

## PT Merdeka Copper Gold Tbk.

Registered No. S-03192/BEI.PG1/06-2015

**QUARTERLY REPORT: DECEMBER 2022** 

## PT Merdeka Copper Gold Tbk.

IDX Code: MDKA As at 31 December 2022

## Capital Structure (31-01-2023)

24,110,850,771 listed shares Share price: IDR 4,720 Market capitalisation: \$7.6 billion

## Cash & Debt

Cash: \$444 million Bank Debt: \$422 million IDR Bond: \$892 million

## Board of Commissioners

Edwin Soeryadjaya (President) Garibaldi Thohir Tang Honghui Yoke Candra Muhamad Munir (Independent) Budi Bowoleksono (Independent)

## **Board of Directors**

Albert Saputro (President) Andrew Phillip Starkey (Executive Chairman) David Thomas Fowler Titien Supeno Gavin Arnold Caudle Hardi Wijaya Liong Chrisanthus Supriyo

## **Registered Office**

Treasury Tower, 67 – 68<sup>th</sup> Floor, District 8 SCBD Lot. 28 Jl. Jend. Sudirman Kav. 52-53, Senayan, Kebayoran Baru South Jakarta 12910 Telephone: +62 21 3952 5580 Facsimile: +62 21 3952 5589

PT Merdeka Copper Gold Tbk. is proudly an Indonesian owned and operated company and is listed on the Indonesian Stock Exchange.

# **PT Merdeka Copper Gold Tbk** ("Merdeka", "MDKA" or "the Company") is pleased to report on its December 2022 quarterly activities.

Since its IPO in June 2015, Merdeka has transformed into a major mining company with a portfolio of globally significant assets and a world-class management team. Merdeka is strategically positioned to become a significant copper, nickel and gold producer, establishing itself as a leading player in the clean energy transition.

Merdeka's major assets are:

- 1) Tujuh Bukit Copper Project ("TB Copper Project")
- 2) Merdeka Battery Materials ("MBM")
- 3) Pani Gold Project ("Pani")
- 4) Tujuh Bukit Gold Mine ("TB Gold Mine")
- 5) Wetar Copper Mine ("Wetar")

At the Tujuh Bukit Gold Mine, gold produced for the full year 2022 was 125,133 ounces at an all-in sustaining cost ("AISC") of \$1,131/oz. No Lost Time Injury ("LTI") occurred during the year, resulting in 15.5 million hours without LTI.

At the Wetar Copper Mine, copper produced for the full year 2022 was 19,551 tonnes at AISC of \$3.37/lb. No LTI occurred during the quarter, resulting in 2.37 million hours without LTI.

At MBM, nickel in Nickel Pig Iron ("NPI") produced for the full year 2022 was 38,786 tonnes at an AISC of \$13,799/t. At Sulawesi Cahaya Mineral Nickel Mine ("SCM"), no LTI occurred during the quarter, resulting in 9.3 million hours without LTI. The international procurement progress for the Acid Iron Metal ("AIM") project reached 98% with overall Engineering Procurement and Construction ("EPC") progress reaching 61%. The AIM project remains on budget, with total capex spending of \$309 million as of 31 December 2022.

At TB Copper Project, recent drilling has continued to return strong results. Latest results include 600 metres @ 0.7 % Cu and 0.7 g/t Au from 62 metres in hole UHGZ-22-092 (including 240 metres @ 1.1 % Cu and 0.8 g/t Au from 62 metres). Pre-Feasibility Study ("PFS") is expected to be completed in March 2023.

At Pani, drilling results continue to demonstrate the continuity of mineralisation. Latest results include 354.4 metres @ 0.95 g/t Au from 0 metres in hole ILD306. Subsequent to the quarter, Merdeka announced the first combined Mineral Resource Estimate ("MRE") for the Project of 263.6 million tonnes of ore at a grade of 0.75 g/t gold containing 6.35Moz gold. A MRE for the combined Project was undertaken following an approximately 25,000 metre drill program, designed to define mineralisation within the area between the Pani IUP and the Pani CoW ("Baganite zone") and to test the depth of mineralisation.

During the quarter, Merdeka commenced a restructuring exercise involving PT Batutua Pelita Investama ("BPI"), the holding company which owns 80% of PT Merdeka Tsingshan Indonesia ("MTI") (the joint venture company for the AIM Project). The restructuring was completed in January 2023, resulting in the AIM Project becoming a direct subsidiary of MBM and Merdeka owning a 59.9% shareholding in MBM.

In early January 2023, Merdeka announced a corporate update regarding MBM. Merdeka is considering various options to best position MBM to successfully deliver on its pipeline of downstream expansion projects. An option that is currently under consideration is a proposed initial public offering of MBM on the Indonesia Stock Exchange to create a listed subsidiary.

## 1) TB Copper Project

**World Class Resource:** TB Copper Project is wholly owned by Merdeka and is located beneath the existing TB Gold Mine. The TB Copper Project hosts Mineral Resources of 1.78 billion tonnes of ore at a grade of 0.46% copper and 0.50 g/t gold containing approximately 8.2Mt copper and 28.6Moz gold, including an Indicated Resource of 372Mt at 0.61% copper and 0.68 g/t gold<sup>1</sup>.

**Scoping Study:** During the quarter, Merdeka released a project update in the form of a Scoping Study which confirmed attractive economics for the development of a globally significant underground mine producing gold and copper, a critical metal in the clean-energy transition. The Scoping Study was independently prepared by ORELOGY with significant specialist contributions from Stantec, DRA, Ausenco and Hatch.

The Scoping Study envisages a large-scale underground block cave mine with a peak mill feed of 24Mtpa, which is estimated to produce 2.9Mt of copper and 10.1Moz of gold over a mine life of 40 years. Pre-production capital investment is estimated at \$2.1 billion, including 25% contingency, to reach first production. This capital expenditure includes the establishment of the block cave, construction of new surface plants and facilities to accommodate an initial 12Mtpa throughput with further capital investment required to achieve the full production throughput of 24Mtpa<sup>2</sup>.

**Pre-Feasibility Study ("PFS"):** Merdeka has invested \$143 million to date on detailed feasibility work to advance the project including an 1,890 metre long exploration decline, past and current resource definition drilling, geological modelling and ongoing technical studies. The bulk of the PFS expenditure during the quarter was spent on resource definition drilling and technical studies. No LTI occurred during the quarter, with the project achieving 90,000 hours for a total 1.5 million LTI free man-hours since project inception.

The PFS is assessing a potential development of an initial 4Mtpa Sub Level Cave ("SLC") operation before transitioning to the development of a 24Mtpa Block Cave ("BC") operation. The phased approach, as contemplated in the PFS, enables Merdeka to significantly reduce upfront pre-production capital investment and achieve earlier cashflow that can be re-invested into the development of the larger, more productive BC operation. The SLC operation will enable access to higher grade portions of the deposit and increased orebody knowledge to de-risk and optimise the block cave expansion.

A potential ore processing option under consideration is a conventional sulphide flotation with a copper concentrate being produced from the SLC operation and shipped via a deepwater port facility at the mine site to local Indonesian smelters. The potential BC production ramp up contemplates an expansion of the sulphide flotation processing plant to 24Mtpa via the addition of two additional modules and the introduction of an Albion processing plant and carbon in leach ("CIL") plant to enable the production of cathode copper and gold dore.

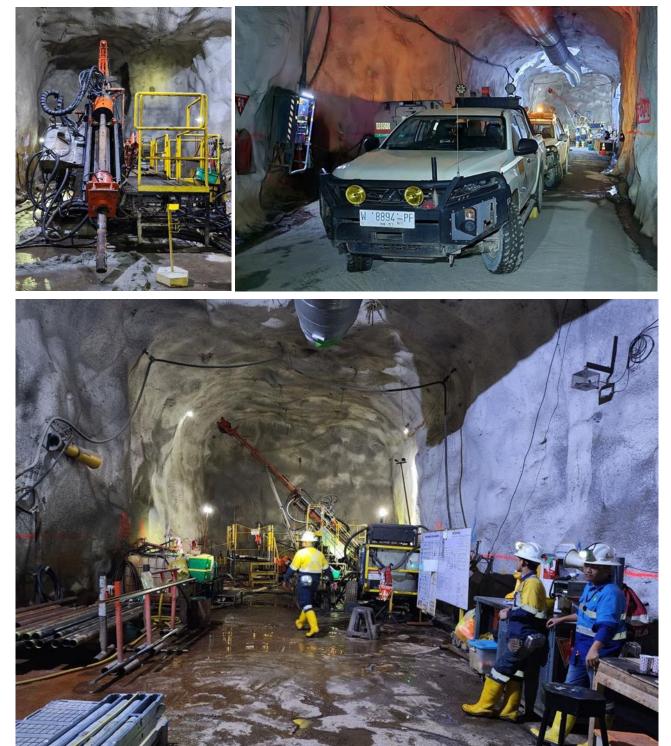
Independent technical consultants engaged include Golder for geotechnical work, Stantec for the mine design, DRA for the processing plant and Hatch for the port design.

Geological, geotechnical, mine planning, processing studies, infrastructure and project permitting were major areas of focus during the quarter. Detailed work advanced during the quarter includes metallurgical testwork, flowsheet evaluations for the configuration of the processing plant, process plant site geotechnical drilling, geometallurgical studies, permitting, tailings disposal options, infrastructure for power and water supply, port development, PLN power supply negotiations, product offtake, social and community engagement and environment studies. Tailings disposal options evaluated and associated permitting include conventional terrestrial and offshore disposal options. The Government of Indonesia feasibility study was approved in September 2022 and amendments to the AMDAL were progressed.

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<sup>&</sup>lt;sup>1</sup> Full details of the Tujuh Bukit Copper Project Mineral Resource is available at: <u>https://merdekacoppergold.com/wp-content/uploads/2022/10/Consolidated-Mineral-Resources-and-Ore-Reserves-Statement-as-of-31-December-2021-Final.pdf</u>
<sup>2</sup> Full details of the Scoping Study announcement is available at: <u>https://merdekacoppergold.com/wp-content/uploads/2022/10/TB-Copper-Project-Update-English-version-2.pdf</u>





## Figure 1: Underground drilling operations at Tujuh Bukit Copper Project



During the quarter, eight drill rigs were operating underground supported by two surface drill rigs. Twenty holes were completed underground with eight holes in progress at the end of the quarter for a total of 11,180 metres drilled. The two surface rigs completed one hole, with two holes in progress at the end of the quarter, for a total of 1,314 metres. During 2022, a total of 63 holes were completed underground with eight in progress at year end for a total of 41,891metres drilled. A total of twelve holes were drilled from surface in 2022 with two holes in progress at year end for a total of 7,167 metres.

Resource definition drilling will continue throughout 2023 with 50,000 metres of drilling targeted from underground and surface. The surface drilling will also include geotechnical and hydrogeological investigations for both surface and underground infrastructure.

Selected results from the latest drilling results announced in January 2023 include (results reported using a 0.2% Cu cut-off, and a minimum intercept length of 30 metres)<sup>3</sup>:

- 600 metres @ 0.7 % Cu and 0.7 g/t Au from 62 metres in hole UHGZ-22-092 (including 240 metres @ 1.1 % Cu and 0.8 g/t Au from 62 metres)
- 510 metres @ 0.6 % Cu and 0.9 g/t Au from 290 metres in hole UHGZ-22-097 (including 168 metres @ 0.9 % Cu and 1.6 g/t Au from 414 metres)
- 497.3 metres @ 0.6 % Cu and 0.7 g/t Au from 404 metres in hole GTD-22-704 (including 184 metres @ 1.1 % Cu and 1.1 g/t Au from 416 metres)
- 494 metres @ 0.6 % Cu and 0.7 g/t Au from 292 metres in hole UHGZ-22-090 (including 136 metres @ 1.1 % Cu and 1.2 g/t Au from 294 metres)
- 423 metres @ 0.7 % Cu and 1.1 g/t Au from 28 metres in hole UHGZ-22-101/101W (including 117 metres @ 1.1 % Cu and 2.8 g/t Au from 307 metres)

**Outlook:** The PFS is expected to be completed in March 2023.

# <sup>3</sup> Full details of the latest TB Copper drilling result is available at: <u>https://merdekacoppergold.com/wp-content/uploads/2023/01/TB-CP-December-2022-Drill-Results.pdf</u>



## 2) Merdeka Battery Materials

## Overview:

MBM consists of the following assets:

- SCM mine: Holds the mining permit ("IUP") for one of the world's largest pre-production nickel resources. Within total resources of 1.9 billion wmt of ore at 1.22% nickel containing 13.8Mt nickel and at 0.08% cobalt containing 1.0Mt cobalt<sup>4</sup>.
- RKEF Smelters: Two operating nickel RKEF plants (CSIS and BSIS) producing Nickel Pig Iron ("NPI"). Each
  plant has a nameplate capacity of 19,000 tonnes of nickel in NPI per annum. A third smelter (ZHN) is currently
  under construction with a nameplate capacity of 50,000 tonnes of nickel in NPI per annum. Construction is
  expected to be completed by mid-2023. MBM is planning to capture additional value downstream by modifying
  one of the existing RKEF smelters and installing converters to the ZHN smelter to enable the production of a
  high-grade nickel matte.
- AIM Project: A modern processing plant capable of producing acid and steam for use in high pressure acid leach ("HPAL") plants, in addition to producing other metals such as copper, gold and iron.
- Indonesia Konawe Industrial Park ("IKIP"): A joint venture between MBM and Tsingshan Holding Group to develop an approximately 3,500 hectares nickel industrial park, with a focus on HPAL processing technology for battery metals within the SCM IUP area.
- MBM also has interests in several companies with projects that support the overall nickel processing chain, including a limestone IUP and hydro power project.

MBM is a vertically integrated nickel producer. The SCM mine will supply saprolite ore to RKEF plants producing NPI at the Indonesia Morowali Industrial Park ("IMIP"), including CSIS, BSIS and ZHN. SCM will also supply limonite ore to high pressure acid leach ("HPAL") plants at IMIP producing Mixed Hydroxide Precipitate. Following the development of IKIP, the SCM mine will also supply limonite ore to HPAL plants within the industrial park.

**Processing:** During the quarter, the CSIS and BSIS smelters processed 0.96 million wmt of ore at a nickel grade of 1.77% to produce a combined 9,868 tonnes of nickel in NPI. The combined AISC for CSIS and BSIS for the quarter and YTD was \$14,205/t and \$13,799/t, respectively.

Total combined production throughout 2022 was 2% above annual nameplate capacity of 38,000 tonnes of nickel in NPI. Compared to last year, the NPI price increased by 12%, resulting in higher revenue by 5%. Offsetting the higher revenue was an increase in operating cash costs, primarily driven by higher commodity price for nickel ore, smelting coal and electricity.

**Haul Road:** MBM is currently upgrading the haul road from the mine site to IMIP to improve access and allow the efficient delivery of saprolite ore from the mine site to the RKEF smelters. The construction is being managed by Merdeka Mining Services ("MMS") and significant progress has been made with 8.4 million cubic meters of material movement representing 62% completion at the end of December quarter. MBM will continue to upgrade the haul road with the aim of achieving a 9% grade by Q2 2023, allowing the efficient transport of saprolite ore to begin. As of 31 December 2022, \$44 million has been spent on the haul road upgrade with further \$37 million expected to be spent to complete the haul road upgrade.

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<sup>&</sup>lt;sup>4</sup> Source: Mineral Resource: JORC prepared by AMC Consultants Pty Ltd issued in May 2022

All figures are denominated in US Dollars, unless otherwise indicated



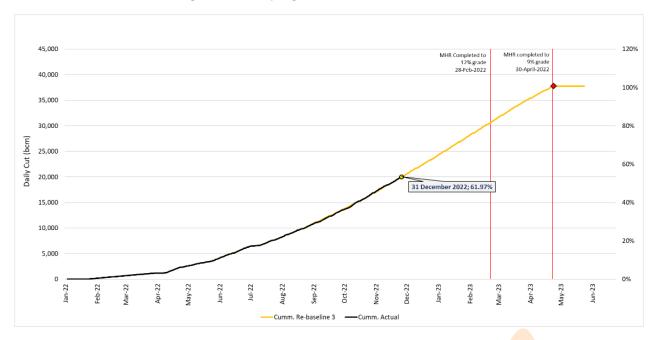


Figure 2: Road progress based on material moved

## Figure 3: SCM haul road



**Other construction:** MBM continues to improve its site infrastructure to support the mining operations, including developing a number of mine site roads, ore haulage facility, batching plant, fuel storage and camp facilities. These construction activities are supported by both the MMS and SCM project teams.

MBM is also monitoring Huayue's Feed Preparation Plant ("FPP") construction project inside the SCM IUP and the installation of a slurry pipe to a HPAL plant at IMIP. This construction is expected to complete by the end of Q2 2023 and will allow the transport of limonite ore to begin.



## **Figure 4: FPP Construction**



**Mining:** Mining activities ramped up during the quarter, with 684,572 wmt of material mined, up more than 50% from the previous quarter. Total material mined comprise waste, limonite ore and saprolite ore with material movement of 115,337 wmt, 475,485 wmt and 93,750 wmt, respectively.

**Exploration:** Drilling activities are currently focusing on the Bravo Romeo 1 area ("BR1") and Delta Sierra ("DS") with 15 drill rigs operating at site in January 2023. In 2022, MBM had completed 20,502 meters of infill drilling (922 holes) and 9,906 meters of grade control drilling (432 holes).

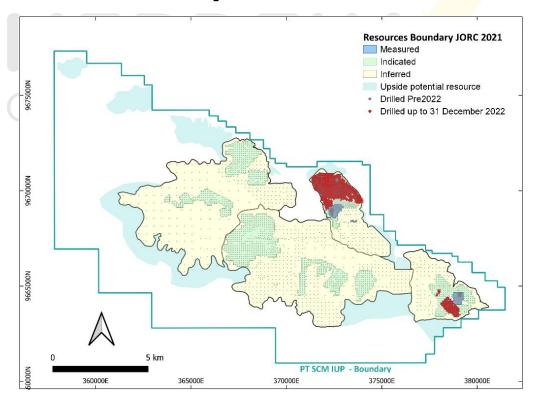


Figure 5: SCM IUP area



**Operating Outlook:** Production and cost guidance for 2023:

- Each of BSIS and CSIS are expected to produce in the range of 18,000 to 20,000 tonnes of nickel in NPI at an AISC of \$13,000/t to \$15,000/t. One of the major cost components of the smelters is nickel ore, the price of which varies depending on the international nickel price.
- SCM is expected to increase its mining volumes significantly in 2023

**ZHN RKEF Construction:** Significant progress was achieved during the quarter with construction expected to achieve completion by mid-2023.



## Figure 6: ZHN RKEF construction progress

**IKIP:** Industrial park construction is expected to begin in 2023. IKIP is processing land conversion, revision of AMDAL and ongoing discussion for other required permits and licenses.

MBM is actively developing a pipeline of downstream expansion projects to capitalise on our large limonite ore resource and the growing demand for nickel intermediates. MBM is progressing discussions with potential HPAL JV partners. The HPAL plants will provide us with further exposure to the strategic materials and EV battery value chain. The HPAL plants are expected to process limonite ore from the SCM Mine with a planned capacity of 120ktpa each.

**Nickel Matte:** MBM is planning to modify some of the lines in our existing RKEF Smelters and the under-construction ZHN's RKEF to produce low-grade nickel matte instead of NPI. Further, MBM is planning the development of a converter at the ZHN RKEF Smelter that can further refine the low-grade nickel matte into a high-grade nickel matte. By shifting RKEF production to nickel matte, MBM shifts into the Class 1 nickel electric vehicle battery supply chain and can also benefit from higher margins.

## AIM Project

**Summary:** Construction of the AIM project is continuing with detailed design nearing completion, all mechanical and electric equipment purchase orders placed, and prioritised tender finalisation for pipes, cables, manual valves and remaining steel structures. Site works continue to progress well in all areas, with the project currently on schedule.

**Merdeka / Tsingshan Joint Venture Agreement ("JV"):** Merdeka, Tsingshan and their respective affiliates signed a JV for the AIM project in February 2021. The AIM project is being constructed at IMIP and will process pyrite ore from Wetar. Subsequently, in March 2021 a joint venture company, PT Merdeka Tsingshan Indonesia ("MTI") was established with Merdeka (through its subsidiary) owning 80% and Tsingshan, through its affiliate, owning 20%.

**JV Overview:** The AIM Project will purchase high-grade pyrite ore from Wetar. The ore, which contains copper, gold, silver and zinc will be transported by barge from Wetar Island to IMIP. An agreement to supply ore from Wetar to the AIM Project was signed in May 2021.

The AIM plant is designed to treat the pyrite ore from Wetar at a nominal rate of 1,060,000 tonnes per year. The plant will produce sulphuric acid, saturated steam, iron ore pellets, sponge copper, lead-zinc hydroxides, gold and silver doré. Significant growth in acid demand is expected as additional HPAL plants are planned to be constructed in Indonesia.



## Figure 7: AIM Acid and Pyrite Plant

**Construction and Progress:** China Covid lockdowns that commenced in February 2022 were ongoing until December 2022, resulting in delays to some aspects of procurement and deliveries as different cities go into lockdown. These events that remain outside the control of Merdeka have slowed design, procurement, fabrication, manufacturing, and delivery for many structural and mechanical items. As a result, first acid at the AIM Project is anticipated in 2H 2023.

Design reached 99.4% complete while international procurement has reached 97.7%.



EPC for the entire project is 59.95% Plan vs 60.84% Actual (0.89% variance – ahead schedule)

On site, AIM construction activities continue to progress well with MMS self-performing all project construction works. Progress as follows:

- 1. Pyrite Plant: Progress 61.90% planned vs 60.99% actual, 0.91% behind schedule
- 2. Acid Plant: Progress 66.12% planned vs 67.30% actual, 1.17% ahead of schedule
- 3. Chloride Plant: Progress 58.46% planned vs 57.83% actual, 0.63% behind schedule
- 4. Copper Cathode Plant
  - EPC engineering work to be undertaken by Tsingshan
  - Geotehcnical works are complete

**Wetar Barge Jetty:** Detailed design of the Wetar Barge Jetty ("WBJ") is complete with procurement 95% complete. The out-loading conveyer has encountered pile socketing issues, which is delaying progress for pile concrete and all superstructures and conveyors above. Completion is anticipated in May 2023.



## Figure 8: Wetar Barge Jetty

## 3) Pani Gold Project

**Overview:** Merdeka owns a 70% effective economic and equity interest in Pani<sup>5</sup>. Pani hosts a significant undeveloped gold resource that is located across two adjacent mining tenements (Pani CoW and Pani IUP) in Gorontalo Province, Sulawesi. Merdeka commenced drilling and feasibility study work during Q1 2022.

Merdeka's objective is to expeditiously develop Pani into a low cost, long life, sustainable gold mining operation, capable of producing more than 250koz of gold per annum over a mine life of +15 years.

**Exploration Activities:** A Maiden Resource Estimate ("MRE") for the combined Project was declared following an approximately 25,000 metre drill program targeting the area between the Pani IUP and the Pani CoW ("Baganite zone"). The Baganite zone was previously a sparsely tested zone, with only two historical drillholes (by Utah International in 1982) drilled on the western edge of the Pani IUP.

The combined Project, incorporating the latest drilling data as of end December 2022, was reported in January 2023 as follows<sup>6</sup>:

Resource Classification	Tonnes (Mt)	Au (g/t)	Cont. Au (Moz)
Indicated	177.7	0.78	4.46
Inferred	85.9	0.68	1.89
Total	263.6	0.75	6.35

## Table 1: Pani Mineral Resource Estimates by classification (Cutoff of > 0.2 g/t)

The MRE is reported in accordance with the 2017 Kode KCMI for Reporting of Exploration Results, Mineral Resources and Mineral Reserves, and the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

By the end of December 2022, eleven drill rigs were operating at Pani targeting the central Baganite zone and two rigs were operating in the Paceda area undertaking a sterilisation drilling program, with a total of approximately 24,432 metres of diamond drilling completed. 29 drill holes were completed (including 12 sterilisation holes) during the quarter bringing total drilling for the year to 161 holes for 46,757 metres. A large drill program is planned for 2023 of approximately 350 drill holes for 55,000 – 70,000m.

Selected results from the latest drilling results announced in December 2022 include (results reported using a 0.2 g/t Au cut-off, and a minimum intercept length of six metres)<sup>7</sup>:

- 354.4m @ 0.95 g/t Au from 0 metres in hole ILD306
- 355m @ 0.92 g/t Au from 44 metres in hole BGD006
- 379m @ 0.80 g/t Au from 0 metres in hole NND316
- 342m @ 0.82 g/t Au from 6 metres in hole BGD001
- 265m @ 0.90 g/t Au from 91 metres in hole BGD004
- 256m @ 0.82 g/t Au from 0 metres in hole ILD299
- 310m @ 0.66 g/t Au from 0 metres in hole ILD302
- 230m @ 0.84 g/t Au from 0 metres in hole ILD311
- 56m @ 1.96 g/t Au from 0 metres in hole NND313

<sup>&</sup>lt;sup>5</sup> <u>https://merdekacoppergold.com/wp-content/uploads/2022/12/MDKA\_2022-12-20\_Transaksi-Afiliasi-Akta-Penggabungan-antara-PBJ-dan-ABI-ENG.pdf</u>

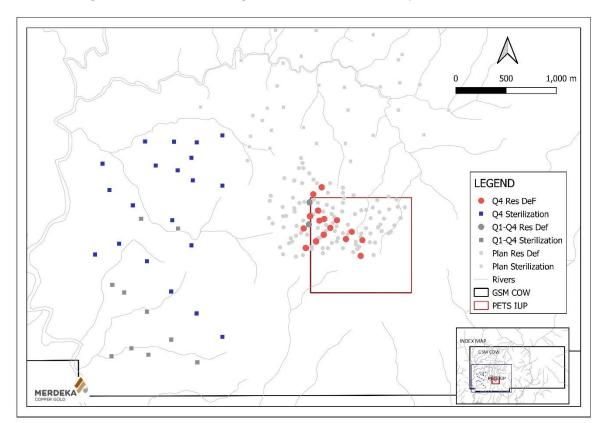
<sup>&</sup>lt;sup>6</sup> Full details of the Pani Mineral Resources is available at <u>https://merdekacoppergold.com/wp-content/uploads/2023/02/Pani-February-</u>2023-Mineral-Resource-Estimate.pdf.

<sup>&</sup>lt;sup>7</sup> Full details of all the drilling results announced in December 2022 can be obtained at the following location: <u>https://merdekacoppergold.com/wp-content/uploads/2022/12/Pani-December-2022-Drill-Results.pdf</u>

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## Figure 9: Plan view showing location of drill holes completed in Q4 at Pani

Note: Multiple holes drilled from one collar location

**Project Development:** The feasibility study program for Pani is advancing and remains focused on optimising the project capital, mining schedule and maximising throughput and recovery opportunities from the early mining years, using conventional processing methods.

The gravity / carbon-in-leach metallurgical test work program continues to return high gold recoveries across all ore zones of the deposit. Siting studies have identified two potential tailings storage facility locations, with both now the subject of geotechnical drilling, feasibility planning and early stage permitting considerations.

An additional metallurgical test work program has commenced on a potential oxidised ore zone of the PETS deposit, to determine its amenability to gravity / heap leach processing, as a possible low-capex starter project option.

Geotechnical investigations were completed across the proposed processing and infrastructures areas of the project, with no flaws identified.

Processing, mining, and tailings consultants have been appointed, with the feasibility study on schedule for completion in late Q3 2023.

Pre-development construction activities continued across site, with the development of an independent access road, establishment of accommodation, facilities and supporting infrastructure all ahead of schedule, ensuring the construction ramp up from Q3 2023.



## Figure 10: Pioneer Camp Establishment



## Figure 11: Bypass Road



## 4) <u>Tujuh Bukit Gold Mine</u>

**Summary:** Production for the quarter was in line with planned mining and stacking of lower grade ore. Gold produced during the quarter was 17,964 ounces. The implementation of several cost reduction initiatives around processing consumable use (cyanide, cement, and hydrogen peroxide) coupled with haul fleet and haul road efficiencies assisted in mostly offsetting the rising prices of consumables and components at Tujuh Bukit.

Gold production for the full year 2022 was 125,133 ounces at an AISC of \$1,131/oz net of silver credits, compared to guidance of 110,000 to 125,000 ounces of gold at an AISC of \$1,000 to \$1,200/oz net of silver credits.

**Mining:** Ore mined this quarter was 1.9Mt with Au grade of 0.38 g/t which was a positive variance (2%) for gold contained ounces against the reserve model. The waste mined was 1.41 Mt. Total material movement this quarter was 3.6Mt, including rehandling ore.

**Processing:** During the quarter, the ore preparation plant ("OPP") operated in line with expectation with throughput of 1,850,555 tonness of crushed and agglomerated ore, at a grade of 0.4 g/t Au (containing 24,069 ounces of gold), hauled and stacked onto the heap leach pad ("HLP"). The HLP continued to perform as per design with project to date gold recoveries of 82.5%. The adsorption, desorption, and recovery ("ADR") plant continued to operate at full throughput design rates.

**Environmental, Safety and Social Performance:** By the end of quarter, Tujuh Bukit Operations achieved 15,506,191 hours without Lost Time Injury ("LTI"), whilst the mine's year-to-date Total Recordable Injury Frequency Rate ("TRIFR") per million hours worked was 0.37 at the end of Dec 2022, with zero recordable injury (Restricted Work Injury) during the quarter.

The workforce at the mine, including all employees and contractors, is currently 3,223 people, comprising over 3,202 Indonesian nationals and 21 expatriates. Of the workforce, 2,238 (69.4%) are residents of Banyuwangi, with 1,461 (45%) of the number hailing from the local sub-district of Pesanggaran.

During the quarter, Merdeka focused on permitting and licensing, intensifying coordination with government offices regarding the 8<sup>th</sup> addendum of AMDAL, 2023 RKAB and road access permit. Merdeka was also active in engaging key stakeholders, such as the village administrations in Pesanggaran subdistrict through MoU on Community Development and Empowerment ("CDE") programs, especially to provide support for Salakan exploration and other future projects of the Company. During the quarter, Merdeka was actively involved in the Indonesian Fire and Rescue Challenge ("IFRC") 19<sup>th</sup> Challenge, both in ceremonial and operational events.

A total of 4,334 environmental samples were taken in this quarter, encompassing statutory-based sampling requirements as well as company-driven internal monitoring and consultant requirements.

YTD 2022 reclamation progress was 4.19 ha of the 4.19 ha target, which was as annually planned.

Water recycled and reused during the quarter was 137,760 m<sup>3</sup>. It was rainwater that was collected in dams and used for ore processing and mine activities such as road dust control, vehicle washing, and ore agglomeration in crushers.

**Operational Cost Summary:** Full year 2022 cash cost was \$780/oz and the AISC was \$1,131/oz net of silver credits.

**Operating Outlook:** Guidance for 2023 is expected to be in the range of 120,000 – 140,000 ounces of gold at an AISC of \$1,100 – \$1,300/oz net of silver credits.



**Exploration:** Recent drilling and updated geological interpretation for controls on the gold and silver epithermal mineralisation has identified multiple near mine targets to the current operations. Merdeka continued an aggressive drilling program aimed at testing these new targets which are near the existing open pit operations with the aim of extending mine life.

Four diamond drill rigs and one RC rig drilled 13 diamond holes for 3,447 metres, and 26 RC holes for 5,064 metres during the quarter. During 2022, diamond drilling totalled 38 holes for 10,294 metres and 100 RC holes for 16,190 metres.

A total of 30,000m of RC and diamond drilling is planned to continue testing along strike of current resources (Pit A and Pit C) during 2023.

Initial surface exploration is planned to commence on the Salakan and Lompongan prospects in 2023, where the program will follow up historic surface soil and stream geochemical sampling, looking for both near surface high sulphidation gold mineralisation, as well as potential porphyry copper-gold mineralisation at depth.

An updated Mineral Resource Estimate, as of end December 2022, is to be released by end of March 2023.

## Figure 12: Diamond drilling to the north-west of Pit C



## 5) <u>Wetar Copper Mine</u>

**Summary:** Copper produced in the full year 2022 production reaching 19,551 tonnes, which was 507 tonnes higher than the full year 2021 production.

With the development of the AIM project, the focus going forward will be on extracting maximum value from the Wetar ore including production of copper at Wetar and the sale of ore to the AIM project to be used to produce acid, iron, steam, copper, gold and silver.

**Mining**: 4.9 million tonnes of material was mined in Q4 2022; 0.4 million tonnes of ore and 4.5 million tonnes waste. Contained copper in ore mined totalled 6,790 tonnes, 9% higher than the corresponding contained copper in the reserve model of 6,240 tonnes with higher copper grades offsetting lower tonnes mined.

**Processing:** During Q4 2022, 0.4 million tonnes of ore were crushed and stacked on to the heap leach pad at a grade of 1.50% Cu. The 0.4 million tonnes of ore crushed was 13% lower than the previous quarter. The 3,759 tonnes of copper produced was 36% lower than the previous quarter.

**Environmental, Safety and Social Performance:** Wetar had 0 LTI during the quarter and achieved a record of 2.37 million hours without LTI, whilst the mine's year-to-date TRIFR per million hours was 1.21 with 2 recordable injuries during the quarter.

During the quarter, Wetar successfully carried out revegetation activities covering an area of 2.78 Ha. A total of 24,040 seedlings were planted. Slope erosion control was applied by installing jute net covering an area of 5.48 Ha. The total seeds production in the nursery was 25,540 seedlings. Watershed rehabilitation has been conducted during September 2022 with a target area of 154.5 Ha rehabilitated as compensation for 134 Ha PPKH Permit. The achievement is 154.5 Ha or 100% of the target.

During October-December 2022, water monitoring has been carried out in accordance with the AMDAL. The average monthly rainfall during Q4 was 181.8 mm. There were discharges at compliance points during Q4 in the wet season. During Q4, 270.7 tonnes of hazardous waste was generated, and 219.8 tonnes were managed to third parties.

Historical Waste Dump Geotechnical Event: During the quarter, Merdeka carried out remediation work of the previously reported historical waste dump landslip. Target to complete remediation by February 2023. Cost spent to date was \$12 million. Expected total cost \$14 million.

**Operational Cost Summary:** Full year 2022 total cash cost was \$2.64/lb of copper produced and the AISC was \$3.37/lb of copper produced.

**Operating Outlook:** Copper Production Guidance for 2023 is in the range of 16,000 to 20,000 tonnes of copper at an AISC of \$3.70/lb to \$4.70/lb.

Water Treatment Plant ("WTP"): To maintain long term copper production at Wetar, a neutralisation plant upgrade is ongoing to treat leach solutions to reduce iron, acid and other dissolved metals and manage the site water balance.

Detailed design is complete with procurement 100% complete.

The WTP is expected to be operational in Q2 2023.



## Figure 13: Wetar WTP



**Exploration:** Activities during the quarter focused on reverse circulation ("RC") drilling and diamond drilling ("DD") at Partolang and Partolang Bridge, and ground EM data acquisition.

During Q4 2022, in Partolang and surrounding areas fifty-eight drillholes have been completed with RC and DD for 9,244.8 metres, and in Kali Kuning five sterilisation holes were completed for 487.1 metres. For the full year a total of 89 RC holes for 13,270 metres and 53 DD holes for 9,323.5 metres were completed in Partolang; 15 metallurgy holes were completed in Partolang and Partolang Barat for 1,743.6 metres; 58 DD holes for 9,048.5 metres were completed in Lerokis and 5 sterilisation holes for 487.1 metres were completed in Kali Kuning. Drilling in 2023 will focus on the Partolang area with approximately 22,000 metres planned.

Results received for the Partolang Bridge area this quarter continue to firm up the mineralisation link between Partolang and Partolang Barat, which is very encouraging, and a combined Mineral Resource Estimate, to end December 2022 will be released in March 2023.

Selected results from the latest drilling results announced in October 2022 include (Results reported using a 0.4% Cu cut-off, a minimum intercept length of 2 metres and maximum internal waste of 2 metres)<sup>8</sup>:

- 9 metres @ 10.35% Cu, 1.62 g/t Au, 81.10 g/t Ag from 77.9 metres in PTD067
- 13.2 metres @ 3.2% Cu, 0.75 g/t Au, 25.63 g/t Ag from 53.4 metres in PTDM072
- 10.2 metres @ 3.55% Cu, 0.69 g/t Au, 15.44 g/t Ag from 55.8 metres in PTDM079
- 20 metres @ 4.71 % Cu, 0.89 g/t Au, 58.38 g/t Au, 1.72 % Zn from 124 metres in PTR230
- 44 metres @ 2.26 % Cu, 0.59 g/t Au, 33.64 g/t Ag, 1.23 % Zn from 129 metres in PTR232
- 23.9 metres @ 3.18% Cu, 0.73 g/t Au, 21.66 g/t Ag from 57.1 metres in PTD069

<sup>&</sup>lt;sup>8</sup> Full details of all the drilling results announced in October 2022 can be obtained at the following location: <u>https://merdekacoppergold.com/wp-content/uploads/2022/10/Wetar-Oct-2022-Exploration-Results-Release.pdf</u>





Figure 14: RC (left) and DD (right) drilling at the Wetar Project

Figure 15: Location of Drill Holes completed in Partolang and Kali Kuning in Q4



**Wetar Concentrator:** PFS for a flotation concentrator at Wetar to produce a pyrite concentrate product suitable as feed for an AIM plant were advanced from prior scoping study level evaluations.

Work conducted during the quarter includes resource drilling for pit extensions, mine planning, processing testwork, selection of preferred processing plant site location and associated geotechnical testwork, tailings storage alternative site assessments, product handling and storage requirements, and economic evaluations. Study completion in Q1 2023 is expected followed by a feasibility study.



## 6) Sustainability & Environment, Social and Governance Planning

## ESG Rating

During the quarter, Merdeka's MSCI ESG rating was upgraded from 'BB' to 'BBB'. Merdeka is one of only a few Indonesian mining companies that has received a 'BBB' rating, which is also the highest MSCI ESG rating received by Indonesian Metals and Mining companies. The rating upgrade demonstrates Merdeka's commitment and continuous efforts to improve its ESG performance. Recent and ongoing ESG related programs are described below.

Subsequent to the quarter, in January 2023, Morningstar Sustainalytics upgraded Merdeka's ESG risk rating to 32.1, significantly improving its global ranking to 46<sup>th</sup> from 96<sup>th</sup> position, placing it in the top quartile among the rated diversified metals & mining companies globally. Morningstar Sustainalytics rating places Merdeka as one of the highest comprehensive ESG risk rating for rated diversified Metals & Mining companies in Indonesia supported by strong and robust ESG policies, programmes, and practices. This upgrade is a recognition of Merdeka's ongoing commitment to sustainability and our ESG-related initiatives in its mission to be at the forefront of safety, environmental protection, and corporate social responsibility.

## Environmental

Greencorp, an independent 3<sup>rd</sup> party consultant compiled and coordinated the GHG reduction roadmap in line with Merdeka's commitment to reduce 29% GHG emission intensity by 2030 and net zero emission by 2050. The roadmap consists of, among others, the baseline years for the reduction calculation and detailed GHG emission reduction strategies to achieve our proposed reduction targets. The GHG emission reduction strategy formulation also established a 2030 stretch target of 50% GHG emission intensity reduction for copper and gold operations.

As part of its strategies to achieve net zero emission by 2050, Merdeka's subsidiary PT Bumi Suksesindo ("BSI"), signed a Renewable Energy Certificate ("REC") Sale and Purchase Agreement with Indonesia State Electricity Company ("PLN") on 1 November 2022. With the REC purchase, BSI will use 100% green electricity until 2026 for the Tujuh Bukit Gold Mine in Banyuwangi sourced from PLN's geothermal power plant in Kamojang, West Java. In addition, Merdeka entered into an MoU agreement with PLN for the provision of renewable energy for its future operations at Pani.

In addition, S&P Global, a leading independent consultant, completed the Task Force on Climate related Financial Disclosures ("TCFD") Climate Risk Assessment for Merdeka operations covering climate related transitional risks analysis and physical risk analysis. The TCFD Climate Assessment report also included areas covering carbon policy risk, market risk, reputation risk, and physical risks related to Merdeka's business.

#### Social

#### Health and Safety

As of the end of December 2022, Merdeka year to date safety performance as measured by the TRIFR was 0.97, decreasing from a TRIFR of 1.08 as recorded during September quarter. There was no LTI during the December quarter, resulting in a final 2022 YTD LTIFR of 0.11.

#### Human Rights

Merdeka was accepted as a member of the United Nations Global Compact ("UNGC") on 6 December 2022. UNGC is an institution that promotes corporate sustainability implementation with a focus on human rights, labour, environment, and anti-corruption.

As a demonstration of Merdeka's commitment to human rights, Merdeka's sustainability team provided human rights training to 12 security officers and three employees in Wetar on 12 December 2022. The human rights training agenda covered the human rights policy of Merdeka, business and human rights, human rights risks and impacts related to security and human rights approach in conducting security activities.



## Governance

Merdeka has developed a Supplier Sustainability Code of Conduct that sets forth Merdeka's sustainability requirements for all suppliers doing business with the Company and its subsidiaries. This Standard is part of Merdeka's commitment to good corporate governance and sustainability throughout Merdeka's operations as set out in Merdeka's Code of Conduct and Sustainability Policy.

Merdeka's Occupational Health and Safety Committee Charter ("OHS Charter") has been developed and is expected to be approved in Q1 2023. This OHS Charter, among others, stipulates the roles and responsibilities, the authorities and the membership of the Occupational Health and Safety Committee of Merdeka. The Committee is established by the Board of Directors to assist the Board in carrying out its oversight responsibilities on the implementation and realisation of Merdeka's OHS commitment.

# MERDEKA COPPER GOLD

## Appendix 1: Finance and Corporate

**Cash and Cash Equivalents:** Cash and cash equivalents, net of restricted cash, at 31 December 2022 was \$444 million. In addition to this, MDKA has \$122 million in undrawn debt facilities.

## Debt:

## Tujuh Bukit - PT Bumi Suksesindo ("BSI") Prepayment Facility

As of 31 December 2022, the balance of Secured Bullion Forward Hedge and Financing Transaction ("BSI Prepayment Facilities") was \$19 million with a total of 10,609 oz gold hedged with scheduled monthly settlements from January to June 2023, at an average price of \$1,842/oz including interest charges. The facility has an effective interest rate of ~4.64% per annum.

## BSI RCF

BSI has fully drawn \$60 million of Revolving Credit Facility ("BSI RCF") in December 2022. The BSI RCF has an applicable margin of 3.0% per annum plus SOFR with applicable Credit Adjustment Spread with a final repayment date on 4 October 2023.

## MDKA IDR Bonds

During the quarter, the Company obtained approval from OJK to raise a total of Rp15 trillion of IDR Bond within the next two years. The first tranche of IDR bond was raised in December 2022 for a total amount of IDR3.1trillion (or equivalent to ~\$198 million) with coupon rate of 10.30% per annum for a three-year tenor.

The outstanding balance of IDR Bonds at 31 December 2022 was \$892 million.

## MDKA RCF

Merdeka has drawn \$20 million of Merdeka Revolving Credit Facility ("MDKA RCF") as of December 2022. The MDKA RCF has an applicable interest rate of 3.85% per annum plus SOFR with a final repayment on 31 March 2023. Merdeka has \$80 million of undrawn MDKA RCF.

#### MBM Senior Loan

MBM entered a \$300 million loan with ING and Barclays on 19 May 2022 ("MBM Senior Loan"). The loan has an applicable interest rate of 4.25% per annum plus SOFR with final maturity date on 30 September 2026. As of 31 December 2022, the remaining balance of the bank loan was \$75 million.

#### MTI Facility Agreement

MTI entered into a \$260 million term loan facility ("MTI Term Loan") and IDR430 billion (or equivalent to \$29 million) of MTI VAT funding facility ("MTI VAT Facility") on 31 August 2022.

MTI Term Loan has final maturity in August 2027 with applicable margin of:

- (i) Offshore lenders: 3.75% per annum plus SOFR; and
- (ii) Onshore lenders: 3.95% per annum plus SOFR.

MTI VAT Facility has an applicable margin of 3.50% per annum plus JIBOR with a final maturity in August 2026.

As of 31 December 2022, MTI has drawn \$235 million of MTI Term Loan and IDR194 billion (or equivalent to \$12 million) of MTI VAT Facility.

#### Finance Lease

During the quarter, the lease drawdown was \$10m and lease repayment was \$9m. The outstanding finance lease balance as at 31 December 2022 was \$40 million.



**Sales and Hedging:** During the quarter, at Tujuh Bukit Gold Mine, a total of 20,961 ounces of gold and 142,428 ounces of silver were sold at an average price of \$1,711/oz and \$20/oz, respectively, for total revenue of \$39 million. Furthermore, 9,012 oz of gold hedging with a strike price of \$1,904/oz was closed out at an average price of \$1,735/oz resulting in a net gain on hedging for the quarter of \$1.52 million.

At Wetar, 5,085 tonnes of copper were sold at an average price of \$7,326 /tonnes for total revenue of \$37 million.

During the quarter, at MBM, a total of 10,438 tonnes of nickel in NPI were sold at an average price of \$15,915/tonne for total revenue of \$166 million.

Mark to market position for gold and copper hedge decreased from an asset position of \$3 million at 30 September 2022 to liability position \$0.1 million at 31 December 2022.

## Table 3: Gold, Silver, Copper and Nickel Sales for December 2022 Quarter

	Ounces	\$/oz	\$m
Gold	20,960	1,711	36
Silver	142,428	20	3
	Tonnes	\$/tonnes	\$m
Copper	5,085	7,326	37
	Tonnes	\$/tonnes	\$m
Nickel Pig Iron	10,438	15,915	166
Total			242

## Table 3: Details of Gold and Copper Hedge Profile as at 31 December 2022

Period	Gold Hedged		Copper Hedged	
	oz Au	\$/oz	t Cu	\$/t
2023 (January to June)	40,609	1,844	-	-

Capital Structure: Total issued and paid-up capital of MDKA is 24,110,850,771 shares.

#### Table 4: Major Shareholders as at 31 December 2022

Shareholders	No. of shares	%
PT Saratoga Investama Sedaya Tbk	4,4 <mark>23,174</mark> ,297	18.345
PT Mitra Daya Mustika	2,907,302,421	12.058
Garibaldi Thohir	1,774,021,214	7.358
PT Suwarna Arta Mandiri	1,347,254,738	5.588
Hongkong Brunp & Catl Co., Limited	1,205,542,539	5.000
Total Major Shareholders	11,657,295,209	48.349
Treasury Stock	68,296,800	0,283
Others	12,385,258,762	51.368
Total shares on issue as at 31 December 2022	24,110,850,771	100.000

In 2022, the Company has completed the buyback of 69,468,500 shares.

**MBM Corporate Update:** In early January 2023, Merdeka announced a corporate update regarding MBM<sup>9</sup>. Merdeka is considering various options (including options in capital markets) to best position MBM to successfully deliver on its pipeline of downstream expansion projects. An option that is currently under consideration is a proposed initial public offering of MBM on the Indonesia Stock Exchange to create a listed subsidiary. Subject to the prevailing applicable laws and regulations, Merdeka will make further announcements of any material development on this matter as and when appropriate.

**AIM Transfer from MDKA to MBM:** During the quarter, Merdeka commenced a restructuring exercise involving PT Batutua Pelita Investama ("BPI"), the holding company which owns 80% of PT Merdeka Tsingshan Indonesia ("MTI") (the joint venture company for the AIM Project). The restructuring was completed in January 2023, resulting in the AIM project becoming a direct subsidiary of MBM and Merdeka owning a 59.9% shareholding in MBM<sup>10,11</sup>.

<sup>&</sup>lt;sup>9</sup> <u>https://merdekacoppergold.com/wp-content/uploads/2023/01/Corporate-Update-PT-Merdeka-Battery-Materials.pdf</u>

<sup>&</sup>lt;sup>10</sup> https://merdekacoppergold.com/wp-content/uploads/2022/12/MDKA\_2022-12-12\_Disclosure-Information-Affiliated-Transaction-of-Conditional-Shares-Subscription-Agreement-between-BPI-and-MBM.pdf

<sup>&</sup>lt;sup>11</sup> <u>https://merdekacoppergold.com/wp-content/uploads/2023/01/MDKA\_2023-01-17\_Affiliated-Transaction-of-Conditional-Shares-Sale-and-Purchase-Agreement-between-MDKA-and-MBM\_ENG.pdf</u>

PT Merdeka Copper Gold Tbk (IDX: MDKA)

All figures are denominated in US Dollars, unless otherwise indicated



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## About PT Merdeka Copper Gold Tbk.

Merdeka is a holding company with operating subsidiaries engaging in mining business activities, encompassing: (i) exploration; (ii) production of gold, silver, copper, nickel (and other related minerals); and (iii) mining services.

Merdeka's major assets are the: (i) Tujuh Bukit Copper Project; (ii) Merdeka Battery Materials ("MBM"); (iii) Pani Gold Project; (iv) Tujuh Bukit Gold Mine and; (v) Wetar Copper Mine.

The Tujuh Bukit Copper Project deposit is one of the world's top-ranked undeveloped copper and gold mineral resources, containing approximately 8.2 million tonnes of copper and 28.6 million ounces of gold<sup>12</sup>.

MBM holds a portfolio of high-quality businesses which includes one of the world's largest nickel resources (known as the Sulawesi Cahaya Mineral Mine) containing approximately 13.8 million tonnes of nickel and 1.0 million tonnes of cobalt<sup>13</sup>, operating RKEF smelters with a total nameplate capacity of 88,000 tonnes of nickel in NPI per annum<sup>14</sup>, the Acid Iron Metal (AIM) Project which will produce acid and steam for use in HPAL plants, in addition to producing other metals such as copper, gold and iron and a strategic joint venture interest with Tsingshan to develop a future nickel and battery materials focused industrial estate, known as Indonesia Konawe Industrial Park.

The Pani Gold Project is a significant undeveloped gold resource, containing approximately 6.4 million ounces of gold<sup>1</sup> and expected to become a long-life and low-cost gold mine with the potential to produce more than 250,000 ounces of gold per annum for more than 15 years.

As a world-class Indonesian mining company, Merdeka is owned by prominent Indonesian shareholders, among others: PT Provident Capital Indonesia, PT Saratoga Investama Sedaya Tbk, and Mr. Garibaldi Thohir who have exceptional track records in successfully identifying, building, and operating multiple publicly listed companies in Indonesia.

<sup>&</sup>lt;sup>12</sup> Refer to Annual Statements of Mineral Resources and Ore Reserves on www.merdekacoppergold.com

 <sup>&</sup>lt;sup>13</sup> SCM Mineral Resource: February 2022 JORC prepared by AMC Consultants Pty Ltd. Total resource of 1.9 billion wmt of ore (equivalent to 1.1 billion dmt of ore) at 1.22% Ni containing 13.8Mt of nickel and at 0.08% Co containing 1.0Mt of cobalt
 <sup>14</sup> ZHN RKEF smelter is under construction with a nameplate capacity of 50,000 tonnes per annum

PT Merdeka Copper Gold Tbk (IDX: MDKA)

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