

# Khoemacau Copper Project, Botswana

Valuation Report

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## SIGNATURE PAGE

# Khoemacau Copper Project, Botswana

## Valuation Report

R360.2023

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# LETTER OF TRANSMITTAL



Sustainability is our business

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24 May 2024



The Directors

MMG Limited | HKEx: 1208  
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Dear Sirs/Madams,

In accordance with your instructions, ERM Australia Consultants Pty Ltd ("ERM") has undertaken an independent valuation to determine the Market Value of the Khoemacau Copper Mine ("KCM" or the "Mine" or the "Project"), located in Botswana in Southern Africa.

KCM announced on 21 November 2023 that the shareholders of the parent company of KCM had reached an agreement to sell 100% of their interests to MMG Limited ("MMG" or the "Company") via a Share Purchase Agreement ("SPA") for an effective Enterprise Value of US\$1,875 million<sup>1</sup>.

MMG is a global resources company that mines, explores, and develops copper and other base metals projects on four continents, and is headquartered in Melbourne, Australia. MMG currently operates the Dugald River zinc mine and the Rosebery polymetallic mine in Australia, the Kinsevere copper mine in the Democratic Republic of the Congo ("DRC"), the Las Bambas mine in southern Peru, in addition to their Izok Corridor development project in northern Canada. In 2022, MMG produced 305,053 tonnes of copper and 224,551 tonnes of zinc.

MMG is listed on the Hong Kong Exchange ("HKEx") and has an Enterprise Value of approximately US\$10 billion. MMG employs over 4,500 people globally, of which over 90% are nationals within each respective operating jurisdiction. MMG's 68% shareholder is China Minmetals Corporation, China's largest metals and minerals group.

MMG has extensive operating and project delivery expertise across a range of underground and open pit mining operations in various jurisdictions, and is committed to high standards of safety, responsibility, and sustainability across all these operations.

MMG applies the principles of good corporate governance as set out in the Corporate Governance Code of the HKEx Listing Rules, and as a member of the International Council on Mining and Metals ("ICMM") is aligned with their sustainable mining principles.

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<sup>1</sup> Calculated on a cash-free and debt-free basis as at the locked box date of 31 March 2023.

KCM is a copper and silver mining company located in Botswana which in June 2021 completed construction of its mining facilities aimed at treating around 60 kt per annum of copper and 1.6 Moz per annum of silver metal in concentrate at full run rate. It completed ramp up of current operations to full production in Q4 2022. Drilling of and studies on its expansion project forecast a potential increase production to over 130 kt per annum of copper and 5 Moz per annum of silver (average run rate at full production) to unlock the full potential of its position in the emerging Kalahari Copper Belt. KMC products are sold to a global customer under an existing three-year third-party offtake arrangement.

As required by HKEx (as defined herein), MMC is required to prepare a Valuation Report, independent from a Competent Person's Report ("CPR"), for any major mineral asset acquisition that must form part of the relevant circular to shareholders. This valuation relies heavily on, and frequently references, technical information in the CPR. The purpose of ERM's valuation is to determine the value of the KMC's assets in accordance with Chapter 18 of HKEx Listing Rules ("Chapter 18"). In that regard, ERM has been engaged as Competent Evaluator and has adopted the VALMIN Code (as defined herein) in arriving at its valuation assessment. ERM's date of valuation is 31 December 2023 ("Valuation Date") and the report which follows is dated 24 May 2024 ("Report Date"). The Effective Date of ERM's CPR is the same as the Valuation Date namely 31 December 2023.

This valuation has been undertaken on the basis of a Market Value (according to the definition of the VALMIN Code) which, for the purposes of this exercise, is defined as the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset (as defined herein) should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion.

Chapter 18 of the HKEx Listing Rules sets out additional listing conditions, disclosure requirements and continuing obligations for Mineral Companies.

Based on the restrictions imposed by Chapter 18, however, ERM does not believe that the derived value, when complying strictly with such rulings, agrees with the definition of a Market Value. In particular, Chapter 18.30 (3) states that:

*"Indicated Resources and Measured Resources are only included in economic analyses if the basis on which they are considered to be economically extractable is explained and they are appropriately discounted for the probabilities of their conversion to mineral Reserves. All assumptions must be clearly disclosed. **Valuations for Inferred Resources are not permitted...**"*

As a result of the restriction above, particularly in relation to the exclusion of Inferred Resources, a significant portion of the potential value of KCM is not allowed to be ascribed a value since almost 70% of the life of mine ("LOM") plan is classified as Inferred Resources. The reason why this is the case (i.e. the large proportion of Inferred Resources in the LOM) can be explained by the very steep sub-vertical nature of the orebodies, which physically and economically prohibits the density of drilling required to "prove up" the Inferred Resources to a higher confidence classification (i.e. Indicated or Measured Resources). As noted in the CPR, the mineralisation at Khoemacau is interpreted as showing high continuity within the area covered with high drilling density, and drill coverage so far in the Inferred Resources shows similar characteristics.

It is, ERM's opinion that a "willing buyer" as defined under the Market Value definition above, acting "knowledgeably, prudently and without compulsion" will take the above-mentioned considerations into account and thus ascribe a significant additional premium value component related to the Inferred Resources (as well as other potential upside) in addition to a valuation which only considers Indicated and Measured Resources.

However, in strict compliance with the requirement of Chapter 18 of the HKEx Listing Rules ERM has only completed a valuation of the Indicated and Measured Resources as follows:

1. The Chapter 18 Valuation (see Table 1) is based on:
  - a. **Indicated and Measured Resources** (converted to Ore Reserves in the LOM plan), in the LOM plan.
  - b. **Indicated and Measured Resources**, not in the LOM plan.

Based on ERM's assessment following the arguments above and assumptions outlined in the report, ERM's view of the Chapter 18 Value of KCM as at the Valuation Date is summarised in the table below.

**Table 1** KCM Chapter 18 Valuation based on Chapter 18 Rulings

Value component	Low value	Preferred value	High value
DCF of LOM (Measured and Indicated only)	US\$857 M <sup>1</sup>	US\$864 M <sup>2</sup>	US\$870 M <sup>3</sup>
+ Comparable Transaction Value on remaining Measured and Indicated not in LOM <sup>4</sup>	US\$276 M	US\$307 M	US\$337 M
<b>Chapter 18 Value</b>	<b>US\$1,133 M</b>	<b>US\$1,171 M</b>	<b>US\$1,207 M</b>

<sup>1</sup> Discount rate 8.3%, Bloomberg copper price US\$3.40/lb (from 2028 onwards).

<sup>2</sup> Discount rate 8.15%, Bloomberg copper price US\$3.78/lb (from 2028 onwards).

<sup>3</sup> Discount rate 8.0%, Bloomberg copper price US\$4.16/lb (from 2028 onwards).

<sup>4</sup> Development Project tonnages considered were derived from JORC Measured, Indicated and Inferred Resources

The pages in this report outline the factors considered, methodologies and assumptions employed in formulating ERM's opinions and conclusions. Any opinions are subject to the assumptions and limiting conditions contained therein.

Yours faithfully

For and on behalf of ERM

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Francois Grobler PhD, MSc Eng, BSc Hons, FAusIMM (CP)

## VALUER'S BIOGRAPHY

ERM's Sustainable Mining Services team (formerly CSA Global) is a leading group of geological and mining professionals that includes geologists, mining engineers, hydrologists, hydrogeologists, data, and resource estimation specialists with experience on all types and stages of mineral projects from around the world.

ERM Australia Consultants Pty Ltd trading as ERM (formerly CSA Global) has a high level of technical expertise across mineral commodities gained from 35 years' experience within the global exploration and mining industry. ERM has more than 8,000 people in more than 35 countries and territories working out of over 140 offices.

This engagement has been undertaken by Dr Francois Grobler who, at the time of the valuation and report compilation, was a Principal Consultant based in ERM's Mining Technical and Transaction Advisory (MTCA) unit in Perth, Western Australia. The MTCA team provides services in mining and technical due diligence for banking and M&A transactions. The team has extensive experience in providing technical and valuation reports for listings on all the main securities exchanges internationally, including the HKEx.

Dr Grobler has more than 30 years' experience in the mining industry covering a wide number of disciplines including geology, mining engineering, mineral economics, mining finance and business optimisation. Francois' career includes around 10 years in corporate and operations with the De Beers Group, and more than 15 years in mining technical and management consulting. He has conducted technical reviews and mining asset valuations on various commodities (gold, base metals, coal, diamonds, and industrial minerals) under various jurisdictions (ASX, JSE, HKEx, AIM, LSE, TSX) and reporting codes (JORC/VALMIN, SAMREC/SAMVAL, NI-43101, SEC-SOX) and for various purposes (IERS, IPOs, JV, M&A, legal disputes, tax/stamp duty, TARP).

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# 1. ACRONYMS, DEFINITIONS AND GLOSSARY

In this report, the following terms have, where appropriate, the following meanings.

Table 1-1 List of acronyms, definitions, and glossary

Term	Description
%	percent
Ag	<p>Silver (Ag), chemical element, soft, white, lustrous transition metal, it exhibits the highest electrical conductivity, thermal conductivity, and reflectivity of any metal.</p> <p>Found in the Earth's crust in the pure, free elemental form ("native silver"), as an alloy with gold and other metals, and in minerals such as argentite and chlorargyrite. Most silver is produced as a byproduct of copper, gold, lead, and zinc refining.</p> <p>At KCM (Zone 5), silver is hosted within the main copper sulphide minerals including chalcopyrite, chalcocite and bornite (see also under "Cu").</p>
c.	circa
capex	Capital Expenditure refers to the funds used by a business to acquire, maintain, and upgrade fixed assets. These might include plant, property, and equipment (PP&E) like buildings, machinery, and office infrastructure. These are usually long-term assets that have a useful life or a productive purpose lasting longer than one accounting period.
cm	centimetres
Company	MMG Limited (MMG)
Comparables	Comparable listed companies.
Chapter 18	Chapter 18 of the HKEx Listing Rules sets out additional listing conditions, disclosure requirements and continuing obligations for Mineral Companies. The additional disclosure requirements and continuing obligations apply to a listed issuer which becomes a Mineral Company by undertaking a Relevant Notifiable Transaction involving the acquisition of Mineral or Petroleum Assets. Certain continuing obligations also apply to listed issuers that publish details of Resources and/or Reserves.
Competent Person	ERM
Competent Person's Report or CPR	Competent Person's Report dated 29 February 2024 prepared by ERM in relation to the Project (as defined herein).
CRP	Country Risk Premium
Cu	Copper (Cu), chemical element, a reddish, extremely ductile metal, unusually good conductor of electricity and heat. Copper is found in the free metallic state in nature. At KCM copper is found in the minerals chalcocite, bornite and chalcopyrite.
CuEq	Metal equivalent in general, and Copper Equivalent (CuEq) in the case of this report, provides an indication of value where mineralisation contains more than one valuable metal or mineral (in this case, silver). The single number that reflects the contributions of both copper and silver assay results, provides a simpler presentation of information.
DCB	Discovery Copper Botswana
DCF	discounted cash flow
dmt	dry metric tonne(s)
DRC	Democratic Republic of the Congo

Term	Description
EBIT	Earnings before interest and taxes (EBIT) measures a company's net income before income tax and interest expenses are deducted. EBIT is used to analyse the performance of a company's core operations.
Effective Date	Also referred to as "Valuation Date"
ERM	ERM Australia Consultants Pty Ltd
EV	Enterprise value, often shortened to EV, is a form of business valuation used in mergers and acquisitions (M&A). Calculating EV involves adding together a company's market capitalization (how much its publicly traded shares are worth) and total debt minus any highly liquid assets, like cash or savings.
FY	Financial year ended 31st December.
G&A	general and administration
HKEx	Stock Exchange of Hong Kong Limited.
Indicated Mineral Resource	Part of a Mineral Resource (as defined herein) for which quantity, grade, (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of economic viability of the deposit.
Inferred Mineral Resource	An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.
initial project	A project kicked off at KCM focused on developing the Zone 5 deposit (also referred to by KCM and MMG as the Starter Project).
JORC Code Australasian Code	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition), as published by the Australasian Joint Ore Reserves Committee, as amended from time to time.
KCM, Mine or Project	Khoemacau Copper Mine
koz	kilo (thousand) ounces
kt	kilo (thousand) tonnes
ktpa	kilo (thousand) tonnes per annum
kV	kilovolts
lb	pound(s)
Listing Rules	Rules governing the Listing of Securities on the Hong Kong Stock Exchange
LOM	Life of Mine (plan). In the case of the "Base Case" LOM this is the continued mining of the Zone 5 or body, with three additional mining areas mined and processed from 2027 onwards up to the end of the currently defined life of mine which is 2040.
m	metre(s)
M	million(s)
M&I	Measured and Indicated (Resources)

Term	Description
Management	Management of KCM or MMG.
mbs	metres below surface
Market Value	Estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion (as defined in VALMIN Code)
Measured Mineral Resources	Part of a mineral Resource (as defined herein) for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit (as defined in JORC and VALMIN)
Mineral Assets	Mineral assets (mines, projects) or the equivalent as defined in the VALMIN Code
Mining Code	Mining Code of Botswana
Mining Regulation	Mining Regulations in Botswana
mm	millimetres
MMG	MMG Limited
Moz	million ounces
Mt	million tonnes
Mtpa	million tonnes per annum
NPV	net present value
NSR	Net smelter return is the net revenue that the owner of a mining property receives from the sale of the mine's metal or non-metal products less transportation and refining costs.
opex	Operating expenses or expenditure in this context, refers to the costs incurred by KCM in the production of copper concentrate. It includes mining costs such as drilling, blasting, loading and hauling, and processing costs (e.g. consumables, chemicals, power)
pa	per annum or per year
Probable Reserve	Economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the modifying factors applying to a Probable Reserve is lower than that applying to a Proved Reserve.
Proved Reserve	Economically mineable part of a Measured Mineral Resource. A Proved Reserve implies a high degree of confidence in the modifying factors.
Reserves	Economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of modifying factors.
Resources	Concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction.
Report Date	12 March 2024
t	tonne(s)
Technical Value	Technical Value is an assessment of a mineral asset's future net economic benefit at the Valuation Date under a set of assumptions deemed most appropriate by a practitioner, excluding any premium or discount to account for market considerations.

Term	Description
US\$	US dollar(s)
VALMIN Code	Code for the technical assessment and valuation of mineral and petroleum assets and securities for independent expert reports (2015 edition), as prepared by the VALMIN Committee, a joint committee of The Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Mineral Industry Consultants Association as amended from time to time.
Valuation Date	31 December 2023
WACC	<p>The Weighted Average Cost of Capital (WACC) represents a company's average after-tax cost of capital from all sources, including common stock, preferred stock, bonds, and other forms of debt.</p> <p>As such, WACC is the average rate that a company expects to pay to finance its business.</p>
Zeta NE	Zeta North-East
Zone 5N	Zone 5 North

## 2. PREAMBLE

### 2.1 BRIEF DESCRIPTION OF PROJECT

Khoemacau Copper Mine ("KCM") owns mining and prospecting licence areas, together with Discovery Copper Botswana ("DCB"), in a sparsely populated region of northwest Botswana in the Kalahari Desert (see Figure 2-1. The project area is made up of 4,040 km<sup>2</sup> of mineral concessions comprising prospecting licences and mining licences. These licences are located within the Ngamiland and Ghanzi districts of Botswana. The licence area is generally 70 km southwest of the town of Maun and 50 km south of the village of Toteng.

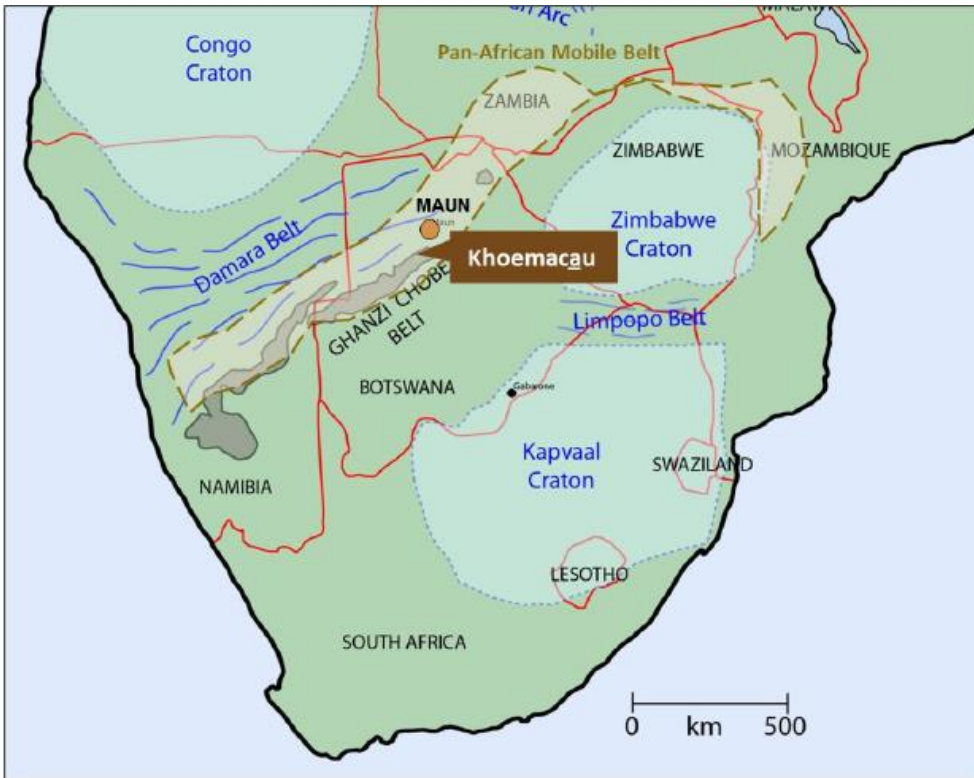


Figure 2-1 Location of Khoemacau Copper Mine in Botswana (Source: KCM)

The KCM entered commercial production in 2021 following several years of progressively more detailed technical evaluation, construction and commissioning of the Zone 5 mine, the Boseto processing facility refurbishment and surface infrastructure.

The initial project, focused on developing the Zone 5 deposit, was one of the most significant high-grade copper developments in recent years. The initial project, comprising of the Zone 5 mine, the 3.65 Mtpa Boseto processing plant and associated infrastructure, and has a life of mine ("LOM") believed to be more than 20 years.

A mining expansion plan ("Expansion Project") based on expansion of current mining activity at Zone 5 as well as the development of new mining corridors at Mango, Zeta North-East ("Zeta NE") and Zone 5 North ("Zone 5N") has been studied to prefeasibility study ("PFS") level. Mine designs and design criteria are based on established designs and criteria from the existing Zone 5 operation.

Copper and silver mineralisation at the Project is hosted within the Ghanzi-Chobe Fold and Thrust Belt that forms the southern portion of a much larger Pan-African Mobile Belt. In Botswana, the Ghanzi-Chobe Belt is also known as the Kalahari Copper Belt. The belt contains several stratabound sediment-hosted copper deposits.

The Kalahari Copper Belt consists of a deformed package of metasedimentary and metavolcanic rocks that were deposited during the late Mesoproterozoic to early Neoproterozoic eras along the rifted northwest margin of the Kalahari Craton. The late Neoproterozoic collision of the Kalahari and Congo cratons resulted in the formation of the Pan-African Damara Orogeny that forms the present-day structural configuration of the Kalahari Copper Belt.

The area is characterised as a sediment-hosted copper deposit with a multi-stage mineralisation history that includes both diagenetic (sediment hosted) and epigenetic (structurally hosted) events. Copper-silver mineralisation generally occurs at the stratigraphic boundary between the oxidised Ngwako Pan sandstone and the reduced rocks of the D'Kar siltstone, but also show evidence of overprinting and/or remobilisation. The redox (reduction-oxidation) boundary is both a chemically reduced and a structurally controlled trap environment with two discrete mineralising events approximately 400 Ma apart.

Mineralisation at KCM differs from the other deposits located in the Kalahari Copper Belt in that copper has been found to occur in the oxidised footwall sandstones below the contact with the reduced hangingwall siltstones.

KCM and DCB own 10 prospecting licences covering 4,040 km<sup>2</sup> of the Kalahari Copper Belt. KCM has indicated that all licences are renewed through to the end of 2024 and are in good standing.

ERM reviewed a compilation report by legal firm Herbert Smith Freehills (HSF) and local advisory services from Akheel Jinabhai & Associates (AJA) who were engaged by MMG to conduct a legal due diligence (DD) on the proposed transaction and the DD included among other aspects, the matter of renewal of prospecting and mining licences.

The findings from the report were that the prospecting licenses in the Data Room appear to be in good standing, as confirmed in writing by the Department of Mines, via several certificates of good standing which were issued on 28 September 2023 in respect of prospecting licenses held by both KCM and DCB.

ERM's conclusion as stated in the CPR is that the renewal of the current Prospecting Licences expiring in 2024 is highly likely, however that KCM should take heed as recommended by AJA to make all subsequent renewal applications well in advance to reduce the risks related to renewal.

The CPR states that KCM has successfully renewed all prospecting licences over the last decade with a strong working relationship with the Botswana Department of Mines. Renewals have always been executed in the requisite three-month window at the end of the two-year validity period (see Figure 2-2).



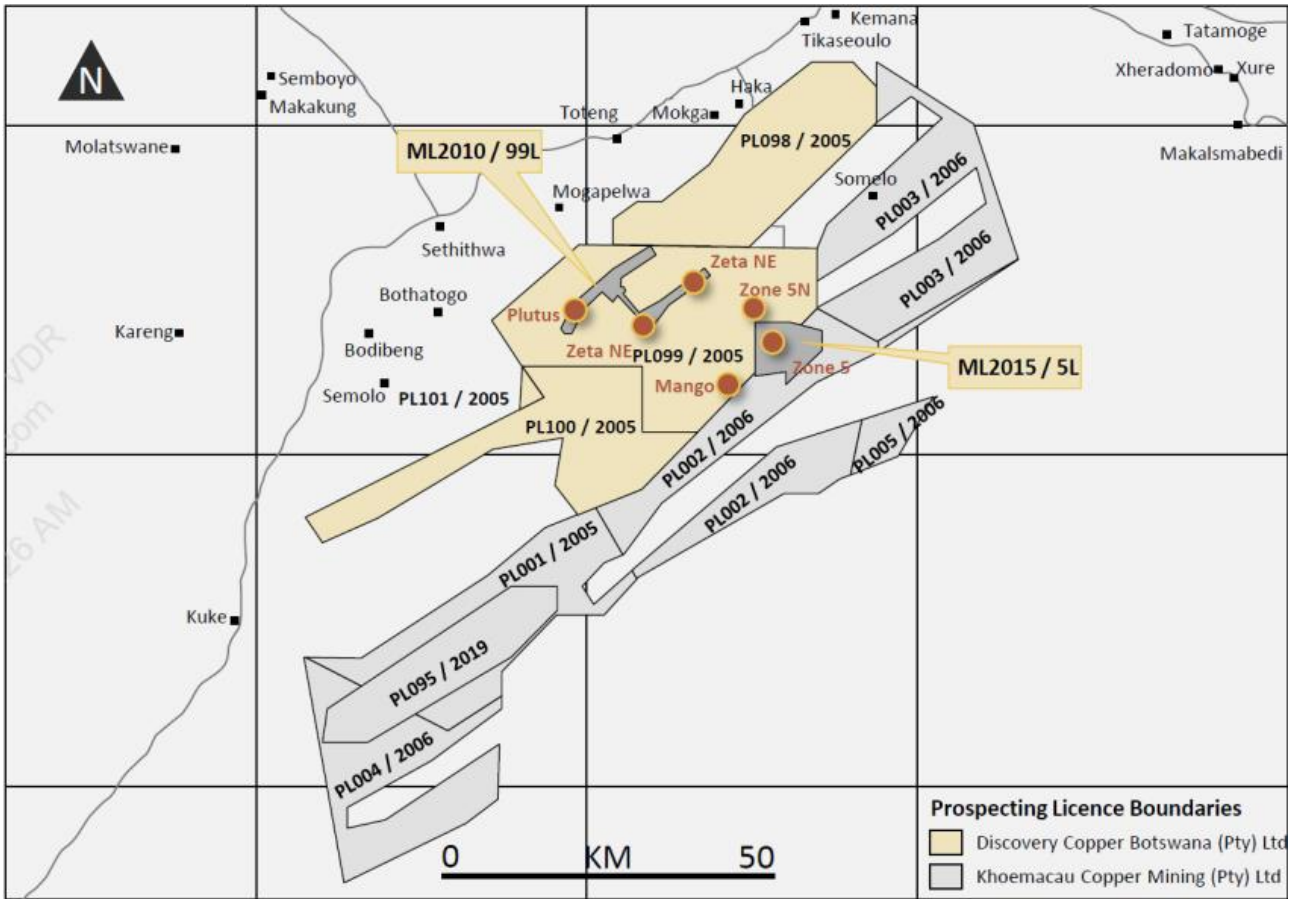


Figure 2-2 Prospecting and mining licence locations (Source: KCM)

Mining licences cover all current operations. KCM first secured the Zone 5 mining licence in 2015, after applications were submitted in August 2014. Subsequent amendments to that mining licence (including the precursor environmental permits – ESIA) for final operational plans for Zone 5 were achieved without delay to any development activities. Similarly, the Boseto mining licence was amended for Current Operations on that licence.

Zone 5 North and Mango, resources can be incorporated into extension to the existing Zone 5 mining licence (ML2015/05L), and the Zeta NE resource is already within the existing Boseto mining licence (ML2010/99L). The Zone 5 mining licence was originally licensed for a greenfield process plant, tailings storage facility and solar plant (subsequently amended once Boseto was incorporated into Current Operation development), de-risking of this mining licence for this new development. Although most of the existing licences are expected to cover the Expansion Project, certain additional permits or extensions will be required, including for power generation at the proposed solar plant if the business elects this development path.

## 2.2 PURPOSE OF VALMIN VALUATION

The purpose of this assessment as requested by MMG is to arrive at an independent view on the likely Market Value of KCM for acquisition purposes in accordance with Chapter 18 of the Hong Kong Listing Rules (“Chapter 18”).

ERM has been engaged in this context as Competent Evaluator and has adopted the VALMIN Code as the basis and guideline for our assessment.

This report outlines the information and assumptions upon which the valuation of the Assets is based, the valuation model applied, and the conclusions reached. This report should not be used or relied upon for any purpose other than noted herein.

## 2.3 BASIS OF VALUATION

This valuation has been undertaken on the basis of a Market Value which, for the purposes of this exercise, is defined as the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset (as defined herein) should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion.

Constrained by the restrictions imposed by Chapter 18 however, we do not believe that the derived value, when complying strictly with such rulings, agrees with the definition of a Market Value. In particular Chapter 18.30 (3) states that:

*"Indicated Resources and Measured Resources are only included in economic analyses if the basis on which they are considered to be economically extractable is explained and they are appropriately discounted for the probabilities of their conversion to mineral Reserves. All assumptions must be clearly disclosed. **Valuations for Inferred Resources are not permitted...**"*

Based on the restriction above, a significant portion of the potential value of KCM are not allowed to be ascribed a value since almost 70% of the LOM plan is classified as Inferred Resources. The reasoning for why this is the case (i.e. the large proportion of Inferred Resources in the LOM) can be explained by the very steep sub-vertical nature of the orebodies, which physically and economically prohibits the density of drilling required to "prove up" the Inferred Resources to a higher confidence classification (i.e. Indicated or Measured Resources). Refer to Section 8.3 *Statement of Mineral Resources* in the CPR for more information.

It is, however, ERM's opinion that a "willing buyer" as defined under the Market Value definition above, acting "knowledgeably, prudently and without compulsion" will ascribe a significant additional value component related to the Inferred Resources in addition to a valuation which only considers Indicated and Measured Resources. Refer to Section 9 *Exploration Potential* in the CPR for more information.

The VALMIN Code contains five fundamental principles:

- Competence
- Materiality
- Transparency
- Reasonableness
- Independence.

*Competence* or being *Competent* requires that the public report is based on work that is the responsibility of a suitably qualified and experienced person who is subject to an enforceable professional Code of Ethics.

*Materiality* or being *Material* requires that a public report contains all the relevant information that investors and their professional advisors would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement regarding the technical assessment or mineral asset valuation being reported.

*Transparency* or being *Transparent* requires that the reader of a public report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information or by omission of material information.

*Reasonableness* requires that an assessment that is impartial, rational, realistic and logical in its treatment of the inputs to a valuation or technical assessment has been used, to the extent that

another practitioner with the same information would make a similar technical assessment or valuation.

*Independence* or being *Independent* requires that there is no present or contingent interest in the mineral asset(s), nor is there any association with the commissioning entity or related parties that is likely to lead to bias. Where the legal definition of Independence or Independent differs from the above, the legal definition takes precedence.

For this assignment, ERM has not carried out any work in the nature of or to the level of a feasibility study nor is ERM required to express a viability opinion on any proposed transaction. ERM has relied on information provided by KCM, MMG, and from previous CSA Global assignments, in arriving at the valuation estimates.

ERM has conducted the necessary checks, enquiries, analyses and verification procedures to establish reasonable grounds for establishing the soundness of the contents and conclusions of this valuation report.

ERM's valuation is only an indicative quantum at which interests in the Project might be reasonably expected to be or have been sold at the Valuation Date and may be different from the actual transacted price.

## 2.4 STATEMENT OF INDEPENDENCE

ERM confirms that it has no present or contemplated interest in the assets which are the subject of the valuation and is acting independent of all parties. Further, ERM's fees are agreed on a lump sum basis and are not contingent on the outcome.

## 2.5 LIMITATION OF CIRCULATION

This valuation report has been prepared solely for inclusion in the circular of the Company and is not intended for any legal or court proceedings without ERM's prior written consent. ERM will assume no responsibility or liability for any losses incurred by you or any third party as a result of unauthorised circulation, publication or reproduction of this report in any form and/or if used contrary to the purpose stated therein. ERM understands that the valuation will be incorporated into the Company's circular for public disclosure purposes and has provided a letter of consent for the inclusion of the valuation report into the circular.

### 3. SOURCES OF INFORMATION

ERM was provided with access to a comprehensive virtual data room containing information compiled by MMG and KCM Management. Furthermore, discussions were held with MMG and KCM Operational and Corporate staff during a site visit to KCM in Botswana from 11 to 16 December 2023. This information and discussions were relied upon in preparing ERM's valuation models and arriving at its conclusions on value.

Information relied upon by ERM includes, but are not limited to, the following:

- Project Kingston – Due Diligence Investment Feasibility Report – October 2023, prepared by MMG.
- Announcement made by the Company in relation to the acquisition dated 21 November 2023.
- Prefeasibility Study Technical Report prepared by CSA Global (UK) Limited ("CSA Global") in June 2023.
- Competent Persons Report ("CPR") prepared by ERM dated 24 May 2024.
- Historical technical and financial information of KCM from FY2020 to 31 December 2023.
- LOM plan forecast for KCM provided in the CPR.
- Discussion with the following key personnel while on the site visit:
  - Mr Charles Smith, Principal, Mergers and Acquisitions, MMG
  - Various KCM executive and operational staff within Mining, Processing and ESG.
- Mr Jeremy Clark, Director at Lily Valley International, as an expert with significant experience in Hong Kong Exchange ("HKEx") listings and the requirements of Chapter 18 of the Hong Kong Listing Rules.
- All other information and representations provided by Management.

In addition, ERM has made reference to, and relied upon, other information such as:

- Chapter 18 of the Hong Kong Listing Rules
- Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (2015 Edition), as prepared by the VALMIN Committee in Australia ("VALMIN Code")
- The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition), as published by the Joint Ore Reserves Committee, as amended from time to time ("JORC Code")
- Copper price forecast projected by Bloomberg (Dec2023/Jan2024)
- Historical financial information of the Comparable Companies from S&P Capital IQ.

## 4. VALUATION CONSIDERATIONS

ERM has visited and inspected the mining sites and processing facilities where the project operates and notes that the facilities, in general, are in good operating condition.

Dimensions, measurements and areas included in the valuation report are based on information contained in the documents provided to ERM by the Company.

ERM has also considered the information in the CPR and the specialist(s) (where applicable) who contributed to the findings in the CPR have each consented to matters based on their information in the form and context in which it appears in the CPR.

ERM has no reason to doubt the truth and accuracy of the information provided to it by the Company.

## 5. KEY CAVEATS AND ASSUMPTIONS

In preparing the assessment, ERM has made the following key limitations and assumptions as of the Valuation Date in its valuation model and these apply throughout, unless otherwise stated:

- The production schedules reflect the operational status of the Project.
- The time period between production/processing and sales is reasonably short.
- Forecasts for capital cost throughout the forecast period have been provided. The Company is responsible for the contents, estimations, and assumptions used in the forecast.
- The Project shall have sufficient financial liquidity and working capital to achieve the financial forecasts and projections.
- There are no other liabilities including any contingent liabilities or unusual contractual obligations or substantial commitments which would have a material effect on the value of the Project.
- There will be no material change in the existing political, legal or regulatory (including changes in legislation, laws or regulations, government policies or rules), fiscal, market, logistic and shipping or economic conditions in the Democratic Republic of the Congo ("DRC") and elsewhere.
- There will be no material changes to inflation, interest rates or exchange rates from those prevailing as at the Valuation Date.
- There will be no material change in the bases or rates of taxation or duties in Botswana and elsewhere.
- Operation of the Project will not be severely interrupted by any force majeure event or unforeseeable factors or any unforeseeable reasons that are beyond the control of Management, including but not limited to, the occurrence of natural disasters or catastrophes, epidemics or serious accidents
- Other assumptions specific to a particular valuation approach or certain observations and conclusions are outlined in the ensuing sections of the report.

Any deviation from the above key limitations and assumptions may significantly vary the valuation of the Project. ERM's valuation is largely based on information provided by the Company and the Company is responsible for their contents and accuracy. Notwithstanding this, ERM has conducted the necessary checks, enquiries, analyses and verification procedures to establish reasonable grounds for establishing the soundness of the contents and conclusions of this valuation report. ERM has also considered the information in the CPR and information provided by the specialist(s) who contributed to the findings in the CPR. The specialist(s) has/have consented to matters based on their information, in the form and context in which it appears in the CPR.

For this exercise, ERM has obtained, and considered, published market data and other publicly available information relating to comparable transactions from sources which it regards to be reputable and reliable. ERM makes no representations as to the accuracy of the content in such published market data and other publicly available information in deriving parameters used for the financial forecasts and valuation models and has accepted such information without detailed verification.

## 6. STANDARD LIMITING CONDITIONS

ERM's assessment is subject to the following standard limiting conditions and these apply throughout, unless otherwise stated:

- ERM shall not be required to give testimony or attendance in court or to any government agency by reason of this valuation, with reference to the property described herein, unless prior arrangements have been made.
- ERM's report is for the use of the party to whom it is addressed, and no responsibility is accepted from any third party for the whole or any part of the contents of ERM's report.

## 7. THE PROJECT

### 7.1 BACKGROUND

ERM has been instructed by MMG to undertake an independent valuation of the Khoemacau Copper Mine ("KCM") located in Botswana. MMG is entering into a transaction to acquire the group of companies which holds a 100% interest, as at the Valuation Date.

### 7.2 KHOEMACAU COPPER PROJECT

KCM is in northern Botswana, approximately 30–40 km from local villages with direct access to regional infrastructure, including Maun International Airport (Figure 7-1).

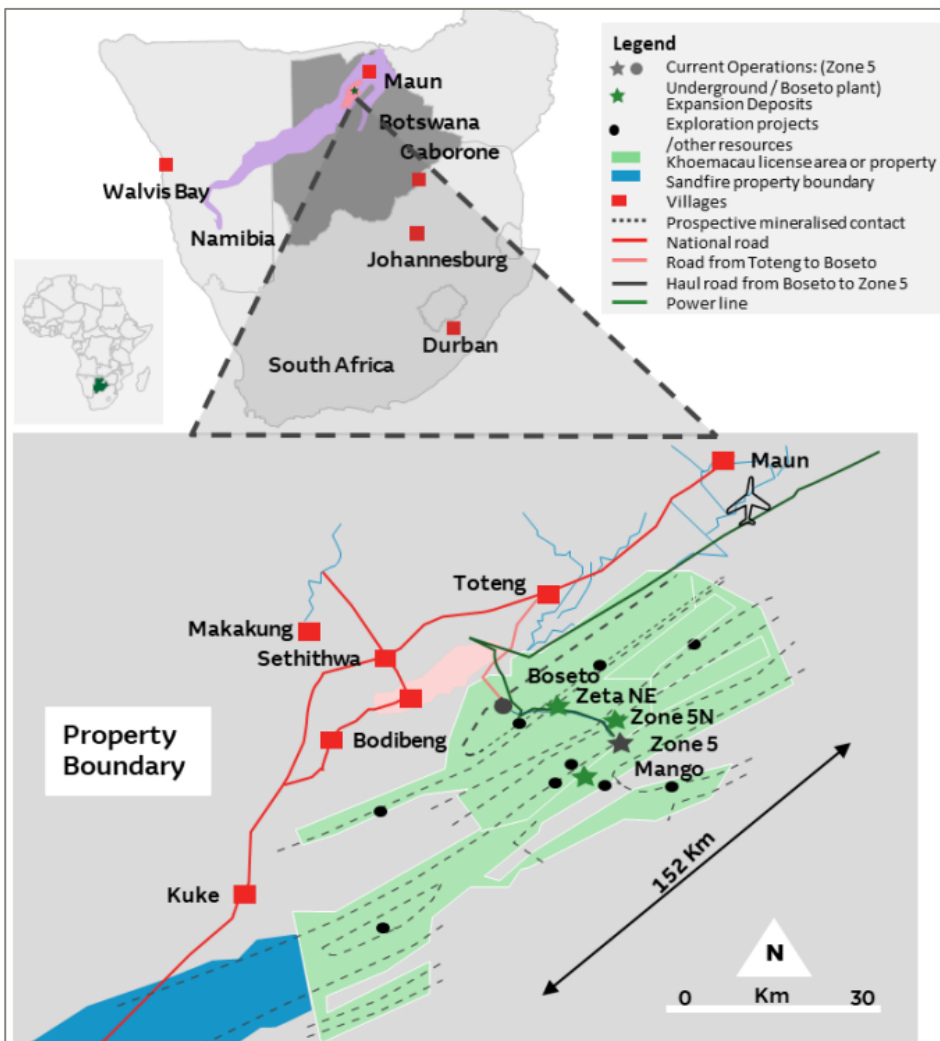


Figure 7-1 Map of KCM in Botswana (Source: KCM)

In 2015, the Zone 5 mining licence was awarded, and a feasibility study subsequently completed, three years after the initial resource discovery in 2012. In 2019, KCM raised US\$650 million of project funding for mine development and construction.

Mine development commenced in February 2020 with initial ore production commencing in August 2020, ramping up to full capacity by the end of 2022.

According to the CPR, the current operations, which produced first concentrate in June 2021, will deliver more than 155,000 tonnes of copper concentrate at 35–40% copper content, containing some c. 60 kt of copper and c. 1.6 Moz of silver metal in concentrate annually.



The estimated mine life for current operations is 20 years, based on currently drilled mineralisation, with C1 cash costs over the life estimated at approximately \$1.15 per pound\* of copper and \$1.85<sup>2</sup> per pound on an all-in sustaining basis. Total direct capital cost for construction and commissioning the current operations was US\$411 million, offering a capital efficiency of c. \$6,300 per annual tonne of copper. These attractive unit cost metrics reflect the high grades of the Zone 5 orebody, its ideal geometry for highly productive mechanised mining, and access to the upgraded and enhanced Boseto process plant and the newly constructed and reliable infrastructure.

The current operations involved the construction of the 3.65 Mtpa underground mine at Zone 5 (three mining corridors producing on average 1.2 Mtpa of ore each) and the refurbished and enhanced Boseto processing plant. The construction program was completed in July 2021. The mined ore is trucked approximately 35 km from the Zone 5 mine to the Boseto processing facility on a purpose built, fully sealed bitumen haul road, with a separate access road for light vehicles.

Power is sourced at 132 kV from the Botswana Power Corporation grid via a 50 km overhead transmission line connection. Diesel generation capacity is being used as backup power only. Water is being supplied from two wellfields, at Boseto (existing refurbished) and Haka (new development including 40 km of underground pipeline from Haka to Zone 5), along with dewatering boreholes from the mine at Zone 5.

According to the CPR, KCM (together with DCB) hold a very large land position in the Kalahari Copper Belt totalling 4,040 km<sup>2</sup> across 10 prospecting licences situated 70 km southwest of the town of Maun and 50 km south of the village of Toteng.

Prospecting and mining licences are summarised in Table 7-1 and shown in Figure 7-2. ERM has relied on KCM and MMG to confirm land titles and ownership rights are current. The prospecting licence area consists of 10 prospecting licence blocks: four DCB licences over the Boseto Operation (PL098/2005 to PL101/2005) and six KCM licences (PL001/2006 to PL005/2006, and PL095/2019).

Table 7-1 KCM and DCB prospecting and mining licences (Source: KCM)

Licence/Permit	Area (km <sup>2</sup> )	Issue date	Expiry/Renewal date
<b>KCM prospecting and mining licences</b>			
PL001/2006	346.8	2023-01-01	2024-12-31
PL002/2006	459.2	2023-01-01	2024-12-31
PL003/2006	544.0	2023-01-01	2024-12-31
PL004/2006	388.7	2023-01-01	2024-12-31
PL005/2006	75.4	2023-01-01	2024-12-31
PL095/2019	293.7	2022-10-01	2024-09-30
ML2015/05L	360.0	2015-03-09	2025-12-19
<b>DCB prospecting and mining licences</b>			
PL098/2005	519.9	2023-01-01	2024-12-31
PL099/2005	812.1	2023-01-01	2024-12-31
PL100/2005	502.6	2023-01-01	2024-12-31
PL101/2005	10.0	2023-01-01	2024-12-31
Enlargement of mining licence – Zeta NE	17.4	2016-06-08	2025-12-19
ML2010/99L	58.9	2010-12-20	2025-12-19

<sup>2</sup> C1 cost shown pre-Ag stream and AISC shown post-Ag stream.

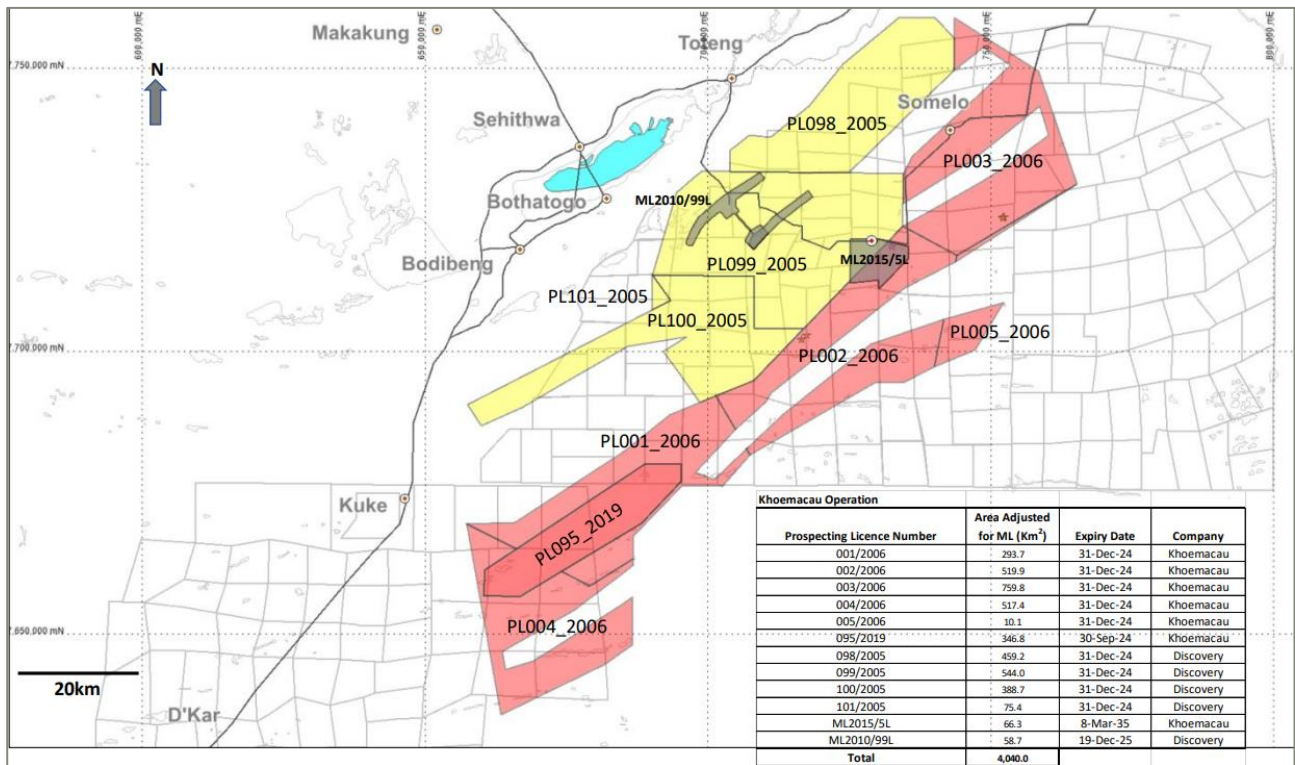


Figure 7-2 Map of KCM prospecting and mining licences (Source: KCM)

In March 2015, KCM was granted a mining licence (ML2015/5L) contained within PL002/2006, PL001/2006 and PL004/2006, for the Zone 5 and NE Fold (which is part of the Banana Zone) areas. In 2019, part of ML2015/5L covering the Banana Zone was converted back to a prospecting licence status, resulting in the creation of new prospecting licence PL095/2019. In 2018, KCM was granted an expansion to the Zone 5 mining licence, contained within PL099/2005. DCB was granted its mining licence (ML2010/99L), contained within PL099/2005, on 20 December 2010. DCB was granted two amendments to the mining licence: one allowing underground mining to be undertaken at the Zeta pit (2014) and the other allowing enlargement of the area toward the northeast to include Zeta NE (2015).

Botswana’s Mines and Minerals Act allows a company to apply for an extension of its prospecting licences at the end of the two-year licence period without having to relinquish any licence area. To be granted the extension, the Company must demonstrate that it has completed significant expenditure and exploration work on the licences as committed to in the previous licence extension. KCM Management has indicated that the exploration programs completed during the recent extension period for the proposed exploration program were designed to satisfy the Botswana Government requirements for the Project.

It is worth noting that several of the prospecting licences are due for renewal by the end of 2024, however, from ERM’s discussions with KCM Management, all tenements are in good standing and no matters have come to ERM’s attention that would prevent or delay the renewal of the tenements.

ERM’s conclusion as stated in the CPR is that the renewal of the current Prospecting Licences expiring in 2024 is highly likely, however that KCM should take heed as recommended by AJA to make all subsequent renewal applications well in advance to reduce the risks related to renewal.

During 2019 and 2020, KCM kicked off the initial project, focused on developing the Zone 5 deposit. During this time period, KCM completed the Zone 5 boxcut and excavations, underground mine development and associated infrastructure. The mine entered commercial production in 2021 following several years of successively more detailed technical evaluation,

construction and commissioning of the Zone 5 mine, the Boseto processing facility refurbishment and surface infrastructure.

KCM indicated that the initial project was one of the most significant high-grade copper developments in recent years in the region. According to the CPR, the initial project on its own comprised of the Zone 5 mine, the 3.65 Mtpa Boseto processing plant and associated infrastructure has a LOM in excess of 20 years (when Inferred Resources are included). See CPR Sections 3 and 11.1 for more information.

KCM's Mineral Resources for Zone 5 are summarised in Table 7-2 as stated in the CPR.

Table 7-2 Mineral Resource statement for Zone 5 as of 31 December 2023

Measured Resources			Indicated Resources			Inferred Resources			Total Resources			Contained metal		
Mt	Grade		Mt	Grade		Mt	Grade		Mt	Grade		CuEq %	Cu Mt	Ag Moz
	Cu %	Ag g/t		Cu %	Ag g/t		Cu %	Ag g/t		Cu %	Ag g/t			
10.0	2.1	20.1	27.2	1.9	19.2	51.99	2.08	22.7	92.86	2.03	21.3	2.20	1.815	61.4

The initial project, which produced maiden concentrate on 30 June 2021, was designed to produce more than 155,000 tonnes of copper concentrate at 35–42% copper content (c. 60 kt per annum of copper metal and c. 1.6 Moz per annum of silver metal in concentrate at full run rate). The maiden copper and silver concentrates were shipped to market in July 2021.

Table 7-3 summarises historical production from January to December 2023.

Table 7-3 KCM historical production (actuals) for 2023 (Source: KCM Monthly Reports)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tonnes to ROM (kt)	310.5	284.5	304.1	287.8	264.2	245.3	282.4	276.6	302.9	291.4	281.4	274.8
Tonnes milled (kt)	300.6	277.8	285.9	270.8	304.0	293.4	295.7	286.7	290.0	292.4	278.1	266.0
Cu head grade (%)	1.72	1.65	1.70	1.69	1.81	1.47	1.58	1.56	1.53	1.57	1.57	1.50
Ag head grade (g/t)	19.74	18.30	18.77	18.24	20.02	15.90	17.07	16.97	16.30	16.59	16.97	16.36
Cu recoveries (%)	87.4	86.1	87.2	87.5	86.6	86.3	88.3	87.0	88.4	87.4	87.7	85.1
Ag recoveries (%)	85.5	84.6	85.1	85.8	84.3	82.9	85.8	85.7	85.1	85.3	85.9	82.5
Cu grade in concentrate (%)	32.6	32.0	32.3	31.7	32.1	30.9	31.9	30.6	31.6	31.9	30.7	30.3
Ag grade in concentrate (g/t)	363.8	350.2	351.4	330.4	347.7	321.9	334.7	326.2	326.5	328.5	329.8	314.8
Cu Revenue (US\$M)	39.1	34.2	32.8	31.9	37.8	28.6	32.7	26.5	28.9	28.3	25.6	26.5
Ag Revenue (US\$M)	3.1	1.9	2.6	2.1	2.7	1.9	2.7	2.6	1.7	2.5	1.6	2.0
Selling costs (US\$M)	(6.7)	(5.7)	(4.4)	(5.1)	(6.3)	(4.8)	(5.2)	(4.7)	(4.9)	(4.8)	(4.5)	(4.5)
<b>Net revenue (US\$M)</b>	<b>35.5</b>	<b>30.4</b>	<b>31.1</b>	<b>28.9</b>	<b>34.3</b>	<b>25.7</b>	<b>30.2</b>	<b>24.4</b>	<b>25.7</b>	<b>26.0</b>	<b>22.7</b>	<b>24.0</b>
Operating Costs (US\$M)	(14.0)	(14.0)	(14.2)	(13.8)	(13.4)	(13.7)	(14.5)	(14.3)	(14.5)	(14.4)	(13.3)	(13.3)
Total Costs (US\$M)	(15.2)	(15.4)	(15.7)	(15.3)	(15.2)	(15.2)	(15.9)	(15.7)	(14.2)	(16.3)	(14.4)	(14.3)
<b>EBITDA ((US\$M)</b>	<b>19.7</b>	<b>15.7</b>	<b>16.5</b>	<b>14.9</b>	<b>17.5</b>	<b>8.5</b>	<b>13.5</b>	<b>9.2</b>	<b>11.5</b>	<b>9.9</b>	<b>8.4</b>	<b>9.7</b>

The CPR states that in tandem with the commencement of production (mining at Zone 5 and processing at Boseto plant) in 2021/22, KCM has also looked beyond the initial project, with exploration and resource development activities defining additional Mineral Resources at the Mango North East (Mango), Zeta NE and Zone 5N deposits (“Expansion Deposits”) – see Table 7-4 and Figure 7-3.

Table 7-4 KCM Mineral Resources in the Expansion Project (ERM CPR)

Deposit	Tonnes (Mt)	Copper (%)	Silver (g/t)
Zone 5	37	1.98	20
Zone 5N	4.4	2.64	44
Mango	11.4	1.93	23
Zeta NE	8.9	2.56	53
<b>Total</b>	<b>61.7</b>	<b>2.10</b>	<b>27</b>

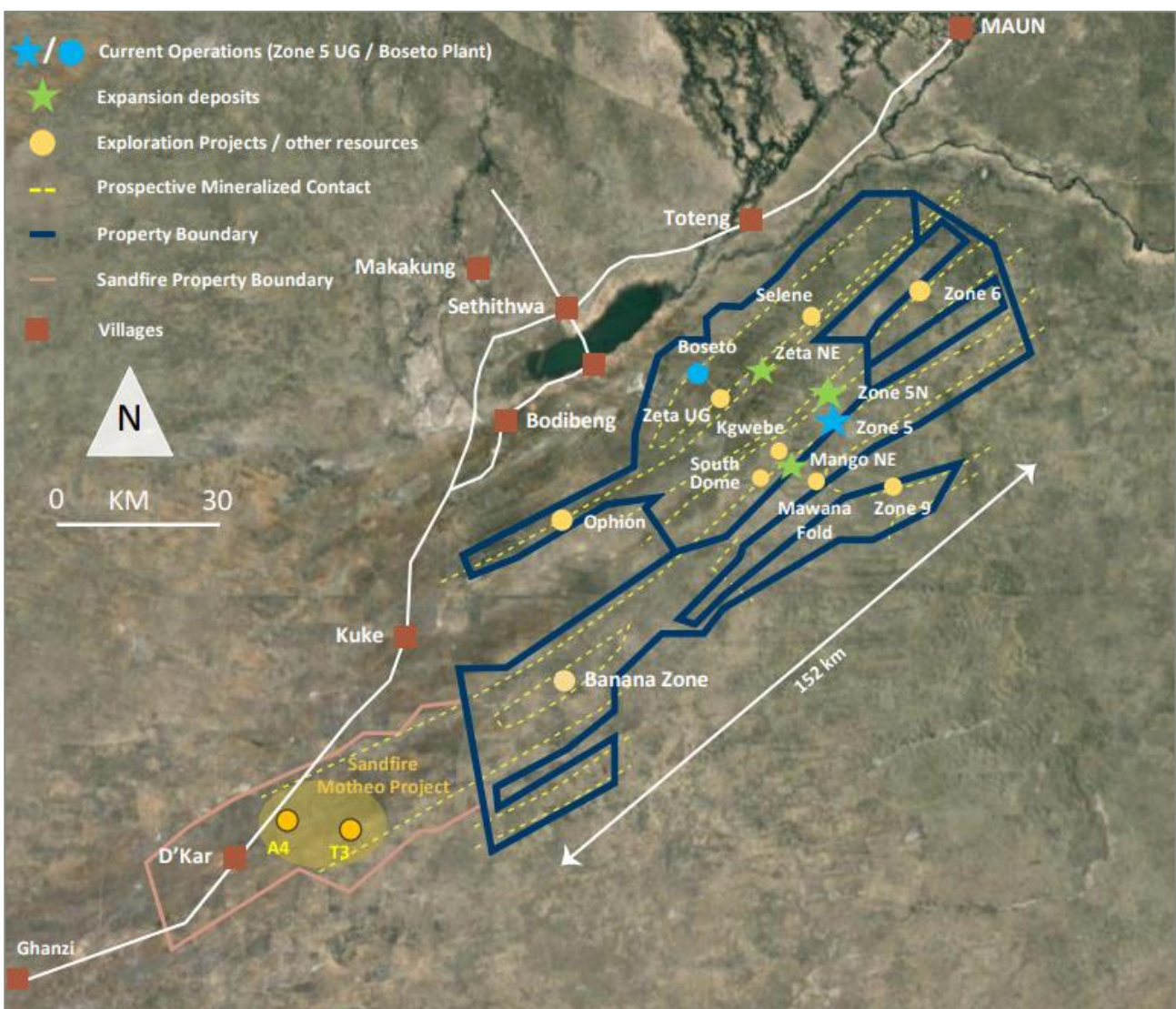


Figure 7-3 Map of KCM current operations and Expansion Deposits (Source: KCM)

Table 7-5 below summarises the KCM LOM production in the Expansion Project from January 2024 to the end of December 2040 as stated in the CPR.

Table 7-5 Production in the LOM plan for the Expansion Project per source (between January 2024 and December 2040)

Source		Total	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	FY39	FY40
Zone 5	Measured	5.03	2.07	0.78	0.66	0.78	0.55	0.19											
	Indicated	22.58	1.49	2.73	2.89	3.26	3.68	3.42	2.93	1.59	0.49	0.12							
	Inferred	43.31	0.03	0.17	0.09	0.26	0.32	0.91	1.54	2.82	3.96	4.40	4.56	4.52	4.45	4.48	4.49	3.60	2.72
	<b>Total</b>	<b>70.92</b>	<b>3.59</b>	<b>3.67</b>	<b>3.64</b>	<b>4.29</b>	<b>4.54</b>	<b>4.52</b>	<b>4.47</b>	<b>4.41</b>	<b>4.45</b>	<b>4.51</b>	<b>4.56</b>	<b>4.52</b>	<b>4.45</b>	<b>4.48</b>	<b>4.49</b>	<b>3.60</b>	<b>2.72</b>
Zeta NE	Measured																		
	Indicated	9.08				0.01	0.57	0.98	1.10	0.93	0.83	0.89	0.86	0.72	0.61	0.69	0.48	0.40	
	Inferred	10.29				0.03	0.21	0.36	0.48	0.67	0.79	0.72	0.76	0.88	1.00	1.08	1.31	1.30	0.70
	<b>Total</b>	<b>19.37</b>				<b>0.05</b>	<b>0.78</b>	<b>1.33</b>	<b>1.58</b>	<b>1.61</b>	<b>1.62</b>	<b>1.61</b>	<b>1.62</b>	<b>1.60</b>	<b>1.60</b>	<b>1.77</b>	<b>1.80</b>	<b>1.71</b>	<b>0.70</b>
Zone 5 North	Measured																		
	Indicated	3.28				0.04	0.37	0.82	0.80	0.65	0.49	0.10							
	Inferred	6.26				0.06	0.33	0.22	0.21	0.35	0.50	0.89	1.01	0.99	0.95	0.67	0.07		
	<b>Total</b>	<b>9.53</b>				<b>0.10</b>	<b>0.70</b>	<b>1.04</b>	<b>1.01</b>	<b>1.01</b>	<b>0.99</b>	<b>0.99</b>	<b>1.01</b>	<b>0.99</b>	<b>0.95</b>	<b>0.67</b>	<b>0.07</b>		
Mango NE	Measured																		
	Indicated	6.49				0.08	0.50	1.03	1.02	0.99	0.96	0.89	0.79	0.24					
	Inferred	3.04								0.02	0.06	0.15	0.23	0.79	1.01	0.78			
	<b>Total</b>	<b>9.53</b>				<b>0.08</b>	<b>0.50</b>	<b>1.03</b>	<b>1.02</b>	<b>1.01</b>	<b>1.02</b>	<b>1.03</b>	<b>1.02</b>	<b>1.03</b>	<b>1.01</b>	<b>0.78</b>			
<b>TOTAL – all zones</b>	Measured	5.03	2.07	0.78	0.66	0.78	0.55	0.19											
	Indicated	41.43	1.49	2.73	2.89	3.38	5.12	6.23	5.85	4.17	2.77	2.00	1.65	0.96	0.61	0.69	0.48	0.40	
	Inferred	62.90	0.03	0.17	0.09	0.35	0.86	1.49	2.22	3.87	5.31	6.15	6.56	7.18	7.42	7.01	5.87	4.90	3.42
	<b>TOTAL</b>	<b>109.35</b>	<b>3.59</b>	<b>3.67</b>	<b>3.64</b>	<b>4.52</b>	<b>6.53</b>	<b>7.92</b>	<b>8.08</b>	<b>8.04</b>	<b>8.08</b>	<b>8.14</b>	<b>8.21</b>	<b>8.15</b>	<b>8.02</b>	<b>7.70</b>	<b>6.35</b>	<b>5.30</b>	<b>3.42</b>
<b>TOTAL – excluding Inferred</b>	<b>46.46</b>	<b>3.56</b>	<b>3.50</b>	<b>3.55</b>	<b>4.17</b>	<b>5.67</b>	<b>6.42</b>	<b>5.85</b>	<b>4.17</b>	<b>2.77</b>	<b>2.00</b>	<b>1.65</b>	<b>0.96</b>	<b>0.61</b>	<b>0.69</b>	<b>0.48</b>	<b>0.40</b>	<b>0.00</b>	

It is important to note, as summarised in Table 7-5 and illustrated in Figure 7-4, the large component of Inferred Resources becoming increasingly apparent over the life of the mine.

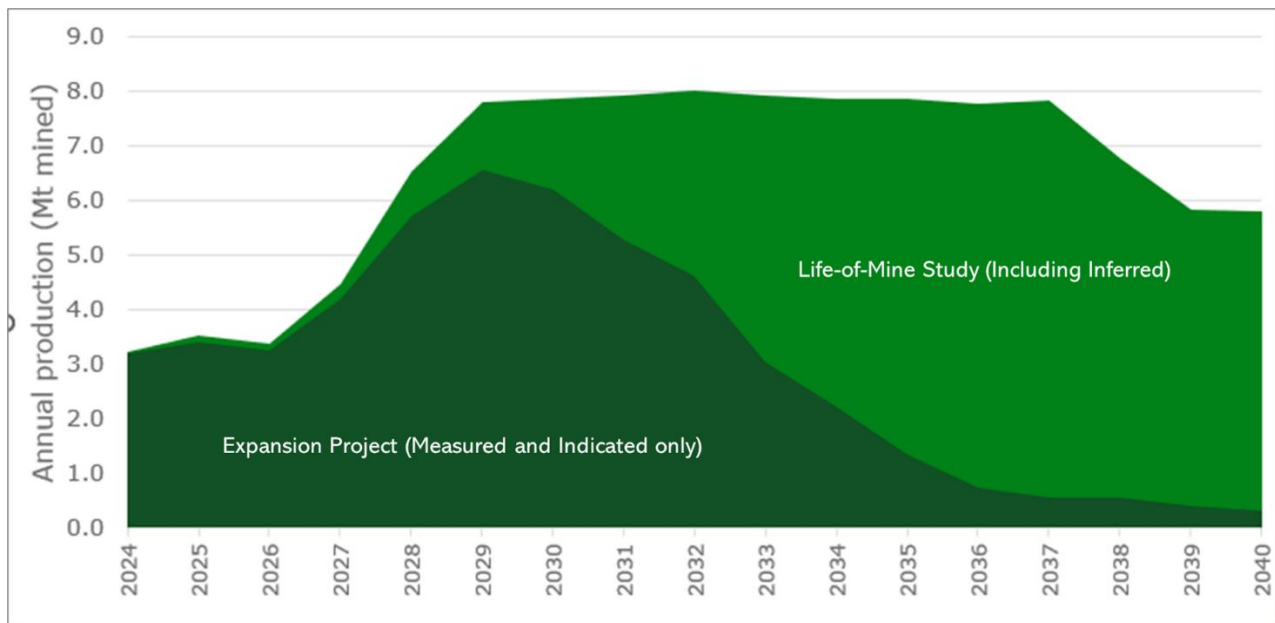


Figure 7-4 Production profile showing the proportion of Inferred Resources across the mine life

For the purpose of Chapter 18 Valuation, ERM has **excluded** all Inferred Resources in order to comply with Chapter 18 of the Listing Rules.

### 7.3 SITE VISITS

Dr Francois Grobler conducted a site visit from to KCM in Botswana from 11 to 16 December 2023. Please refer to the map and photographs of the site in the CPR.

### 7.4 MINING AND PROCESSING

The CPR states that KCM is currently (as of January 2024) at full ore production rate at its Zone 5 mine, producing 3.65 Mtpa. In addition to this operating mine, KCM has identified potential to expand production activities at Zone 5 (Current Operations) and other mining targets which lie on mineral rights held by KCM and which are relatively close to the Zone 5 site. This Expansion Project comprises:

- Zone 5 – Expansion of current mining activities from 3.65 Mtpa to a planned 4.50 Mtpa.
- New mining targets:
  - Zone 5N – Approximately 4.3 km to the north of Zone 5, planned to produce approximately 1.0 Mtpa. This mining target dips at 65° to the northwest, has an average thickness of mineralisation of 5.3 m and a mineralised strike length of approximately 1.6 km. Sand and calcrete overburden in the area is approximately 25.0 m thick.
  - Mango – Approximately 10 km to the southwest of Zone 5 along strike, planned to produce approximately 1.0 Mtpa. This mining target dips at 65° to the southeast, has an average thickness of mineralisation of 8.0 m and a mineralised strike length of approximately 1.5 km. Sand and calcrete overburden in the area is approximately 32.0 m thick.
  - Zeta NE – Approximately 16 km to the northwest of Zone 5, planned to produce approximately 1.6 Mtpa to 1.8 Mtpa. This mining target dips at 80° to the northwest, has an average thickness of mineralisation of 4.0 m and a mineralised strike length of

approximately 1.9 km. Sand and calcrete overburden in the area is approximately 6.0 m thick.

The overall Expansion Project will see Mango, Zeta NE and Zone 5N produce a combined 3.65 Mtpa for feed to the existing processing plant in use at Boseto (approximately 28 km to the west-northwest of Zone 5), with a new 4.50 Mtpa processing plant constructed at the Zone 5 site to process ore from Zone 5.

Figure 7-5 shows a plan view of the various mining targets and plant site relative to each other. The planning for the expansion of Zone 5 and the development of new mines at the other three sites are based on the mining method, modifying factors and equipment selection that were applied to the original Zone 5 mine.

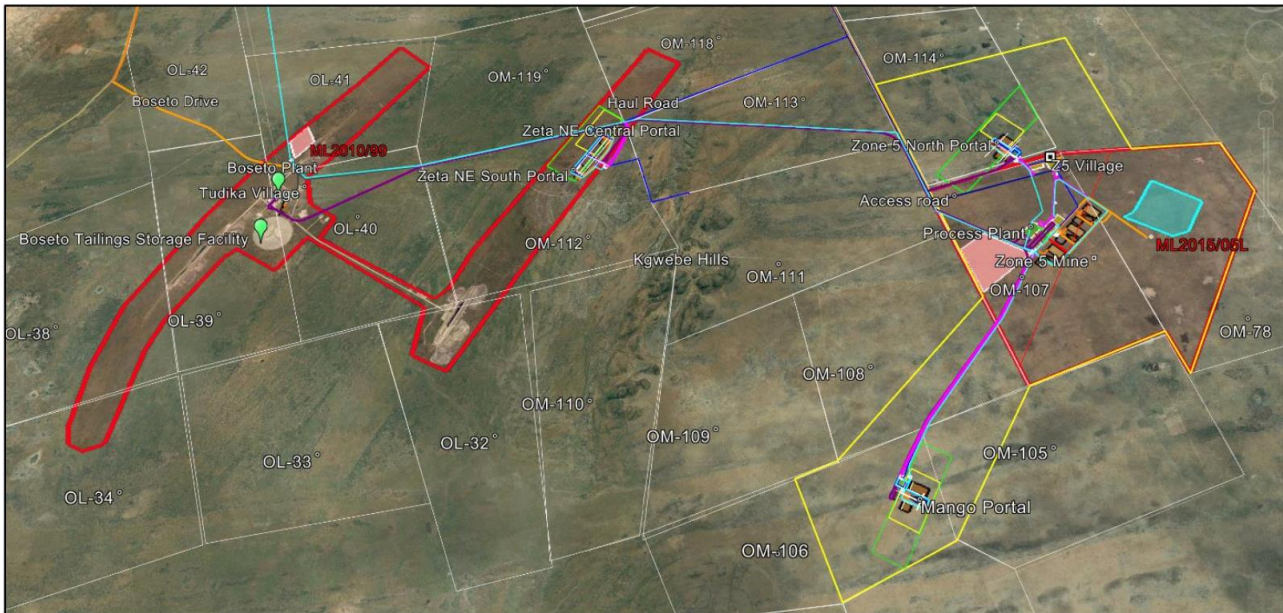


Figure 7-5 Plan view of various mining targets and plant site

This is possible due to the significant similarities in the geology and geometry of all the orebodies that make up the Expansion Project (see CPR sections 6 and 9 for more information on geology and exploration potential, respectively).

The mining approach is based on a fully mechanised sublevel (longhole) open stope method, mining in a top-down retreat sequence. Cemented paste backfill will be used from approximately 400 metres below surface (mbs) to maintain a reasonable percentage extraction. Above this elevation, a rigid pillar system will be left in place with the mined-out voids left unfilled. All mining sites will be accessed from surface by a ramp system situated centrally to each mining target (see CPR sections 11 and 12 for more information on mining and processing, respectively).



## 8. VALUATION METHODOLOGY

### 8.1 CHAPTER 18 VALUATION OF THE ORE RESERVES (MEASURED AND INDICATED RESOURCES ONLY)

The valuation method ERM adopted to arrive at its assessment of the Chapter 18 Valuation (Measured and Indicated Resources only, as per Chapter 18 requirements) is the Discounted Cash Flow ("DCF") method. The reason for using this method is to capture the cash flows of planned future production throughout the life of the mine ("LOM"). It is also a fundamental approach that is widely used within the extractive minerals industry for valuing operational, or soon to be operational, mine(s).

The LOM Plan includes planned mining from Zone 5 (current operations) as well future production from Mango Northeast (Mango NE), Zeta NE and Zone 5N.

Other valuation methodologies such as the Market Multiples and Cost Methods were considered but deemed less desirable when compared to the DCF method if a LOM plan has been developed.

For remaining Measured and Indicated Resources not currently in the LOM plan, an approach using Market Multiples were used to derive an additional value component to be added to the DCF valuation.

### 8.2 DISCOUNTED CASH FLOW METHOD

The DCF method involves projecting a series of periodic cash flows to an operating property or asset. A discount rate is then applied to the cash flow series to arrive at the present value of the income-producing asset.

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

Where:

- CF = cash flow
- r = discount rate
- n = time period (year).

To use DCF to value the Project, it is necessary to:

- Consider the riskiness of the Project and estimate an appropriate discount rate reflecting the riskiness of the asset and time value of money
- Estimate expected cash flows of the Project for the life of the operations.

#### 8.2.1 REVENUE

Sales revenue at KCM is generated from the sale of copper concentrate containing silver.

#### 8.2.2 OPERATING COST

Operational cash outflows include mining operating costs and processing operating costs and well as periodic expenditures to sustain operations.

### 8.2.3 GROSS REVENUE

Gross Revenue is calculated from Payable Cu and Ag multiplied by Cu and Ag prices across the LOM period.

### 8.2.4 NET SMELTER RETURN

Net Smelter Return ("NSR") is calculated by deducting transportation cost (TC) and refining costs (RC) from Gross Revenue.

### 8.2.5 NET REVENUE

Net Revenue is calculated by deducting Cu and Ag royalties from NSR.

### 8.2.6 CAPITAL EXPENDITURE

Capital expenditure ("capex") includes large outflows of Project and Development costs. The main capex items in the LOM plan are related to the construction of the new plant, and development capital required to establish surface and underground infrastructure to access the new orebodies in the Expansion Project and enable transport of ore to the plant.

### 8.2.7 NET CASH FLOW

Cash flow refers to flow or movement of cash into or out of the asset. The DCF method is based on periodic net cash flows discounted by the discount rate. Net cash flow is defined as cash inflows minus cash outflows.

### 8.2.8 DISCOUNT RATE

To discount the future cash flows to their present value, ERM has used the weighted average cost of capital ("WACC") plus a suitable Country Risk premium as the discount rate. The discount rate reflects the expected rate of return for the investment, given its risk profile including the country risk.

#### 8.2.8.1 DETERMINING THE WEIGHTED AVERAGE COST OF CAPITAL

At this point in time, ERM's analysis has derived a post-tax nominal WACC of 9.2%, and a real WACC of 6.5%, for the discounted cash flow method.

#### 8.2.8.2 DETERMINING THE COUNTRY RISK PREMIUM

The Country Risk Premium (CRP) captures regional risks such as resource nationalisation, corruption, breakdown in rule of law, conflict, social deterioration, and disease which are not already accounted for in the cash flow projection.

Based on the analysis conducted, ERM's view is that a CRP between 1.5% and 1.8% is appropriate.

#### 8.2.8.3 OVERALL DERIVED DISCOUNT RATE

Based on the WACC defined above of 6.5% and the CRP ranging between 1.5% and 1.8%, ERM has determined an overall discount rate range between **8.0% and 8.3%**. This rate was applied to KCM's DCF model to determine an NPV for the asset.

### 8.3 MARKET COMPARABLES METHOD

The Market Comparables or Transaction Multiples method is based on transactions observed in an active market that are similar to the transaction under consideration. An active market fulfils all the following conditions:

1. The items traded within the market are homogenous.
2. Willing buyers and sellers can normally be found at any time.
3. Prices are available to the public.

Recent market transactions were reviewed that are comparable to the KCM assets. See Appendix B for a comprehensive list of base metal transactions from 2013.

For this exercise, the following filtering criteria were applied to the list of transactions:

- Only transactions from 2019 onwards were used.
- Only transaction values greater than \$500 million were used.
- Only transactions in which the business had a copper focus.

The full list of transactions used to derive a \$/lb copper equivalent ("CuEq") unit value is shown in Table 8-1.

Table 8-1 List of Comparable Transactions considered to derive a unit value

Date	Target	Acquirer	Stage	Enterprise Value (EV) (US\$ M)	EV/Resource (US\$/lb CuEq)
10 Mar 2019	70% Red Chris (Imperial Metals) <sup>1</sup>	Newcrest Mining	Production	807	0.05
15 Apr 2019	Chapada (Yamana Gold) <sup>1</sup>	Lundin Mining	Production	1,025	0.09
25 Jun 2019	MOD Resources <sup>2</sup>	Sandfire Resources	Development	116	0.06
28 Oct 2020	66% KAZ Minerals <sup>1</sup>	Nova Resources	Production	5,655	0.17
10 Mar 2021	GT Gold <sup>2</sup>	Newmont Mining	Development	342	0.07
23 Sep 2021	MATSA <sup>1</sup>	Sandfire Resources	Production	1,865	0.22
14 Oct 2021	45% Sierra Gorda (Sumitomo) <sup>1</sup>	South32	Production	2,050	0.27
17 Nov 2021	Ernest Henry Mine <sup>1</sup>	Evolution Mining	Production	732	0.5
30 Nov 2021	Mantos Copper <sup>1</sup>	Capstone Mining	Production	3,300	0.1
20 Dec 2021	Josemaria Resources <sup>2</sup>	Lundin Mining	Development	485	0.05
14 Mar 2022	Turquoise Hill Resources <sup>1</sup>	Rio Tinto	Production	6,256	0.08
7 Oct 2022	Eva Copper Project (Copper Mountain) <sup>2</sup>	Harmony Gold	Development	230	0.08
16 Nov 2022	OZ Minerals <sup>1</sup>	BHP	Production	6,443	0.16
23 Nov 2022	CSA Copper Mines (Glencore) <sup>1</sup>	Metals Acquisition Corp	Production	1,100	0.79
27 Mar 2023	51% Caserones <sup>1</sup>	Lundin Mining	Production	950	0.16
13 Apr 2023	Copper Mountain Mining Company <sup>1</sup>	Hudbay Minerals	Production	510	0.07

<sup>1</sup> Transactions (Production) used to define value ranges for Measured and Indicated Resources

<sup>2</sup> Transactions (Development) used to derive value ranges for Inferred Resources

Using the information above, unit values were derived to apply to Mineral Resources as shown in Table 8-2.

Table 8-2 Comparable Transaction metrics used in valuation

Classification	\$/lb Cu (minimum) <sup>3</sup>	\$/lb Cu (mid)	\$/lb Cu (maximum) <sup>3</sup>
Measured Resources	0.144	0.16 <sup>1</sup>	0.176
Indicated Resources	0.144	0.16 <sup>1</sup>	0.176
Inferred Resources	0.0585	0.065 <sup>2</sup>	0.0715

<sup>1</sup> Median value across the range in Table 9-1 for transactions in "Production" stage.

<sup>2</sup> Median value across the range in Table 9-1 for transactions in "Development" stage.

<sup>3</sup> Minimum and maximum ranges are 10% more or less than the mid value.

## 9. CHAPTER 18 VALUATION (MEASURED AND INDICATED ONLY)

### 9.1 ASSUMPTIONS

The Chapter 18 Valuation of the LOM plan is subject to the following assumptions:

- Only Measured and Indicated (M&I) Resources were considered, and a significantly large proportion of Inferred Resources were excluded, in accordance with the requirements of Chapter 18 rulings.
- For Zone 5, which has been in production since mid-2021, technical factors influencing the revenue stream (e.g. mining and processing recoveries, mining dilution and losses) as well as operating costs and working capital have been assumed based on the CPR.
- Additional production (beyond Zone 5) is included in the valuation resulting from the Expansion Project which will target the development of additional deposits including Zone 5N, Zeta NE and Mango. Only Measured and Indicated Resources emanating from these sources were considered and Inferred Resources were similarly disregarded.
- The additional ore from the Expansion Deposits will be processed through the existing Boseto plant.
- A new 4.5 Mtpa plant will be built to process Zone 5 ore, with processing reallocation across 8 Mtpa capacity to create haulage efficiencies.
- The Expansion Deposits demonstrate very similar metallurgy to Zone 5 as advised from the CPR.
- The timeframe for the LOM plan stretches between January 2024 to end of 2040.
- Timing for expansion process plan commissioning is June 2027, with mill capacity increasing from 3.65 Mtpa by 4.50 Mtpa to approximately 8 Mtpa.
- The capital cost of the expansion is estimated to be ~US\$750 million which will include the development of additional deposits including Zone 5N, Zeta NE and Mango, as well as the cost of the new plant.
- In ERM's opinion, in compliance with the Chapter 18 ruling of excluding Inferred Resources, such a mining scenario would not be realistic in conjunction with all the other assumptions included in the Expansion Project LOM. This is due to the short life if Inferred Resources are excluded. In particular, under such a hypothetical case, the requirement for a second plant will not be there as the current Boseto plant will have sufficient capacity to treat the reduced ore flow. ERM has therefore opted to add back the capex that would have been incurred for building the second plant (\$300 million) as to not "penalise" the cash flow unreasonably.

Forecast copper and silver price assumptions used in the valuation are as shown in Table 9-1 and are sourced from reputable sources.

Table 9-1 Copper and silver price forecast

Commodity	Units	2024F	2025F	2026F	2027F	2028F	2029 + LT
Copper (Real) <sup>1</sup>	US\$/t	8,526.24	9,297.61	9,091.78	9,837.81	8,336.47	8,336.47
Copper (Real)	US\$/lb	3.79	3.95	4.07	4.22	4.00	3.68
Silver (Real) <sup>2</sup>	US\$/t	24.08	24.62	22.99	22.79	22.07	21.44
US Inflation <sup>3</sup>	Index	1.10%	1.80%	2.10%	2.10%	2.10%	2.10%

<sup>1</sup> Bloomberg (January 2024).

<sup>2</sup> Consensus Economics (January 2024).

<sup>3</sup> Wood Mackenzie (Q3 2023).

Assumptions related to concentrate realisation are summarised in Table 9-2.

Table 9-2 Realisation cost metrics (Source: KCM/MMG)

Variable/Term	Amount
Copper payability (%) simplified	97%
Silver payability (%)	90%
TC & RC (% of Gross Revenue) simplified	8.1%

## 9.2 CASH INFLOWS FOR MEASURED AND INDICATED ONLY SCENARIO

KCM revenues are generated by the sale of copper and silver via an offtake agreement with a third party.

The quantity of copper and silver concentrate expected to be produced in the case when only Measured and Indicated Resources are considered is summarised in Table 9-3.

Table 9-3 Payable copper and silver production in Chapter 18 Valuation Case

Year(s)	Payable copper (kt)	Payable silver (koz)
2024	47.0	1,395
2025	55.7	1,566
2026	60.1	1,671
2027	73.8	2,226
2028	97.0	3,512
2029	108.1	4,275
2030	92.4	3,724
2031	66.1	2,528
2032	42.3	1,730
2033	28.9	1,317
2034	24.2	1,171
2035	14.4	755
2036	8.7	495
2037	9.6	544
2038	6.9	411
2039	6.1	362
2040	0	0
<b>Total</b>	<b>741</b>	<b>27,682</b>

Gross revenues from the sale of concentrate in this case is summarised in Table 9-4.

Table 9-4 Gross and net revenue from copper and silver sales (\$M)

Year(s)	Gross revenue from copper concentrate sales	Gross revenue from silver	Total gross revenue	Total net revenue
2024	392.8	33.6	426.4	378.4
2025	485.7	38.6	524.2	465.3
2026	538.4	38.4	576.8	512.0
2027	686.0	50.7	736.8	654.0
2028	856.8	77.5	934.3	829.0
2029	877.9	91.7	969.6	860.1
2030	750.8	79.8	830.6	736.8
2031	536.6	54.2	590.8	524.1
2032	343.2	37.1	380.3	337.4
2033	234.8	28.2	263.0	233.2
2034	196.7	25.1	221.8	196.7
2035	116.8	16.2	133.0	117.9
2036	71.0	10.6	81.6	72.3
2037	77.8	11.7	89.5	79.3
2038	56.4	8.8	65.2	57.8
2039	49.2	7.8	56.9	50.5
2040	-	-	-	-
<b>Total</b>	<b>6,271</b>	<b>610</b>	<b>6,881</b>	<b>7,491</b>

### 9.3 CASH OUTFLOWS FOR MEASURED AND INDICATED ONLY SCENARIO

Operating costs mainly comprise the following components:

- Mining and processing production costs, including costs incurred from mining, haulage cost of ore and waste, stockpile rehandling cost, processing, acid costs, inc. closure cost, general and administration (G&A).

Operating costs are summarised in Table 9-5.

Table 9-5 LOM operating costs

Year(s)	Mining opex (\$ M) <sup>1</sup>	Process opex (\$ M) <sup>2</sup>	Other opex (\$ M) <sup>3</sup>	Total opex (\$ M)
2024	(115.8)	(33.7)	(14.9)	(164.5)
2025	(108.9)	(31.6)	(14.7)	(155.3)
2026	(110.3)	(32.0)	(14.9)	(157.2)
2027	(123.8)	(35.9)	(17.2)	(176.9)
2028	(172.4)	(49.0)	(20.6)	(242.1)
2029	(199.7)	(55.8)	(20.8)	(276.3)
2030	(182.9)	(50.9)	(18.2)	(252.0)
2031	(131.3)	(36.4)	(11.8)	(179.5)
2032	(88.3)	(24.3)	(6.6)	(119.2)
2033	(61.8)	(17.5)	(4.2)	(83.6)
2034	(50.5)	(14.5)	(3.3)	(68.3)
2035	(29.9)	(8.5)	(1.9)	(40.3)
2036	(19.0)	(5.3)	(1.2)	(25.6)
2037	(21.7)	(6.1)	(1.4)	(29.1)
2038	(15.2)	(4.3)	(1.0)	(20.5)
2039	(12.7)	(3.5)	(0.8)	(17.0)
2040	-	-	-	-
<b>Total</b>	<b>(1,444.2)</b>	<b>(409.4)</b>	<b>(153.7)</b>	<b>(2,007.3)</b>

<sup>1</sup> Including Ore Mill Haulage and Underground Mining Costs.

<sup>2</sup> Processing Cost including Power.

<sup>3</sup> Including Centralised Services and Site G&A.

Capex and non-operational costs include:

- Capex related to sustaining mining and processing activities
- Capex related to mine development (access and infrastructure)
- Closure cost

Capex and non-operational costs are summarised in Table 9-6.



Table 9-6 LOM capex

Year(s)	Project capex (\$ M) <sup>1</sup>	Sustaining capex (\$ M) <sup>2</sup>	Total cost and capex (\$ M)
2024	(95)	(135)	(230)
2025	(247)	(113)	(360)
2026	(93)	(129)	(221)
2027	-	(116)	(116)
2028	-	(106)	(106)
2029	-	(120)	(120)
2030	-	(141)	(141)
2031	-	(147)	(147)
2032	-	(121)	(121)
2033	-	(86)	(86)
2034	-	(89)	(89)
2035	-	(88)	(88)
2036	-	(78)	(78)
2037	-	(42)	(42)
2038	-	(22)	(22)
2039	-	(26)	(26)
2040	-	-	-
<b>Total</b>	<b>(434)</b>	<b>(1,559)</b>	<b>(1,993)</b>

<sup>1</sup> Development capex excludes \$300 million which was removed from this scenario, as explained under Section 9.1 (Assumptions).

<sup>2</sup> Sustaining capex includes closure costs at the end of the LOM period.

## 9.4 DISCOUNT RATE

The discount rate used to convert future cash flows to their present value is **8.15%** using the same approach that was explained in Section 8.2.8.

## 9.5 VALUATION RANGE FROM DISCOUNTED CASH FLOW VALUATION

Using the DCF method to derive an NPV, a valuation range was set based on the spectrum in the discount rate which is between a low of 8.0% and a high of 8.3% with midpoint of 8.15%. The derived value range is summarised in Table 9-7.

Table 9-7 Chapter 18 Valuation - value range (US\$ M)

Case	Low value (US\$ M)	Most likely value (US\$ M)	High value (US\$ M)
Chapter 18 Valuation	857	864	870

The derived value range for the Chapter 18 Valuation using the DFC method is between a low of \$857 M and a high of \$870 M million, with a **preferred value of \$864 M**.

## 9.6 VALUATION OF ADDITIONAL INDICATED AND MEASURED RESOURCES USING COMPARABLE TRANSACTIONS

Chapter 18 regulations permit the valuation of Indicated and Measured Resources. The KCM Mineral Resource Statement includes additional Measured and Indicated Resources not currently included in the LOM plan as indicated in Table 9-8 under Remaining Resources.

Table 9-8 Measured and Indicated Resources not in LOM plan (Mt)

Area	Classification	Resources in MRE (Dec 2024) Mt	Resources in LOM plan (Mt)	Remaining Resources (Mt)
Zone 5	Measured	10.31	5.03	<b>5.28</b>
	Indicated	26.75	22.58	<b>4.17</b>
Zone 5N	Measured	-	-	
	Indicated	4.35	3.28	<b>1.08</b>
Zeta NE	Measured	-	-	
	Indicated	8.94	8.94	<b>0</b>
Mango NE	Measured	-	-	
	Indicated	11.45	6.49	<b>4.96</b>
Zeta UG	Measured	0.88	-	<b>0.88</b>
	Indicated	4.67	-	<b>4.67</b>
Banana HG	Measured	-	-	-
	Indicated	15.28	-	<b>15.28</b>
Plutus	Measured	2.40	-	<b>2.40</b>
	Indicated	9.33	-	<b>9.33</b>
Banana LG	Measured	-	-	-
	Indicated	0.01	-	<b>0.01</b>

Recent market transactions were reviewed following the process described in Section 8.3 and applied to the Measured and Indicated Resources not in the LOM plan. The derived value ranges are summarised in Table 9-9.

Table 9-9 Value ranges for Measured and Indicated Resources not in LOM plan.

Area	Classification	Remaining Resources (Mt)	Cu Eq %	Cont. Cu lb '000	Low value (US\$ M)	Most likely value (US\$ M)	High value (US\$ M)
Zone 5	Measured	5.28	2.28	266	38.3	42.6	46.8
	Indicated	4.17	2.09	192	27.6	30.7	33.8
Zone 5N	Measured	-	-	-	-	-	-
	Indicated	1.08	3.00	71	10.2	11.4	12.5
Zeta NE	Measured	-	-	-	-	-	-
	Indicated	-	-	-	-	-	-
Mango NE	Measured	-	-	-	-	-	-
	Indicated	4.96	2.12	231	33.3	37.0	40.7
Zeta UG	Measured	0.88	2.03	40	5.7	6.3	7.0
	Indicated	4.67	1.92	197	28.4	31.5	34.8
Banana HG	Measured	-	-	-	-	-	-

	Indicated	15.28	1.64	552.3	79.5	88.4	97.2
Plutus	Measured	2.40	1.39	73.2	10.5	11.7	12.9
	Indicated	9.33	1.43	293.9	42.3	47.0	51.7
Banana LG	Measured	-	-	-	-	-	-
	Indicated	0.01	1.14	0.26	0.038	0.042	0.046
<b>TOTAL</b>					<b>276</b>	<b>307</b>	<b>337</b>

## 9.7 SUMMARISED VALUE RANGE

ERM determined the Chapter 18 value of KCM's Measured and Indicated Mineral Resources using the DCF approach as well as a Comparable Transaction approach. The outcomes are summarised in Table 9-10.

Table 9-10 Chapter 18 Valuation ranges for Measured and Indicated Resources

Approach	Low value (US\$ M)	Most likely value (US\$ M)	High value (US\$ M)
DCF	857	864	870
Comparables	276	307	337
<b>Preferred</b>	<b>1,133</b>	<b>1,171</b>	<b>1,207</b>

For purposes stated in this report and subject to the limitations and assumptions set out in this report, ERM is of the opinion that the Chapter 18 Valuation of KCM's Measured and Indicated Resources as of 31 December 2023 is in the range of **US\$1,133 M to US\$1,207 M**. The preferred value for the mine is **US\$1,171 M**.

## 9.8 SCENARIO/SENSITIVITY ANALYSES

### 9.8.1 SENSITIVITY ANALYSIS

A sensitivity analysis was performed on the DCF model to illustrate the value of KCM under various scenarios. The sensitivity analysis is meant for illustration purposes only and do not necessarily imply that the value of KCM could be as stated below. The parameters that were selected for the sensitivity analysis is the copper price and discount rate, as the main revenue drivers, and the mining and processing cost (respectively representing about 70% and 20% of total operating cost) as the two main cost drivers. Parameters were varied by  $\pm 10\%$  around their base values.

The results from the sensitivity analysis are summarised in Table 9-11.

Table 9-11 Change in NPV with change in sensitivity parameters

Sensitivity parameter	-10%	Base (0% change)	+10%
Copper price (long-term) <sup>1</sup>	728 (3.40)	864 (3.78)	999 (4.16)
Discount rate (%)	898 (7.34%)	864 (8.15%)	830 (8.97%)
Mining opex (\$/t milled)	941	864	786
Process opex (\$/t milled)	886	864	842

<sup>1</sup> Copper price is forecast for 2024 to 2028 (Bloomberg) and from 2029 onwards the 2028 forecast is used as proxy for the "long-term" remainder of the LOM period- only the long-term component is varied in this analysis.

The sensitivity analysis shows the large impact of changes in revenue drivers (i.e. copper price and to an extent discount rate), but also the significant impact of varying the main operating cost components, i.e. mining and processing opex (Figure 9-1).

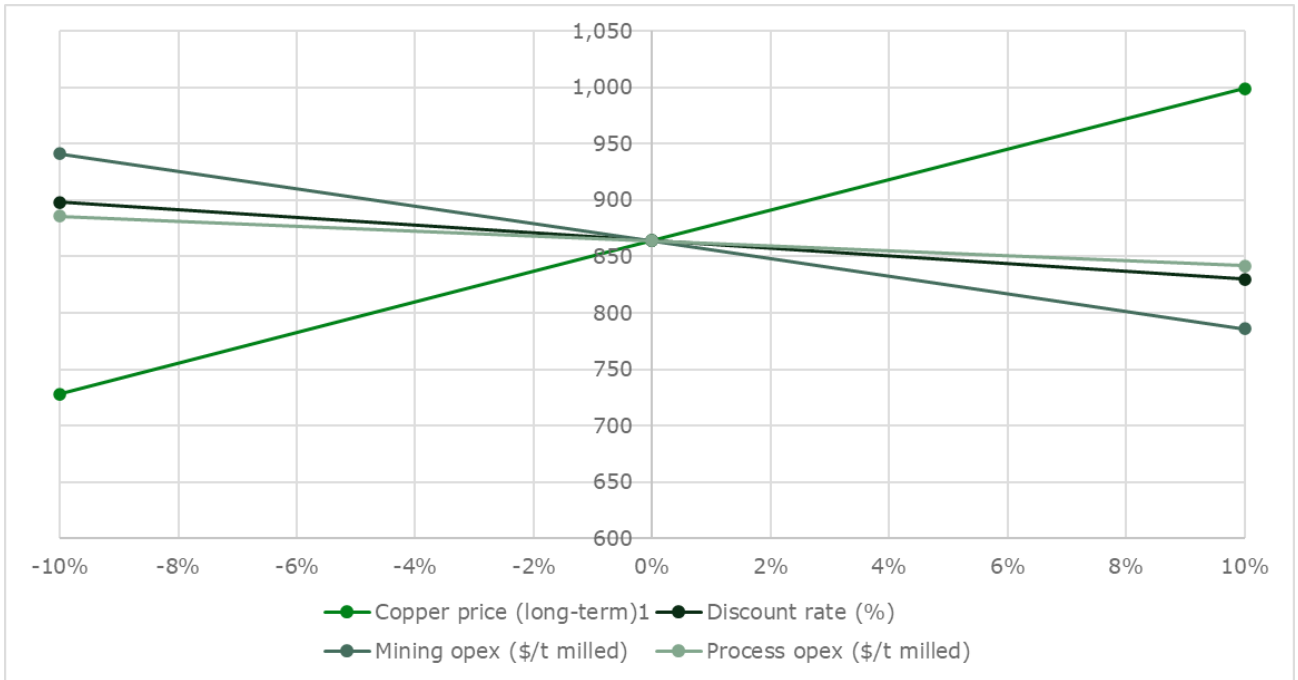


Figure 9-1 Sensitivity diagram show variation in DCF Value with changes in key input parameters

## 10. STATEMENT OF VALUE

### 10.1 CHAPTER 18 VALUE

For purposes stated herein and subject to the limitations and assumptions set out in this report, the Chapter 18 Value of a 100% interest in KCM as at the Valuation Date is in the approximate range of US\$1,133 M to US\$1,207 M and the most likely outcome is approximately US\$1,171 M as stated in Table 10-1 below.

Table 10-1 Chapter 18 Value range for M&I Resources only

	<b>Low value (US\$ M)</b>	<b>Most likely value (US\$ M)</b>	<b>High value (US\$ M)</b>
Chapter 18 Value	1,133	1,171	1,207

As required by of the HKEx listing rules, the Chapter 18 Value is based on Ore Reserves, i.e. Measured and Indicated Resources only and excludes any Inferred Resources or Exploration Upside.

In ERM's opinion, the Chapter 18 Value significantly understates the true value of the asset.

## 11. KEY RISK FACTORS

The KCM is subject to both specific risks to its business activities and risks of a general nature. Individually, or in combination, these might adversely affect the future operating and financial performance of the Mine. This section describes some, but not all, of the risks which may be associated with the Mine's operation.

### 11.1 SPECIFIC RISK FACTORS

#### 11.1.1 EXPLORATION, DEVELOPMENT AND PRODUCTION

Potential and current investors should understand that mineral exploration, development and mining are high-risk enterprises, only occasionally providing high rewards. There is no assurance that exploration of the mineral interests of the Mine will result in the discovery of an economically viable mineral deposit. Even if an apparently viable mineral deposit is identified, there is no guarantee that it can be profitably mined.

The discovery of mineral deposits is dependent upon a number of factors, not the least of which is the technical skill of the exploration personnel involved. The commercial viability of a mineral deposit, once discovered, is also dependent upon a number of factors, some of which are the particular attributes of the deposit, such as size, grade and proximity to infrastructure, metal prices and government regulations, including regulations relating to royalties, allowable production, importing and exporting of minerals, and environmental protection. In addition, assuming discovery of a commercial orebody, depending on the type of mining operation involved, several years can elapse from the initial phase of drilling until commercial operations are commenced.

The eventual conversion of Inferred Resources to Indicated or Measured Resources through additional infill drilling is not an absolute conclusion, since additional drilling may confirm the prior assumptions, or change the views positively or negatively. The expectation however is that usually, additional drilling to firm up Resource classification confidence will allow Resources to move from a lower to a higher confidence category.

The capital and operating expenditure, Mineral Resources and Ore Reserves estimates of the Mine described in the above sections are based on certain estimates and assumptions with respect to the method and timing of exploration and/or production. By their nature, these estimates and assumptions are subject to significant uncertainties and accordingly, the actual costs may materially differ from these estimates and assumptions.

Accordingly, no assurance can be given that the cost estimates, Mineral Resources and Ore Reserves estimates and the underlying assumptions will be realised in practice, which may materially and adversely affect viability of the Mine or its operation. Whilst the exploration, development and production plan outlines the current intentions with regard to the Project, the actual expenditure and exploration and production work undertaken will depend on the results generated. The priority of the prospects and accordingly expenditure may be redirected as results are obtained and therefore actual expenditure may differ materially from budgeted expenditure.

In addition, there are always geotechnical risks associated with mining operations. Rock behaviour can be unpredictable and underground mining is especially vulnerable to these risks as ground movement can render production areas inaccessible. Larger openings that have collapsed are very difficult to return to service with no guarantee that the impacted area would not collapse again. In addition, the success of the underground mining is dependent on a product produced to be sufficiently fine for easy extraction from underground once the undercutting is completed. Since ground conditions are different from one area to the next, there is a risk that performance and extraction rates of the mine may be negatively impacted.

### 11.1.2 PLANT PERFORMANCE

Plant performance and other metallurgical risks are discussed in the CPR. It is worth noting that although the plant is currently operating at a high standard delivering relatively clean high-grade concentrate, the recovery is currently lower than expected but driven by mineralogy. It is a part of the continuous improvement programme in place at the moment. The mill utilisation is <90% due to constraints from mining, and downtime with the crushing circuit from tramp metal blockages, and this needs to be addressed.

Ore from new sources in the Development Project to be treated through the Boseto plant and the Zone 5 ore to be treated through the new plant introduce uncertainties and risk which will require additional technical metallurgical management to facilitate ramp up and optimisation of performance.

### 11.1.3 FLUCTUATION IN COPPER AND SILVER PRICES

The profitability and the value of the copper and silver reserves depend upon the prices of the minerals. The contract prices it may receive in the future for copper and silver depend upon factors beyond our control, including the following:

- The domestic and foreign supply and demand for copper and silver
- The quantity and quality of copper and silver available from competitors
- Adverse weather, climatic or other natural conditions, including natural disasters
- Domestic and foreign economic conditions, including economic slowdowns
- Legislative, regulatory and judicial developments or environmental regulatory changes that would adversely affect the industry
- The proximity to, capacity of and cost of transportation and port facilities.

A substantial or extended decline in prices realised for future copper concentrate sales contracts could materially and adversely affect the Mine by decreasing its profitability and the value of its copper and silver reserves.

### 11.1.4 PROJECT AND OPERATIONAL FUNDING

While the Project seems to have sufficient funds to meet its capital requirements for its proposed exploration program and other expenses, it may need additional funds, or may seek to develop opportunities of a kind that will require it to raise additional capital from equity or debt sources. It is difficult to predict the level of funding required with accuracy. Any additional equity financing may be dilutive and debt financing, if available, may involve restrictions on financing and operating activities. There can be no assurance that the Project will be able to raise such financing on acceptable terms or at all. If the Project is unable to obtain such additional financing, it may be required to reduce the scope of its anticipated activities, which could adversely affect its business, financial condition and operating results.

### 11.1.5 PERFORMANCE OF EQUIPMENT, TECHNICAL PERSONNEL AND CONTRACTORS

There is also a risk that hired contractors (including technical personnel) may under-perform or that equipment may malfunction, either of which may affect the progress of the Project exploration and mining activities. There may also be high demand for contractors providing other services to the mining industry. Consequently, there is a risk that Project may not be able to source all the personnel and equipment required to fulfil its proposed exploration and mining activities included in its planned budgets.

### 11.1.6 DISRUPTION TO BUSINESS OPERATIONS

The Project is also subject to a range of operational risks. Such operational risks include equipment failures, IT system failures, external services failure (including energy or water supply), industrial action or disputes and natural disasters. While KCM will endeavour to take appropriate action to mitigate these operational risks or to insure against them, one or more of these risks may have a material adverse impact on the performance of the Project.

### 11.1.7 OCCUPATIONAL HEALTH AND SAFETY

Given Project exploration activities (and especially if it achieves exploration success leading to mining activities), it will face the risk of workplace injuries which may result in workers' compensation claims, related common law claims and potential occupational health and safety prosecutions. Further, the production processes used in conducting any future mining activities of the Mine can be dangerous. KCM has, and intends to maintain, a range of workplace practices, procedures and policies which will seek to provide a safe and healthy working environment for its employees, visitors and the community.

While KCM intends to maintain appropriate safeguards in its exploration activities, serious injury to an employee or another person could occur and give rise to liability under occupational health and safety laws and regulations and also under the general law.

## 11.2 ENVIRONMENTAL, OTHER REGULATIONS AND LEGAL RISK

### 11.2.1 EXTENSIVE ENVIRONMENTAL REGULATIONS

The copper and silver mining industry is subjected to increasingly strict regulation by federal, state and local authorities with respect to environmental matters such as:

- Limitations on land use
- Mine permitting and licensing requirements
- Reclamation and restoration of mining properties after mining is completed
- Management of materials generated by mining operations
- The storage, treatment and disposal of waste materials (solids and liquids)
- Remediation of contaminated soil and groundwater
- Air quality standards
- Water pollution
- Protection of human health, plant-life and wildlife, including endangered or threatened species
- Protection of wetlands
- The discharge of materials into the environment
- The effects of mining on surface water and groundwater quality and availability.

The costs, liabilities and requirements associated with the laws and regulations related to these and other environmental matters may be costly and time-consuming and may delay commencement or continuation of exploration or production operations. Failure to comply with these laws and regulations may result in the assessment of administrative, civil and criminal penalties, the imposition of clean-up and site restoration costs and liens, the issuance of injunctions to limit or cease operations, the suspension or revocation of permits and other enforcement measures that could have the effect of limiting production from the operations. The



Project may incur material costs and liabilities resulting from claims for damages to property or injury to persons arising from our operations.

### 11.2.2 MINING PERMITS

Several of KCM's mining and prospecting licences will expire and be subject to renewal in the immediate future. Although their renewal is reasonably expected, it cannot be assumed that this will be the case.

ERM's conclusion as stated in the CPR is that the renewal of the current Prospecting Licences expiring in 2024 is highly likely, however that KCM should take heed as recommended by AJA to make all subsequent renewal applications well in advance to reduce the risks related to renewal.

The failure to obtain and renew permits necessary for the mining operations could negatively affect the Project. Mining companies must obtain numerous permits that impose strict regulations on various environmental and operational matters in connection with copper and cobalt mining. These include permits issued by various federal, state and local agencies and regulatory bodies.

The permitting rules, and the interpretations of these rules, are complex, change frequently, and are often subject to discretionary interpretations by the regulators, all of which may make compliance more difficult or impractical, and may possibly preclude the continuance of ongoing operations or the development of future mining operations. The public, including non-governmental organisations, anti-mining groups and individuals, have certain statutory rights to comment upon and submit objections to requested permits and environmental impact statements prepared in connection with applicable regulatory processes, and otherwise engage in the permitting process, including bringing citizens' lawsuits to challenge the issuance of permits, the validity of environmental impact statements or performance of mining activities.

Accordingly, required permits may not be issued or renewed in a timely fashion or at all, or permits issued or renewed may be conditioned in a manner that may restrict the ability to efficiently and economically conduct its mining activities, any of which would materially reduce its production, cash flow and profitability.

### 11.2.3 CHANGES IN THE LEGAL AND REGULATORY ENVIRONMENT

The conduct of the mining business is subject to various laws and regulations in Botswana. These laws and regulations may change, sometimes dramatically, as a result of political, economic or social events or in response to significant events. Certain recent developments may cause changes in the legal and regulatory environment in which the Project operates and may impact the results or increase its costs or liabilities. Such legal and regulatory environment changes may include changes in; the processes for obtaining or renewing permits; costs associated with providing healthcare benefits to employees; health and safety standards; accounting standards; taxation requirements and competition laws.

## 11.3 GENERAL RISK FACTORS

### 11.3.1 ECONOMIC CONDITIONS

The performance of the Project may be influenced by the general economic conditions within Botswana and the global economy. Changes in interest rates, employment rates, exchange rates, inflation, consumer spending, access to debt and capital markets and government fiscal, monetary and regulatory policies may affect customer's sentiment and may result in the reduction of demand for copper and silver which will have an adverse effect on Project's financial performance and growth. Thus, the Project is and will continue to be, dependent on the economic growth, foreign exchange movement, political stability, social conditions of Botswana. Its growth

and expansion plans may also be undermined by any labour disputes, political unrest, economic or financial crisis or disturbances occurring in Botswana and any of such countries that the Project is exposed to.

## 12. REFERENCES

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- Joint Ore Reserves Committee, 2012. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. [online]. Available from <http://www.jorc.org> (The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists, and Minerals Council of Australia).
- VALMIN, 2015. *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (The VALMIN Code)* [online]. Available from <http://www.valmin.org> (The VALMIN Committee of the Australasian Institute of Mining and Metallurgy and Australian Institute of Geoscientists).



## APPENDIX A VALUATION APPROACHES

Valuation of Mineral Assets is not an exact science; and a number of approaches are possible, each with varying strengths and shortcomings. Whilst valuation is a subjective exercise, there are a number of generally accepted methods for ascertaining the value of Mineral Assets. ERM considers that, wherever possible, inputs from a range of methods should be assessed to inform the conclusions about the Market Value of Mineral Assets.

The valuation opinion is always presented as a range, with the preferred value identified. The preferred value need not be the median value and is determined by the Practitioner based on their experience and professional judgement.

### BACKGROUND

Mineral Assets are defined in the VALMIN Code<sup>3</sup> as all property including (but not limited to) tangible property, intellectual property, mining and exploration tenure and other rights held or acquired in connection with the exploration, development of and production from those Tenures. This may include the plant, equipment and infrastructure owned or acquired for the development, extraction and processing of minerals in connection with that tenure.

Business valuers typically define market value as "The price that would be negotiated in an open and unrestricted market between a knowledgeable, willing, but not anxious buyer, and a knowledgeable, willing but not anxious seller acting at arm's length." The accounting criterion for a market valuation is that it is an assessment of "fair value", which is defined in the accounting standards as "the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction." The VALMIN Code defines the value of a Mineral Asset as its Market Value, which is "the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm's length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion".

Market Value usually consists of two components, the underlying or Technical Value, and a premium or discount relating to market, strategic or other considerations. The VALMIN Code recommends that a preferred or most-likely value be selected as the most likely figure within a range after considering those factors which might impact on Value.

The concept of Market Value hinges upon the notion of an asset changing hands in an arm's length transaction. Market Value must therefore consider, inter alia, market considerations, which can only be determined by reference to "comparable transactions". Generally, truly comparable transactions for Mineral Assets are difficult to identify due to the infrequency of transactions involving producing assets and/or Mineral Resources, the great diversity of mineral exploration properties, the stage to which their evaluation has progressed, perceptions of prospectivity, tenement types, the commodity involved and so on.

For exploration tenements, the notion of value is very often based on considerations unrelated to the amount of cash which might change hands in the event of an outright sale, and in fact, for the majority of tenements being valued, there is unlikely to be any "cash equivalent of some

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<sup>3</sup> *Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (The VALMIN Code) 2015 Edition*. Prepared by the VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists



other consideration". Whilst acknowledging these limitations, CSA Global identifies what it considers to be "comparative transactions" (i.e. transactions that are useful to consider) to be used in assessing the values to be attributed to Mineral Assets.

## VALUATION METHODS FOR MINERAL ASSETS

The choice of valuation methodology applied to Mineral Assets, including exploration licences, will depend on the amount of data available and the reliability of that data.

The VALMIN Code classifies Mineral Assets into categories that represent a spectrum from areas in which mineralisation may or may not have been found through to Operating Mines which have well-defined Ore Reserves, as listed below:

- **"Early-stage Exploration Projects"** – tenure holdings where mineralisation may or may not have been identified, but where Mineral Resources have not been identified.
- **"Advanced Exploration Projects"** – tenure holdings where considerable exploration has been undertaken and specific targets identified that warrant further detailed evaluation, usually by drill testing, trenching or some other form of detailed geological sampling. A Mineral Resource (as defined in the JORC<sup>4</sup> Code) estimate may or may not have been made but sufficient work will have been undertaken on at least one prospect to provide both a good understanding of the type of mineralisation present and encouragement that further work will elevate one or more of the prospects to the Mineral Resources category.
- **"Pre-Development Projects"** – tenure holdings where Mineral Resources have been identified and their extent estimated (possibly incompletely) but where a decision to proceed with development has not been made. Properties at the early assessment stage, properties for which a decision has been made not to proceed with development, properties on care and maintenance and properties held on retention titles are included in this category if Mineral Resources have been identified, even if no further work is being undertaken.
- **"Development Projects"** – tenure holdings for which a decision has been made to proceed with construction or production or both, but which are not yet commissioned or operating at design levels. Economic viability of Development Projects will be proven by at least a Prefeasibility Study.
- **"Production Projects"** – tenure holdings – particularly mines, wellfields and processing plants - that have been commissioned and are in production.

Each of these different categories will require different valuation methodologies, but regardless of the technique employed, consideration must be given to the perceived "market valuation".

The Market Value of Exploration Properties and Undeveloped Mineral Resources can be determined by the following general approaches: Income, Market and Cost (Table A1). The Market Value of Development and Production Projects are best assessed using the Market and Income approaches, whereas the Market Value of Exploration projects are best assessed using the Market and Cost approaches.

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<sup>4</sup> *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) 2012 Edition*. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



Table A1: Valuation approaches for different types of mineral properties (VALMIN, 2015)

Valuation approach	Exploration properties	Mineral Resource properties	Development properties	Production properties
Income	No	In some cases	Yes	Yes
Market	Yes	Yes	Yes	Yes
Cost	Yes	In some cases	No	No

## INCOME

### DISCOUNTED CASH FLOW / NET PRESENT VALUE METHOD

The Discounted Cash Flow ("DCF") valuation method recognises the time value of money. It is most suitable for Development Projects, where detailed studies have been completed to justify input assumptions and Production Projects, where there is actual historical data to justify input assumptions. Less commonly the DCF methodology is applied to Pre-Development Projects.

The DCF valuation method provides a means of relating the magnitude of expected future cash profits to the magnitude of the initial cash investment required to purchase a mineral asset or to develop it for commercial production. The DCF valuation method determines:

- The net present value ("NPV") of a stream of expected future cash revenues and costs
- The internal rate of return ("IRR") that the expected cash flows will yield on a given cash investment.

The DCF valuation method is a forward-looking methodology, requiring that forecasts be made of technical and economic conditions which will prevail in the future. All future predictions are inherently uncertain. The level of uncertainty reduces as the quality of the data available to project future rates of production and future costs, increases.

It is important to understand certain fundamental attributes of the mining industry in undertaking a DCF such as:

- An Ore Reserve and in some cases Mineral Resource is the basis of any mineral development.
- Costs are determined by the number of tonnes mined and processed, while revenues are determined by the number of tonnes, pounds or ounces of metal produced. The two are related by the recovered grade of the ore.
- Profit is typically more sensitive to changes in revenue than to changes in costs.
- The commodity price is a principal determinant of revenue but is also the factor with the greatest level of financial risk.

The most significant factors, which must be considered in a DCF valuation of a mineral asset is the reliability of the Mineral Resource and Ore Reserve, particularly with respect to recovered grade, the price at which the product is sold and the risk of not maintaining the projected level of commodity price.

Key inputs into the DCF valuation method for a mineral asset valuation are:

- Life-of-mine planning assumptions.
- Capital cost estimates – can be the initial cost of constructing the project and/or the ongoing cost of sustaining the productive life of the operation.



# ERM

- Operating cost estimates – costs incurred both on-site in producing the commodity which is shipped from the property, and off site, in the transportation and downstream processing of that commodity into saleable end products.
- Revenue estimates – revenue in the mining context is the product of the following factors:
  - The tonnage of ore mined and processed
  - The grade of the ore
  - The metallurgical recovery
  - The price of the saleable commodity.
- Taxation and royalty payments.
- Discount rate – represents the risk adjusted rate of interest expected to be yielded by an investment in the mineral asset.

The Income Approach is not appropriate for properties without Mineral Resources. It should be employed only where enough reliable data are available to provide realistic inputs to a financial model, preferably based on studies at or exceeding a prefeasibility level.

## **MARKET**

### COMPARATIVE TRANSACTION METHOD

The Comparative Transaction method looks at prior transactions for the property and recent arm's length transactions for comparative properties.

The Comparative Transaction method provides a useful guide where a mineral asset that is generally comparable in location and commodity has in the recent past been the subject of an "arm's length" transaction, for either cash or shares.

For the market approach resources are not generally subdivided into their constituent JORC Code categories. The total endowment or consolidated in-situ resources are what drives the derivation of value. Each transaction implicitly captures the specific permutation of resource categories in a project. There are too many project-specific factors at play to allow any more than a consideration of price paid versus total resource base. Therefore, considering individual project resource permutations is neither practicable nor useful for this valuation approach. To that end, ERM's discussion of the market approach is predicated on the consolidated resource base, to allow application of the method.

Where a progressively increasing interest is to be earned in stages, it is likely that a commitment to the second or subsequent stages of expenditure will be so heavily contingent upon the results achieved during the earlier phases of exploration that assigning a probability to the subsequent stages proceeding will in most cases be meaningless. A commitment to a minimum level of expenditure before an incoming party can withdraw must reflect that party's perception of minimum value and should not be discounted. Similarly, any upfront cash payments should not be discounted.

The terms of a sale or joint venture agreement should reflect the agreed value of the tenements at the time, irrespective of transactions or historical exploration expenditure prior to that date. Hence the current Value of a tenement or tenements will be the value implied from the terms of the most recent transaction involving it/them, plus any change in value as a result of subsequent exploration.



High quality Mineral Assets are likely to trade at a premium over the general market. On the other hand, exploration tenements that have no defined attributes apart from interesting geology or a “good address” may well trade at a discount to the general market. Market Values for exploration tenements may also be impacted by the size of the land holding, with a large, consolidated holding in an area with good exploration potential attracting a premium due to its appeal to large companies.

## **YARDSTICK**

The Rule-of-Thumb (Yardstick) method is relevant to exploration properties where some data on tonnage and grade exist, and these properties may be valued by methods that employ the concept of an arbitrarily ascribed current in situ net value to any Ore Reserves (or Mineral Resources) outlined within the tenement (Lawrence, 2001, 2012).

Rules-of-Thumb (Yardstick) methods are commonly used where a Mineral Resource remains in the Inferred category and available technical/economic information is limited. This approach ascribes a heavily discounted in-situ value to the Resources, based upon a subjective estimate of the future profit or net value (say per tonne of ore) to derive a rule-of-thumb.

This Yardstick multiplier factor applied to the Resources delineated (depending upon category) varies depending on the commodity. Typically, a range from 0.4% to 3.0% of the current spot price is used for base metals and platinum group metals, whereas for gold and diamonds a range of 2% to 5% of the current spot price is used, and typically much lower factors are applied for bulk commodities. The method estimates the in-situ gross metal content value of the mineralisation delineated (using the spot metal price and appropriate metal equivalents for polymetallic mineralisation as at the valuation date).

The chosen percentage is based upon the Valuer’s risk assessment of the assigned Mineral Resource category, the commodity’s likely extraction and treatment costs, availability/proximity of transport and other infrastructure (particularly a suitable processing facility), physiography and maturity of the mineral field, as well as the depth of the potential mining operation.

This method is best used as a non-corroborative check on the order of magnitude of values derived using other valuation methods that are likely to better reflect project-specific criteria.

## **COST**

The Appraised Value or Exploration Expenditure method considers the costs and results of historical exploration.

The Appraised Value Method is based on the premise that the real value of an exploration property lies in its potential for the existence and discovery of an economic mineral deposit (Roscoe, 2002). It utilises a Multiple of Exploration Expenditure (“MEE”), which involves the allocation of a premium or discount to past relevant and effective expenditure using the Prospectivity Enhancement Multiplier (“PEM”). This involves a factor which is directly related to the success (or failure) of the exploration completed to date, during the life of the current tenements.

Guidelines for the selection of a PEM factor have been proposed by several authors in the field of mineral asset valuation (Onley, 1994). Table A2 lists the PEM factors and criteria used in this Report.





Table A2 PEM factors

PEM range	Criteria
0.2 to 0.5	Exploration (past and present) has downgraded the tenement prospectivity, no mineralisation identified
0.5 to 1.0	Exploration potential has been maintained (rather than enhanced) by past and present activity from regional mapping
1.0 to 1.3	Exploration has maintained, or slightly enhanced (but not downgraded) the prospectivity
1.3 to 1.5	Exploration has considerably increased the prospectivity (geological mapping, geochemical or geophysical activities)
1.5 to 2.0	Scout drilling (rotary air blast, aircore, reverse circulation percussion) has identified interesting intersections of mineralisation
2.0 to 2.5	Detailed drilling has defined targets with potential economic interest
2.5 to 3.0	A Mineral Resource has been estimated at Inferred JORC category, no concept or scoping study has been completed
3.0 to 4.0	Indicated Mineral Resources have been estimated that are likely to form the basis of a Prefeasibility Study
4.0 to 5.0	Indicated and Measured Resources have been estimated and economic parameters are available for assessment

## GEOSCIENCE FACTORS

The Geoscience Factor (or Kilburn) method (GFM), as described by Kilburn (1990), provides an approach for the technical valuation of the exploration potential of mineral properties, on which there are no defined resources. It seeks to rank and weight geological aspects, including proximity to mines, deposits and the significance of the camp and the commodity sought.

Valuation is based upon a calculation in which the geological prospectivity, commodity markets, and mineral property markets are assessed independently. The GFM is essentially a technique to define a Value based upon geological prospectivity. The method appraises a variety of mineral property characteristics:

- Location with respect to any off-property mineral occurrence of value, or favourable geological, geochemical or geophysical anomalies
- Location and nature of any mineralisation, geochemical, geological or geophysical anomaly within the property and the tenor of any mineralisation known to exist on the property being valued
- Number and relative position of anomalies on the property being valued
- Geological models appropriate to the property being valued.

The GFM systematically assesses and grades these four key technical attributes of a tenement to arrive at a series of multiplier factors.

The Geoscience Rating Factor valuation method is a subjective valuation method and different valuation practitioners are likely to derive different on-off property, anomaly, and geological factors, based on their interpretation and understanding of the project. Different descriptions of the rating factors also exist. However, provided the same rating system of factors and



descriptions of their values is used, the results from different practitioners should not be dramatically different.

The Basic Acquisition Cost ("BAC") is an important input to the GFM. In essence, it is the average cost to acquire and hold an average age tenement in the jurisdiction and it is determined by summing the costs to identify an area of interest, application fees, annual rents and other government costs, work required to facilitate granting (e.g. native title, environmental etc.) and minimum annual statutory expenditures. In other words, the BAC is the total average expenditure per standard unit area (square kilometre, hectare, sub-block, etc.) and captures the identification cost and then the application and retention costs. Each factor is then multiplied serially by the BAC to establish the overall technical value of each mineral property. A fifth factor, the market factor, is then multiplied by the technical value to arrive at the fair market value.

The standard references on the method (Kilburn, 1990; Goulevitch and Eupene, 1994) do not provide much detail on how the market factor should be ascertained. ERM takes the approach of using the implied value range from its selected Comparable Transactions to inform the selection of a GFM market factor. Our presumption is that the comparatives are capturing the market sentiment, so any other valuation method should not be significantly different (order of magnitude).

This is achieved by finding the market factor that produces an average GFM preferred value per unit area for whole project (i.e. total preferred GFM value divided by the total area) that falls within the range of the comparatives implied values per unit area. It is ERM's view that this adequately accounts for global market factors on an empirical basis. For example, if the implied value range is \$100/km<sup>2</sup> to \$2,000/km<sup>2</sup>, then the market factor should give an average GFM preferred value per unit area that falls within that range.

ERM generally would select a market factor (rounded to an appropriate number of significant digits) that gives a value closer to the upper end of the range (though this is the Valuer's judgement call). This is because the GFM is a tool that addresses the exploration potential of a project and is best suited to informing the upper end of valuation ranges for a project.

## GEOLOGICAL RISK METHOD

In the Geological Risk valuation method, as described by Lord et al. (2001), the value of a project at a given stage of knowledge/development is estimated based on the potential value of the project at a later stage of development, discounted by the probability of the potential value of the later stage being achieved, and considering the estimated cost of progressing the project to the next stage.

The relevant stages of exploration are defined in Table A3.

Table A3 Definition of exploration stages

Stage	Description
Stage A	Ground acquisition, project/target generation
Stage B	Prospect definition (mapping and geochemistry)
Stage C	Drill testing (systematic reverse circulation, diamond drilling)
Stage D	Resource delineation
Stage E	Feasibility



The expected value (E) of a project at a given stage is then dependent on the target value at the next stage (T), the probability of successfully advancing the project to the next stage (P), and the cost of advancing the project (C). This can be expressed as:

$$E = P * (T - C)$$

This valuation method generates an expected value for each project (or prospect) at each of the main exploration stages or decision points, by working back from a Project's target value. A project's target value can be based on an expected NPV from a reasonably constrained DCF model, or from a reasonable approximation of the value of a defined resource, in which case the initial target value will be the value at the end of Stage D, as opposed to the value at the end of Stage E.

Lord et al. (2001) concluded that the probability of successfully proceeding from one exploration phase to the following one was as depicted in Table A4, based on a detailed study of gold exploration programs in the Laverton area of Western Australia.

Table A4 Probability of successfully proceeding from one exploration stage to another (Source: Lord et al., 2001)

Stages	Probability of advancing
Generative to reconnaissance	0.54
Reconnaissance to systematic drill testing	0.17
Systematic drill testing to Resource delineation	0.58
Resource delineation to Feasibility	0.87
Feasibility to Mine	0.90

## VALUATION APPROACHES BY ASSET STAGE

Regardless of the technical application of various valuation methods and guidelines, the valuer should strive to adequately reflect the carefully considered risks and potentials of the various projects in the valuation ranges and the preferred values, with the overriding objective of determining the "fair market value".

Table A1 shows the valuation approaches that are generally considered appropriate to apply to each type of mineral property.



## APPENDIX B COMPARABLE TRANSACTIONS

Date	Target	Acquirer	Stage	Enterprise Value (EV) (US\$ M)	EV/Resource (US\$/lb CuEq)
12 Jun 2013	Eagle Mine (Rio Tinto)	Lundin Mining	Development	325	1.17
26 Jul 2013	Northparkes (Rio Tinto)	CMOC	Production	820	0.22
13 Apr 2014	Las Bambas Mine	MMG / GXIIC / CITIC	Development	7,000	0.25
23 Jun 2014	Augusta	Hudbay Minerals	Development	613	0.06
8 May 2015	PanAust	Guandong Rising Assets Mngm	Production	950	0.05
30 Jul 2015	50% Zaldivar (Barrick Gold)	Antofagasta	Production	1,005	0.28
15 Feb 2016	13% Morenci (Freeport)	Sumitomo	Production	1,000	0.27
24 Apr 2016	Reservoir	Nevsun Resources	Development	422	0.35
9 May 2016	56% Tenke (Freeport)	China Molybdenum	Production	2,770	0.08
30 Jun 2016	PT Newmont Nusa Tenggara	PT Amman Mineral International	Production	1,323	0.04
5 Jul 2016	Thompson Creek Metals Company Inc	Centerra Gold	Production	1,630	0.12
15 Nov 2016	24% Tenke (Lundin Mining)	BHR Partners	Production	1,136	0.07
28 Mar 2017	Exeter Resources	Goldcorp	Development	169	0.01
31 Aug 2017	Cobre Panama (10%)	First Quantum	Development	625	0.15
5 Oct 2017	Finders Resources	Eastern Field Developments	Production	209	0.44
7 Nov 2017	AuRico Metals	Centerra Gold	Development	150	0.05
14 Feb 2018	Minto Mine (Capstone)	Pembridge Resources	Production	43	0.05
26 Mar 2018	Avanco Resources	OZ Minerals	Production	317	0.09
4 Apr 2018	Quebrada Blanca 2 (13.5%)	Teck	Development	162	0.03
23 Apr 2018	40% Mina Justa (Minsur)	Empresas Copec	Development	182	0.06
14 Jun 2018	21.9% Quellaveco (Anglo American)	Mitsubishi Corporation	Development	600	0.08



Date	Target	Acquirer	Stage	Enterprise Value (EV) (US\$ M)	EV/Resource (US\$/lb CuEq)
19 Jun 2018	Cerro Colorado (BHP Billiton)	EMR Capital	Production	320	0.01
12 Jul 2018	45.6% Grasberg (Rio Tinto, Freeport)	PT Inalum	Production	3,850	0.08
26 Jul 2018	50% Galore Creek (NovaGold)	Newmont Mining	Development	275	0.03
5 Sep 2018	Nevsun Resources	Zijin Mining	Production	1,265	0.04
4 Dec 2018	30% Quedra Blanca 2 (Teck)	Sum Metal Mining	Development	1,200	0.06
10 Mar 2019	70% Red Chris (Imperial Metals)	Newcrest Mining	Production	807	0.05
15 Apr 2019	Chapada (Yamana Gold)	Lundin Mining	Production	1,025	0.09
3 Jun 2019	Capstone Mining (Minto Mine)	Pembridge Resources	Production	20	0.02
25 Jun 2019	MOD Resources	Sandfire Resources	Development	116	0.06
28 Oct 20	66% KAZ Minerals	Nova Resources	Production	5,655	0.17
10 Mar 2021	GT Gold	Newmont Mining	Development	342	0.07
23 Sep 2021	MATSA	Sandfire Resources	Production	1,865	0.22
14 Oct 2021	45% Sierra Gorda (Sumitomo)	South32	Production	2,050	0.27
17 Nov 2021	Ernest Henry Mine	Evolution Mining	Production	732	0.5
30 Nov 2021	Mantos Copper	Capstone Mining	Production	3,300	0.1
20 Dec 2021	Josemaria Resources	Lundin Mining	Development	485	0.05
14 Mar 2022	Turquoise Hill Resources	Rio Tinto	Production	6,256	0.08
28 Apr 2022	Round Oak Minerals (WSHP)	Aeris Resources	Production	166	0.07
7 Oct 2022	Eva Copper Project (Copper Mountain)	Harmony Gold	Development	230	0.08
16 Nov 2022	OZ Minerals	BHP	Production	6,443	0.16
23 Nov 2022	CSA Copper Mines (Glenscore)	Metals Acquisition Corp	Production	1,100	0.79
27 Mar 2023	51% Caserones	Lundin Mining	Production	950	0.16
13 Apr 2023	Copper Mountain Mining Company	Hudbay Minerals	Production	510	0.07



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