



**MANAGEMENT'S DISCUSSION AND ANALYSIS**

**FOR THE THREE AND SIX MONTHS ENDED JUNE 30, 2020**

***DATED: AUGUST 6, 2020***

## INTRODUCTION

This management's discussion and analysis (MD&A) should be read in conjunction with the unaudited condensed consolidated interim financial statements of Ivanhoe Mines Ltd. ("Ivanhoe", "Ivanhoe Mines" or the "Company"), for the three and six months ended June 30, 2020, which have been prepared in accordance with International Accounting Standard 34 - Interim Financial Reporting (IAS 34) and the audited consolidated financial statements of Ivanhoe for the years ended December 31, 2019 and 2018, 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 **August 6, 2020**. Additional information relating to the Company is available on SEDAR at [www.sedar.com](http://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*".

## 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 by the use of 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 first copper concentrate production at the Kakula Mine in Q3 2021; (ii) statements regarding the pace of underground development at the Kakula Mine is expected to continue to accelerate as additional mining crews are mobilized; (iii) statements regarding Kakula's high-grade stockpile is projected to significantly expand in the coming months as the majority of Kakula's underground development will be in mining zones grading +5% copper; (iv) statements regarding the expectation that Kakula's high pressure grinding rolls (HPGR), flotation cells and thickeners are expected to arrive on site before the end of August 2020; (v) statements regarding refurbishment of six turbines at the Mwadingusha hydro-electric power plant and associated 220-kilovolt infrastructure is progressing and that three turbines are expected to be operational by December 2020, the remaining three in Q1 2021, and the refurbished plant is projected to deliver approximately 72 megawatts of power to the national grid; (vi) statements regarding a phased development production plan for the Platreef Project that targets significantly lower initial capital, to accelerate first production by using Shaft 1 as the mine's initial production shaft, followed by expansions to the production rate as outlined in the 2017 definitive feasibility study (DFS); (vii) statements regarding the planned expansion in initial plant capacity at Kakula from 3.0 million tonnes per annum (Mtpa) to 3.8 Mtpa and the planned increase in the underground mining crews in 2020 from 11 to 14 to ensure sufficient mining operations to feed the expanded plant throughput; (viii) statements regarding the updated estimate of Kakula's initial capital costs is approximately \$1.3 billion as of January 1, 2019, which assumes commissioning of the processing plant in Q3 2021 and includes expanded plant capacity and pre-production ore stockpiles; (ix) statements that the Kamoakakula joint venture had an estimated \$750 million of capital costs remaining until initial production; (x) statements regarding the planned mining methods at Platreef will use highly productive, mechanized methods, including long-hole stoping and drift-and-fill mining, and that each method will utilize cemented backfill for maximum ore extraction; (xi) statements regarding an independent DFS for the Kakula Mine is well advanced and is expected to be finalized shortly, and at the same time, Ivanhoe expects to issue an Integrated Development Plan for the

entire Kamoa-Kakula mining complex, which will include details on the planned expansion phases for the greater Kamoa-Kakula mining complex, incorporating updates for mineral resources, production rates and economic analysis; (xii) statements regarding the forthcoming Kakula DFS will incorporate detailed design, engineering and procurement, with the plans to increase the initial processing plant ore capacity from 3.0 Mtpa to 3.8 Mtpa; (xiii) statements regarding Ivanhoe's expectation that it will continue to have sufficient cash resources or project-related financing options available to cover its share of the initial capital costs; (xiv) statements regarding timing and duration of reduced activities at the Platreef and Kipushi projects; (xv) statements regarding the expected expenditure for the remainder of 2020 of \$23.4 million on further development at the Platreef Project; \$13.5 million at the Kipushi Project; \$4.5 million on regional exploration in the DRC; and \$11.1 million on corporate overheads – as well as its proportionate funding of the Kamoa-Kakula Project, expected to be \$257 million for the remainder of 2020.

As well, all of the results of the pre-feasibility study for the Kakula copper mine and the updated and expanded Kamoa-Kakula Project preliminary economic assessment, the feasibility study of the Platreef Project and the pre-feasibility study of the Kipushi Project, 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, with respect to this specific forward-looking information concerning the 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; (xiv) changes in project scope or design, and (xv) political factors.

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 subsequent to 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 or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements or information, including, but not limited to, the factors discussed below and under "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 set forth below in the "Risk Factors" section beginning on page 45 and elsewhere in this MD&A.

## REVIEW OF OPERATIONS

Ivanhoe Mines is a mineral exploration and development company. The Company's financial performance is primarily affected by ongoing exploration and development activities being conducted at its three material properties. The Company has no producing properties and does not have operating revenues. The Company expects to fund all of its exploration and development activities through debt and equity financing until operating revenues are generated. The Company's material properties consist of:

- **The Kamo-Kakula Project.** 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. Following the signing of an agreement with the DRC government in November 2016 to transfer an additional 15% interest in the Kamo-Kakula Project to the government of the DRC, Ivanhoe Mines and Zijin Mining each hold an indirect 39.6% interest in the Kamo-Kakula Project, Crystal River Global Limited (Crystal River) holds an indirect 0.8% interest and the DRC government holds a direct 20% interest. The Kamo-Kakula Project is independently ranked as the world's fourth largest copper deposit by international mining consultant Wood Mackenzie. (See "*Kamo-Kakula Project*")
- **The Platreef Project.** Construction of the planned Platreef Mine is now underway on the Company's discovery of platinum, palladium, nickel, copper, gold and rhodium on the Northern Limb of South Africa's Bushveld Igneous Complex. 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 100%-owned exploration licences totalling approximately 2,550 km<sup>2</sup>, much of it located in close proximity to the Kamo-Kakula Project. Ivanhoe's DRC exploration group is targeting Kamo-Kakula-style copper mineralization through a regional exploration and drilling program. (See "*DRC Western Foreland Exploration Project*")

## KAMOA-KAKULA PROJECT

The Kamoa-Kakula Project, a 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. The project is approximately 25 kilometres west of the town of Kolwezi and about 270 kilometres west of Lubumbashi.

Ivanhoe sold a 49.5% share interest in Kamoa Holding Limited (Kamoa Holding) to Zijin Mining in December 2015 for an aggregate consideration of \$412 million. In addition, Ivanhoe sold a 1% share interest in Kamoa Holding to privately-owned Crystal River for \$8.32 million - which Crystal River will pay through a non-interest-bearing, 10-year promissory note. Since the conclusion of the Zijin transaction in December 2015, each shareholder has been required to fund expenditures at the Kamoa-Kakula Project in an amount equivalent to its proportionate shareholding interest in Kamoa Holding.

A 5%, non-dilutable interest in the Kamoa-Kakula Project was transferred to the DRC government on September 11, 2012, for no consideration, pursuant to the 2002 DRC mining code. Following the signing of an agreement with the DRC government in November 2016, in which an additional 15% interest in the Kamoa-Kakula Project was transferred to the DRC government, Ivanhoe and Zijin Mining now each hold an indirect 39.6% interest in the Kamoa-Kakula Project, Crystal River holds an indirect 0.8% interest and the DRC government holds a direct 20% interest. Kamoa Holding holds an 80% interest in the project.

### ***Health and safety at Kamoa-Kakula***

At the end of June 2020, the Kamoa-Kakula Project reached 4,704,185 work hours free of a lost-time injury. The project continues to strive toward its workplace objective of zero harm to all employees and contractors.

The project had to adapt its activities due to the COVID-19 pandemic. In accordance with new health guidelines from the DRC government reflecting the improving COVID-19 situation in the Lualaba Province, DRC, Kamoa-Kakula lowered its quarantine and lockdown measures from level 3 to level 2 on July 27th. This means that the mine's Congolese workforce have gone back to normal rotation. Most activities on site are proceeding as normal with some delays being experienced due to reduced staff numbers and skills on-site. Rigorous testing, physical distancing, wearing face masks, frequent hand washing and contact tracing measures are still in place to protect the safety and health of the workforce and community members. All expatriate employees are still required to quarantine for two weeks upon arrival at Kamoa-Kakula.

As part of Kamoa-Kakula's COVID-19 readiness initiatives, the project has procured a polymerase chain reaction (PCR) device from German-based Bosch (similar device to the GeneXpert). The device arrived in July, with an initial supply of 500 tests. The device's capacity is 15 tests per 24-hour period.

PCR tests are used to directly detect the presence of an antigen, rather than the presence of the body's immune response, or antibodies. By detecting viral RNA, which will be present in the body before antibodies form or symptoms of the disease are present, the tests can tell whether or not someone has the virus very early on.

Early detection of potential cases based on symptoms and contact tracing is imperative. PCR tests will give the project's medical team a good indication of who is infected. This allows for fast isolation, and contact tracing of potential additional cases for quarantine.

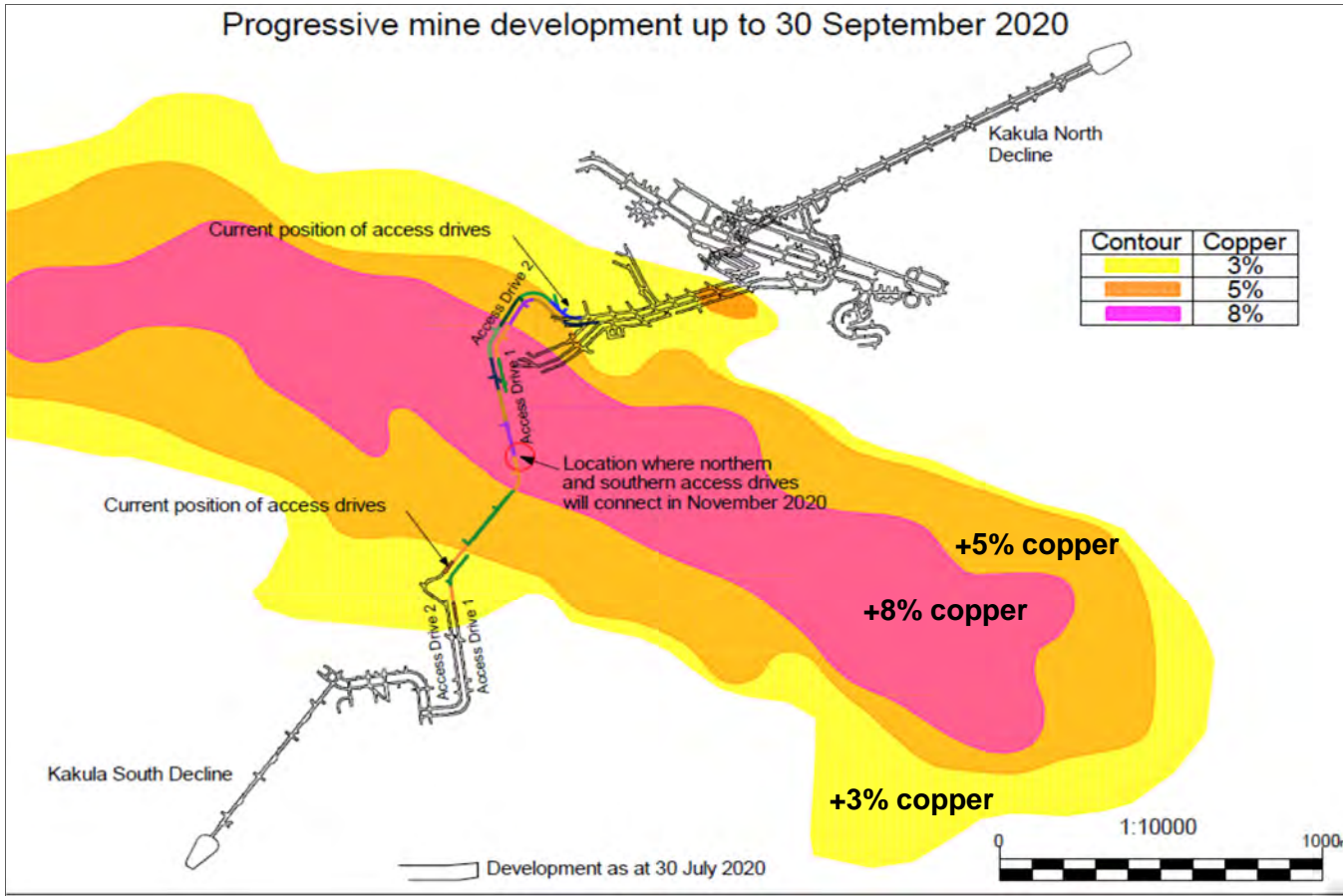
The project has established a COVID-19 isolation facility at the Kamoa camp. Any suspected or symptomatic cases are moved to this facility, where they are isolated, treated and tested. Once the patient

has recovered and is deemed no longer infectious, they can return to work only after an additional quarantine period determined by the project’s medical staff. As the pandemic evolves, the medical team at Kamo-Kakula is purposefully reviewing and updating its risk mitigation protocols.

**Definitive Feasibility Study nearing completion for the Kakula Mine**

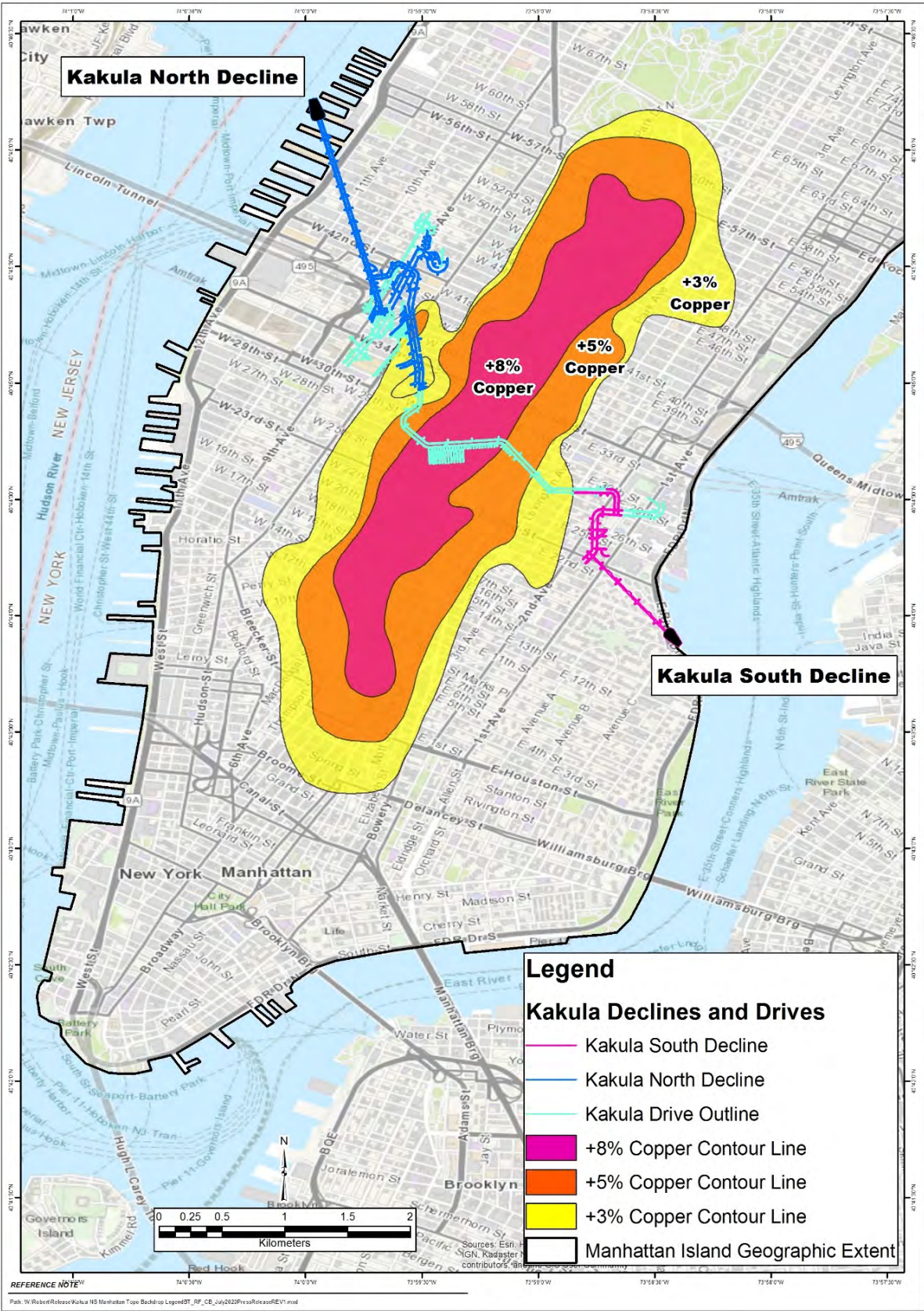
An independent definitive feasibility study (DFS) for the Kakula Mine is well advanced and is expected to be finalized shortly. At the same time, Ivanhoe expects to issue an updated Integrated Development Plan for the entire Kamo-Kakula mining complex, which will include details on the planned expansion phases for the greater Kamo-Kakula mining complex, incorporating updates for mineral resources, production rates and economic analysis. A separate study for an on-site smelter has been completed in parallel to a feasibility level of detail and will be incorporated into the integrated Kamo-Kakula preliminary economic assessment (PEA).

**Underground development completed to the end of July (in black) and scheduled development (green, brown, blue & black) until September 30, 2020. Shown are the 3%, 5% and 8% copper contours and the location where the northern and southern access drives are scheduled to join in Q4 2020.**





The eastern portion of Kakula Mine representing less than half of the overall 13.3-kilometre-long Kakula Deposit overlain on southern Manhattan Island to give a sense of the enormous scale of the underground operations.





Aerial view of the Kakula Mine showing the tonnes and grade of the main pre-production stockpiles at the northern declines. The high-grade stockpile currently contains approximately **116,000 tonnes grading 6.08% copper**, and the medium-grade stockpile currently contains approximately **325,000 tonnes grading 2.94% copper**.



Geologist Kally Mbumba showing ultra-high-grade, chalcocite-rich ore at Kakula Mine. Chalcocite has the greatest percentage of copper of all the common sulphide-copper-bearing minerals — almost 80% copper by weight.





An expansion in initial plant capacity from 3.0 Mtpa to 3.8 Mtpa is planned, which requires increasing the underground mining crews in 2020 from 11 to 14 to ensure sufficient mining operations to feed the expanded plant throughput. This would have the benefit of producing a larger surface stockpile of ore before the scheduled commissioning of the processing plant, as well as accelerating the mine development schedule, providing the opportunity to bring forward the commencement of the second phase of development at Kakula. The second 3.8 Mtpa plant module will be primarily fed from the Kakula Mine at a planned full production mining rate of 6 Mtpa. It is envisaged that an additional 1.6 Mtpa will be sourced from the Kansoko Mine, or elsewhere, to maximize the full milling capacity of 7.6 Mtpa.

There are currently 10 mining crews (three owner crews and seven contractor crews) at Kakula and one mining crew at Kansoko. The project will continue to add additional crews over the next 12 months to further accelerate development. One crew is currently being trained at the Kamoia training centre.

Kakula crews are currently mining and stockpiling ore with an average grade between 3% and 8% copper. At the end of June 2020, Kakula's high-grade, pre-production ore stockpile contained 67,553 tonnes grading 5.90% copper, the medium-grade ore stockpiles, including satellite stockpiles at Kakula South and Kansoko, contained an additional 394,119 tonnes at 2.71% copper. This has been increased to a high-grade, pre-production ore stockpile containing approximately 116,000 tonnes grading 6.08% copper and medium-grade ore stockpiles containing an additional 446,000 tonnes at 2.73% copper at the end of July 2020. The high-grade stockpile is projected to significantly expand in the coming months as the majority of Kakula's underground development will be in mining zones grading +5% copper.

#### **Ongoing construction of the flotation section of Kakula's 3.8 Mtpa processing plant.**



Basic engineering design and costing for the expansion from 3.8 Mtpa to 7.6 Mtpa is complete. The scope of facilities includes underground expansion at Kakula to reach an annual production rate of 6 Mtpa, the commencement of mining operations at Kansoko at a steady state 1.6 Mtpa, a second 3.8 Mtpa concentrator module at Kakula as well as associated surface infrastructure to support the expansion at the various sites.

## Ongoing construction of the flotation section of Kakula's 3.8 Mtpa processing plant.



The current estimate of the project's initial capital costs is approximately \$1.3 billion as of January 1, 2019, which assumes commissioning of the first processing plant module in Q3 2021 and includes expanded plant capacity and pre-production ore stockpiles.

The capital costs incurred by the Kamoa-Kakula joint venture in 2019 amounted to \$309.1 million, of which \$125.2 million was spent on the Kakula declines and mine development. A further capital cost of \$242.7 million, that includes the costs allocated to the pre-production ore stockpiles, has been incurred in the six months ended June 30, 2020. Ivanhoe's share of the capital costs incurred in the six months ended June 30, 2020, was \$120 million, representing its share of approximately 40% of the initial capital costs, plus its share of capital associated with the 20% carried interest owned by the Government of the DRC, which will be repaid through future cash flows from the project. Ivanhoe has budgeted \$257 million for its proportionate funding of approximately 50% for the Kamoa-Kakula Project for the remainder of 2020. As of June 30, 2020, the joint venture had an estimated \$750 million of capital costs remaining until initial production.

Ivanhoe expects that it will continue to have sufficient cash resources or financing options available to cover its proportionate share of the remaining initial capital costs.

### ***Kamoa-Kakula Mineral Resources increased again***

Ivanhoe announced the completion of an independently-verified, updated Mineral Resource estimate for the Kamoa-Kakula Project on February 5, 2020. The new Mineral Resource estimate has an effective date of January 30, 2020, and is the culmination of an infill drilling program designed to better define higher-grade copper zones within the existing Kamoa Deposit. The cut-off date for drill data is January 20, 2020.

At a 1% cut-off, Kamoa's Indicated Mineral Resources now total 760 million tonnes grading 2.73% copper, containing 45.8 billion pounds of copper. At the same 1% cut-off, Kamoa's Inferred Mineral



Resources now total 235 million tonnes grading 1.70% copper, containing 8.8 billion pounds of copper. At a 3% cut-off, the new Mineral Resource estimate boosts the Kamoa Deposit's Indicated Mineral Resource tonnages by 15% and contained copper by 15.5%, to a total of 256 million tonnes at a grade of 4.15% copper. At the same 3% cut-off, Kamoa's Inferred Mineral Resources now total 13 million tonnes at a grade of 3.51% copper.

The entire Kamoa Deposit was updated in the January 30, 2020 Mineral Resource estimate. The majority of recent drilling, however, targeted the ultra-high-grade Bonanza Zone at Kamoa North, and an approximated north-south corridor of elevated copper grades in the far north of the mining licence area (the Far North Zone).

The January 30, 2020 Kamoa Mineral Resource estimate covers approximately 600 metres of strike length in the deeper western portions of the Bonanza Zone (west of the West Scarp Fault), and 1,500 metres of strike length in the shallower eastern portions of the Bonanza Zone; defined by drill sections spaced 50 metres apart on strike in the central section, and 100 metres apart on strike elsewhere.

At a 1% cut-off, the current, combined Indicated Mineral Resources for the Kamoa-Kakula Project now totals 1.387 billion tonnes grading 2.74% copper, containing 83.7 billion pounds of copper. At the same 1% cut-off, Kamoa-Kakula's combined Inferred Mineral Resources now totals 339 million tonnes grading 1.68% copper, containing 12.5 billion pounds of copper.

At a higher 3% cut-off, the current, combined Indicated Mineral Resources for the Kamoa-Kakula Project now totals 423 million tonnes grading 4.68% copper, containing 43.7 billion pounds of copper. At the same 3% cut-off, Kamoa-Kakula's combined Inferred Mineral Resources now totals 17 million tonnes grading 3.51% copper, containing 1.3 billion pounds of copper.

The January 30, 2020 Kamoa Indicated and Inferred Mineral Resource estimate was prepared by George Gilchrist, Ivanhoe Mines' Vice President, Resources, under the direction of Gordon Seibel, RM SME, of the Wood Group (formerly Amec Foster Wheeler E&C Services Inc.) of Reno, USA, and is reported in accordance with the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves. Mr. Seibel is the Qualified Person for the estimate. There has been no change to the Mineral Reserve estimate at Kamoa-Kakula.

### ***More than 18.7 kilometres of underground development now completed as the project tracks towards first production in Q3 2021***

A total of 17.1 kilometres of underground development was completed by the end of June 2020, which was 5.2 kilometres ahead of plan. A record of 1.87 kilometres development was achieved in May 2020. At the end of July 2020, more than 18.7 kilometres had been completed.

Mine access drives 1 and 2 (interconnected, parallel tunnels that will provide access to ore zones) continue to advance towards the southern portion of the orebody and are currently developing through the 3% - 5% copper zones. Development also is well advanced on the eastern perimeter drives, western perimeter drives and the room-and-pillar mining area.

Development along south access drives 1 and 2 is progressing well and has reached the 3% - 5% copper zones, with mining crews working to establish the connection of these drives with mine access drives 1 and 2 from the north side of the orebody, this is scheduled to occur in November 2020.

### ***Engineering, procurement and construction advancing well***

Project engineering and procurement activities are nearing completion with the focus currently on logistics and construction. The current primary construction focus that runs through the project's critical path is the construction of the processing plant and the electrical high-voltage infrastructure installation.



Construction of the underground rock handling system is complete with the first rock being conveyed to surface in June 2020.

The civil construction of Ventilation Shaft 2 is underway with fan delivery scheduled in September 2020; the system is expected to be operational before the end of the year. Reaming of Ventilation Shaft North East is expected to start shortly after the completion of the pilot hole. The fan is scheduled to be operational by Q1 2021. Additional material is being procured ahead of the relocation of Ventilation Fan 1 to the North West 1 location.

The construction of the dams in the room-and-pillar mining area and the south ventilation shaft central transfer dam is underway; and both of these dams will be complete in Q3 2020.

**One of Kakula's high pressure grinding rolls (HPGR) for the processing plant being offloaded at the port of Durban, South Africa, for transport to Kamoakakula by truck.**



**Surveyor, Betty Kabey, scanning the East Spiral drive at the Kakula Mine.**



Civil construction of the process plant is progressing, with over 16,000 cubic metres of concrete already poured. A number of work areas have been completed and handed over for the erection of steel and the installation of mechanical equipment. Steel fabrication in China is nearing completion with the bulk of the steel either delivered to site or being transported. Steel erection has started at the flotation and thickener areas. Fabrication of plate work and piping is well advanced with some material being transported to site.

Manufacture of all long-lead mechanical items is complete with the crushers, low entrainment flotation cells and concentrate filter already delivered to site. Final deliveries for the mills, high pressure grinding rolls (HPGR), flotation cells and thickeners are expected to arrive on-site before the end of August.

The mine is receiving hydro-generated electrical power for the Kamoa 120kV overhead line via the 18MW mobile substation, which is connected to the national grid. The mobile substation was recently relocated to the Kakula Mine from the Kansoko Mine to increase transmission capacity to Kakula. Construction of the permanent 220-kilovolt overhead power line, the electrical switching substation (NRO substation) and the Kamoa Consumer Substation are underway. The objective is to energize the mine on 220kV grid power early in 2021.

All the newly built accommodation at the Kakula camp has been completed and is occupied. Construction of the kitchen, mess area and laundry will be completed shortly.



**Underground pumping station and water dam at Kakula's 1,050 level. Construction of a second permanent underground water-handling system is progressing well and commissioning is expected this month. The new system will add 800 litres per second of underground pumping capacity, bringing the total installed capacity to 1,400 litres per second.**





**Mukalayi Masengo, Technician, installing bolts on steel support structures for the surface conveyor that will transport ore from the surface stockpiles to the processing plant.**



***Exploration success leads to discovery of shallow, thick, ultra-high grade Kamoa North Bonanza Zone***

Exploration drilling in Q1 2020 totalled 5,195 metres and was focused on further definition of known high-grade copper trends in the typical mineralized horizon (Ki1.1.1) at Kamoa North. No further drilling has been done in the Bonanza Zone.

Exploration activities, including both drilling and further geophysical surveys, have been suspended at Kamoa-Kakula since March 30, 2020 in response to the preventative measures implemented by the Company to protect its employees and drilling contractors from COVID-19.

***Development options at Kamoa North being considered***

All geotechnical and hydrogeological drilling to provide support for future mining studies has been completed and a final resource model has been prepared. Metallurgical flotation test work has yielded positive results in line with expected performance. A number of different mine development scenarios and mining methods are being reviewed and optimized.

***Ongoing upgrading work enables Mwadingusha hydropower station to supply clean, sustainable electricity***

Ongoing upgrading work at the Mwadingusha hydropower plant in the DRC has significantly progressed. The two main activities remaining are the final installation of the turbines and the completion of the

penstock replacement.

Current activities include the installation of the turbine cooling and electrical systems as well as the welding of the valve chambers in the penstocks. Delays were experienced due to some of the European engineers leaving site at the beginning of the COVID-19 pandemic, however these engineers now are returning to site.

The progressive re-commissioning of the turbines is underway with three turbines expected to be in operation by December 2020 and the three remaining turbines in Q1 2021. The refurbished plant is projected to deliver approximately 72 megawatts (MW) of power to the national grid.

The work at Mwadingusha is being conducted by engineering firm STUCKY of Lausanne, Switzerland, under the direction of Ivanhoe Mines and Zijin Mining, in conjunction with the DRC's state-owned power company, La Société Nationale d'Electricité (SNEL SA).

The Kansoko Mine, Kakula Mine and Kamoia camp have been connected to the national hydroelectric power grid since the completion of a 20-kilometre long, 120-kilovolt, single-circuit power line between Kansoko and SNEL SA's high voltage national grid in September 2016. A 12-kilometres long, 120-kilovolts, dual-circuit power line between Kansoko and Kakula was completed in December 2017. The design of permanent, 11-kilovolt reticulation to the ventilation shafts and mine has started, which includes substations, overhead lines and surface cables.

**The dam at the Mwadingusha hydropower station that will supply clean, sustainable electricity to the DRC national power grid.**





### ***Continued focus on enriching communities through sustainable development***

The Kamo-Kakula Sustainable Livelihoods Program is committed to sustainable development in the communities within the project's footprint. The main objective of the livelihoods program is to enhance food security and living standards of the people who reside within the project area. The program consists primarily of fish farming, poultry production, beekeeping and food crops; including the farming of maize (corn), vegetables and bananas. With the increase in development activities at the project, a significant number of employment opportunities have also been made available to residents of the local communities.

The Sustainable Livelihoods Program started in 2010 in an effort to strengthen food security and farming capacity in the host communities near Kamo-Kakula by establishing an agricultural training garden and support for farmers at the community level. Today, approximately 350 community farmers are benefiting from the Sustainable Livelihoods Program, producing high-quality food for their families and selling the surplus for additional income.

Additional non-farming related activities for Q2 2020 included education and literacy programs, the continuation of a community brick-making program and the supply of fresh water to a number of local communities using solar powered boreholes.

Construction of resettlement houses for the second phase of the relocation program is underway. The survey for the final phase of relocation has been completed and crop compensation has commenced, with only five permanent structures being identified. The entire Kakula Mine area, including the tailings dam area, will be secured once these relocation phases are complete.

**A farmer weeding in his vegetable nursery. The Sustainable Livelihoods Program at Kamo-Kakula has developed into a large-scale operation, with hundreds of beneficiaries raising fish; growing maize and vegetables; and selling poultry and honey.**





## **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. Ivanplats reached Level 4 contributor status in its most recent verification assessment on the B-BBEE scorecard. 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 hosted primarily within the Platreef, a mineralized sequence that is traced more than 30 kilometres along 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. The Flatreef area lies entirely on the Turfspruit and Macalacaskop properties, which form part of the Company's mining right.

As part of the company-wide cost-cutting measures announced on April 27, 2020, Ivanhoe's board of directors allocated a reduced total budget for 2020 of \$41.7 million for the Platreef Project, of which \$23.4 million remains for the balance of the year. The sinking of Platreef's Shaft 1 has recently been completed, enabling Shaft 1 to be configured for permanent rock hoisting.

### ***Health and safety at Platreef***

At the end of Q2 2020, the Platreef Project reached a total of 119,686 lost-time, injury-free hours worked in accordance with South Africa's Mine Health and Safety Act, and Occupational Health and Safety Act. The last lost-time injury (LTI) occurred on May 18, 2020. The Platreef Project has noted an 80% improvement in the total recordable injury frequency rate (TRIFR) year on year with only one Recordable Injury for 2020.

In response to the country-wide lock down imposed by the South African Government due to the COVID-19 pandemic, Platreef temporarily suspended its shaft-sinking operations on March 26, 2020. During the suspension, the project kept a small workforce to keep the operation ready for when development resumed. Since April 21, 2020, following the announcement of amended regulations authorizing South African mines to operate at a workforce capacity of 50%, site activities resumed under strict mitigation controls.

One employee tested positive for COVID-19 in mid-July and was immediately placed in the project's quarantine facilities that have been set up in close proximity to the minesite. Contact tracing also was performed with direct contacts also being isolated.

***Positive independent, definitive feasibility study; Platreef projected to be Africa's lowest-cost producer of platinum-group metals***

In July 2017, Ivanhoe Mines announced the results of an independent, definitive feasibility study (DFS) for the then planned first phase of the Platreef Project's palladium-platinum-nickel-copper-gold-rhodium mine in South Africa.

The Platreef DFS covered a four million tonnes per annum first phase of development that would include construction of a state-of-the-art underground mine, concentrator and other associated infrastructure to support initial production of concentrate. As Phase 1 is being developed and commissioned, there would be opportunities to refine the timing and scope of subsequent phases of expanded production.

The 2017 DFS highlights include:

- Indicated Mineral Resources containing an estimated 41.9 million ounces of platinum, palladium, rhodium and gold, with an additional 52.8 million ounces of platinum, palladium, rhodium and gold in Inferred Resources.
- Mineral Reserves containing 17.6 million ounces of platinum, palladium, rhodium and gold following stope optimization and mine sequencing work.
- Development of a large, safe, mechanized, underground mine, with an initial four-Mtpa concentrator and associated infrastructure.
- Planned initial average annual production rate of 476,000 ounces of platinum, palladium, rhodium and gold (3PE+Au), plus 21 million pounds of nickel and 13 million pounds of copper.
- Estimated pre-production capital requirement of approximately \$1.5 billion, at a ZAR:USD exchange rate of 13 to 1.
- Platreef would rank at the bottom of the cash-cost curve, at an estimated \$351 per ounce of 3PE+Au produced, net of by-products and including sustaining capital costs, and \$326 per ounce before sustaining capital costs.
- After-tax net present value (NPV) of \$916 million, at an 8% discount rate.
- After-tax internal rate of return (IRR) of 14.2%.

All figures are on a 100%-project basis unless otherwise stated. The DFS was prepared for Ivanhoe Mines by principal consultant DRA Global, with economic analysis led by OreWin, and specialized sub-consultants including Amec Foster Wheeler E&C Services, Stantec Consulting, Murray & Roberts Cementation, SRK Consulting, Golder Associates and Digby Wells Environmental.

***Platreef phased development plan and update of DFS***

Ivanhoe is investigating a phased development plan for the Platreef Project, targeting significantly lower initial capital, to accelerate first production by using Shaft 1 as the mine's initial production shaft. This plan will focus on initially targeting the development of mining zones accessible from Shaft 1 and maximizing the hoisting capacity of this shaft, followed by expansions to the production rate as outlined in the 2017 DFS.

Concurrently, Ivanhoe is updating the Platreef Project's DFS to take into account development schedule advancement since 2017 when the DFS was completed, updated costs and refreshed metal prices and foreign exchange assumptions. This update, together with the study on the phased development plan, is scheduled for completion in Q3 2020.

***Platreef Mineral Resources***

The Platreef Project's Mineral Resource estimate was prepared for Ivanhoe Mines under the direction of Dr. Harry Parker, RM SME, of Wood plc. Timothy Kuhl, RM SME, also of Wood plc, has independently



confirmed the Mineral Resource estimate and is the Qualified Person for the estimate, which has an effective date of April 22, 2016.

The Flatreef Mineral Resource, with a strike length of 6.5 kilometres, lies predominantly within a flat-to-gently-dipping portion of the Platreef mineralized belt at relatively shallow depths of approximately 500 metres to 1,350 metres below the surface. The Flatreef Deposit is characterized by its very large vertical thicknesses of high-grade mineralization.

The Platreef Indicated Mineral Resources for all mineralized zones are 346 million tonnes at a grade of 3.77 grams per tonne (g/t) 3PE+gold (1.68 g/t platinum, 1.70 g/t palladium, 0.11 g/t rhodium, 0.28 g/t gold), 0.32% nickel and 0.16% copper at a 2.0 g/t 3PE+gold cut-off. The average thickness of the 2.0 g/t 3PE+gold grade shell used to constrain the T2MZ resources for the indicated area is 19 metres.

Inferred mineral resources for all mineralized zones are 506 million tonnes at a grade of 3.24 g/t 3PE+gold (1.42 g/t platinum, 1.46 g/t palladium, 0.10 g/t rhodium, 0.26 g/t gold), 0.31% nickel and 0.16% copper. The average thickness of the 2.0 g/t 3PE+gold grade shell used to constrain the T2MZ resources for the inferred area is 12.7 metres.

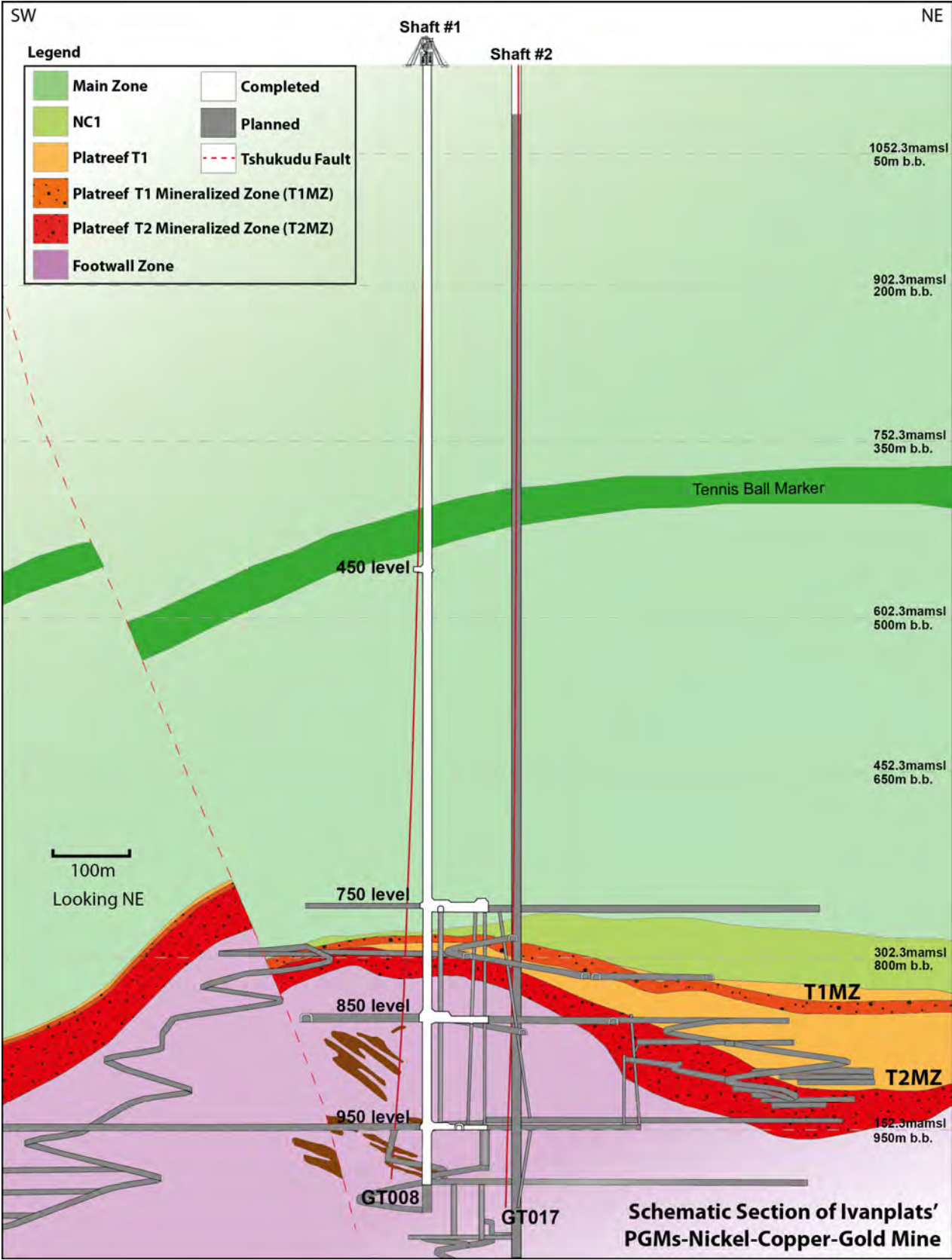
### ***Shaft 1 successfully completed down to the final depth of 996 metres***

Shaft 1 reached the top of the high-grade Flatreef Deposit (T1 mineralized zone) at a depth of 780.2 metres below surface in Q3 2018 and has since been extended to its final depth of 996 metres below surface. The thickness of the mineralized orebody (T1 and T2 mineralized zones) at Shaft 1 is 29 metres, with grades of platinum-group metals ranging up to 11 grams per tonne (g/t) 3PE (platinum, palladium and rhodium) plus gold, as well as significant quantities of nickel and copper. The 29-metre intersection yielded approximately 3,000 tonnes of ore, estimated to contain more than 400 ounces of platinum-group metals. The ore is stockpiled on surface for further metallurgical sampling.

**Members of the Platreef team celebrate the completion of sinking Shaft 1 to a final depth of 996 metres below surface. Shaft 1's headframe is in the background.**



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





The 750, 850 and 950-metre-level station developments have been completed. The three development stations will provide initial, underground access to the high-grade orebody. Shaft 1 changeover detailed designs are nearing completion and will enable Shaft 1 to be configured for permanent rock hoisting.

### ***Underground mining to incorporate highly-productive, mechanized methods***

The mining zones in the current Platreef mine plan occur at depths ranging from approximately 700 metres to 1,200 metres below surface. When completed, Shaft 2 is expected to provide primary access to the mining zones; secondary access is expected to be via Shaft 1. During mine production, both shafts also are expected to serve as ventilation intakes. Three additional ventilation exhaust raises are planned to achieve steady-state production.

Planned mining methods will use highly-productive, mechanized methods, including long-hole stoping and drift-and-fill mining. Each method will utilize cemented backfill for maximum ore extraction. The ore will be hauled from the stopes to a series of internal ore passes and fed to the bottom of Shaft 2, where it will be crushed and hoisted to surface.

**In June, Platreef's shaft-sinking team drilled the final round to a depth of 996 metres below surface.**



### ***Long-term supply of bulk water secured for the Platreef Mine***

On May 7, 2018, Ivanhoe announced the signing of a new agreement to receive local, treated water to supply most of the bulk water needed for the first phase of production at Platreef. The Mogalakwena Local Municipality has agreed to supply a minimum of five million litres of treated water a day for 32 years, beginning in 2022, from the town of Mokopane's new Masodi Treatment Works. Initial supply will be used in Platreef's ongoing underground mine development and surface infrastructure construction.

Under the terms of the agreement, which is subject to certain suspensive conditions, Ivanplats will provide financial assistance to the municipality for certified costs of up to a maximum of R248 million (approximately \$16 million) to complete the Masodi treatment plant. Ivanplats will purchase the treated wastewater at a reduced rate of R5 per thousand litres for the first 10 million litres per day to offset a portion of the initial capital contributed.

### ***Development of human resources and job skills***

Consultation regarding the Platreef Project's second Social and Labour Plan (SLP) is in the final stages. In this second SLP, Ivanplats plans to build on the foundation laid in the first SLP and continue with its training and development suite, which includes: 15 new mentors; internal skills training for 78 staff members; a legends program to prepare retiring employees with new/other skills; community adult education training for our host community members; core technical skills training for at least 100 community members, portable skills; and more. Local economic development projects will contribute community water source development with the Municipality boreholes program, educational program in partnership with Department of Education and significant contribution funding for sanitation infrastructure at the Mogalakwena Municipality. The enterprise and supplier development commitments comprise of expanding the existing kiosk and laundry facilities even further, also adding expanded change house facilities to be managed by a community partner in future. A five year integrated business accelerator and funding project will assist community members interested to obtain help with development and supplier readiness.

## **KIPUSHI PROJECT**

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

As part of the Company's cost-cutting measures announced on April 27, 2020, Ivanhoe's board of directors allocated a reduced total budget for 2020 of \$28.7 million for the Kipushi Project, of which approximately \$13.5 million remains for the rest of the year.

### ***Health, safety and community development***

At the end of June 2020, the Kipushi Project reached a total of 2,489,853 work hours free of lost-time injuries. It has been more than 19 months since the last lost-time injury occurred at the Kipushi Project.

In response to government-imposed travel restrictions and emergency protocols being introduced worldwide due to the COVID-19 pandemic, Kipushi has temporarily suspended mine development operations in order to reduce the risk to the workforce and local communities. The project is maintaining a reduced workforce to conduct maintenance activities and to maintain pumping operations.

The Kipushi Project operates a potable-water station to supply the municipality of Kipushi with water. This includes power supply, disinfectant chemicals, routine maintenance, security, and emergency repair of leaks to the primary reticulation. Other community development projects included the donation of 5,000 N95 face masks to host communities, the donation of additional infrared thermometers to the Health Zone management and sponsoring a COVID-19 awareness campaign broadcast on local radio. The sewing training centre project started production of cloth face masks with the target of donating 2,000 masks every month to host communities.



## ***Kipushi Mineral Resources***

The Kipushi Project's current Mineral Resource estimate was updated with an effective date of June 14, 2018, and was prepared by the MSA Group of Johannesburg, South Africa, in compliance with 2014 CIM Definition Standards. Ivanhoe filed an updated National Instrument 43-101 (NI 43-101) technical report for the Kipushi Project covering the June 2018 Mineral Resource in March 2019. The technical report is filed on the Company's website and under the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

Zinc rich Measured and Indicated Mineral Resources, primarily in the Big Zinc Zone total 11.78 million tonnes at grades of 35.34% zinc, 0.80% copper, 23 g/t silver and 64 g/t germanium, at a 7% zinc cut-off – containing an estimated 9.2 billion pounds of zinc. Zinc-rich Inferred Mineral Resources total an additional 1.14 million tonnes at grades of 33.77% zinc, 1.24% copper, 12 g/t silver and 62 g/t germanium. The Inferred Mineral Resources are contained partly in the Big Zinc Zone and partly in the Southern Zinc Zone.

Copper-rich Measured and Indicated Mineral Resources contained in the adjacent Fault Zone, Fault Zone Splay and Série Récurrente Zone total an additional 2.29 million tonnes at grades of 4.03% copper, 2.85% zinc, 21 g/t silver and 19 g/t germanium, at a 1.5% copper cut-off – containing 204 million pounds of copper. Copper-rich Inferred Mineral Resources in these zones total an additional 0.44 million tonnes at grades of 3.89% copper, 10.77% zinc, 19 g/t silver and 55 g/t germanium.

### ***Definitive feasibility study in final stages of completion***

The Kipushi Project's pre-feasibility study (PFS), announced by Ivanhoe Mines on December 13, 2017, anticipated annual production of an average of 381,000 tonnes of zinc concentrate over an 11-year, initial mine life at a total cash cost of approximately \$0.48 per pound (lb) of zinc.

Highlights of the PFS, based on a long-term zinc price of \$1.10/lb, include:

- After-tax net present value (NPV) at an 8% real discount rate of \$683 million.
- After-tax real internal rate of return (IRR) of 35.3%.
- After-tax project payback period of 2.2 years.
- Pre-production capital costs, including contingency, of \$337 million.
- Existing surface and underground infrastructure allows for significantly lower capital costs than comparable greenfield development projects.
- Life-of-mine average planned zinc concentrate production of 381,000 dry tonnes per annum, with a concentrate grade of 59% zinc, is expected to rank Kipushi, once in production, among the world's largest zinc mines.

All figures are on a 100%-project basis unless otherwise stated. Estimated life-of-mine average cash cost of \$0.48/lb of zinc is expected to rank Kipushi, once in production, in the bottom quartile of the cash-cost curve for zinc producers internationally.

The Kipushi Project's DFS is in the final stages of completion, and some aspects of the design have progressed into a detailed engineering phase.

**Samuel Ndembo (left) and Mbiya Africa (right) taking air flow measurements at Kipushi's 850-metre-level electrical substation.**



### ***Project development and infrastructure***

Although development and rehabilitation activities in the six months ending June 2020 were limited, significant progress has been made in recent years modernizing the Kipushi Mine's underground infrastructure as part of preparations for the mine to resume commercial production, including upgrading a series of vertical mine shafts to various depths, with associated head frames, as well as underground mine excavations and infrastructure. A series of crosscuts and ventilation infrastructure still is in working condition and have been cleared of old materials and equipment to facilitate modern, bulk-mechanized mining. The underground infrastructure also includes a series of high-capacity pumps to manage the mine's water levels, which now are easily maintained at the bottom of the mine.

Shaft 5 is eight metres in diameter and 1,240 metres deep and has been upgraded and re-commissioned. The main personnel and material winder has been upgraded and modernized to meet international industry standards and safety criteria. The Shaft 5 rock-hoisting winder also is fully operational with new rock skips, new head- and tail-ropes, and attachments installed. The two newly-manufactured rock conveyances (skips) and the supporting frames (bridles) have been installed in the shaft to facilitate the hoisting of rock from the main ore and waste storage silos feeding rock on the 1,200-metre level.

The main haulage way on the 1,150-metre level, between the Big Zinc access decline and Shaft 5 rock load-out facilities, has been resurfaced with concrete so the mine now can use modern, trackless, mobile machinery. A new truck-tipping bin, which feeds into the large-capacity rock crusher located directly below, has been installed on this level. The old winder at P2 Shaft has been removed and construction of the new foundation, along with assembly and installation of the new modern winder, has been completed and fully commissioned after passing safety inspection and testing procedures.



## **DRC WESTERN FORELAND EXPLORATION PROJECT**

Ivanhoe's DRC exploration group is targeting Kamoa-Kakula-style copper mineralization through a regional exploration and drilling program on its 100%-owned Western Foreland exploration licences, located to the north, south and west of the Kamoa-Kakula Project. Exploration activities on the Western Foreland's exploration project in DRC will continue with a 2020 budget of \$8 million, of which approximately \$4.5 million remains for the rest of the year.

In Q1 2020, six holes were drilled at the at Makoko prospect, totalling of 2,103 metres. In late Q1, drilling was suspended on the Western Foreland exploration licences due to excessive rains hampering access to drilling sites and in response to the preventative measures implemented by the Company to protect its employees and drilling contractors from COVID-19. During Q2 2020, the geology team commenced exploration on eight new Ivanhoe Mines exploration licences (PR14543 – PR14550) in the Western Foreland region. This work involved establishing an exploration centre on each of the licences, and conducting a minimum of ten-days, ground-based geological work, focused on channel and field mapping and stream and grab sampling. Follow up work on licences PR14546 and PR14547 continued after the submission of seven exploration reports to the DRC government.

High-resolution satellite imagery, aster data and 2.5-metre resolution Digital Elevation Model (DEM) data was acquired over the Western Foreland licence area. Planning for a high-resolution magnetic and radiometric survey was completed, and planning for an airborne gravity survey is ongoing. Both geophysical surveys are planned to commence in Q3 2020. The goal of this work is to understand the magnetic and density characteristics of the different lithologies and stratigraphy over the broader exploration area.

## 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 and did not declare or pay any dividend or distribution in any financial reporting period.

	Three months ended			
	June 30,	March 31,	December 31,	September 30,
	2020	2020	2019	2019
	\$'000	\$'000	\$'000	\$'000
Exploration and project expenditure	9,018	11,980	3,664	3,266
Share of loss from joint venture	6,597	6,728	5,610	7,084
General administrative expenditure	7,464	14,016	5,642	4,985
Share-based payments	4,180	3,677	3,320	2,744
Finance income	(18,672)	(20,810)	(20,761)	(18,920)
Finance costs	70	100	76	71
Total comprehensive (income) loss attributable to:				
Owners of the Company	(3,458)	65,736	(25,182)	13,077
Non-controlling interest	3,123	10,889	(317)	3,718
Basic loss (profit) per share	0.00	0.01	(0.01)	(0.00)
Diluted loss (profit) per share	0.00	0.01	(0.01)	(0.00)

	Three months ended			
	June 30,	March 31,	December 31,	September 30,
	2019	2019	2018	2018
	\$'000	\$'000	\$'000	\$'000
Exploration and project expenditure	3,290	1,399	4,910	2,368
Share of loss (profit) from joint venture	6,248	5,879	(41,274)	7,757
General administrative expenditure	3,730	2,107	12,869	1,823
Share-based payments	2,239	2,019	1,866	1,829
Finance income	(16,859)	(15,855)	(16,481)	(12,146)
Finance costs	56	96	66	185
Total comprehensive (income) loss attributable to:				
Owners of the Company	(9,570)	(5,536)	(30,740)	5,838
Non-controlling interest	1,441	2,180	2,330	2,046
Basic (profit) loss per share	(0.00)	(0.01)	(0.04)	0.00
Diluted (profit) loss per share	(0.00)	(0.01)	(0.04)	0.00



## DISCUSSION OF RESULTS OF OPERATIONS

### *Review of the three months ended June 30, 2020 vs. June 30, 2019*

The Company recorded a total comprehensive income of \$0.3 million for Q2 2020 compared to an income of \$8.1 million for the same period in 2019.

Salary and benefits of \$5.1 million for the three months ended June 30, 2020 was \$2.8 million for the same period in 2019. The increase was due to the severance payments made to outgoing members of senior management, as the Company reduced its senior management headcount. This was partly offset by the voluntary salary reductions agreed to by remaining senior management.

Finance income for Q2 2020, amounted to \$18.7 million, and was \$1.8 million more than for the same period in 2019 (\$16.9 million). Included in finance income is the interest earned on loans to the Kamoa Holding joint venture to fund operations that amounted to \$16.4 million for Q2 2020, and \$12.7 million for the same period in 2019, interest increased as the accumulated loan balance increased. Interest received on cash and cash equivalents decreased due to interest rate cuts by the US Federal Reserve, even though the Company had a higher cash balance during Q2 2020.

Exploration and project expenditure amounted to \$9.0 million in Q2 2020 and \$3.3 million for the same period in 2019. While all the exploration and project expenditure incurred in Q2 2019 related to exploration at Ivanhoe's 100%-owned Western Foreland exploration licences, Q2 2020 also included \$7.5 million spent at the Kipushi Project which incurred limited costs of a capital nature in the quarter due to reduced activities. The main classes of expenditure at the Kipushi Project in Q2 2020 and Q2 2019 are set out in the following table:

	<b>Three months ended June 30,</b>	
	<b>2020</b>	<b>2019</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Kipushi Project</b>		
Salaries and benefits	3,585	4,052
Depreciation	1,389	509
Electricity	897	1,433
Infrastructure, equipment and refurbishment	-	4,062
Studies and contracting work	362	2,234
Other additions to property, plant and equipment	614	1,190
Other expenditure	1,308	2,843
<b>Total project expenditure</b>	<b>8,155</b>	<b>16,323</b>
<i>Exclude:</i>		
Capitalized as development cost in property, plant and equipment	-	(15,133)
Other additions to property, plant and equipment	(614)	(1,190)
<b>Exploration and project expenditure in the loss from operating activities</b>	<b>7,541</b>	<b>-</b>

The Company's share of losses from the Kamo Holding joint venture increased from \$6.2 million in Q2 2019 to \$6.6 million in Q2 2020. The following table summarizes the Company's share of the losses of Kamo Holding for the three months ended June 30, 2020, and for the same period in 2019:

	Three months ended June 30,	
	2020	2019
	\$'000	\$'000
Finance costs	18,711	17,025
Exploration expenses	2,338	3,673
Finance income	(1,193)	(1,273)
Foreign exchange (gain) loss	(28)	23
Loss before taxes	19,828	19,448
Deferred tax recovery	(4,431)	(4,654)
Loss after taxes	15,397	14,794
Non-controlling interest of Kamo Holding	(2,068)	(2,172)
Loss for the period attributable to joint venture partners	13,329	12,622
Company's share of loss from joint venture (49.5%)	6,597	6,248

The finance costs in the Kamo Holding joint venture relates to shareholder loans where each shareholder is required to fund Kamo Holding in an amount equivalent to its proportionate shareholding interest. The Company is advancing Crystal River's portion on its behalf in return for an increase in the promissory note due to Ivanhoe.

#### *Review of the six months ended June 30, 2020 vs. June 30, 2019*

The Company recorded a total comprehensive loss of \$76.3 million for the six months ended June 30, 2020 compared to an income of \$11.5 million for the same period in 2019. The comprehensive loss for the six months ended June 30, 2020 included an exchange loss on translation of foreign operations of \$53.9 million, resulting from the weakening of the South African Rand by 24% from December 31, 2019, to June 30, 2020, compared to an exchange gain on translation of foreign operations recognized for the same period in 2019 of \$5.8 million.

Finance income for the six months ended June 30, 2020, amounted to \$39.5 million, and was \$6.8 million more than for the same period in 2019 (\$32.7 million). Included in finance income is the interest earned on loans to the Kamo Holding joint venture to fund operations that amounted to \$32.7 million for the six months ended June 30, 2020, and \$24.7 million for the same period in 2019, interest increased as the accumulated loan balance increased. Interest received on cash and cash equivalents for the six months ended June 30, 2020 amounted to \$3.5 million and was \$2.6 million less than for the same period in 2019 (\$6.1 million).

Exploration and project expenditure amounted to \$21.0 million for the six months ended June 30, 2020 and \$4.7 million for the same period in 2019. While all the exploration and project expenditure incurred in 2019 related to exploration at Ivanhoe's 100%-owned Western Foreland exploration licences, 2020 also included \$17.5 million spent at the Kipushi Project which was on reduced activities and incurred limited cost of a capital nature in the year to date.

The main classes of expenditure at the Kipushi Project for the six months ended June 30, 2020, and for the same period in 2019 are set out in the following table:

	Six months ended June 30,	
	2020	2019
	\$'000	\$'000
<b>Kipushi Project</b>		
Salaries and benefits	7,347	8,215
Depreciation	3,121	1,027
Electricity	2,064	3,320
Studies and contracting work	1,375	3,829
Infrastructure, equipment and refurbishment	-	10,310
Other additions to property, plant and equipment	775	1,291
Other expenditure	3,616	5,659
Total project expenditure	18,298	33,651
<i>Exclude:</i>		
Capitalized as development cost in property, plant and equipment	-	(32,360)
Other additions to property, plant and equipment	(775)	(1,291)
Exploration and project expenditure in the loss from operating activities	17,523	-

The Company's share of losses from the Kamoa Holding joint venture increased from \$12.1 million for the six months ended June 30, 2019 to \$13.3 million for the same period 2020. The following table summarizes the Company's share of the losses of Kamoa Holding for the six months ended June 30 2020, and for the same period in 2019:

	Six months ended June 30,	
	2020	2019
	\$'000	\$'000
Finance costs	38,150	33,266
Exploration expenses	4,965	7,428
Foreign exchange loss	102	50
Finance income	(2,852)	(2,507)
Loss before taxes	40,365	38,237
Deferred tax recovery	(9,167)	(9,367)
Loss after taxes	31,198	28,870
Non-controlling interest of Kamoa Holding	(4,278)	(4,371)
Loss for the year attributable to joint venture partners	26,920	24,499
Company's share of loss from joint venture (49.5%)	13,325	12,127

#### *Financial position as at June 30, 2020 vs. December 31, 2019*

The Company's total assets decreased by \$76.7 million, from \$2,444.7 million as at December 31, 2019, to \$2,368.0 million as at June 30, 2020. The Company utilized \$37.5 million of its cash resources in its operations and received interest of \$3.5 million on cash and cash equivalents during the six months ended June 30 2020.



Property, plant and equipment decreased by \$34.0 million, from \$421.1 million as at December 31, 2019, to \$387.1 million as at June 30, 2020. The decrease resulted from the foreign exchange translation of property, plant and equipment of non-dollar operations of \$51.6 million due to the weakening of the South African Rand by 24% from December 31, 2019, to June 30, 2020. A total of \$19.8 million was spent on project development and to acquire other property, plant and equipment, \$18.5 million of which pertained to development costs and other acquisitions of property, plant and equipment at the Platreef Project.

The main components of the additions to property, plant and equipment - including capitalized development costs - at the Platreef Project for the six months ended June 30, 2020, and for the same period in 2019, are set out in the following table:

	<b>Six months ended</b>	
	<b>June 30,</b>	
	<b>2020</b>	<b>2019</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Platreef Project</b>		
Shaft 1 construction	12,192	14,451
Salaries and benefits	2,973	4,282
Administrative and other expenditure	1,950	3,188
Studies and contracting work	651	727
Site costs	444	494
Social and environmental	310	960
Shaft 2 early works	14	2,565
Infrastructure	2	109
Total development costs	18,536	26,776
Other additions to property, plant and equipment	8	157
Total additions to property, plant and equipment for Platreef	18,544	26,933

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 Company's investment in the Kamoa Holding joint venture increased by \$162.4 million from \$912.6 million as at December 31, 2019, to \$1,075.0 million as at June 30, 2020, with each of the current shareholders funding the operations equivalent to their proportionate shareholding interest. The Company's portion of the Kamoa Holding joint venture cash calls amounted to \$143.0 million during the six months ending June 30, 2020, while the Company's share of losses from the joint venture amounted to \$13.3 million.

The Company's investment in the Kamoa Holding joint venture can be broken down as follows:

	<b>June 30,</b>	<b>December 31,</b>
	<b>2020</b>	<b>2019</b>
	<b>\$'000</b>	<b>\$'000</b>
Company's share of net assets in joint venture	163,994	177,319
Loan advanced to joint venture	911,016	735,317
Total investment in joint venture	1,075,010	912,636

The Kamoa Holding joint venture principally uses loans advanced to it by its shareholders to advance the Kamoa-Kakula Project through investing in development costs and other property, plant and equipment, as well as continuing with exploration. This can be evidenced by the movement in the Company's share of net assets in the Kamoa Holding joint venture which can be broken down as follows:

	<b>June 30, 2020</b>		<b>December 31, 2019</b>	
	<b>100%</b>	<b>49.5%</b>	<b>100%</b>	<b>49.5%</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
<b>Assets</b>				
Property, plant and equipment	952,270	471,374	727,391	360,059
Mineral property	802,021	397,000	802,021	397,000
Deferred tax asset	136,651	67,642	127,484	63,105
Long term loan receivable	130,164	64,431	126,012	62,376
Prepaid expenses	114,732	56,792	77,844	38,533
Cash and cash equivalents	84,481	41,818	73,968	36,614
Indirect taxes receivable	65,656	32,500	47,233	23,380
Non-current inventory	38,553	19,084	9,188	4,548
Right-of-use asset	26,455	13,095	30,128	14,913
Consumable stores	22,110	10,945	8,987	4,449
Non-current deposits	1,289	638	1,289	638
<b>Liabilities</b>				
Shareholder loans	(1,839,693)	(910,648)	(1,484,737)	(734,945)
Trade and other payables	(67,103)	(33,216)	(54,005)	(26,733)
Lease liability	(26,599)	(13,166)	(30,211)	(14,954)
Rehabilitation provision	(15,321)	(7,584)	(5,727)	(2,835)
Non-controlling interest	(94,365)	(46,711)	(98,644)	(48,829)
<b>Net assets of the joint venture</b>	<b>331,301</b>	<b>163,994</b>	<b>358,221</b>	<b>177,319</b>

The Kamoia Holding joint venture's net increase in property, plant and equipment from December 31, 2019, to June 30, 2020, amounted to \$224.9 million and can be further broken down as follows:

	Six months ended June 30,	
	2020	2019
	\$'000	\$'000
<b>Kamoia Holding joint venture</b>		
Kakula decline and mine development	80,372	28,763
Studies and contracting work	30,280	12,234
Borrowing costs capitalized	27,885	16,592
Salaries and benefits	11,822	9,933
Office and administrative expenditure	11,406	4,245
Camp and office construction	7,015	7,565
Site costs, security and safety	5,220	2,209
Roads	4,057	3,559
Project fleet	904	1,909
Other development costs	24,102	11,186
Total development costs	203,063	98,195
Other additions to property, plant and equipment	27,502	4,176
Total additions to property, plant and equipment for Kamoia Holding	230,565	102,371
Less depreciation and disposals	(5,686)	(1,865)
Net increase in property, plant and equipment of Kamoia Holding	224,879	100,506

The Company's total liabilities decreased by \$10.1 million to \$71.8 million as at June 30, 2020, from \$81.9 million as at December 31, 2019, due to a \$10.4 million decrease in trade and other payables.

## LIQUIDITY AND CAPITAL RESOURCES

The Company had \$496.2 million in cash and cash equivalents as at June 30, 2020. At this date, the Company had consolidated working capital of approximately \$544.8 million, compared to \$688.5 million at December 31, 2019.

Since December 8, 2015, each shareholder in Kamoia Holding has been required to fund Kamoia Holding in an amount equivalent to its proportionate shareholding interest. The Company is advancing Crystal River's portion on its behalf in return for an increase in the promissory note due to Ivanhoe.

The Platreef Project's current expenditure is being funded solely by Ivanhoe, through an interest bearing loan to Ivanplats, as the Japanese consortium has elected not to contribute to current expenditures.

The Company is in the process of reducing its global office footprint and its corporate and senior management headcount, in addition to implementing several other company-wide, cash-saving measures. Ivanhoe's head office will remain in Sandton (South Africa) and be supported by satellite offices in Beijing (China) and London (United Kingdom). The Company has budgeted to spend \$11.1 million on corporate overheads for the remainder of 2020.



Ivanhoe's board of directors allocated a reduced 2020 budget of \$41.7 million for the Platreef Project, of which \$23.4 million is allocated for the remainder of 2020, where the sinking of Platreef's Shaft 1 has recently been completed. The Company also allocated a reduced 2020 budget of \$28.7 million for the Kipushi Project, of which \$13.5 million is allocated for the remainder of 2020. Exploration activities on the Western Foreland's exploration project in DRC will continue with a 2020 budget of \$8.0 million, of which \$4.5 million is allocated for the remainder of 2020. At the Kamoa-Kakula Project, the priority remains the continuation of mine development work at Kakula where initial copper concentrate production is scheduled for the third quarter of 2021. The Company has budgeted \$257 million for its proportionate funding of the Kamoa-Kakula Project for the remainder of 2020.

As Ivanhoe continues to advance its projects, the Company's management has reviewed and assessed numerous alternatives to finance its share of construction costs for the Kakula Copper Mine and to advance exploration and development initiatives at its other projects in Southern Africa. These alternatives include, but are not limited to, existing liquidity sources, including cash, receivables and investments, selling assets, project financing, streaming or royalty transactions, equipment and debt financing. While Ivanhoe expects that it will continue to have sufficient cash resources or project-related financing options available to cover its share of the initial capital costs at the Kakula Mine, the Company will continue to seek out and review opportunities presented to Ivanhoe, having regard to the best interests of Ivanhoe as well as to Ivanhoe's operations and financial position, industry conditions and geopolitical considerations.

The Company has a mortgage bond outstanding on its offices in London, United Kingdom, of £3.2 million (\$4.0 million). The bond is fully repayable on August 31, 2020, secured by the property and incurs interest at a rate of GBP 1 month LIBOR plus 1.9% payable monthly in arrears. Only interest will be payable until maturity.

In 2013, the Company became party to a loan payable to ITC Platinum Development Limited, which had a carrying value of \$30.8 million as at June 30, 2020, and a contractual amount due of \$34.2 million. The loan is repayable once the Platreef Project has residual cashflow, 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 attracts interest of USD 3 month LIBOR plus 2% calculated monthly in arrears. Interest is not compounded. The difference of \$3.4 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				
	Total	Less than	1-3 years	4-5 years	After
Contractual obligations as at June 30, 2020	\$'000	1 year \$'000	\$'000	\$'000	5 years \$'000
Debt	38,183	3,990	-	-	34,193
Lease commitments	461	425	36	-	-
Shaft 1 construction – Platreef Project	6,875	6,875	-	-	-
<b>Total contractual obligations</b>	<b>45,519</b>	<b>11,290</b>	<b>36</b>	<b>-</b>	<b>34,193</b>

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

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

### 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:

	Three months ended		Six months ended	
	June 30,		June 30,	
	2020	2019	2020	2019
	\$'000	\$'000	\$'000	\$'000
Global Mining Management Corporation (a)	1,763	1,139	2,354	2,104
Ivanhoe Capital Aviation Ltd. (b)	875	625	1,750	1,250
Ivanhoe Capital Services Ltd. (c)	139	77	272	210
Global Mining Services Ltd. (d)	256	(1)	364	23
Ivanhoe Capital Pte Ltd (e)	115	16	111	70
Ivanhoe Capital Corporation (UK) Limited (f)	4	5	2	-
Kamoā Holding Limited (g)	(16,392)	(12,737)	(32,679)	(24,687)
Kamoā Copper SA (h)	(1,767)	(1,209)	(3,937)	(2,161)
High Power Exploration Inc.(i)	(1,034)	(721)	(2,084)	(721)
Ivanhoe Mines Energy DRC Sarl (j)	(45)	(69)	(109)	(127)
GMM Tech Holdings Inc. (k)	(26)	9	388	322
HCF International Advisers (l)	-	294	-	497
	(16,112)	(12,572)	(33,568)	(23,220)
Salaries and benefits	1,941	1,129	2,608	2,106
Travel	1,011	671	1,890	1,357
Consulting	79	308	480	843
Office and administration	55	58	168	172
Finance income	(17,386)	(13,460)	(34,668)	(25,410)
Cost recovery and management fee	(1,812)	(1,278)	(4,046)	(2,288)
	(16,112)	(12,572)	(33,568)	(23,220)

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.

As at June 30, 2020, trade and other payables included \$0.4 million (December 31, 2019: \$0.6 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 June 30, 2020 amounted to \$4.4 million (December 31 2019: \$3.9 million).

On March 11, 2020, the Company entered into a purchase and sale agreement with ICA Global Services LLC ("ICA Global"), under which ICA Global agreed to sell a Gulfstream Aerospace G-IV aircraft to the Company for a purchase consideration equal to 1,000,000 Common Shares of the Company. The transaction closed on May 11, 2020. ICA Global is a private company controlled by the Executive Co-Chairman of the Company.

On June 30, 2020, the Kipushi Project sold equipment to Kamoa Copper SA for proceeds of \$1.6 million.

- (a) 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.
- (b) 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.
- (c) 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.
- (d) Global Mining Services Ltd. ("GMS") is a private company incorporated in Delaware and is 100% owned by Global. GMS provides administration and other services to the Company on a cost-recovery basis.
- (e) 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.
- (f) Ivanhoe Capital Corporation (UK) Ltd. ("ICC") is a private company owned indirectly by the Executive Co-Chairman of the Company. ICC provides administration, accounting and other services in the United Kingdom on a cost-recovery basis.
- (g) 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.
- (h) 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.
- (i) 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's Vice Chairman is also the Vice Chairman of HPX. The Company extended a secured loan of \$50 million to HPX in April 2019. The loan receivable has a two-year maturity and earns interest at a rate of 8% per annum.



- (j) Ivanhoe Mines Energy DRC Sarl (“Energy”) is a company incorporated in the DRC. Energy is 100% owned by Kamo Holding Limited, a joint venture of the Company. The Company provides administration, accounting and other services to Energy on a cost-recovery basis.
- (k) GMM Tech Holdings Inc. (“GMM Tech”) is a private company incorporated in British Columbia, Canada and is 100% owned by Global. GMM Tech provides information technology services to the Company on a cost-recovery basis.
- (l) HCF International Advisers (“HCF”) is a corporate finance adviser specializing in the provision of advisory services to clients worldwide in the metals, mining, steel and related industries. Guy de Selliers, a director of Ivanhoe is the President and co-founder of HCF, which provides financial advisory services to the Company.

## **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, 2019. 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 loan 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.

#### *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, whereafter 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.

#### *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).

## **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, 2020, with earlier application permitted. The Company adopted these standards in the current period.

- IFRS 3 – Business Combinations. The amendment to the definition of a business confirmed that a business must include inputs and a process and clarified that the process must be substantive and that the inputs and process must together significantly contribute to creating outputs. Furthermore, the amendment narrowed the definition of a business by focusing the definition of outputs on goods and services provided to customers and other income from ordinary activities, rather than providing dividends or other economic benefits directly to investors or lowering costs.
- IAS 1 – Presentation of Financial Statements and IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors. The amendments clarify and align the definition of ‘material’ and provide guidance to help improve consistency in the application of that concept whenever it is used in IFRS Standards.
- IFRS 16 – Leases. The amendment relates to providing lessee’s with an exemption from assessing whether a COVID-19 related rent concession (a rent concession that reduces lease payments due on or before June 30, 2021) is a lease modification.

#### **Accounting standards issued but not yet effective**

- IAS 1 – Presentation of Financial Statements. The amendments clarify how to classify debt and other liabilities as current or non-current. (i)

The Company has considered the amendment and assessed that it will have no material impact on adoption.

- 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 recognises the proceeds from selling such items, and the cost of producing these items, in profit or loss. (i)

The Company has considered the amendment and assessed that it will have no material impact on adoption.

- 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.

The Company has considered the amendment and assessed that it will have no material impact on adoption.

(i) Effective for annual periods beginning on or after January 1, 2022

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	June 30, 2020 \$'000	December 31, 2019 \$'000
<b>Financial assets</b>			
<i>Financial assets at fair value through profit or loss</i>			
Investment in listed entity	Level 1	710	1,140
Investment in unlisted entity	Level 3	655	655
<i>Amortized cost</i>			
Loan advanced to joint venture	Level 3	911,016	735,317
Cash and cash equivalents		496,184	702,810
Loans receivable	Level 3	94,777	91,955
Promissory note receivable	Level 3	19,675	16,799
Other receivables		7,457	8,036
<b>Financial liabilities</b>			
<i>Amortized cost</i>			
Borrowings	Level 3	34,775	33,904
Trade and other payables	Level 3	12,599	23,025
Advances payable	Level 3	2,729	2,661

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:

	Six months ended June 30,	
	2020	2019
	\$'000	\$'000
Interest on loan to joint venture	(32,679)	(24,687)
Interest on bank balances	(3,537)	(6,079)
Interest on loan receivable - HPX	(1,989)	(723)
Interest on long term loan receivable - Gecamines	(1,277)	(1,225)
	(39,482)	(32,714)

The interest from the loan to the joint venture is interest earned from the Kamo Holding joint venture on shareholder loans advanced by the Company where each shareholder is required to fund Kamo 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:

	<b>June 30, 2020</b>	<b>December 31, 2019</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Assets</b>		
Canadian dollar	27,017	41,358
South African rand	20,629	24,386
British pounds	8,553	7,387
Australian dollar	709	1,141
<b>Liabilities</b>		
British pounds	(8,075)	(7,008)
South African rand	(5,867)	(9,484)
Canadian dollar	(325)	(718)
Australian dollar	(22)	-

#### 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.

	<b>Six months ended June 30,</b>	
	<b>2020</b>	<b>2019</b>
	<b>\$'000</b>	<b>\$'000</b>
Canadian dollar	1,335	6,118
Australian dollar	34	98
South African rand	(60)	(58)
British pounds	(1)	-

#### *Credit risk*

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 2020.

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 PFS and PEA, 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 and/or a subsidiary of HPX. The loan is secured by a pledge of shares of an HPX subsidiary in the United States which is pursuing a Tier One copper-gold exploration and development project, into which the Company also may convert and acquire at least a 25% interest.

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.



### *Interest rate risk*

The Company's interest rate risk arises mainly from 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 USD 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 loss for the six months ended June 30, 2020 would have decreased or increased by \$4.8 million (2019: \$5.0 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	<b>Total undiscounted cash flows</b>
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>As at June 30, 2020</b>					
Non-current borrowings	-	-	-	34,193	<b>34,193</b>
Trade and other payables	10,092	813	1,117	-	<b>12,022</b>
Lease liability	63	132	542	14,251	<b>14,988</b>
Current borrowings	-	3,990	-	-	<b>3,990</b>
<b>As at December 31, 2019</b>					
Non-current borrowings	-	-	-	33,767	<b>33,767</b>
Trade and other payables	18,960	1,002	1,376	-	<b>21,338</b>
Lease liability	80	151	640	14,980	<b>15,851</b>
Current borrowings	-	-	4,230	-	<b>4,230</b>

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

### **DESCRIPTION OF CAPITAL STOCK**

As at August 6, 2020, the Company's capital structure consists of an unlimited number of Class A common shares without par value (the "Class A Shares"), an unlimited number of Class B common shares without par value (the "Class B Shares") and an unlimited number of preferred shares without par value. At this date 1,202,110,823 Class A Shares, nil Class B Shares, nil warrants and nil preferred shares were issued and outstanding.

The Company granted 7,500,000 options in 2019 and 10,034,900 options in 2020 to date. As at August 6, 2020, there were 24,735,208 options outstanding issued in terms of the Equity Incentive Plan exercisable into 24,735,208 Class A Shares.

The Company granted 1,140,653 restricted share units (RSUs) in 2020 to date and 2,098,333 RSUs in 2019 per the Company's restricted share unit plan. As at August 6, 2020, there were 2,150,667 RSUs which may vest into 2,150,667 Class A Shares.

The Company granted 267,450 deferred share units (DSUs) in 2020 to date and 130,621 DSUs in 2019 per the Company's deferred share unit plan. As at August 6, 2020, there were 449,709 DSUs which may settle into 449,709 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) has evaluated the design effectiveness of the Company's DC&P and ICFR as of June 30, 2020 and, in accordance with the requirements established under National Instrument 52-109 - Certification of Disclosure in Issuer's Annual and Interim Filings, the President has concluded that these controls and procedures have been designed 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.

The Company's President, in the capacity of CEO and CFO, has used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework to evaluate the design of the Company's ICFR as of June 30, 2020 and has concluded that these controls and procedures have been designed 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.

During the six months ended June 30, 2020, 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](http://www.sedar.com).

## **DISCLOSURE OF TECHNICAL INFORMATION**

Disclosures of a scientific or technical nature regarding the revised capital expenditure and development scenarios at the Kamoa-Kakula Project in this MD&A 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 Head of the Kamoa Project. Mr. Amos has verified the technical data disclosed in this MD&A.

Other disclosures of a scientific or technical nature 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, Project Geology and Evaluation. Mr. Torr has verified the other technical data disclosed in this MD&A.

Ivanhoe has prepared a current, independent, NI 43-101-compliant technical report for each of the Platreef Project, the Kipushi Project and the Kamoa-Kakula Project, which are available under the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com):

- The Kamoa-Kakula 2020 Resource Update dated March 25, 2020, prepared by OreWin Pty Ltd., Wood plc, DRA Global, SRK Consulting (South Africa) (Pty) Ltd and Stantec Consulting International LLC, covering the Company's Kamoa-Kakula Project;
- The Platreef 2017 Feasibility Study Technical Report dated September 4, 2017, prepared by DRA Global, OreWin Pty. Ltd., Amec Foster Wheeler, Stantec Consulting, Murray & Roberts Cementation, SRK Consulting, Golder Associates, and Digby Wells Environmental, covering the Company's Platreef Project; and
- The Kipushi 2019 Mineral Resource Update dated March 28, 2019, prepared by OreWin Pty Ltd., MSA Group (Pty) Ltd., SRK Consulting (South Africa) (Pty) Ltd and MDM (Technical) Africa Pty Ltd. (a division of Wood PLC), covering the Company's Kipushi Project.

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 Project 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 Project.

## **ADDITIONAL INFORMATION**

Additional information regarding the Company, including the Company's Annual Information Form, is available on SEDAR at [www.sedar.com](http://www.sedar.com).