakula's concentrate production was wholly transported and exported as a copper concentrate (approximately 50% contained copper), without the expected quantity of blister copper (approximately 99% contained copper), thereby temporarily increasing logistics volumes and costs for the quarter.

The on-site smelter forming part of the Phase 3 expansion will offer transformative financial benefits for the Kamoa-Kakula Copper Complex, most notably of which is a material reduction in logistics costs, and to a lesser extent reduced concentrate treatment charges and local taxes, as well as revenue from the acid sales. Logistics costs alone accounted for 35% of Kamoa-Kakula's total cash costs (C1) during the Q4 2022, and the volume of shipments per unit of copper will be more than halved by selling 99+%-pure blister copper anodes instead of copper concentrate. According to the Kamoa-Kakula 2023 PFS, smelter commissioning is expected to drive a decrease in average cash costs (C1) over the first five years (from 2025) to approximately $1.15/lb. of copper, a 21% reduction from the midpoint of the 2023 guidance of $1.45/lb. of payable copper produced.

Draw-down of surface ore stockpiles continues as required; stockpiles hold approximately 4.1 million tonnes grading 4.05% copper, containing more than 165,000 tonnes of copper

Kamoa-Kakula's high- and medium-grade ore surface stockpiles totaled approximately 4.1 million tonnes at an estimated grade of 4.05% copper as of the end of December 2022. The operation mined 1.89 million tonnes of ore grading 5.39% copper in Q4 2022, which was comprised of 1.80 million tonnes grading 5.51% copper from the Kakula Mine, including 0.71 million tonnes grading 6.80% copper from the mine's high-grade centre.

While the ongoing expansion of underground infrastructure at the Kakula mine takes place, ore will be drawn as required from the stockpile to maximize copper production

Kamoa-Kakula delivering Phase 1 and 2 copper concentrate and blister under off-take agreements

During Q2 2022, Kamoa Copper entered into an amendment to the existing off-take agreements for Phase 1 copper concentrate with CITIC Metal (HK) Limited (CITIC Metal) and Gold Mountains (H.K.) International Mining Company Limited, a subsidiary of Zijin, which includes the additional production volumes from Phase 2. The revised off-take agreements with CITIC Metal and Gold Mountains are evergreen for 50% each of the production volumes from Phase 1 and 2, and include both copper concentrate and blister copper resulting from processing of Kamoa-Kakula's copper concentrates at the nearby Lualaba Copper Smelter.

Kamoa Copper also entered into a third off-take agreement with Trafigura Pte. Ltd. (Trafigura) for a fixed volume of Kamoa-Kakula's concentrate production from 2022 to 2024, with such volume re- allocated on a pro-rata basis from CITIC Metal and Zijin.

All three off-takers are purchasing either the copper concentrate at the Kamoa-Kakula Mine or the blister copper at the Lualaba Copper Smelter on a free-carrier basis, meaning the buyers are responsible for arranging freight and shipment to the final destination, which is reimbursed on an open-book basis.

Kamoa Copper's concentrates and blister copper are exported via the ports of Durban in South Africa and Dar es Salaam in Tanzania, and to a lesser extent Walvis Bay in Namibia and Beira in Mozambique.

Ongoing rehabilitation of Turbine #5 at Inga II hydropower will provide clean, green hydropower for Phase 3

Like the existing Phase 1 and Phase 2 operations, future expansions of the Kamoa-Kakula Copper Complex will be powered by clean, renewable hydro-generated electricity which is developed in partnership with the DRC's state-owned power company La Société Nationale d'Electricité (SNEL).

Rehabilitation work is ongoing at turbine #5 of the existing Inga II hydropower facility on the Congo River, to generate an additional 178 megawatts (MW) of renewable hydropower, which underpins the Phase 3 power requirement, including the smelter. The refurbishment is scheduled for completion in Q4 2024, to align with the commissioning of the Phase 3 concentrator and smelter.

Rehabilitation works at the Inga II facility are advancing well, with the team from lead-contractor Voith Hydro mobilized to the Inga II site in Q4 2022. Dismantling works on the existing alternator are ongoing, as well as the fabrication of a new runner. Study work is also progressing well to upgrade the transmission capacity of the existing grid infrastructure between the Inga II hydropower facility and the Kamoa site.

In response to recent grid stability issues, Kamoa-Kakula is actively evaluating options to insulate operations from grid instability. The current installed backup generation capacity on-site is approximately 32 MW for emergency power. Over time there is a plan to increase this to 132 MW in a phased roll-out, with an additional 11 MW expected in Q2 2023 and a further 73 MW to be installed towards the end of 2023. Ultimately this will be sufficient for emergency power for Phases 1, 2 and 3, as well as enough to run one of the concentrators at Kakula.

Discussions have also commenced to secure additional power via the Zambian interconnector. Study work is underway on further options for additional on-site backup power capacity, including additional generators, as well as renewable options, such as solar and hydro, together with battery storage.

Photo: Kakula substation and backup generator farm, adjacent to the Phase 1 and 2 Concentrators. On the right-hand side are 16 generators of backup power capacity totaling 32 MW. On the left side are 8 new generators with capacity of 11 MW, to be commissioned in Q2 2023.

Photo: (L-R) Chris Tshibanda, Control Room Supervisor; Rachelle Museka, Mill Operator; Linda Malumda, Senior Operator Larox, at the Kamoa-Kakula Phase 1 and Phase 2 concentrator plants, which recently reached a throughput rate of 9.2 Mtpa.

COPPER PRODUCTION AND CASH COST GUIDANCE FOR 2023

Kamoa-Kakula 2023 Guidance

Contained copper in concentrate (tonnes)	**390,000 to 430,000**
Cash cost (C1) ($ per pound)	**1.40 to 1.50**

The figures are on a 100%-project basis and metal reported in concentrate is before refining losses or deductions associated with smelter terms. Kamoa-Kakula's 2023 guidance is based on several assumptions and estimates and involves estimates of known and unknown risks, uncertainties and other factors that may cause the actual results to differ materially.

Production guidance is based on assumptions about the timing for the completion of the debottlenecking program, among other things.

Cash costs (C1) per pound of payable copper amounted to $1.42 for the fourth quarter of 2022 and $1.39 for the year ended December 31, 2022.

Cash cost (C1) guidance factors in an increase in the grid power tariff supplied by DRC state-owned utility, Société Nationale d'Electricité (SNEL), which was increased from approximately $0.06 per kilowatt-hour (kWh) to $0.10 per kWh in December 2022. This marks the first increase by the predominantly hydro-powered grid in over 10 years. Kamoa-Kakula, via its energy subsidiary, continues to receive a 40% rebate on the power invoices payable, which repays the loan made to SNEL to rehabilitate state-owned hydroelectric power generation capacity and associated electrical infrastructure. The loan balance as at end of February 2023 was $255 million. Based on the Kamoa-Kakula 2023 PFS, the loan is anticipated to be amortized over approximately nine years.

Cash cost (C1) guidance is based on assumptions including, among other things, prevailing logistics costs based on estimated regional trucking capacity, particularly as regional idled operations are expected to come online, as well as increased benchmark treatment and refining charges, and inflation in consumables and other inputs.

C1 cash cost is a non-GAAP measure used by management to evaluate operating performance and includes all direct mining, processing, stockpile rehandling charges, and general and administrative costs. Smelter charges and freight deductions on sales to the final port of destination (typically China), which are recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of delivered finished metal.

For historical comparatives, see the non-GAAP Financial Performance Measures section of this MD&A.

PLATREEF PROJECT

The Platreef Project is owned by Ivanplats (Pty) Ltd (Ivanplats), 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.

The Platreef Project hosts an underground deposit of thick, platinum-group metals, nickel, copper, and gold mineralization on the Northern Limb of the Bushveld Igneous Complex in Limpopo Province – approximately 280 kilometres northeast of Johannesburg and eight kilometres from the town of Mokopane.

On the Northern Limb, platinum-group metals mineralization is primarily hosted within the Platreef, a mineralized sequence traced for more than 30 kilometres along the strike. Ivanhoe's Platreef Project, within the Platreef's southern sector, is comprised of two contiguous properties: Turfspruit and Macalacaskop. Turfspruit, the northernmost property, is contiguous with, and along strike from, Anglo Platinum's Mogalakwena group of mining operations and properties.

Since 2007, Ivanhoe has focused its exploration and development activities on defining and advancing the down-dip extension of its original discovery at Platreef, now known as the Flatreef Deposit, which is amenable to highly mechanized, underground mining methods. With Shaft 1, the initial access to the deposit, now in operation and hoisting development rock from underground, Ivanhoe is focusing on construction activities to bring Phase 1 of Platreef into production by Q3 2024.

Platreef development is currently funded by $300-million stream financing, with efforts to finalize additional senior debt facility targeted for completion in the first half of 2023.

Surface construction activities are underway, while lateral underground mine development is progressing well

Underground development work has been focused on the vertical development of waste passes between the 750-metre, 850-metre and 950-metre levels, and lateral development towards the orebody, as well as lateral development required for underground infrastructure on each level including access to the bottom of Shaft 3 on the 950-metre level. Shaft 3 is currently being reamed and is planned to be complete in Q4 2023. More than 750 metres of lateral development has been completed across all three levels, as well as over 200 metres of vertical development between the three levels.

Construction for Platreef's Phase 1 concentrator has commenced, with the first production on schedule for Q3 2024. Earthworks construction is now underway, with mill foundation civil activities advancing well. Long-lead equipment orders were placed with the majority of items to be delivered during the third quarter of 2023. The structural steel, piping and plate work (SMPP) contractor has been appointed and mobilization to the site is expected in mid-March 2023. Over 650 tonnes of structural steel are in fabrication, with over 150 tonnes ready for delivery.

Photo: Concrete pouring for Platreef's Phase 1 concentrator is underway, showing foundations for the concentrate thickener and tailings thickener in the foreground and flotation cells in the background.

Construction of Platreef's first solar-power plant commenced in Q3 2022 with commissioning expected in 2023. The solar-generated power from the plant will be used for mine development and construction activities.

The 10-metre diameter Shaft 2, which is required for the Phase 2 expansion, will be among the largest hoisting shafts on the African continent and is currently under construction. Construction during the quarter included the 104-metre-tall headframe, which commenced in December 2022 on schedule. Shaft 2's headframe will be equipped with up to 8 Mtpa of hoisting capacity. The headgear concrete slide construction commenced in November 2022 with more than 70 metres of the 104 metres in total completed to date.

Photo: Shaft 2 headgear slide under construction (on the right), next to Shaft 1 headgear (on the left), which has been used for hoisting since February 2022. More than 70 metres of the 104-metre Shaft 2 headgear have been completed to date.

Photo: Ivanhoe Mines executive team members, together with investors, on the 950-metre-level standing in front of the 5.1-metre reamer head that recently commenced the raise boring of Shaft 3.

Photo: Underground mining crew working on lateral development on the 950-metre-level.

Photo: Marna Cloete, President of Ivanhoe Mines, joined by executive management and investors, starting the pilot drill hole for the raise boring of Shaft 2 (in the background). Shaft 2 will have a hoisting capacity of up to 8 Mtpa.

The drilling of the pilot drill in Shaft 2 down to the mine's workings commenced in the first quarter of 2023 and is on schedule to finish during the second quarter, whereafter reaming of a 3.1-metre diameter hole is planned. Raise-boring of the 5.1-metre-diameter ventilation shaft (Shaft 3) also commenced in the first quarter of 2023. Reaming is expected to be completed in Q4 2023.

Photo: Construction of the Masodi Wastewater Treatment Plant is on schedule for completion in Q3 2023. Treated water from the facility available for offtake will be sufficient for Platreef's Phase 1 and Phase 2 water requirements.

Ivanhoe Mines commences optimization work to potentially accelerate Platreef's Phase 2 expansion

Ivanhoe has initiated optimization work to identify value-accretive options for installing hoisting capacity in Shaft 3. Shaft 3, which is currently under construction and was originally planned as a ventilation-only shaft, with a diameter of 5.1 metres, is now planned to be equipped for hoisting which provides an alternative option to remove ore and waste from the underground mine. This has the benefit of de-risking the development and ramp-up of the Phase 1 mine and may be used to accelerate the ramp-up of underground mining activities for Phase 2, in advance of the completion of Shaft 2, which is expected in 2027.

Outstanding results of Platreef 2022 Feasibility Study

On February 28, 2022, Ivanhoe Mines announced the results of a new independent feasibility study for the Platreef Project (Platreef 2022 FS). The Platreef 2022 FS is based on a two-phased development to a steady-state production rate of 5.2 Mtpa, and is the current execution plan for the Platreef Project.

Highlights of the Platreef 2022 FS include:

- The Platreef 2022 FS evaluates the phased development of Platreef, with an initial 700,000- tonne-per-annum underground mine and a 770,000-tonne-per-annum capacity concentrator, targeting high-grade mining areas close to Shaft 1, with an initial capital cost of $488 million.
- First concentrate production for Phase 1 is planned for Q3 2024, with the Phase 2 expansion based on the commissioning of Shaft 2 in 2027, followed by the commissioning of two 2.2-million- tonne-per-annum concentrators in 2028 and 2029. This would increase the steady-state production to 5.2 Mtpa by using Shaft 2 as the primary production shaft.
- Expansion capital cost for Phase 2 is estimated at $1.5 billion, which may be partially funded by cash flows from Phase 1 and a project-financing package.
- Ivanplats' dedicated engineering teams and leading consultants are evaluating optimizations to the

sinking methodology for Shaft 2 to further accelerate the availability of the shaft for hoisting, which may fast track the overall development timeline.

- Phase 1 average annual production of 113,000 ounces (oz.) of palladium, rhodium, platinum, and gold (3PE+Au), plus 5 million pounds of nickel and 3 million pounds of copper.
- Phase 2 average annual production of 591,000 oz. of 3PE+Au, plus 26 million pounds of nickel and 16 million pounds of copper, which would rank Platreef as the fifth largest primary PGM producer on a palladium equivalent basis.
- Life-of-mine cash cost of $514 per ounce of 3PE+Au, net of by-products, and including sustaining capital costs, would rank Platreef as the industry's lowest cost primary PGM producer.
- After-tax net present value at an 8% discount rate (NPV8%) of $1.7 billion and an internal rate of return (IRR) of 18.5%, based on long-term consensus prices.

The Platreef 2022 FS is based on a steady-state production rate of 5.2 Mtpa, as well as an accelerated ramp-up to a steady state through the earlier development of Shaft 2. The Platreef 2022 FS is based on the detailed design and engineering scenario first presented in the 2020 PEA, confirming the viability of a new phased-development pathway to fast-track Platreef into production by Q3 2024.

Figure 3: Production and timeline schematic of Platreef 2022 feasibility study.

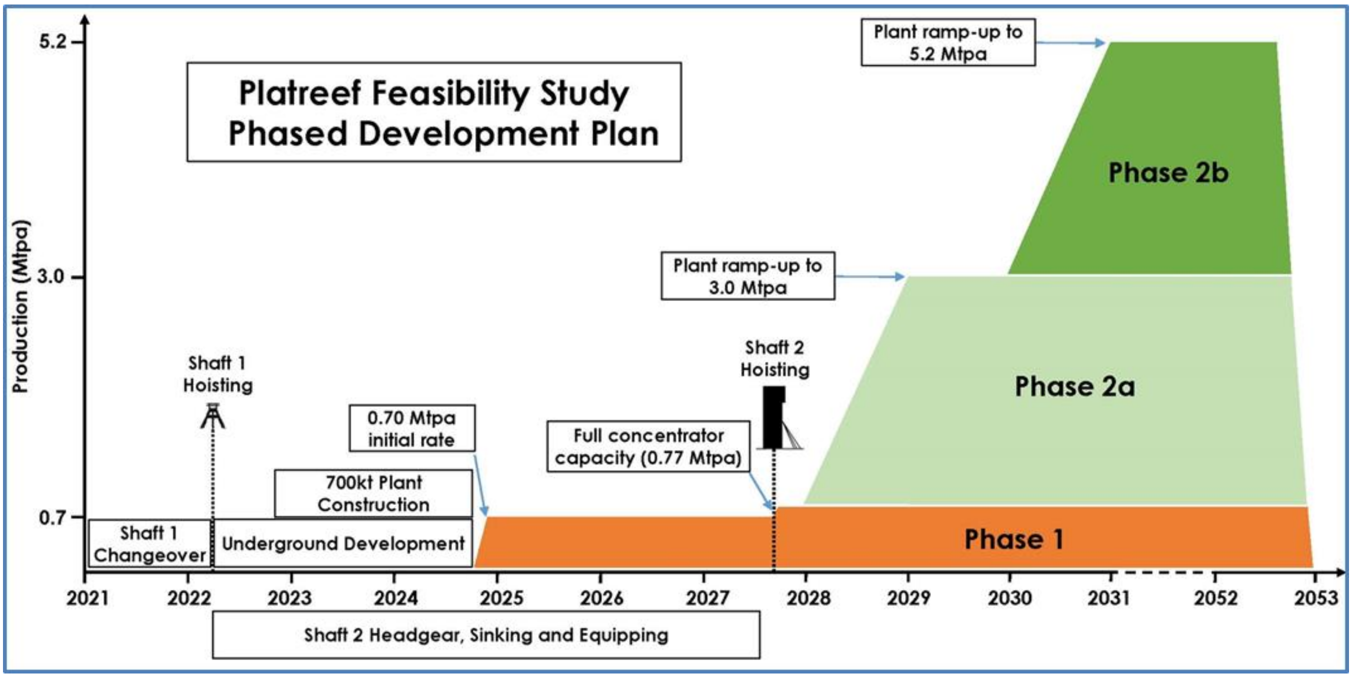
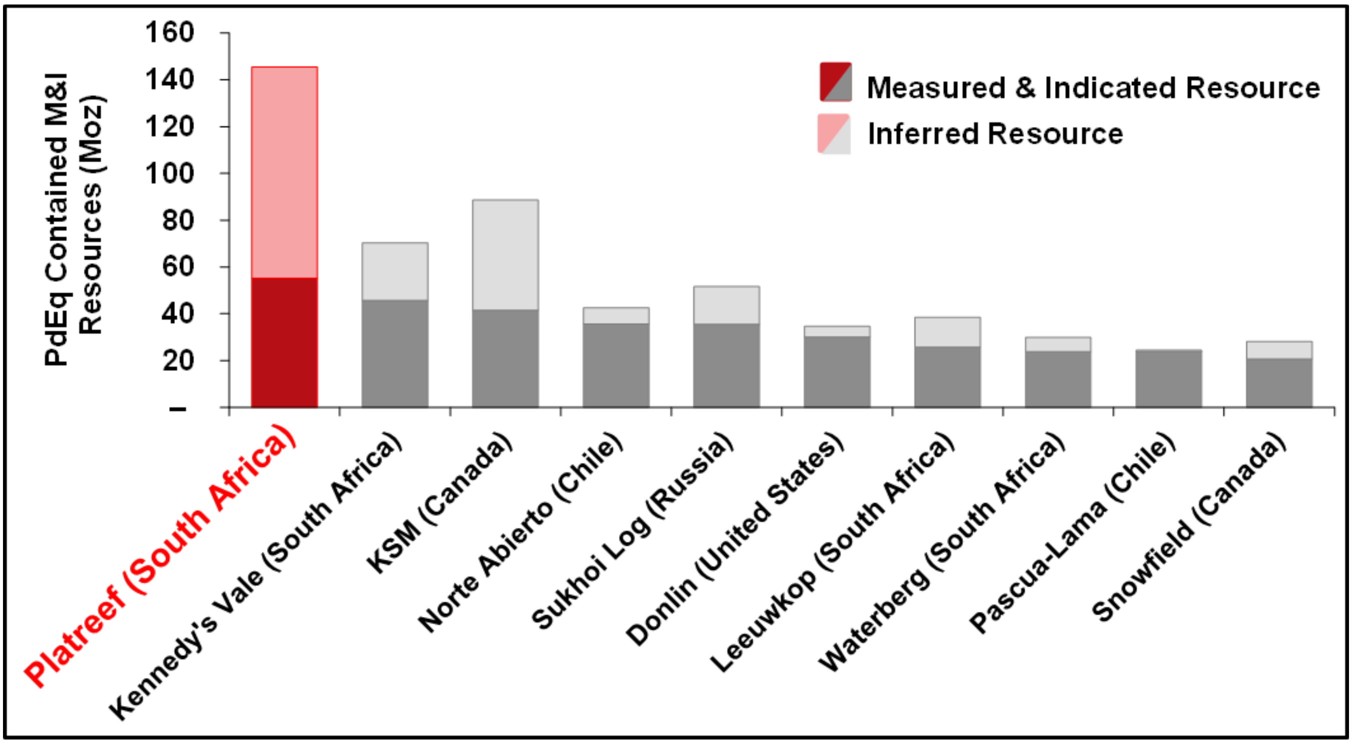


Figure 4: World's largest precious metal deposits under development ranked by contained metal in Measured and Indicated Resources.



Source: Company filings, S&P Global Market Intelligence. Notes: The chart ranks the largest undeveloped primary palladium, platinum, gold, silver and rhodium projects from the S&P Global Market Intelligence database based on measured and indicated palladium equivalent resources. Palladium equivalent calculation includes palladium, platinum, gold, silver and rhodium ounces and has been calculated using spot price metal price assumptions (February 23, 2022) of $1,095/oz platinum, $2,480/oz palladium, $18,750/oz rhodium, $1,909/oz gold and $24.55/oz silver. Measured and Indicated resources for Platreef correspond to palladium, platinum, gold and rhodium ounces at a 1 g/t cut-off grade.

Platreef development currently funded by $300-million stream financing, with efforts to finalize additional senior debt facility well underway

As announced on December 8, 2021, Ivanplats' $300 million in stream-financing agreements are with Orion Mine Finance and Nomad Royalty Company (which was subsequently acquired by Sandstorm Gold Royalties). This includes a $200 million gold-streaming facility and a $100 million palladium and platinum streaming facility. The first prepayment of $75 million was received upon the closing of the transaction in December 2021, with the final $225 million instalment received in September 2022.

The stream facilities are subordinated to any future senior secured financing. Ivanplats remains flexible to raise additional debt or equity and has pre-agreed inter-creditor arrangements with the stream purchasers for future senior debt. The stream facilities are guaranteed by Ivanplats and secured over its assets, as well as Ivanhoe's and the Japanese consortium's shares of Platreef.

The fully realized stream agreements allow Ivanplats to advance Platreef's ongoing Phase 1 construction activities, with an initial capital cost of $488 million as set out in the Platreef feasibility study announced in February 2022.

In addition, Ivanplats continues to progress the senior debt facility of $150 million with its mandated lead arrangers, Société Générale and Nedbank. The facility, which is targeted to close during the first half of 2023.

Long-term supply of bulk water for the Platreef Mine

The water requirement for the Phase 1 operation is projected to peak at approximately three million litres per day, which will then increase to nine million litres per day once the Phase 2 expansion is complete. In January 2022, Ivanplats signed new agreements for the rights to receive local, treated water to supply the bulk water needed for the phased development plan at Platreef. These agreements replace those originally signed in 2018.

Under the terms of a new offtake agreement, the Mogalakwena Local Municipality (MLM) has agreed to supply at least three million litres per day of treated effluent, up to a maximum of 10 million litres per day for 32 years, from the date of first production, sourced from the town of Mokopane's Masodi Wastewater Treatment Works, currently under construction.

Ivanplats also has signed a sponsorship agreement where Ivanplats has undertaken the commitment to complete the partially constructed Masodi Wastewater Treatment Works, which was halted in 2018. Ivanplats anticipates spending approximately ZAR 215 million ($13 million) to complete the works. Ivanplats will purchase the treated water at a reduced rate of ZAR 5 per thousand litres. The construction works of the water treatment works plant is progressing ahead of its scheduled completion in mid-2023.

Supply of bulk power to Platreef (100MVA)

Final agreements for the 100 megavolt-amperes (MVA) power supply from Eskom, the South African public electricity utility, were signed during Q2 2022 and the construction permit was received. Construction of the overhead line has commenced, and fabrication of the pylons is progressing. The bulk power project is scheduled for completion in Q4 2023.

KIPUSHI PROJECT

The Kipushi zinc-copper-germanium-silver-lead mine in the DRC is adjacent to the town of Kipushi, approximately 30 kilometres southwest of Lubumbashi on the Central African Copper Belt. Kipushi is approximately 250 kilometres southeast of the Kamoa-Kakula Copper Complex and less than one kilometre from the Zambian border. Ivanhoe acquired its 68% interest in the Kipushi Project in November 2011, through Kipushi Holding which is 100%-owned by Ivanhoe Mines. The balance of 32% in the Kipushi Project is held by the state-owned mining company, Gécamines.

In Q1 2022, Kipushi Holding and Gécamines signed a new agreement to return the ultra-high-grade Kipushi Mine to commercial production. The new agreement sets out the commercial terms that will form the basis of a new Kipushi joint-venture agreement establishing a robust framework for the mutually beneficial operation of Kipushi for years to come, and is subject to execution of definitive documentation. Once the agreement is concluded, it is anticipated that Ivanhoe Mines' ownership in the Kipushi Project will reduce to 62%, with Gécamines holding the balance of 38%.

Kipushi will be the world's highest-grade major zinc mine, with an average head grade of 36.4% zinc over the first five years of production.

Highlights of the new agreement include:

- Kipushi Holding will transfer 6% of the share capital and voting rights in the Kipushi Project to Gécamines, after which Kipushi Holding and Gécamines will hold 62% and 38%, respectively.
- From January 25, 2027, 5% of the share capital and voting rights in the Kipushi Project will be transferred from Kipushi Holding to Gécamines, after which Kipushi Holding and Gécamines will hold 57% and 43%, respectively.
- If, after the 6% and 5% transfers, part of the Kipushi Project's share capital is required to be transferred to the State or to any third party pursuant to an applicable legal or regulatory provision, Gécamines will transfer the number of the Kipushi Project shares required, and Kipushi Holding will retain 57% ownership in the Kipushi Project.
- Once a minimum of the current proven and probable reserves and up to 12 million tonnes has been mined and processed, an additional 37% of the share capital and voting rights in the Kipushi Project will be transferred from Kipushi Holding to Gécamines, after which Kipushi Holding and Gécamines will hold 20% and 80%, respectively.
- A new supervisory board and executive committee will be established with appropriate shareholder representation.
- Initiatives will be implemented, focusing on the development of Congolese employees, including individual development, the identification of future leaders, succession planning and the promotion of gender equality across the workforce.
- A framework for tendering for the offtake of zinc concentrates produced by the Kipushi Mine has been established, which includes Gécamines' participation.
- Kipushi Holding will continue to fund the Kipushi Project with the shareholder loan and/or procure financing from third parties for the development of the project. The interest on the shareholder loan will be 6%, which will be applicable from January 1, 2022, on the existing balance and any further advances. Under the terms of the current shareholder loan agreement, the shareholder loan carries interest of LIBOR plus 4%, which is applicable to 80% of the advanced amounts with the remaining 20% interest-free. As of December 31, 2022, the balance of the shareholder loan owing to Kipushi Holding, including accrued interest, was approximately $619 million.

Surface construction activities are advancing on schedule to return Kipushi to production in Q3 2024

Detailed design for the Kipushi concentrator and associated surface infrastructure is effectively complete, with procurement activities well advanced. Orders for all twelve long lead items of equipment have been placed, as well as the contract for the supply and installation of structural steel, piping and plate work (SMPP). Long lead order equipment packages are expected to commence delivery to the site in late summer. This includes the ball mill, currently being fabricated by CITIC in China. Construction work on site is advancing on schedule, with earthworks effectively complete and civil work advancing well. First concentrate is on schedule to occur during Q3 2024.

Photo: Civil work on the foundations for Kipushi's processing plant is progressing on schedule. Shaft 5, its head frame in the background, will haul ore to the surface and an overland conveyor will stockpile it on a new run-of-mine (ROM) pad (left of picture).

Underground development work at Kipushi advancing ahead of schedule. Access drive development focused around the top of the Big Zinc orebody

Underground mine development around Kipushi's Big Zinc orebody is advancing ahead of schedule. Stope perimeter drives are being developed on the 1,245m, 1,260m, 1,290m and 1,320m levels, with stope access development at the 1,335-metre level advancing well. Waste rock and low-grade mineralized rock from the advancement of the perimeter and access drives are being hoisted to the surface through Shaft 5 and stockpiled.

Shaft 5 is planned to be the main production shaft once operations commence, with a maximum hoisting capacity of up to 1.8 Mtpa. The bottom of Shaft 5 provides primary access to the lower levels of the mine, including the Big Zinc orebody, along the 1,150-metre haulage level.

Mining will be conducted using highly productive, mechanized methods. Cemented rock fill will be utilized to backfill open stopes, with tailings from the surface, to reduce surface tailings and maximize ore extraction. Ore is crushed underground, and conveyed to the base of the P5 shaft, where it will be hoisted to the surface and conveyed to the nearby run-of-mine stockpile, adjacent to the 800,000-tonne-per-annum concentrator.

Stoping of the Big Zinc orebody is expected to commence no later than early 2024, to build a high-grade ore stockpile ahead of processing plant commissioning in Q3 2024.

Photo: Bernice Monga Mutombo, Drill Operator, operating a drilling rig at the 1,220-metre level.

New commercial border crossing to provide a significant advantage to the Kipushi Mine and the local region

Ivanhoe signed a memorandum of understanding (MOU) with the provincial government of Haut-Katanga to study options for upgrading the DRC-Zambia border crossing in the town of Kipushi for commercial imports and exports. As part of the MOU, Ivanhoe agreed to complete a scoping study investigating various border options. The study has been completed and issued to the provincial government for consideration.

Results of the scoping study were presented and adopted by Ivanhoe Mines and Haut-Katanga, identifying a preferred option for the construction of a new border crossing and the rehabilitation of the existing border crossing. Further studies are underway on the Zambian road network to identify the preferred route to link Kipushi and facilitate efficient export to international ports.

A new commercial border crossing will provide a significant advantage to the Kipushi Mine as a direct means of importing materials and consumables, clearing customs, and will provide socio-economic benefits to the town and Province of Haut-Katanga. The border crossing will also benefit logistics for Kamoa-Kakula's operations.

Work continues to improve processes for clearing copper and zinc products for export and to open alternative export border crossings between the DRC and Zambia, to alleviate congestion at the existing border crossings at Kasumbalesa and Sakania in Haut-Katanga Province.

Recently upgraded underground mine with easy access to stopes allows for rapid production ramp-up

Mining at Kipushi historically has been carried out from the surface to a depth of approximately 1,220 metres. Shaft 5 (P5) is planned to be the main production shaft with a maximum hoisting capacity of 1.8 Mtpa and provides the primary access to the lower levels of the mine, including the Big Zinc Zone, through the 1,150-metre haulage level.

Mining 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. Personnel and equipment access also are via the P5 shaft. The Big Zinc Zone will be accessed by way of the existing decline, without significant new development required. As the existing decline already is below the first planned stoping level, it is relatively quick to develop the first zinc stopes for the ramp up of mine production.

In preparation for the start of underground mining, early works activities were completed in August 2022, comprising of the refurbishment and supporting of key mining excavations, as well as blasting of the truck tip turning bay and truck passing bays on the 1,150-metre-level. Explosive storage bays and a trackless machinery assembly bay were also completed. Cover drilling of the main decline commenced in September 2022.

A total of 521 metres of underground development was successfully completed within the mining footprint area during Q4 2022. Underground development continued along the critical path whilst additional resources are being mobilized. Orders have been placed on the first trackless fleet for underground mining.

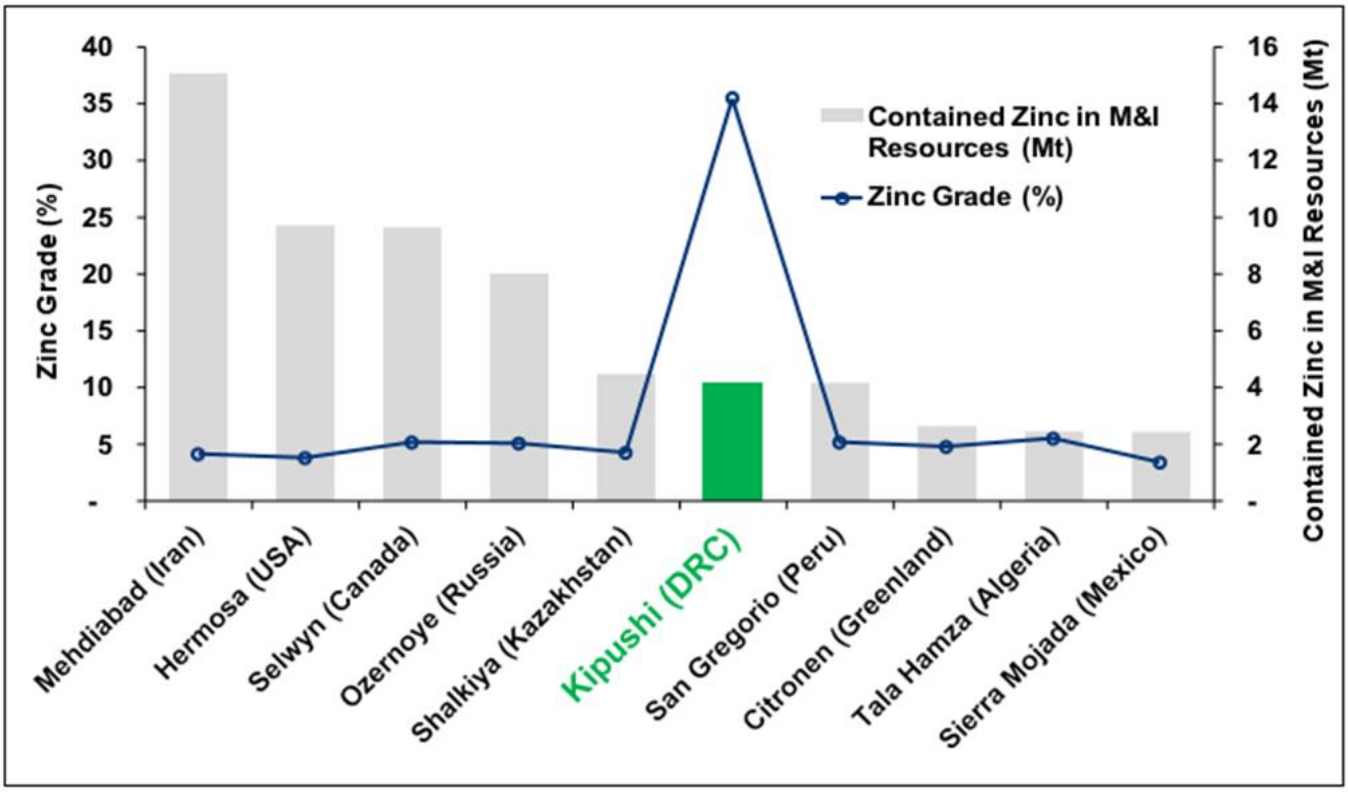
Kipushi feasibility study issued, heralding the planned re-start of the historic mine, with a two- year development timeline and exceptional economic results

On February 14, 2022, Ivanhoe Mines announced the positive findings of an independent, feasibility study for the planned resumption of commercial production at Kipushi.

The Kipushi 2022 feasibility study builds on the results of the pre-feasibility study published by Ivanhoe Mines in January 2018. The redevelopment of Kipushi is based on a two-year construction timeline, which utilizes the significant existing surface and underground infrastructure to allow for substantially lower capital costs than comparable development projects. The estimated pre-production capital cost, including contingency, is $382 million.

The 2022 feasibility study focuses on the mining of Kipushi's zinc-rich Big Zinc and Southern Zinc zones, with an estimated 11.8 million tonnes of Measured and Indicated Mineral Resources grading 35.3% zinc. Kipushi's exceptional zinc grade is more than twice that of the world's next- highest-grade zinc project, according to Wood Mackenzie, a leading, international industry research and consulting group.

Figure 5: World's top 10 zinc projects, by contained zinc.



Source: Wood Mackenzie, January 2022. Note: All tonnes and metal grades of individual metals used in the equivalency calculation of the above-mentioned projects (except for Kipushi) are based on public disclosure and have been compiled by Wood Mackenzie. All metal grades have been converted by Wood Mackenzie to a zinc equivalent grade at Wood Mackenzie's respective long-term price assumptions.

The Kipushi 2022 Feasibility Study envisages the recommencement of underground mining operations, and the construction of a new concentrator facility on the surface with an annual processing capacity of 800,000 tonnes of ore, producing on average 240,000 tonnes of zinc contained in concentrate over 14 years at life-of-mine average C1 cash cost of $0.65/lb.

Highlights of the 2022 feasibility study results for the Kipushi Mine include:

- The Kipushi 2022 Feasibility Study evaluates the development of an 800,000-tonne-per-annum underground mine and concentrator, with an increased resource base compared to the pre-feasibility study, extending the mine life to 14 years.
- Existing surface and underground infrastructure allow for significantly lower capital costs than comparable development projects, with the principal development activity being the construction of a conventional concentrator facility and new supporting infrastructure on surface in a two-year timeline.
- Pre-production capital costs, including contingency, estimated at $382 million.
- Life-of-mine average zinc production of 240,000 tonnes per annum, with a zinc grade of 32%, is expected to rank Kipushi among the world's major zinc mines, once in production, with the highest grade by some margin.
- Life-of-mine average C1 cash cost of $0.65/lb. of zinc is expected to rank Kipushi, once in production, in the second quartile of the cash cost curve for zinc producers globally.
- At a long-term zinc price of $1.20/lb., the after-tax net present value (NPV) at an 8% real discount rate is $941 million, with an after-tax real internal rate of return (IRR) of 40.9% and project payback period of 2.3 years.

The Kipushi 2022 Feasibility Study was independently prepared on a 100%-project basis by OreWin Pty. Ltd., MSA Group (Pty.) Ltd., SRK Consulting (Pty) Ltd. and METC Engineering.

WESTERN FORELAND EXPLORATION PROJECT

Ivanhoe's DRC exploration group is targeting Kamoa-Kakula-style copper mineralization on its Western Foreland exploration licences. The 17 licences in the Western Foreland cover a combined area of approximately 2,407 square kilometres to the north, south and west of the Kamoa-Kakula Copper Complex. The exploration group is using models that successfully led to the discoveries of Kakula, Kakula West, and the Kamoa North Bonanza Zone on the Kamoa-Kakula mining licence. The group is composed of a mixture of the same exploration geologists responsible for these previous discoveries as well as others with experience exploring the greater Central African Copper Belt.

At the Lupemba target area in the far southwest of Western Foreland, ground gravity and a large 800-metre-spaced air core grid continued in the fourth quarter. 69 holes were completed in the fourth quarter, for a total of 150 air-core holes completed in 2022. The air core drilling programs collect samples below the exotic Kalahari sands for geochemistry and lithology identification. Kalahari sands have been moved from great distances and overlay the rocks of interest by as much as 40 metres, thereby acting as a barrier to traditional surface exploration methods such as soil sampling. Air core samples are analyzed in the same way as soil samples are collected from residual environments, indicating geochemical anomalies for follow-up.

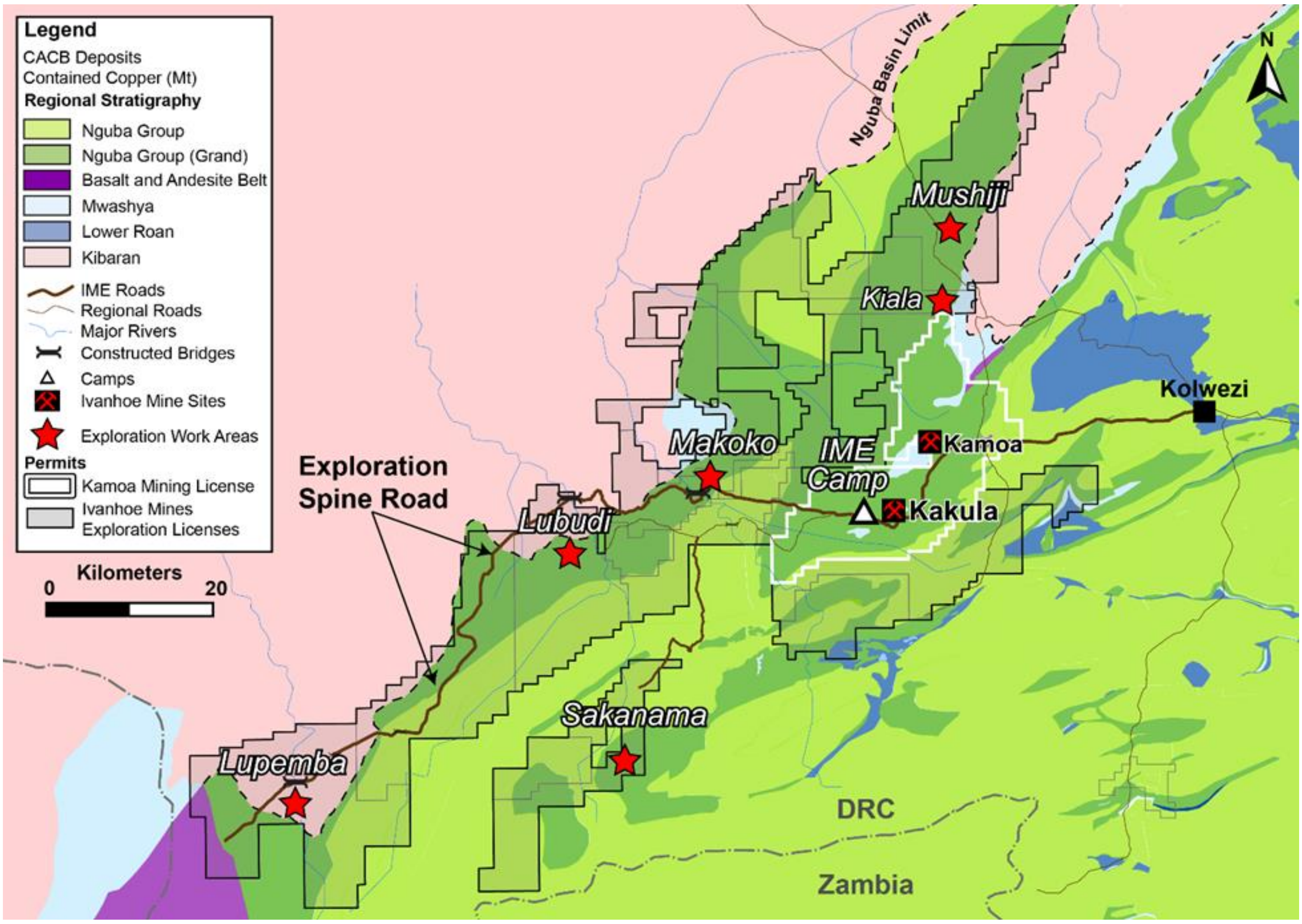
In the Makoko area, exploration focused on testing the six-kilometre western extension of the growth fault corridor that was previously identified by wide-spaced drill sections in 2021. The 2022 drill program consisted of step-out and in-fill drilling, totalling 8,000 metres across 41 holes. Continuity of mineralization was proven with a current strike length identified to be approximately 11 kilometres. These results will be incorporated into the Mineral Resource estimate for Makoko, planned for mid-year.

Ground gravity geophysical surveys have started on regional, basin-wide traverses, aimed at strengthening the existing airborne gravity data used to identify basin architecture. Previous seismic survey data has recently been re-processed and preliminary results were reviewed in the fourth quarter.

Diamond drilling in the fourth quarter continued with three contractor diamond drill rigs and an Ivanhoe Land Cruiser-mounted diamond drill rig. East of Makoko, a deep drill hole was started on the Kakula-Monwezi trend and will continue drilling in 2023. The hole, located between the Kakula and Makoko deposits, is targeting the host stratigraphy at depth for the continuity of the mineralization system. At Kakula East, another deep hole was drilled orientated back towards the Kakula deposit from southeast of the Western Forelands decollement. The hole was drilled to understand the geology across the decollement and for targeting any easterly extension of the Kakula deposit's mineralization across the major tectonic divide. In the Mushiji area, three kilometres north of the Kamoa-Kakula licence, a deep hole was drilled to define the northern extent of the Roan stratigraphy, the hole confirmed the northern limit of the Roan basin but failed to intersect any significant mineralization.

After quarter end, the company announced in February that an independent Mineral Resource estimate for Western Foreland's Makoko and Kiala high-grade copper discoveries is targeted for mid-2023, followed by a Preliminary Economic Assessment. Concurrently, Western Foreland's 2023 exploration program is budgeted at approximately $19 million, including up to 70,000 metres of drilling.

Figure 6: Map highlighting Ivanhoe Mines' current exploration target areas across the Western Foreland licences.



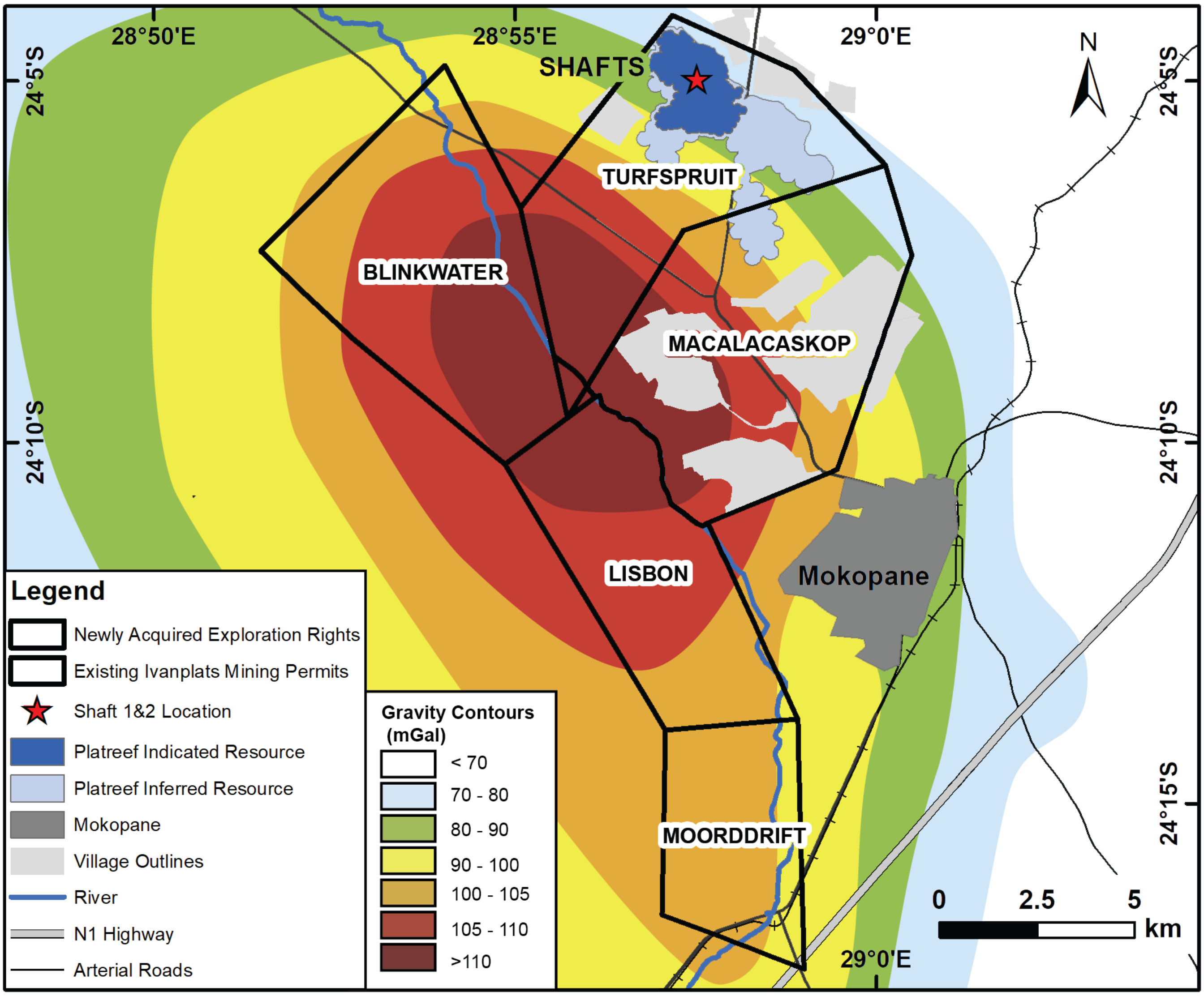
THE MOKOPANE FEEDER EXPLORATION PROJECT

Three new 100%-owned exploration rights were granted on the Northern Limb of the Bushveld complex in South Africa during Q4 2022. The three new exploration rights (Blinkwater 244KR, Moordrift 289KR and Lisbon 288KR) cover 80 square kilometres forming a continuous block situated on the southwest border of the existing Platreef Project's mining rights.

The three new exploration rights together with Ivanhoe's existing properties cover a large geophysical gravity anomaly that was previously identified from a widely spaced regional ground gravity survey. Academic studies based on historical data hypothesize that the anomaly represents a primary feeder zone to the Rustenburg Layered Suite of the Northern Limb of the Bushveld Complex. Significant thickening of the Rustenburg Layered Suite, particularly of the more-dense Lower Zone units, is necessary to explain the large gravity anomaly. The proximity of the proposed feeder to the regional-scale crustal faults (the Ysterberg-Planknek and the Zebediela faults), as well as the anomalously thick zones of platinum-group metals mineralization at the Platreef Deposit, lead Ivanhoe to believe there is significant potential for mineralization to be associated with this gravity feature.

To better understand the conceptual target, a detailed high-resolution, airborne-magnetic and gradiometer-gravity geophysical survey commenced over the project area in Q1 2023, with the view to conducting diamond drilling later in the year.

Figure 7: Image of the Platreef and Mokopane Feeder licences overlaid on the gravity geophysics anomaly.



SAFETY AND SUSTAINABILITY

At the end of December 2022, Kamoa-Kakula had reached 1.53 million work hours free of a lost-time injury with a Total Recordable Injury Frequency Rate (TRIFR) (total injuries recorded per 1,000,000 hours worked) of 1.54 for the year ended December 31, 2022. Zero lost time injuries have been recorded on the construction of the Phase 3 expansion, smelter construction and Inga II Turbine #5 refurbishment. The Platreef Project reached 408,360 hours worked free of a lost-time injury with a TRIFR of 4.23 for the year ended December 31, 2022, and the Kipushi Project reached 658,142 hours worked free of a lost-time injury with a TRIFR of 1.8 for the year ended December 31, 2022.

Ivanhoe Mines will issue its sixth annual Sustainability Report in March 2023, highlighting the Company's commitment to ESG and illustrating how it mines with a greater purpose. The report will detail Ivanhoe Mines' sustainability programs and initiatives in 2022, including significant accomplishments achieved at its three principal development projects, and outline targets and benchmarks for current and future activities.

SELECTED ANNUAL FINANCIAL INFORMATION

This selected financial information is per IFRS as presented in the annual consolidated financial statements. Ivanhoe had no operating revenue in any financial reporting period. All operating revenue from commercial production at Kamoa-Kakula is recognized within the Kamoa Holding joint venture. Ivanhoe did not declare or pay any dividend or distribution in any financial reporting period.

	For the year ended December 31,		
	2022	**2021**	**2020**
	$'000	**$'000**	**$'000**
Share of profit (loss) from joint venture	254,180	105,742	(26,799)
Finance income	175,298	102,290	80,755
Deferred tax recovery (expense)	113,250	75,041	(249)
Gain (loss) on fair valuation of embedded derivative	22,900	(93,700)	–
Finance costs	(38,084)	(32,891)	(1,703)
General administrative expenditure	(36,264)	(38,473)	(33,321)
Exploration and project evaluation expenditure	(33,912)	(52,171)	(44,724)
Share-based payments	(27,216)	(20,002)	(16,931)
(Loss) gain on fair valuation of financial asset	(3,627)	(266)	270
Profit (loss) attributable to:			
Owners of the Company	410,864	55,242	(19,877)
Non-controlling interests	23,242	(9,930)	(18,715)
Total comprehensive profit (loss) attributable to:			
Owners of the Company	409,542	29,790	(26,076)
Non-controlling interest	23,338	(12,648)	(19,410)
Basic profit (loss) per share	0.34	0.05	(0.02)
Diluted profit (loss) per share	0.33	0.05	(0.02)
Total assets	3,969,285	3,218,206	2,417,091
Non-current liabilities	1,060,913	809,253	57,581

DISCUSSION OF RESULTS OF OPERATIONS

Review of the year ended December 31, 2022, vs. December 31, 2021

The Company recorded a profit for the year of $434 million and total comprehensive income of $433 million for the year ended December 31, 2022, compared to a profit of $45 million and total comprehensive income of $17 million for the year ended December 31, 2021. The main contributor to the profit for 2022 was the company's share of the profit from the Kamoa Holding joint venture.

The Company recognized income in aggregate of $405 million from the joint venture in 2022, which can be summarized as follows:

	Year ended December 31	
	2022	**2021**
	$'000	**$'000**
Company's share of profit from joint venture	254,180	105,742
Interest on loan to joint venture	151,066	93,892
Company's income recognized from joint venture	**405,246**	**199,634**

The Company’s share of profit from the Kamoa Holding joint venture was $254 million for the year ended December 31, 2022, compared to a profit of $106 million for the same period in 2021, the breakdown of which is summarized in the following table:

	Year ended December 31	
	2022	**2021**
	$'000	**$'000**
Revenue from contract receivables	2,357,335	813,902
Remeasurement of contract receivables	(209,664)	17,218
Revenue	**2,147,671**	**831,120**
Cost of sales	(775,424)	(229,516)
Gross profit	**1,372,247**	**601,604**
General and administrative costs	(86,043)	(46,626)
Amortization of mineral property	(12,134)	–
Profit from operations	**1,274,070**	**554,978**
Finance costs	(295,303)	(150,637)
Finance income and other	13,192	3,044
Profit before taxes	**991,959**	**407,385**
Current tax expense	(46,055)	(8,289)
Deferred tax expense	(291,838)	(126,026)
Profit after taxes	**654,066**	**273,070**
Non-controlling interest of Kamoa Holding	(140,572)	(59,449)
Profit for the period attributable to joint venture partners	513,494	213,621
Company's share of profit from joint venture (49.5%)	**254,180**	**105,742**

The realized and provisional copper prices used for the remeasurement (mark-to-market) of contract receivables for the year ended December 31, 2022, can be summarized as follows:

	FY 2022	Q4 2022	Q3 2022	Q2 2022	Q1 2022
Realized during the period - open at start of period					
Opening forward price [(1)]	4.41	3.37	3.74	4.69	4.42
Realized price [(1)]	4.48	3.48	3.50	4.34	4.51
Payable copper tonnes sold	89,985	109,519	74,672	50,608	53,065
Remeasurement of contract receivables ($'000)	12,917	26,188	(40,688)	(39,227)	11,056
Realized during the period - new copper sold in current period					
Provisional price [(1)]	3.95	3.53	3.42	-	-
Realized price [(1)]	3.55	3.70	3.51	-	-
Payable copper tonnes sold	265,764	40,173	28,758	-	-
Remeasurement of contract receivables ($'000)	(232,628)	14,822	5,669	-	-
Open at the end of the period - open at the start of the period					
Opening forward price [(1)]	-	3.32	3.79	4.69	4.40
Closing forward price [(1)]	-	3.79	3.37	3.80	4.69
Payable copper tonnes sold	-	5 933	50,399	39,797	36,920
Remeasurement of contract receivables ($'000)	-	6,066	(47,387)	(78,391)	23,112
Open at the end of the period - new copper sold in current period					
Provisional price [(1)]	3.71	3.73	3.55	4.26	4.53
Closing forward price [(1)]	3.79	3.79	3.36	3.79	4.69
Payable copper tonnes sold	57,969	52,036	65,054	85,794	51,919
Remeasurement of contract receivables ($'000)	10,048	6,397	(27,625)	(87,630)	17,973
Total remeasurement of contract receivables ($'000)	**(209,664)**	**53,473**	**(110,031)**	**(205,248)**	**52,142**

[(1)] Calculated on a weighted average basis

Of the $295 million (2021: $151 million) finance costs recognized in the Kamoa Holding joint venture for 2022, $254 million (2021: $134 million) relates to shareholder loans where each shareholder funded Kamoa Holding in an amount equivalent to its proportionate shareholding interest before generating sufficient operational cashflow. Of the remaining finance costs, $34 million (2021: $14 million) relates to the provisional payment facility available under Kamoa-Kakula's offtake agreements, while $7 million (2021: $3 million) relates to the equipment financing facilities.

Exploration and project evaluation expenditure amounted to $34 million for the year ended December 31, 2022, and was $18 million less than for the same period in 2021 ($52 million). Exploration and project evaluation expenditure related to exploration at Ivanhoe's Western Foreland exploration licences and amounts spent at the Kipushi Project until June 30, 2022, when project development recommenced.

Finance income amounted to $175 million for the year ended December 31, 2022, and $102 million for the same period in 2021. Included in finance income is the interest earned on loans to the Kamoa Holding joint venture to fund operations that amounted to $151 million for 2022, and $94 million for 2021. No additional loans were advanced in 2022 with joint venture cashflow funding its operations and expansions. Interest increased due to higher LIBOR rates and due to the higher accumulated loan balance.

As explained in the accounting for the convertible notes section on page 40, the Company recognized a gain on fair valuation of the embedded derivative financial liability of $23 million for 2022 (2021: loss of $94 million).

Deferred tax recovery (income) amounted to $113 million for the year ended December 31, 2022, and $75 million for the same period in 2021. The deferred tax recovery in 2022 is related mainly to the Kipushi Project, while the deferred tax recovery in 2021 is related to the Platreef Project.

With the agreement of the development plan by the shareholders of Kipushi and the approval of the development budget consistent with the Kipushi 2022 Feasibility Study in June 2022, it was deemed probable that future taxable profit will be available from the Kipushi Project, against which the unused tax losses and unused tax credits can be utilized. As a result, the Company recognized the previously unrecognized deferred tax asset in June 2022, resulting in a deferred tax recovery (income) of $113 million in 2022.

With the completion of the stream financing facilities in December 2021, which will fund a large portion of the Platreef Project's Phase 1 capital costs, and supported by the excellent results of the Platreef 2022 FS, it was deemed probable that future taxable profit will be available from the Platreef Project, against which the unused tax losses and unused tax credits can be utilized. As a result, the Company recognized the previously unrecognized deferred tax asset in December 2021, resulting in a deferred tax recovery (income) of $75 million in 2021.

The total comprehensive income for 2022, included an exchange loss on translation of foreign operations of $1.2 million, compared to an exchange loss on translation of foreign operations recognized for the same period in 2021 of $28 million resulting mainly from the weakening of the South African Rand by 7% from December 31, 2021, to December 31, 2022.

Financial position as at December 31, 2022, vs. December 31, 2021

The Company's total assets increased by $751 million, from $3,218 million as at December 31, 2021, to $3,969 million as at December 31, 2022. The main reason for the increase in total assets was attributable to the increase in the Company's investment in the Kamoa Holding joint venture by $405 million, the increase in property, plant and equipment of $162 million as project development continued at the Platreef and Kipushi projects, as well as the increase in deferred tax assets by $135 million.

The Company's investment in the Kamoa Holding joint venture increased by $405 million from $1,642 million as at December 31, 2021, to $2,047 million as at December 31, 2022. The Company's share of profit from the Kamoa Holding joint venture for 2022, amounted to $254 million, while the interest on the loan to the joint venture amounted to $151 million. The Company's investment in the Kamoa Holding joint venture can be broken down as follows:

	December 31, 2022	December 31, 2021
	$'000	$'000
Company's share of net assets of the joint venture	510,439	256,260
Loan advanced to joint venture	1,536,601	1,385,535
Total investment in joint venture	2,047,040	1,641,795

The Company’s share of net assets in the Kamoa Holding joint venture can be broken down as follows:

	December 31, 2022		December 31, 2021	
	100%	49.5%	100%	49.5%
	$'000	$'000	$'000	$'000
Assets				
Property, plant and equipment	2,733,176	1,352,922	2,000,818	990,405
Mineral property	789,888	390,995	802,021	397,000
Cash and cash equivalents	365,633	180,988	22,031	10,905
Indirect taxes receivable	279,385	138,296	152,099	75,289
Consumable stores	257,434	127,430	94,459	46,757
Long-term loan receivable	252,523	124,999	197,122	97,575
Non-current inventory	246,424	121,980	190,154	94,126
Other receivables	212,221	105,049	124,506	61,630
Trade receivables	63,196	31,282	198,513	98,264
Current inventory	27,011	13,370	20,978	10,384
Right-of-use asset	11,549	5,717	21,161	10,475
Prepaid expenses	9,216	4,562	2,822	1,397
Non-current deposits	2,272	1,125	1,689	836
Deferred tax asset	710	351	17,904	8,862
Liabilities				
Shareholder loans	(3,103,381)	(1,536,174)	(2,798,282)	(1,385,149)
Trade and other payables	(309,710)	(153,306)	(219,475)	(108,640)
Deferred tax liability	(273,841)	(135,551)	–	–
Equipment finance facility	(102,890)	(50,931)	(72,296)	(35,787)
Rehabilitation provision	(45,231)	(22,389)	(35,742)	(17,692)
Provisional payment facility	(38,866)	(19,239)	(5,117)	(2,532)
Other provisions	(26,675)	(13,204)	(15,681)	(7,762)
Income taxes payable	(14,600)	(7,227)	(8,265)	(4,091)
Lease liability	(13,243)	(6,555)	(23,287)	(11,527)
Non-controlling interest	(291,012)	(144,051)	(150,436)	(74,465)
Net assets of the joint venture	**1,031,189**	**510,439**	**517,696**	**256,260**

Before commencing commercial production in July 2021, the Kamoa Holding joint venture principally used loans advanced to it by its shareholders to advance the Kamoa-Kakula Copper Complex through investing in development costs and other property, plant and equipment. No additional shareholder loans were advanced in 2022 with joint venture cashflow funding its operations and expansions. The joint venture had a healthy cash position at the end of December 2022 with cash and cash equivalents of $366 million in hand.

The Kamoa-Kakula’s Phase 1 and 2 operations are anticipated to generate significant operating cash flow to fund Phase 3 capital cost requirements at current copper prices and the joint venture is arranging short-term financing facilities should a shortfall occur due to a significant decrease in copper prices.

The cash flows of the Kamoa Holding joint venture can be summarized as follows:

	Year ended December 31,	
	2022	**2021**
	$'000	**$'000**
Net cash generated from operating activities	1,226,144	231,186
Net cash used in investing activities	(847,042)	(616,904)
Net cash (used in) generated from financing activities	(28,138)	273,839
Effect of foreign exchange rate changes on cash	(7,362)	(4,896)
Net cash inflow (outflow)	**343,602**	**(116,775)**
Cash and cash equivalents - beginning of the year	22,031	138,806
Cash and cash equivalents - end of the year	**365,633**	**22,031**

The Kamoa Holding joint venture's net increase in property, plant and equipment from December 31, 2021, to December 31, 2022, amounted to $732 million and can be further broken down as follows:

	Year ended December 31,	
	2022	**2021**
	$'000	**$'000**
Kamoa Holding joint venture		
Expansion capital	654,164	344,176
Sustaining capital	145,646	325,106
Initial capital	48,497	15,792
	848,307	685,074
Depreciation capitalized	19,338	4,698
Total capital expenditure	867,645	689,772
Borrowing costs capitalized	50,925	55,812
Total additions to property, plant and equipment for Kamoa Holding	918,570	745,584
Less depreciation, disposals and foreign exchange translation	(186,212)	(61,474)
Net increase in property, plant and equipment of Kamoa Holding	732,358	684,110

Ivanhoe's cash and cash equivalents decreased by $11 million, from $608 million as at December 31, 2021, to $597 million as at December 31, 2022. The Company spent $159 million on project development and acquiring other property, plant and equipment and generated $177 million from operating activities, which includes the receipt of the second and final prepayment of $225 million under the Ivanplats stream financing agreements.

The net increase in property, plant and equipment amounted to $162 million, with additions of $175 million to project development and other property, plant and equipment. Of this total, $126 million pertained to development costs and other acquisitions of property, plant and equipment at the Platreef Project, while $48 million pertained to development costs and other acquisitions of property, plant and equipment at the Kipushi Project as set out on page 39.

The main components of the additions to property, plant and equipment – including capitalized development costs – at the Platreef Project for the year ended December 31, 2022, and for the same period in 2021, are set out in the following table:

	Year ended December 31,	
	2022	2021
	$'000	$'000
Platreef Project		
Shaft 1 changeover and construction	62,792	10,750
Shaft 2 construction works	24,209	5,364
Salaries and benefits	14,385	11,349
Administrative and other expenditure	7,170	5,290
Studies and contracting work	5,969	10,244
Depreciation	3,511	653
Site costs	3,452	3,379
Social and environmental	1,576	1,607
Total development costs	123,064	48,636
Other additions to property, plant and equipment	2,495	543
Total additions to property, plant and equipment for Platreef	125,559	49,179

Costs incurred at the Platreef Project are deemed necessary to bring the project to commercial production and are therefore capitalized as property, plant and equipment.

The main components of expenditure at the Kipushi Project for the year ended December 31, 2022, and for the same period in 2021 are set out in the following table:

	Year ended December 31,	
	2022	2021
	$'000	$'000
Kipushi Project		
Salaries and benefits	17,121	10,767
Other expenditure	15,710	10,113
Mine construction costs	8,986	–
Other additions to property, plant and equipment	7,807	1,262
Studies and contracting work	5,061	885
Depreciation - development	4,525	–
Depreciation - exploration and project evaluation	3,759	7,325
Electricity	3,267	3,561
Reversal of VAT write-off previously capitalized	(7,377)	–
Total project expenditure	58,859	33,913
Accounted for as follows:		
Development costs capitalized to property, plant and equipment	23,378	–
Exploration and project evaluation expenditure in the loss from operating activities	18,688	32,651
Additions to property, plant and equipment	16,793	1,262
Total project expenditure	58,859	33,913

The increase in the Company's deferred tax asset is related mainly to the recognition of the previously unrecognized deferred tax asset of the Kipushi Project in June 2022, due to the agreement of the development plan by the shareholders of Kipushi, making it probable that future taxable profit will be available from the Kipushi Project, against which the unused tax losses and unused tax credits can be utilized.

The Company's total liabilities increased by $287 million to $1,128 million as at December 31, 2022, from $841 million as at December 31, 2021, with the increase mainly due to the additional deferred revenue recognized on the streaming facility of $241 million including a notional finance charge and after transaction costs. The deferred revenue represents the prepayment for the future sale of refined gold and palladium and platinum to be delivered by the Platreef Project in the future and will be amortized as ounces are delivered to the Stream Purchasers.

Accounting for the convertible notes closed in March 2021

The Company closed a private placement offering of $575 million of 2.50% convertible senior notes maturing in 2026 on March 17, 2021. Upon conversion, the convertible notes may be settled, at the Company's election, in cash, common shares or a combination thereof. Due to this election right and conversion feature, the convertible notes have an embedded derivative liability that is measured at fair value with changes in value being recorded in profit or loss, as well as the host loan that is accounted for at amortized cost.

The convertible senior notes are senior unsecured obligations of the Company which will accrue interest payable semi-annually in arrears at a rate of 2.50% per annum and will mature on April 15, 2026, unless earlier repurchased, redeemed or converted. The initial conversion rate of the notes is 134.5682 Class A common shares of the Company per $1,000 principal amount of notes or an initial conversion price of approximately $7.43 per common share.

Holders of the notes may convert the notes, at their option, in integral multiples of $1,000 principal amount, or in excess thereof, at any time until the close of business on the business day immediately preceding October 15, 2025, but only under the following circumstances:

- During any calendar quarter commencing after the calendar quarter ending on June 30, 2021 (and only during such calendar quarter), if the last reported sale price of the Company's Class A common shares for at least 20 trading days (whether consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; or
- During the five consecutive business day period after any ten consecutive trading day period (the "measurement period") in which the trading price per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's Class A common shares and the conversion rate on each such trading day; or
- If the Company calls any or all the notes for redemption in certain circumstances or upon the occurrence of certain corporate events.

On or after October 15, 2025, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their notes, in multiples of $1,000 principal amount, at the option of the holder regardless of the foregoing conditions.

The convertible notes will not be redeemable at the Company's option before April 22, 2024, except upon the occurrence of certain tax law changes. On or after April 22, 2024, and on or before the 41st scheduled trading day immediately preceding the maturity date, the notes will be redeemable at the Company's option if the last reported sale price of the Company's common shares has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the convertible notes to be redeemed, plus accrued and unpaid interest to, but excluding the redemption date.

Since upon conversion, the notes may be settled, at the Company's election, in cash, common shares or a combination thereof, the conversion feature is an embedded derivative liability. The effect of this is that the host liability will be accounted for at amortized cost, with an embedded derivative liability being measured at fair value with changes in value being recorded in profit or loss.

The effective interest rate of the host liability was deemed to be 9.39% and the interest recognized on the convertible notes amounted to $42 million in 2022, before capitalization of borrowing costs on the notes of $5 million. Repayments of coupon interest during 2022 amounted to $14 million. The carrying value of the host liability was $465 million as at December 31, 2022, up from $437 million as at December 31, 2021.

The embedded derivative liability had a fair value of $151 million on the closure of the convertible notes offering and increased to $244 million as at December 31, 2021, and decreased to $221 million as at December 31, 2022, resulting in a gain on fair valuation of embedded derivative liability of $23 million for the year ended December 31, 2022. The change in the fair value of the embedded derivative liability is largely due to a strengthening of the U.S. dollar from the beginning of the year to December 31, 2022.

The following key inputs and assumptions were used in determining the fair value of the embedded derivative liability:

	March 17, 2021	**September 30, 2021**	**December 31, 2021**	**September 30, 2022**	**December 31, 2022**
Share price	C$7.00	C$8.10	C$10.32	C$8.89	C$10.70
Credit spread (basis points)	630	435	356	401	419
Volatility	42%	40%	40%	40%	40%
Borrowing cost (basis points)	50	50	25	25	25
Fair value of embedded derivative liability	$150.5	$155.7	$244.2	$154.7	$221.3

Transaction costs on the convertible notes offering relating to the embedded derivative liability amounted to $4 million and were expensed and included in the profit and loss for Q1 2021.

SELECTED QUARTERLY FINANCIAL INFORMATION

The following table summarizes selected financial information for the prior eight quarters. Ivanhoe had no operating revenue in any financial reporting period. All revenue from commercial production at Kamoa-Kakula is recognized within the Kamoa Holding joint venture. Ivanhoe did not declare or pay any dividend or distribution in any financial reporting period.

	Three months ended			
	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022
	$'000	$'000	$'000	$'000
Share of profit from joint venture	83,324	34,057	49,690	87,109
Finance income	58,477	46,720	38,596	31,505
(Loss) gain on fair valuation of embedded derivative liability	(66,600)	(27,700)	183,600	(66,400)
General administrative expenditure	(11,870)	(9,199)	(8,957)	(6,238)
Finance costs	(10,457)	(10,223)	(10,013)	(7,391)
Share-based payments	(7,809)	(7,381)	(4,637)	(7,389)
Exploration and project evaluation expenditure	(3,887)	(4,312)	(13,470)	(12,243)
Deferred tax (expense) recovery	(3,839)	4,252	114,184	(1,347)
(Loss) gain on fair valuation of financial asset	(1,170)	(2,873)	(2,942)	3,358
Profit (loss) attributable to:				
Owners of the Company	41,884	26,344	316,242	26,394
Non-controlling interests	(4,705)	(2,477)	35,278	(4,854)
Total comprehensive income (loss) attributable to:				
Owners of the Company	53,078	4,588	306,381	45,495
Non-controlling interest	(3,621)	(4,678)	34,495	(2,858)
Basic profit per share	0.03	0.02	0.26	0.02
Diluted profit per share	0.03	0.02	0.26	0.02

	Three months ended			
	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021
	$'000	$'000	$'000	$'000
(Loss) gain on fair valuation of embedded derivative liability	(88,500)	54,900	(85,700)	25,600
Share of profit (loss) from joint venture	78,391	41,404	(9,960)	(4,093)
Finance income	27,978	26,437	25,095	22,780
Exploration and project evaluation expenditure	(15,800)	(15,677)	(11,972)	(8,722)
Finance costs	(10,539)	(10,451)	(10,110)	(1,791)
General administrative expenditure	(10,658)	(6,731)	(13,165)	(7,919)
Share-based payments	(7,490)	(5,117)	(4,068)	(3,327)
Deferred tax recovery (expense)	74,069	(50)	978	44
Profit (loss) attributable to:				
Owners of the Company	45,833	89,806	(104,452)	24,055
Non-controlling interests	2,333	(4,456)	(4,161)	(3,646)
Total comprehensive income (loss) attributable to:				
Owners of the Company	29,774	72,470	(92,793)	20,339
Non-controlling interest	632	(6,277)	(2,901)	(4,102)
Basic profit (loss) per share	0.04	0.07	(0.09)	0.02
Diluted profit (loss) per share	0.04	0.07	(0.09)	0.02

Review of the three months ended December 31, 2022, vs. December 31, 2021

The Company recorded a profit for Q4 2022 of $37 million compared to a profit of $48 million for the same period in 2021, with the company's share of the profit from the Kamoa Holding joint venture being a key contributor to the Q4 2022 profit. The total comprehensive income for Q4 2022 was $49 million compared to $30 million for Q4 2021.

The Kamoa-Kakula Copper Complex sold 92,208 tonnes of payable copper in Q4 2022 realizing revenue of $673 million for the Kamoa Holding joint venture, compared to 53,165 tonnes of payable copper sold for revenue of $489 million for the same period in 2021. The Company recognized income in aggregate of $130 million from the joint venture in Q4 2022, which can be summarized as follows:

	Three months ended December 31,	
	2022	**2021**
	$'000	**$'000**
Company's share of profit from joint venture	83,324	78,391
Interest on loan to joint venture	47,071	25,520
Company's income recognized from joint venture	**130,395**	**103,911**

The Company's share of profit from the Kamoa Holding joint venture was $5 million more in Q4 2022 compared to the same period in 2021 and is broken down in the following table:

	Three months ended December 31,	
	2022	**2021**
	$'000	**$'000**
Revenue from contract receivables	619,997	458,880
Remeasurement of contract receivables	53,473	29,656
Revenue	**673,470**	**488,536**
Cost of sales	(218,709)	(130,853)
Gross profit	**454,761**	**357,683**
General and administrative costs	(24,834)	(9,926)
Amortization of mineral property	(12,134)	–
Profit from operations	**417,793**	**347,757**
Finance costs	(92,727)	(55,610)
Finance income and other	146	(43)
Profit before taxes	**325,212**	**292,104**
Current tax expense	(19,143)	(4,717)
Deferred tax expense	(89,252)	(88,530)
Profit after taxes	**216,817**	**198,857**
Non-controlling interest of Kamoa Holding	(48,486)	(40,490)
Profit for the period attributable to joint venture partners	168,331	158,367
Company's share of profit from joint venture (49.5%)	**83,324**	**78,391**

Kamoa-Kakula's other operating data is summarized under the review of operations section on page 4.

Finance income for Q4 2022 amounted to $58 million and was $30 million more than for the same period in 2021 ($28 million). Included in finance income is the interest earned on loans to the Kamoa Holding joint venture to fund past development which amounted to $47 million for Q4 2022, and $26 million for the same period in 2021, and increased due to the higher LIBOR rates and accumulated loan balance.

The Company recognized a loss on the fair valuation of the embedded derivative financial liability of $67 million for Q4 2022, compared to a loss on the fair valuation of the embedded derivative financial liability of $89 million for Q4 2021, which is further explained in the accounting for the convertible notes section on page 40.

Exploration and project evaluation expenditure amounted to $4 million in Q4 2022 and $16 million for the same period in 2021. Exploration and project evaluation expenditure for Q4 2022 related to exploration at Ivanhoe's Western Foreland exploration licences, while Q4 2021 also included amounts spent at the Kipushi Project, for which expenditure was capitalized in Q4 2022 due to the recommencement of the development of the project.

LIQUIDITY AND CAPITAL RESOURCES

The Company had $597 million in cash and cash equivalents as at December 31, 2022. At this date, the Company had consolidated working capital of approximately $611 million, compared to $595 million as at December 31, 2021.

The Company's planned capital expenditure for 2023 and 2024 can be summarized as follows:

Capital Expenditure	**2022 Actuals**	**2023 Guidance**	**2024 Guidance**
	($'million)	**($'million)**	**($'million)**
Kamoa-Kakula			
Phase 3 expansion	255	1,400 – 1,800	1,100 – 700
Phase 2 and other expansion capital	497	120	–
Sustaining capital	96	180	80
	848	**1,700 – 2,100**	**1,180 – 780**
Platreef			
Phase 1 initial capital	98	190 – 240	200 – 150
Phase 2 capital	24	60	40
	122	**250 – 300**	**240 – 190**
Kipushi			
Initial capital	**43**	**200 – 250**	**180 – 130**

All capital expenditure figures are presented on a 100%-project basis. The 2022 capital expenditure figures above are preliminary and subject to final adjustment. The final capital expenditure figures will be confirmed in the company's financial results for the fourth quarter and year ended December 31, 2022.

The ranges provided reflect uncertainty in the timing of Kamoa-Kakula Phase 3 expansion, Platreef Phase 2 capital and Kipushi cash flows between calendar years 2023 and 2024. The 2024 capital expenditure guidance for Platreef and Kipushi excludes sustaining capital required in 2024 post-initial production.

As documented in the Kamoa-Kakula 2023 Integrated Development Plan (IDP 2023) announced on January 30, 2023, the remaining capital cost for the total Phase 3 expansion is estimated at $3.0 billion, including the mine, concentrator, smelter, infrastructure and investment in off-site hydropower infrastructure. The Phase 1 and 2 operations are anticipated to generate significant operating cash flow in 2023 and 2024 and are expected to fund capital cost requirements at current copper prices. The joint venture had cash and cash equivalents of $366 million in hand at the end of December 2022.

Construction for Platreef's Phase 1 Mine is underway, with the first production on track for Q3 2024. The planned Phase 2 capital expenditure at Platreef represents mainly the continuation of sinking Shaft 2 and the construction of the Shaft 2 headframe, allowing optionality for possible acceleration in Phase 2, which is currently under review.

Construction of the Kipushi Mine is also underway, with the processing plant scheduled for completion by Q3 2024. Long-lead equipment items have been ordered and manufacturing is underway, and earthworks and civil construction activities are taking place on the surface. Of the $380 million capital budget to completion, approximately $95 million has been committed to date. Offtake discussions, including a proposed $250 million pre-payment financing facility, have now advanced to final draft term sheets, which have been received from shortlisted parties and are currently under review by Kipushi's shareholders. The agreements are intended to be completed, as well as a final, revised joint venture agreement between Kipushi Holding and Gécamines, during the first half of 2023.

Exploration activities at the Western Foreland exploration project in the DRC and other targets will continue in 2023 with an initial budget of $31 million.

On March 17, 2021, the Company closed a private placement offering of $575 million of 2.50% convertible senior notes maturing in 2026. The convertible senior notes are senior unsecured obligations of the Company which will accrue interest payable semi-annually in arrears at a rate of 2.50% per annum and will mature on April 15, 2026, unless earlier repurchased, redeemed or converted. The notes will be convertible at the option of holders, before the close of business on the business day immediately preceding October 15, 2025, only under certain circumstances and during certain periods, and thereafter, at any time until the close of business on the second scheduled trading day immediately preceding the maturity date. Upon conversion, the notes may be settled, at the Company's election, in cash, common shares or a combination thereof. The carrying value of the host liability was $465 million and the fair value of the embedded derivative liability was $221 million as at December 31, 2022.

The Company has a mortgage bond outstanding on its offices in London, United Kingdom, of £3.2 million ($3.9 million). The bond is fully repayable on August 28, 2025, secured by the property, and incurs interest at a rate of 1 month Sterling Overnight Index Average (SONIA) plus 1.90% payable monthly in arrears. Only interest will be payable until maturity.

In 2013, the Company became a party to a loan payable to ITC Platinum Development Limited, which had a carrying value of $37 million as at December 31, 2022, and a contractual amount due of $36 million. The loan is repayable once the Platreef Project has residual cash flow, which is defined in the loan agreement as gross revenue generated by the Platreef Project, less all operating costs attributable thereto, including all mining development and operating costs. The loan incurs interest of USD 3-month LIBOR plus 2% calculated monthly in arrears. Interest is not compounded. The difference of $1 million between the contractual amount due and the carrying value of the loan is the benefit derived from the low-interest loan.

The Company has an implied commitment in terms of spending on work programs submitted to regulatory bodies to maintain the good standing of exploration and exploitation permits at its mineral properties. The following table sets forth the Company's long-term obligations:

	Payments Due By Period				
Contractual obligations as at December 31, 2022	**Total $'000**	**Less than 1 year $'000**	**1-3 years $'000**	**4-5 years $'000**	**After 5 years $'000**
Convertible notes	578,033	3,033	-	575,000	-
Debt	40,226	-	-	3,886	36,340
Lease commitments	2,043	371	820	852	-
Total contractual obligations	**620,302**	**3,404**	**820**	**579,738**	**36,340**

The debt in the above table represents the mortgage bond owing to Citibank and the loan payable to ITC Platinum Development Limited, as described above.

The Company is required to fund its Kamoa Holding joint venture in an amount equivalent to its proportionate shareholding interest.

NON-GAAP FINANCIAL PERFORMANCE MEASURES

Kamoa-Kakula's C1 cash costs and C1 cash costs per pound

C1 cash costs and C1 cash costs per pound are non-GAAP financial measures. These are disclosed to enable investors to better understand the performance of Kamoa-Kakula in comparison to other copper producers who present results on a similar basis.

C1 cash costs are prepared on a basis consistent with the industry standard definitions by Wood Mackenzie cost guidelines but are not measures recognized under IFRS. In calculating the C1 cash cost, the costs are measured on the same basis as the Company's share of profit from the Kamoa Holding joint venture that is contained in the financial statements. C1 cash costs are used by management to evaluate operating performance and include all direct mining, processing, and general and administrative costs. Smelter charges and freight deductions on sales to the final port of destination, which are recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of finished metal. C1 cash costs and C1 cash costs per pound exclude royalties and production taxes and non-routine charges as they are not direct production costs.

Reconciliation of Kamoa-Kakula's cost of sales to C1 cash costs, including on a per pound basis:

	Three months ended December 31, 2022	**Year ended December 31, 2022**
	$'000	**$'000**
Cost of sales	**218,709**	**775,424**
Logistics, treatment and refining charges	123,432	433,624
General and administrative expenditure	24,834	86,043
Royalties and production taxes	(53,113)	(195,500)
Depreciation	(25,942)	(104,658)
Power rebate	(2,778)	(9,332)
Movement in finished goods inventory	(2,780)	5,220
General and administrative expenditure of other group entities	(707)	(1,785)
C1 cash costs	**281,655**	**989,036**
Cost of sales per pound of payable copper sold ($ per lb.)	1.08	1.09
C1 cash costs per pound of payable copper produced ($ per lb.)	1.42	1.39
Payable copper produced in concentrate (tonnes)	89,746	322,659

Figures in the above table are for the Kamoa-Kakula joint venture on a 100% basis.

EBITDA, Adjusted EBITDA and EBITDA margin

EBITDA and Adjusted EBITDA are non-GAAP financial measures. Ivanhoe believes that Kamoa-Kakula's EBITDA is a valuable indicator of the mine's ability to generate liquidity by producing operating cash flow to fund its working capital needs, service debt obligations, fund capital expenditures and distribute cash to its shareholders. EBITDA and Adjusted EBITDA are also frequently used by investors and analysts for valuation purposes. Kamoa-Kakula's EBITDA and the EBITDA and Adjusted EBITDA for the Company are intended to provide additional information to investors and analysts and do not have any standardized definition under IFRS and should not be considered in isolation or as a substitute for measures of performance prepared per IFRS. EBITDA and Adjusted EBITDA excludes the impact of cash costs of financing activities and taxes, and the effects of changes in operating working capital balances, and therefore are not necessarily indicative of operating profit or cash flow from operations as determined under IFRS. Other companies may calculate EBITDA and Adjusted EBITDA differently.

The EBITDA margin is an indicator of Kamoa-Kakula's overall health and denotes its profitability, which is calculated by dividing EBITDA by revenue. The EBITDA margin is intended to provide additional information to investors and analysts, does not have any standardized definition under IFRS, and should not be considered in isolation, or as a substitute, for measures of performance prepared per IFRS.

Reconciliation of profit after tax to Kamoa-Kakula's EBITDA:

	Three months ended December 31,		Year ended December 31,	
	2022	2021	**2022**	2021
	$'000	$'000	**$'000**	$'000
Profit after taxes	**216,818**	198,857	**654,066**	273,070
Finance costs	**92,727**	55,610	**295,303**	150,637
Finance income	**(4,625)**	(1,538)	**(12,537)**	(5,129)
Current and deferred tax expense	**108,395**	93,247	**337,893**	134,315
Depreciation	**38,056**	11,443	**116,772**	35,578
EBITDA	**451,371**	357,619	**1,391,497**	588,411

Figures in the above table are for the Kamoa-Kakula joint venture on a 100% basis.

Reconciliation of profit after tax to Ivanhoe's EBITDA and adjusted EBITDA:

	Three months ended December 31,		Year ended December 31,	
	2022	2021	**2022**	2021
	$'000	$'000	**$'000**	$'000
Profit after taxes	**37,179**	48,166	**434,106**	45,312
Finance income	**(58,477)**	(27,978)	**(175,298)**	(102,290)
Finance costs	**10,457**	10,539	**38,084**	32,891
Current and deferred tax expense (recovery)	**3,839**	(74,069)	**(113,369)**	(74,934)
Depreciation	**476**	2,270	**5,588**	9,067
EBITDA	**(6,526)**	(41,072)	**189,111**	(89,954)
Share of profit from joint venture net of tax	**(83,324)**	(78,391)	**(254,180)**	(105,742)
Company's share of EBITDA from Kamoa-Kakula joint venture [1]	**178,798**	141,579	**550,931**	232,721
Loss (gain) on fair valuation of embedded derivative liability	**66,600**	88,500	**(22,900)**	93,700
Non-cash share-based payments	**6,461**	6,234	**25,729**	17,407
Adjusted EBITDA	**162,009**	116,850	**488,691**	148,132

(1) The Company's attributable share of EBITDA from the Kamoa-Kakula joint venture is calculated using the Company's effective shareholding in Kamoa Copper SA (39.6%), Ivanhoe Mines Energy DRC SARL (49.5%), Kamoa Holding Limited (49.5%) and Kamoa Services (Pty) Ltd (49.5%).

OFF-BALANCE SHEET ARRANGEMENTS

The Company had no off-balance sheet arrangements for the periods under review.

TRANSACTIONS WITH RELATED PARTIES

The following tables summarize related party income earned and expenses incurred by the Company, primarily on a cost-recovery basis, with companies related by way of directors or significant shareholders in common. The tables summarize the transactions with related parties and the types of income earned and expenditures incurred with such parties. Amounts in brackets denote income.

	December 31, 2022	December 31, 2021
	$'000	$'000
Kamoa Holding Limited (a)	151,066	93,892
High Power Exploration Inc. (b)	7,731	5,169
Kamoa Services (Pty) Ltd (c)	4,359	3,943
Kamoa Copper SA (d)	1,424	2,098
Ivanhoe Electric Inc. (e)	186	–
Ivanhoe Mines Energy DRC SARL (f)	146	152
Ivanhoe Capital Aviation Ltd. (g)	(4,500)	(4,483)
Ivanhoe Capital Services Ltd. (h)	(503)	(479)
CITIC Metal Africa Investments Limited (i)	(240)	(308)
Global Mining Management Corporation (j)	(228)	(571)
Ivanhoe Capital Pte Ltd. (k)	(3)	(19)
	159,438	99,394

Finance income	158,800	99,047
Cost recovery and management fee	5,927	6,193
Office and administration	19	(212)
Travel	(4,428)	(4,517)
Salaries and benefits	(635)	(537)
Consulting	(240)	(308)
Office and administration	(5)	(272)
	159,438	99,394

The above noted transactions were in the normal course of operations and were measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

(a) Kamoa Holding Limited ("Kamoa Holding") is a company registered in Barbados. The Company has an effective 49.5% ownership in Kamoa Holding. The Company earns interest on the loans advanced to Kamoa Holding.

(b) High Power Exploration Inc. ("HPX") is a private company incorporated under the laws of Delaware, USA. The Company's Executive Co-Chairman is the Chief Executive Officer and Chairman of HPX and holds an indirect equity interest in HPX. The Company extended a secured loan of $50 million to HPX in April 2019. Following the signing of an amendment to the loan facility agreement on June 16, 2021, the scheduled maturity date of the loan was extended to April 25, 2022. In addition, the loan facility agreement was amended such that the rate of interest for the period after April 25, 2021 is fixed at 11% per annum compounded monthly for the period after April 25, 2021 until April 25, 2022, after which the rate at which interest is earned increased to 15% per annum compounded monthly. The Company is negotiating an updated schedule maturity date with HPX.

(c) Kamoa Services (Pty) Ltd. (“Kamoa Services”) is a company registered in South Africa. On March 31, 2021 the Company sold its 100% interest in Kamoa Services to Kamoa Holding. The Company now has an effective 49.5% ownership in Kamoa Services. The Company provides administration, accounting and other services to Kamoa Services on a cost-recovery basis.

(d) Kamoa Copper SA (“Kamoa Copper”) is a company incorporated in the DRC. Kamoa Copper is 80% owned by Kamoa Holding Limited, a joint venture of the Company. The Company provides administration, accounting and other services to Kamoa Copper on a cost-recovery basis.

(e) Ivanhoe Electric Inc. (“Ivanhoe Electric”) is a company incorporated under the laws of Delaware, USA. A director of the Company is a director and member of executive management of Ivanhoe Electric. The Company provides services to Ivanhoe Electric on a cost-recovery basis.

(f) Ivanhoe Mines Energy DRC Sarl (“Energy”) is a company incorporated in the DRC. Energy is 100% owned by Kamoa Holding Limited, a joint venture of the Company. The Company provides administration, accounting and other services to Energy on a cost-recovery basis.

(g) Ivanhoe Capital Aviation Ltd. (“Aviation”) is a private company owned indirectly by the Executive Co-Chairman of the Company. Aviation operates an aircraft for which the Company contributes toward the running costs.

(h) Ivanhoe Capital Services Ltd. (“Services”) is a private company owned indirectly by the Executive Co-Chairman of the Company. Services provides salaries administration and other services to the Company in Singapore and Beijing on a cost-recovery basis.

(i) CITIC Metal Africa Investments Limited (“CITIC Metal Africa”) is a private company incorporated in Hong Kong. CITIC Metal Africa is a shareholder in the Company and nominates two directors who serve of the Company’s Board of Directors.

(j) Global Mining Management Corporation (“Global”) is a private company based in Vancouver, Canada. The Company and the Executive Co-Chairman of the Company hold an indirect equity interest in Global. Global provides administration, accounting and other services to the Company on a cost-recovery basis.

(k) Ivanhoe Capital Pte Ltd. (“Capital”) is a private company owned indirectly by the Executive Co-Chairman of the Company. Capital provides administration, accounting and other services in Singapore on a cost-recovery basis.

As at December 31, 2022, trade and other payables included $0.3 million (December 31, 2021: $0.1 million) with regards to amounts due to parties related by way of director, officers or shareholder in common. These amounts are unsecured and non-interest bearing.

Amounts included in other receivables due from parties related by way of director, officers or shareholder in common as at December 31, 2022, amounted to $6.9 million (December 31, 2021: $6.1 million).

CRITICAL ACCOUNTING ESTIMATES

The Company’s significant accounting policies are presented in Note 2 to the consolidated financial statements for the year ended December 31, 2022. The preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the end of the reporting period presented and reported amounts of expenses during said reporting period. Actual outcomes could differ from these estimates. The consolidated financial statements include estimates that, by their nature, are uncertain. Such estimates have a pervasive effect on the consolidated financial statements and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the year in which the estimate is revised and future years if the revision affects both current and future years. These estimates are based on historical experience, current and future economic conditions and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Significant assumptions about the future and other sources of estimation uncertainty at the end of the reporting period, which could result in a material adjustment to the carrying amounts of assets and liabilities in the event that actual results differ from assumptions made, include, but are not limited to, the following:

Recoverability of assets

Property, plant and equipment, including capitalized development costs and finite lived intangible assets are assessed at each reporting period to determine whether there is any indication that those assets have suffered an impairment loss.

In assessing whether an impairment is required, the carrying value of the asset or cash generating unit ("CGU") is compared with its recoverable amount. The recoverable amount is the higher of the CGU's fair value less costs of disposal and value in use. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent, if any, of the impairment loss.

The Company assesses whether an impairment is required on loans receivables. A range of cash flow scenarios are considered, taking into account forward looking information which may impact recoverability of loan receivables.

Given the nature of the Company's activities, information on the fair value of an asset is usually difficult to obtain unless negotiations with potential purchasers or similar transactions are taking place. Consequently, the fair value less costs of disposal for each CGU is estimated based on discounted future estimated cash flows that are expected to be generated from the continued use of the CGUs. They are estimated using market consensus based commodity price and exchange assumptions, estimated quantities of recoverable minerals, production levels, operating costs and capital requirements, including any expansion projects, and its eventual disposal, based on the CGU development plans and latest technical reports. These cash flows were discounted using a discount rate that reflected current market assessments of the time value of money and the risks specific to the CGU.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is impaired to its recoverable amount. An impairment loss is recognized immediately in the statement of comprehensive income. The Company has concluded that there is no impairment required to any of its projects.

Provisionally-priced revenue and remeasurement of contract receivables

Sales in the Kamoa Holding Limited joint venture are provisionally priced at the average market price on the date that the products are delivered to the buyers at the Kamoa-Kakula Mine concentrate warehouse or the demarcated holding area at the Lualaba Copper Smelter premises. Revenue from the contract receivables is recognized for all the sales during the period at the average market price for the month in which the sales occurred. Revenue from contract receivables are remeasured with reference to the forward market price at each reporting date and the remeasurement of contract receivables is recognized as revenue in the statement of comprehensive income of the Kamoa Holding Limited joint venture.

Technical feasibility and commercial viability of projects

All direct costs related to the acquisition of mineral property interests are capitalized by property or project. Exploration costs are charged to operations in the period incurred, until such time as the Company determines that a property is technically feasible and commercially viable, where after development costs are capitalized. In making this determination, the Company considers whether a proposed project is capable of being developed at a sufficient return to justify the capital and managerial resources that must be committed to the project. This determination is made on a property-by-property basis and generally coincides with the finalization of a preliminary economic assessment or pre-feasibility study of the property. Exploration costs include value-added taxes incurred in foreign jurisdictions when recoverability of those taxes is uncertain.

In determining whether an exploration and evaluation property is technically feasible and commercially viable, the Company considers several criteria, including:

- a technical analysis of the basic geology of the project;
- a mine plan for accessing and exploiting the ore body;
- a process flow sheet for processing the ore generated from mining;
- projections as to the capital cost of constructing the project;
- projections as to the cost of operating the project in accordance with the mine plan;
- projections as to revenues from the concentrate or other mineral product to be generated from operations in accordance with the mine plan; and
- an economic analysis of the project based on the projected capital and operating costs and production revenues.

Bill-and-hold arrangements

During the year ended December 31, 2022, the Kamoa Holding Limited joint venture had a bill-and-hold arrangement with a customer for copper concentrate sales, as described in IFRS 15. The control of the copper concentrate had passed to the customer however physical possession was retained by Kamoa-Kakula.

Revenue from the copper concentrate sales was recognized by the joint venture when control of the goods transferred to the customer through fulfilment of the contractual performance obligations, which was to deliver the concentrate to the customer. Delivery of the concentrate was on a freecarrier basis as per INCOTERMS 2020, with the point of delivery being on the floor of the Kamoa-Kakula concentrate warehouse. Upon delivery as per the contract, Kamoa-Kakula had a present right to payment for the concentrate and revenue was therefore recognized.

Determination of inputs into lease accounting

Lease payments should be discounted using the interest rate implicit in the lease unless that rate cannot be readily determined, in which case the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions. The Company has used the risk-free interest rate adjusted for credit risk specific to the lease.

In determining the lease term, the Company considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

Valuation of the embedded derivative liability

The Company has used key inputs and estimates to determine the fair value of the embedded derivative liability at initial recognition and at period end date.

Deferred revenue

The advance payments received under the stream financing agreements have been accounted for as contract liabilities within the scope of IFRS 15. Under the terms of the agreements, settlement of the contracts will be executed via the delivery of credits to the purchasers. The credits to be delivered are directly linked to the metal contained in concentrate produced at the Platreef mine. The contracts are therefore not financial instruments as the contracts will not be settled in cash or another financial instrument. Performance obligations under the contracts will be satisfied through production at the Platreef mine and revenue will be recognized over the duration of the contracts. As the contracts are long term in nature and a portion of the financing was received at inception of the contracts, it has been determined that the contracts contain a significant financing component under IFRS 15.

Deferred tax

Significant judgment is required in determining whether to recognize the deferred tax asset related to the Platreef and Kipushi projects. This includes the probability that there will be sufficient taxable income in the future against which the deferred tax can be utilized. The Company recognized the previously unrecognized deferred tax asset relating to the Platreef Project in 2021 and the previously unrecognized deferred tax asset relating to the Kipushi Project in 2021. The Company considers it highly probable that the projects will have future taxable profits that will be available against which the deductible temporary differences can be utilized.

Provisions for tax claims

From time to time, the Company becomes subject to claims or assessments made by tax or other authorities in the ordinary course of its business. Such claims may be made against the Company, or its subsidiaries and affiliates, or its joint ventures. Given the complexity, scope and multi-jurisdictional nature of the Company’s business, such claims may arise in several jurisdictions and may involve complex legal, tax or accounting matters. Management assesses the Company’s liabilities and contingencies for all tax years open to claims or assessment based upon the latest information available. The Company accrues for such claims, or makes a provision, in its financial statements, when a liability resulting from the claim is both probable and the amount can be reasonably estimated. In order to assess such likelihood management reviews claims with the benefit of internal and external legal advice where appropriate.

The joint venture is currently subject to several such claims, all of which have been determined by management, with the benefit of legal advice, to be without merit and justification and therefore not probable that a liability would arise therefrom. Where these estimated liabilities are determined as probable, management has determined that such liability would not have a material effect on the consolidated financial statements of the Company. Such determinations are based on current information and advice, which is subject to change based on changed facts or circumstances. Accordingly, management may re-assess any prior determination regarding the likelihood of a probable liability at any time.

CHANGES IN ACCOUNTING POLICIES INCLUDING INITIAL ADOPTION

Newly adopted accounting standards

The following standards became effective for annual periods beginning on or after January 1, 2022, with earlier application permitted. The Company adopted these standards in the current period.

- Amendment to IFRS 3 - Business combinations. The amendment updates a reference in IFRS 3 to the Conceptual Framework for Financial reporting without changing the accounting requirements for business combinations.

- Amendment to IFRS 9 – Financial instruments. The amendment clarifies which fees an entity includes when it applies the “10 per cent” test in assessing whether to derecognize a financial liability.

Amendment to IAS 16 - Property, plant and equipment. The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in a manner intended by management. Instead an entity recognizes the proceeds from selling such items, and the cost of producing these items, in profit or loss.

- Amendment to IAS 37 – Provisions, Contingent Liabilities and Contingent Assets. The amendments specify which costs should be included in an entity's assessment of whether a contract will be loss making.

- Amendment to IFRS 9, IAS 39 and IFRS 7 – Financial Instruments. These amendments provide certain reliefs in connection with interest rate benchmark reform (IBOR). The reliefs relate to hedge accounting and have the effect that IBOR should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement.

  The Phase 2 amendments are relevant to the Company as the Company has exposure to the variable US dollar London Interbank Overnight Rate (LIBOR) through various financial instruments.

  When the contractual terms of the Company's borrowings are amended as a direct consequence of the interest rate benchmark reform and the new basis for determining the contractual cash flows is economically equivalent to the basis immediately preceding the change, the Company changes the basis for determining the contractual cash flows prospectively by revising the effective interest rate. If additional changes are made, which are not directly related to the reform, the applicable requirements of IFRS 9 are applied to the other amendments.

  The Company is still assessing its approach to implementing the transition. As at December 31, 2022, only the interest rate on the loan from Citibank has been modified. Negotiations with counterparties on appropriate changes and resetting of rates are expected to continue in the following months. Management expects that the transition will be concluded on an economically equivalent basis.

The following table details the financial instruments as at December 31, 2022, which reference the US LIBOR and which have not yet transitioned to an alternative interest rate benchmark:

	December 31, 2022	**December 31, 2021**
	$'000	**$'000**
Financial assets at amortized cost		
Loan advanced to the joint venture	**1,536,601**	1,385,535
Loans receivable - Social development loan	**43,684**	41,776
Financial liabilities at amortized cost		
Borrowings	**36,937**	38,342
Advances payable	**3,123**	2,908

Accounting standards issued but not yet effective

- Amendment to IAS 1 – Presentation of financial statements. The amendments clarify how to classify debt and other liabilities as current or non-current. Another amendment requires companies to disclose their material accounting policy information rather than their significant accounting policies, with additional guidance added to the Standard to explain how an entity can identify material accounting policy information with examples of when accounting policy information is likely to be material. (i)

- Amendments to IAS 12, Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction. The amendments require companies to recognize deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. (i)

- Narrow scope amendments to IAS 1 'Presentation of Financial Statements', Practice statement 2 and IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors'. The amendments aim to improve accounting policy disclosures and to help users of the financial statements to distinguish changes in accounting policies from changes in accounting estimates.(i)

(i) Effective for annual periods beginning on or after January 1, 2023.

The Company has not yet adopted these new and amended standards.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

Fair value of financial instruments

The Company's financial assets and financial liabilities are categorized as follows:

	Level	**December 31, 2022**	December 31, 2021
		$'000	$'000
Financial assets			
Financial assets at fair value through profit or loss			
Investment in Renergen Ltd.	Level 1	**7,947**	–
Investment in other listed entities	Level 1	**1,050**	1,144
Investment in unlisted entity	Level 3	**655**	655
Amortized cost			
Loan advanced to joint venture	Level 3	**1,536,601**	1,385,535
Cash and cash equivalents		**597,451**	608,176
Loans receivable	Level 3	**112,104**	103,478
Promissory note receivable	Level 3	**26,756**	26,717
Other receivables		**9,983**	8,611
Financial liabilities			
Financial liabilities at fair value through profit or loss			
Convertible notes - embedded derivative liability	Level 3	**221,300**	244,200
Amortized cost			
Convertible notes - host liability	Level 3	**465,323**	437,414
Borrowings	Level 3	**40,823**	38,342
Trade and other payables		**57,356**	22,769
Advances payable	Level 3	**3,123**	2,908

IFRS 13 - "Fair value measurement", requires an explanation about how fair value is determined for assets and liabilities measured in the financial statements at fair value and established a hierarchy into which these assets and liabilities must be grouped based on whether inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's assumptions. The two types of inputs create the following fair value hierarchy:

- Level 1: observable inputs such as quoted prices in active markets;
- Level 2: inputs, other than the quoted market prices in active markets, which are observable, either directly and/or indirectly; and
- Level 3: unobservable inputs for the asset or liability in which little or no market data exists, therefore require an entity to develop its own assumptions.

Finance income

The Company's finance income is summarized as follows:

	Year ended December 31,	
	2022	**2021**
	$'000	**$'000**
Interest on loan to joint venture	151,066	93,892
Interest on bank balances	14,565	2,256
Interest on loan receivable - HPX	7,734	5,155
Interest on long term loan receivable - Gécamines	1,908	984
Other finance income	25	3
	175,298	102,290

The interest from the loan to the joint venture is interest earned from the Kamoa Holding joint venture on shareholder loans advanced by the Company where each shareholder is required to fund Kamoa Holding in an amount equivalent to its proportionate shareholding interest.

Financial risk management objectives and policies

The risks associated with the Company's financial instruments and the policies on how to mitigate these risks are set out below. Management manages and monitors these exposures to ensure appropriate measures are implemented in a timely and effective manner.

Foreign exchange risk

The Company incurs certain of its expenses in currencies other than the U.S. dollar. The Company also has foreign currency denominated monetary assets and liabilities. As such, the Company is subject to foreign exchange risk as a result of fluctuations in exchange rates. The Company enters into derivative instruments to manage foreign exchange exposure as deemed appropriate.

The carrying amount of the Company's foreign currency denominated monetary assets and liabilities at the respective statement of financial position dates are as follows:

	December 31, 2022	December 31, 2021
	$'000	$'000
Assets		
South African rand	227,987	104,110
Canadian dollar	8,875	12,247
British pounds	2,909	4,259
Australian dollar	958	917
Liabilities		
South African rand	29,718	(10,635)
Canadian dollar	(5,911)	(1,493)
British pounds	(2,945)	(3,971)
Australian dollar	–	(283)

Foreign currency sensitivity analysis

The following table details the Company's sensitivity to a 5% increase or decrease in the U.S. dollar against the foreign currencies presented. The sensitivity analysis includes only outstanding foreign currency denominated monetary items not denominated in the functional currency of the Company or the relevant subsidiary and adjusts their translation at the end of the period for a 5% change in foreign currency rates. A positive number indicates a decrease in loss for the period where the foreign currencies strengthen against the U.S. dollar. The opposite number will result if the foreign currencies depreciate against the U.S. dollar.

	December 31, 2022	December 31, 2021
	$'000	$'000
Canadian dollar	148	538
Australian dollar	48	32
South African rand	(227)	(182)
British pounds	(16)	(24)

Credit risk is the risk of an unexpected loss if a customer or third party to a financial instrument fails to meet its contractual obligations. Credit risk for the Company is primarily associated with the loan to the Kamoa Holding joint venture, promissory note receivable, loans receivable, other receivables and cash and cash equivalents.

The Company reviews the recoverable amount of their financial assets at each statement of financial position date to ensure that adequate impairment losses are made for irrecoverable amounts. The Company has considered the requirement of IFRS 9 to recognize a loss allowance for expected credit losses on financial assets. The general approach was applied to these financial assets, where the 12 month expected credit losses are calculated. The Company did not apply lifetime expected credit losses as there has not been a significant increase in credit risk in 2022.

A significant increase in credit risk would include:

- Existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant change in the borrower's ability to meet its debt obligations.
- An actual or expected significant change in the operating results of the borrower.
- Significant increases in credit risk on other financial instruments of the same borrower.

- An actual or expected significant adverse change in the regulatory, economic, or technological environment of the borrower that results in a significant change in the borrower's ability to meet its debt obligations.
- Significant changes in the value of the collateral supporting the obligation or in the quality of third-party guarantees or credit enhancements, which are expected to reduce the borrower's economic incentive to make scheduled contractual payments or to otherwise have an effect on the probability of a default occurring.

The Company assesses whether an impairment is required on loan receivables. A range of cash flow scenarios are considered, taking into account forward looking information which may impact recoverability of loan receivables.

The loan advanced to the joint venture will be repaid as and when there is residual cash flow in Kamoa Holding. Due to the positive results of Kamoa-Kakula's definitive feasibility study and good development and production progress, repayment of the loan is deemed to be highly probable.
The promissory note receivable will be repaid using proceeds from the sale of Crystal River's 1% stake in Kamoa Holding.

The principal amount of the loan receivable from HPX and accrued interest thereon, is convertible in whole, or part, by the Company at its sole discretion into shares of treasury common stock of HPX.

Repayment of the social development loan will be made by offsetting the loan against future royalties and dividends payable to Gécamines which arise from future profits to be earned at Kipushi.

The credit risk on cash and cash equivalents is limited because the cash and cash equivalents are composed of deposits with major banks who have investment grade credit ratings assigned by international credit ratings agencies and have low risk of default.

Other receivables is comprised primarily of administration consulting income from the joint venture and refundable taxes. The credit quality of these financial assets can be assessed by reference to historical information about counterparty default rates and adjusted to reflect current and forward- looking information, as well as macroeconomic factors affecting the ability of the parties to settle the receivables. The historical loss rates are negligible and therefore the expected credit losses relating to other receivables is also negligible.

The Company continues to monitor its credit risk and assess expected credit losses.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: interest rate risk, currency risk and other price risk, such as equity price risk. Financial instruments affected by market risk include the convertible notes, loan advanced to the joint venture and borrowings.

The Company will measure the convertible notes embedded derivative liability at fair value at each reporting date, recognizing changes in the fair value in the statement of comprehensive income. This requirement to "mark-to-market" the derivative features could significantly affect the results in the statement of comprehensive income. If the Company's share price had been C$1.00 higher than it was on December 31, 2022, the fair value of the embedded derivative liability would have increased by $39.2 million, which would have resulted in the Company recording a loss on the fair valuation of the financial liability of $16.3 million for the period ended December 31, 2022, instead of a gain of $22.9 million.

Interest rate risk

The Company's interest rate risk arises mainly from cash and cash equivalents, long term borrowings, the loans receivable and the loan advanced to the joint venture. The Company's main exposure to interest rate risk arises from the fact that the Company earns and incurs interest on interest rates linked to LIBOR.

If interest rates (including applicable USD LIBOR rates) had been 50 basis points higher or lower and all other variables were held constant, the Company's profit for the period ended December 31, 2022 would have decreased or increased by $10.0 million (December 31, 2021: $9.3 million).

Liquidity risk

In the management of its liquidity risk, the Company maintains a balance between continuity of funding and flexibility through the use of borrowings. Management closely monitors the liquidity position with the goal of maintaining adequate sources of funding to finance the Company's projects and operations.

The following table details the Company's expected remaining contractual maturities for its financial liabilities. The table is based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Company can be required to satisfy the liabilities.

	Less than 1 month	1 to 3 months	3 to 12 months	More than 12 months	**Total undiscounted cash flows**
	$'000	$'000	$'000	$'000	**$'000**
As at December 31, 2022					
Convertible notes liability	3,033	-	-	575,000	**578,033**
Non-current borrowings	-	-	-	40,226	**40,226**
Trade and other payables	51,689	987	4,680	-	**57,356**
As at December 31, 2021					
Convertible notes liability	3,033	-	-	575,000	**578,033**
Non-current borrowings	-	-	-	39,462	**39,462**
Trade and other payables	20,819	758	1,192	-	**22,769**

Trade and other payables in the above table excludes payroll tax, other statutory liabilities and indirect taxes payable.

DESCRIPTION OF CAPITAL STOCK

As at March 10, 2023, the Company's capital structure consists of an unlimited number of Class A common shares without par value (the "Class A Shares"). At this date 1,217,562,716 Class A Shares were issued and outstanding. On June 28, 2022, the Company's capital structure was amended by deleting the Class B common shares without par value, and Preferred shares without par value, none of which were outstanding.

The Company granted 1,259,090 options in 2022 and 1,007,754 options in 2023 to date. As at March 10, 2023, there were 13,957,995 options outstanding, issued in terms of the Equity Incentive Plan exercisable into 13,957,995 Class A Shares.

The Company granted 639,343 restricted share units (RSUs) in 2023 to date and 1,375,041 RSUs in 2022 per the Company's Share Unit Award Plan (formerly the Restricted Share Unit Plan). As at March 10, 2023, there were 5,002,886 RSUs which may vest into 5,002,886 Class A Shares.

The Company granted 438,163 performance share units (PSUs) in 2023 to date and 372,113 PSUs in 2022 per the Company's Share Unit Award Plan (formerly the Restricted Share Unit Plan). As at March 10, 2023, there were 810,276 PSUs which may vest into 810,276 Class A Shares.

The Company granted 173,295 deferred share units (DSUs) in 2023 to date and 200,991 DSUs in 2022 per the Company's deferred share unit plan. As at March 10, 2023, there were 826,650 DSUs which may settle into 826,650 Class A Shares.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for the design and operation of disclosure controls and procedures (DC&P) and internal control over financial reporting (ICFR) in order to provide reasonable assurance that material information related to the Company, including its consolidated subsidiaries, is made known to the Company's certifying officers. The Company's President, in the capacity of Chief Executive Officer (CEO), and Chief Financial Officer (CFO) have each evaluated the design and operating effectiveness of the Company's DC&P and ICFR as of December 31, 2022 and, in accordance with the requirements established under National Instrument 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings, the President and CFO have concluded that these controls and procedures have been designed and operate to provide reasonable assurance that material information relating to the Company is made known to her by others within the Company and that the information required to be disclosed in reports that are filed or submitted under Canadian securities legislation are recorded, processed, summarized and reported within the time period specified in those rules.

As at December 31, 2022, management, including the President, in the capacity of CEO, and CFO, have evaluated the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based upon the results of that evaluation, the President and CFO have concluded that as of the end of the period covered by this MD&A, the Company's disclosure controls and procedures were effective.

The Company's President and CFO have used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework to evaluate the design and operation of the Company's ICFR as of December 31, 2022 and have concluded that these controls and procedures have been designed and operated effectively to provide reasonable assurance that financial information is recorded, processed, summarized and reported in a timely manner. Management of the Company was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. The result of the inherent limitations in all control systems means design and operation of controls cannot provide absolute assurance that all control issues and instances of fraud will be detected.

As at December 31, 2022, management assessed the effectiveness of the Company's internal control over financial reporting and concluded that the Company's internal control over financial reporting was effective.

During the year ended December 31, 2022, there were no changes in the Company's DC&P or ICFR that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

RISK FACTORS

The Company has summarized its foreign exchange risk, credit risk, interest rate risk and liquidity risk under the “Financial risk management objectives and policies” sub-heading under the “Financial instruments and other instruments” section in this MD&A. Additional risks and uncertainties are discussed in the Company’s Annual Information Form filed with Canadian provincial regulatory authorities and available at www.sedar.com.

DISCLOSURE OF TECHNICAL INFORMATION

Disclosures of a scientific or technical nature in this MD&A regarding the Kamoa-Kakula Copper Complex (other than stockpiles estimation), the Platreef Project and the Kipushi Project 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 Executive Vice President, Projects, at Ivanhoe Mines. Mr. Amos has verified the technical data related to the foregoing disclosed in this MD&A.

Disclosures of a scientific or technical nature regarding the Kamoa-Kakula stockpiles in this MD&A have been reviewed and approved by George Gilchrist, who is considered, by virtue of his education, experience and professional association, a Qualified Person under the terms of NI 43-101. Mr. Gilchrist is not considered independent under NI 43- 101 as he is the Vice President, Resources, at Ivanhoe Mines. Mr. Gilchrist has verified the technical data regarding the Kamoa-Kakula stockpiles disclosed in this MD&A.

Disclosures of a scientific or technical nature regarding the Western Foreland Project in this MD&A 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, Geosciences, at Ivanhoe Mines. Mr. Torr has verified the technical data regarding the Western Foreland Project disclosed in this MD&A.

Ivanhoe has prepared an independent, NI 43-101-compliant technical report for the Kamoa-Kakula Project, the Platreef Project and the Kipushi Project, each of which is available on the Company's website and under the Company's SEDAR profile at www.sedar.com:

- Kamoa-Kakula Integrated Development Plan 2020 dated October 13, 2020, prepared by OreWin Pty Ltd., China Nerin Engineering Co., Ltd., DRA Global, Epoch Resources, Golder Associates Africa, KGHM Cuprum R&D Centre Ltd., Outotec Oyj, Paterson and Cooke, Stantec Consulting International LLC, SRK Consulting Inc., and Wood plc.

- The Kipushi 2022 Feasibility Study dated February 14, 2022, prepared by OreWin Pty Ltd., MSA Group (Pty) Ltd., SRK Consulting (South Africa) (Pty) Ltd, and METC Engineering.

- The Platreef 2022 Feasibility Study dated February 28, 2022, prepared by OreWin Pty Ltd., Mine Technical Services, SRK Consulting Inc., DRA Projects (Pty) Ltd and Golder Associates Africa.

These technical reports include relevant information regarding the effective dates and the assumptions, parameters and methods of the mineral resource estimates on the Platreef Project, the Kipushi Project and the Kamoa-Kakula Copper Complex cited in this MD&A, as well as information regarding data verification, exploration procedures and other matters relevant to the scientific and technical disclosure contained in this MD&A in respect of the Platreef Project, Kipushi Project and Kamoa-Kakula Copper Complex.

The Kamoa-Kakula 2023 PFS and Kamoa-Kakula 2023 PEA were independently prepared by OreWin Pty Ltd. of Adelaide, Australia; China Nerin Engineering Co., Ltd., of Jiangxi, China; DRA Global of Johannesburg, South Africa; Epoch Resources of Johannesburg, South Africa; Golder Associates Africa of Midrand, South Africa; Metso-Outotec Oyj of Helsinki, Finland; Paterson and Cooke of Cape Town, South Africa; SRK Consulting Inc. of Johannesburg, South Africa; and MSA Group of Johannesburg, South Africa.

For the recently announced Kamoa-Kakula 2023 IDP (including the Kamoa-Kakula 2023 PFS and Kamoa-Kakula 2023 PEA), a new, independent NI 43-101 technical report will be filed on SEDAR at www.sedar.com and the Ivanhoe Mines website at www.ivanhoemines.com on March 16, 2023.

FORWARD-LOOKING STATEMENTS

Certain statements in this MD&A 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 using 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 MD&A.

Such statements include without limitation, the timing and results of: (i) statements regarding Kamoa-Kakula's Phase 3 expansion targeted for Q4 2024 completion, which is expected to increase copper production to a ten-year average of 620,000 tonnes per annum, at C1 cash cost of $1.22/lb; (ii) statements regarding the ultra-high-grade Kipushi zinc-copper-germanium-silver mine being on track for first production in Q3 2024, and project financing being near completion; (iii) statements regarding the Platreef palladium, nickel, platinum, rhodium, copper and gold project in South Africa being scheduled for first production in Q3 2024; (iv) statements regarding the 2023 exploration program at Western Foreland being approximately $19 million and including up to 70,000 meters of total drilling; (v) statements regarding the planned release of a maiden Mineral Resource estimate for its Makoko and Kiala high-grade copper discoveries in the Western Foreland in mid-2023, which will also be followed by a Preliminary Economic Assessment; (vi) statements regarding the optimization study at its Tier-One Platreef palladium, nickel, platinum, rhodium, copper and gold mine in South Africa potentially accelerating production from the Phase 2 expansion; (vii) statements that the Lualaba Copper Smelter will produce between 650,000 and 800,000 tonnes per annum of high-strength sulphuric acid that is expected to be sold in the domestic DRC market; (viii) statements regarding the Phase 3 concentrator at Kamoa-Kakula being on track for first concentrate in Q4 2024; (ix) statements regarding the Phase 4 expansion of the Kamoa-Kakula concentrator taking total processing capacity up to 19.2 Mtpa; (x) statements regarding the filing of a new technical report with respect to the Kamoa-Kakula project on March 16, 2023; (xi) statements that the completion of Phase 3 is expected to increase copper production capacity to approximately 620,000 tonnes per annum and that this production rate will position Kamoa-Kakula as the world's fourth-largest copper mining complex, and the largest on the African continent; (xii) statements that the turbine replacement will supply an additional 178-megawatts of clean hydroelectric power to the national grid, and provide power for Phase 3; (xiii) statements regarding the first steel erection with respect to the Kamoa Phase 3 concentrator being expected in June 2023; (xiv) statements that commissioning of Phase 3 at Kamoa-Kakula is expected by the end of 2024 and that Kamoa-Kakula will have a total processing capacity of over 14 million tonnes per annum; (xv) statements regarding the Kamoa-Kakula Phase 3 expansion incorporating leading-edge technology supplied by Metso Outotec, which smelter is projected to be one of the largest, single-line copper flash smelters in the world, with a production capacity of 500,000 tonnes per annum of blister copper anodes; (xvi) statements regarding the Kamoa-Kakula Phase 3 smelter having a processing capacity of 1.2Mtpa of dry concentrate feed and being designed to run a blend of concentrate produced from the Kakula (Phase 1 and 2) and Kamoa (Phase 3 and Phase 4) concentrators; (xvii) statements that Kamoa-Kakula will continue to toll-treat concentrates under a 10-year agreement with the Lualaba Copper Smelter, which is expected to account for approximately 150,000 tonnes of copper concentrate annually; (xviii) statements that construction of the twin declines to the Kamoa 1 and Kamoa 2 underground mines and excavation access to Phase 3 mining areas are advancing well; (xix) statements that underground mining activities at Kamoa 1 are expected to commence in 2023 and at Kamoa 2 in 2025; (xx) statements regarding the future expansions of the Kamoa-Kakula Copper Complex being powered by clean, renewable hydro-generated electricity which will be developed in partnership with the DRC's state-owned power company SNEL; (xxi) statements that the refurbishment of the Inga II hydropower facility on the Congo River is scheduled for completion in Q4 2024; (xxii) statements regarding plans to update backup power generation capacity at Kamoa-Kakula to 132MW, which is expected to be sufficient for emergency power for Phase 1, 2 and 3, as well as sufficient to run one of the concentrators at Kakula; (xxiii) statements regarding Kamoa-Kakula 2023 guidance including contained copper in concentrate of 390,000 to 430,000 tonnes and cash cost (C1) of $1.40 to $1.50 per lb; (xxiv) statements that a senior debt facility for Platreef is targeted for completion in the first half of 2023; (xxv) statements that Shaft 3 at Platreef is scheduled to be completed in Q4 2023; (xxvi) statements that first production at Platreef's Phase 1 concentrator is scheduled for Q3 2024; (xxvii) statements that the commissioning of Platreef's first solar-power plant is expected in 2023 and that the solar-generated power from the plant will be used for mine development and construction activities; (xxviii) statements regarding Platreef's 10-metre diameter Shaft 2, which will be the among the largest hoisting shafts on the African continent; (xxix) statements that Platreef's Shaft 2's headframe will be equipped with up to 8Mtpa of hoisting capacity; (xxi) statements regarding the pilot drilling required for the raise bore center hole of Platreef's Shaft 2 being scheduled to finish during Q2 2023, after which reaming of a

3.1-meter diameter hole is planned; (xxx) statements regarding the raise-boring of the 5.1-meter diameter ventilation shaft (Shaft 3) expected to be completed in Q4 2023; (xxxi) statements that equipping Shaft 3 at Platreef with hoisting capacity will provide alternative option to remove ore and waste from the underground mine, which may accelerate ramp-up of underground mining activities for Phase 2; (xxxii) statements that underground mining activities for Phase 2 at Platreef are expected in 2027; (xxxiii) statements that long lead order equipment packages for Kipushi are expected to commence delivery to the site in late summer 2023; (xxxiv) statements that first concentrate at Kipushi is on schedule to occur during Q3 2024; (xxxv) statements that Shaft 5 at Kipushi is planned to be the main production shaft with a maximum hoisting capacity of 1.8Mtpa; (xxxvi) statements that mining at Kipushi will be performed using highly productive, mechanized methods and that cemented rock fill will be utilized to backfill open stopes with tailings from the surface to reduce surface tailings and maximize ore extraction at Platreef; (xxxvii) statements that stoping at Platreef is expected to commence in January 2024 and that ore stockpiles will increase to approximately 330,000 tonnes ahead of plant commissioning in Q3 2024; (xxxviii) statements that a new commercial border crossing between DRC-Zambia will provide significant advantage to Kipushi Mine as a direct means of importing materials and consumables and clearing customs, and that it will provide socio-economic benefits to the town and Province of Haut-Katanga; (xxxviii) statements that a new commercial border crossing between DRC-Zambia will benefit logistics for Kamoa-Kakula's operations; (xxxix) statements that diamond drilling is expected to be conducted on the Mokopane Feeder Exploration Project in 2023; (l) statements that Phase 1 and Phase 2 operations at Kamoa-Kakula are anticipated to generate significant operating cash flows in 2023 and 2024, and are expected to fund capital cost requirements at current copper prices; (li) statements that according to the Kamoa-Kakula 2023 PFS, smelter commissioning is expected to drive a decrease in average cash costs (C1) over the first five years (from 2025) to approximately $1.15/lb. of copper, a 21% reduction from the midpoint of the 2023 guidance of $1.45/lb. of payable copper produced; (lii) statements regarding the water requirement for Platreef's Phase 1 operation is projected to peak at approximately three million litres per day, which will then increase to nine million litres per day once the Phase 2 expansion is complete; (liii) statements that Ivanplats will purchase the treated water at a reduced rate of ZAR 5 per thousand litres; (liv) statements regarding Ivanplats undertaking a commitment to complete the partially constructed Masodi Wastewater Treatment Works, which was halted in 2018 and that Ivanplats anticipates spending approximately ZAR 215 million ($13 million) to complete the works; (lv) statements regarding the new agreement signed between Kipushi Holding and Gécamines to return the ultra-high-grade Kipushi Mine back to commercial production; (lvi) statements regarding the bulk power project at Platreef being scheduled for completion in Q4 2023; and (lvii) statements that 2023 exploration activities have an initial budget of $31 million.

As well, all of the results of the feasibility study for the Kakula copper mine, the Kakula-Kansoko 2020 pre-feasibility study and the updated and expanded Kamoa-Kakula Copper Complex preliminary economic assessment, the Platreef 2022 feasibility study, and the Kipushi 2022 feasibility study 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, concerning this specific forward-looking information concerning the operation and development of the Kamoa-Kakula, Platreef and Kipushi projects, 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, nickel, zinc, platinum, palladium, rhodium and gold; (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; (xvi) changes in project scope or design; (xvii) recoveries, mining rates and grade; (xviii) political factors; (xviii) water inflow into the mine and its potential effect on mining operations, and (xix) the consistency and availability of electric power.

This MD&A also contains references to estimates of Mineral Resources and Mineral Reserves. 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, nickel, zinc, platinum group elements (PGE), gold or other mineral prices; (ii) results of drilling; (iii) metallurgical testing and other studies; (iv) proposed mining operations, including dilution; (v) the evaluation of mine plans after 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 such results will be achieved. Many 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 above and under the "Risk Factors", and elsewhere in this MD&A, 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 MD&A 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 MD&A 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 MD&A.

The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of the factors outlined in the "Risk Factors" section beginning on page 60 and elsewhere in this MD&A.

ADDITIONAL INFORMATION

Additional information regarding the Company, including the Company's Annual Information Form, is available on SEDAR at www.sedar.com.