Ore Reserve (and Saleable Product) and Mineral Resource Report 2024

(Remaining after 31 December 2024)

This report summarises the latest Ore Reserve (and Saleable Product) and Mineral Resource estimate updates of Kumba Iron Ore Limited as at 31 December 2024, reconciled against the corresponding 2023 estimates.

Appointed Lead Competent Persons have aimed to consolidate the estimates in a transparent and material manner in this report, after reviewing the detailed site-specific 2024 estimation processes and subsequent Ore Reserve and Mineral Resource Statements compiled for Kolomela and Sishen. The site-specific Statements are considered to conform to the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code - 2016 Edition) as required by section 12.13 of the Johannesburg Stock Exchange Listings Requirements.

AngloAmerican

KUMBA IRON ORE LIMITED

Kumba's approach

Contents

We are the custodians of our precious resources

We provide a raw material that is essential for economic development and modern life. As a responsible miner, we are the custodians of this precious resource. It is vital that we work together with our stakeholders to unlock the long-term value that this resource represents to our shareholders and for the communities where we operate. We understand that attractive returns are sustainable only if we also deliver value to society.

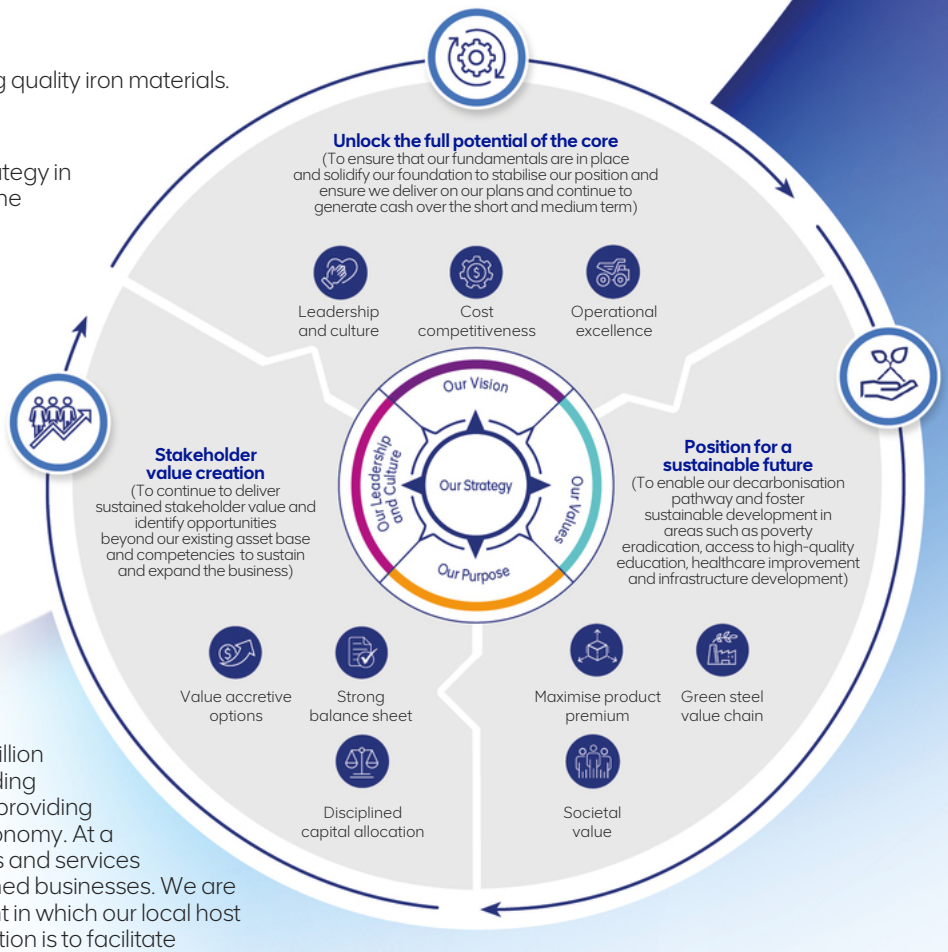
We recognise that our people are at the heart of our business and they make it possible for us to supply our products to our Clients all around the world.

Our vision

Create enduring value by sustainably supplying quality iron materials.

Strategy

Kumba announced a refreshed three-pillar strategy in 2023 (see diagram). A key focus in 2024 was the rightsizing of our business in line with reducing mining volumes and production to match Transnet's logistics performance. This also reflects in Kumba's long-term view as per the 2024 life-of-asset plans (LoAPs).



Our value proposition

The quality of our assets positions us well to serve our diverse client base. Together with our strong capabilities and financial discipline, we plan to continue unlocking further potential and delivering sustainable returns.

We are a resilient business and our strategy of value over volume is clearly working, despite the challenges in our operating environment and the volatile markets.

Our commitment to improving people's lives extends beyond our mines. By creating R57.3 billion of enduring value for all our stakeholders, including R7.3 billion in taxes and mineral royalty, we are providing much-needed support to the South African economy. At a regional level, we procured R3.9 billion of goods and services locally, with a focus on women- and youth-owned businesses. We are committed to creating an enabling environment in which our local host communities can develop and thrive. Our ambition is to facilitate five jobs off-site for every on-site job by 2030.

Kumba Iron Ore (KIO), a business unit of Anglo American plc, is a single-commodity iron ore company. It is listed on the Johannesburg Stock Exchange (JSE) in the Republic of South Africa with a market cap of US$5.6 billion at 31 December 2024. KIO competes in the global market by delivering premium iron ore products.

Ore Reserve (and Saleable Product) and Mineral Resource (ORMR) report

Reported in accordance with the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code – 2016 Edition) as required by section 12.13 of the JSE Listings Requirements.

The updated Ore Reserve and Mineral Resource estimates and associated ancillary information contained in the ORMR report are based on input from site-specific Ore Reserve and Mineral Resource (R&R) Statements, which are compiled before year end to allow for peer review by Kumba and Anglo American before estimates are published. Information such as annual production, etc. (which is forecasted) may therefore differ from those quoted in the Kumba Integrated report, the latter compiled after calendar year end and reflecting actual figures. Adjustments to Mineral Resource, Ore Reserve and Saleable Product estimates are made in the following year to correct any differences between actual and forecasted estimates used in the previous reporting period. (Financial materiality)

Kumba values any feedback regarding the competency, materiality and transparency with which its Ore Reserves (and Saleable Product) and Mineral Resources have been presented in this report.

Feedback: (jean.britz@angloamerican.com)

For more information see www.angloamericankumba.com

An abridged version of the 2024 ORMR report is chaptered within the 2024 Kumba Integrated report.

(https://www.angloamericankumba.com/investors/annual-reporting/reports-archive/2024)

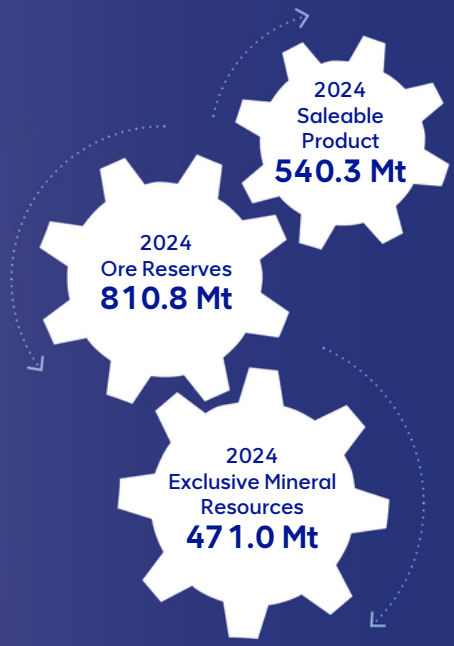
Our integrated reporting suite comprises the following reports in addition to the ORMR report:

Integrated report*
This report is primarily aimed at current and prospective investors, lenders and other creditors. It provides a succinct review of our strategy and business model, operating context, governance, operational performance and our response to managing the material risks and opportunities that could reasonably be expected to affect Kumba's prospects. (Financial materiality)

Sustainability report*
This report reviews our approach to managing our significant environmental , social and governance (ESG) impacts, risks and opportunities and to address those sustainability and ESG issues of interest to a broad range of stakeholders. (Double materiality)

Climate change report*
This report provides a balanced and appropriate presentation of our climate-related impacts, risks and opportunities and our response to managing these risks and mitigating our climate change impacts. (Double materiality)

Annual financial statements
A detailed analysis of our financial results, with audited financial statements prepared in accordance with International Financial Reporting Standards (IFRS). (Financial materiality)



The reporting process for all our reports has been guided by the principles and requirements contained in IFRS, the Value Reporting Foundation's Integrated Reporting Framework, the GRI Standards, the JSE's Sustainability Disclosure Guidance (issued in June 2022), the King IV Report on Corporate Governance for South Africa, 2016 (King IV™**), the JSE Listings Requirements, and the Companies Act No 71 of 2008, as amended (Companies Act).

* Each of these reports, with additional updated information, will be available on our website from 11 April 2025.

Introduction

Kumba's business is structured around its two open-pit mines, Kolomela and Sishen. These are located in the Northern Cape province of the Republic of South Africa, where Kumba mines and beneficiates iron ore for the global iron ore market in a safe and sustainable manner, adding value to its investors, while developing its workforce and creating opportunities for its host communities.

Kolomela is currently considered as a direct shipping ore (DSO) operation with a crushing and screening plant treating high-grade (Fe ≥ 61%) run-of-mine (RoM).

The operation of the small-scale ultra-high dense media separation (UHDMS) facility, treating medium-grade (50% ≤ Fe < 61%) RoM, was halted as part of a cost curtailment exercise in line with the business reconfiguration to rightsize the Company in line with logistical constraints.

Sishen processes its RoM through large-scale beneficiation facilities, utilising dense media separation (DMS) and jigging technologies (with a portion of the Jig plant discard being treated via two small-scale UHDMS modules).

The Kumba and Anglo boards have approved the DMS to UHDMS conversion project, and the 2024 Sishen LoAP tie-in remains scheduled for 2026, with first production expected in 2027.

A range of high-grade Lump and Fine iron ore products is produced at the operations, and railed to the Saldanha harbour on the west coast of South Africa from where these products are shipped to fulfil Client off-take. The products are globally marketed as three Kumba blend products:

- Premium Lump: 65.1% Fe (recently developed market)
- Standard Lump: 63.9% Fe
- Standard Fines: 63.2% Fe

Both Kolomela and Sishen are conventional drill-and-blast and truck-and-shovel open-pit operations with ex-pit ore at Kolomela hauled to designated finger stockpiles, from which a RoM blend is delivered, while at Sishen the RoM originates directly from the pit and from designated buffer stockpiles. The Kolomela finger stockpiling is necessary to produce the correct RoM blend for the predominantly DSO operation, while at Sishen the RoM buffer stockpiling facilitates plant feed consistency through partial blending with ex-pit ore.

Reclaimer in operation on lump ore product stockpile at Kolomela mine.

Introduction cont.

Kumba's ability to generate value is dependent on access to financial capital, skilled employees, quality internal and external relationships, and natural mineral endowment. These factors are supported by a strong company culture as well as access to necessary outbound infrastructure. This report focuses on the in situ iron ore Mineral Resources and derived modified Ore Reserves for which Kumba has obtained the right to mine, and beneficiate to Saleable Product.

Consistent Saleable Product delivery over time can only be achieved through disciplined mining practices and diligent planning. This report is the result of Kumba's long-term planning cycle, a process of defining the Mineral Resources via exploration and subsequent spatial modelling, designing safe and economical pit layouts and compiling production schedules to extract the iron ore. This process takes into account the available mining infrastructure and converting it into Saleable Product considering the available beneficiation and logistical infrastructure.

Double-sided loading of waste material at Sishen mine; using a P&H 4100 XPC Rope Shovel matched with Komatsu 960E haul trucks.

Sishen and Kolomela have been assessed against the Initiative for Responsible Mining Assurance's (IRMA) comprehensive mining standard, achieving the IRMA 75 level of performance in 2024 - a first for an iron ore minerals company in Africa.

This achievement reflects Kumba's integrated approach to sustainability and its commitment to transparency in striving for the highest standards of responsible iron ore production.

Introduction cont.

Business reconfiguration

To accommodate Transnet's logistical constraints that materialised over the last few years, Kumba has initiated a programme to rightsize its business. To achieve an optimal solution at reduced volumes, the Company is focusing on the efficiency benefits of an integrated mining complex to maximise value, while maintaining optionality to respond to Transnet's logistics performance improvements. Kumba has already restructured the organisation to drive these optimisation efforts across all aspects of the value chain and supporting services - through the One-Kumba solution.

By reducing mining volumes and optimising pit designs, Kumba is able to unlock value by improving operational deployment and maximising the benefits of the various mining areas. Additionally, by balancing waste mining and production between Sishen and Kolomela, the Company is able to rightsize its heavy mining equipment fleet capacity and increase operating time. The One-Kumba process is ongoing.

During the 2024 life-of-asset (LoA) planning cycle, Kumba applied an 84% long-term contractual rail volume scenario (44 Mtpa @ 84% ~ 37 Mtpa) to derive the proposed go-forward Saleable Product profile. The higher long-term iron ore price compared to 2023, combined with planned cost-curtailment programmes, resulted in larger pit designs being applied at both operations in 2024 to derive Ore Reserves. Optionality is maintained to respond to improved logistics performance.

Large-scale capital projects

It is Kumba's ambition to realise the full potential of its endowment and contribute to the global "green steel" drive by increasing its contribution of premium production by converting its existing DMS plant at Sishen to a UHDMS plant. After the completion of a technical review in Q2 of 2024, the Kumba Board approved a further investment of R7.6 billion in August 2024 in addition to the R3.6 billion previously approved in February 2021, to unlock the value potential. The conversion, scheduled for tie-in in 2026 to deliver first product in 2027, will enable the plant to operate at higher (and variable) beneficiation "cut" densities of up to 4.4 g/cc versus the current technology that is limited to 3.6 g/cc. These changes facilitate improved resource utilisation, wit the planned processing of 154.7 Mt of low-grade RoM in the UHDMS plant, while also enabling the delivery of higher volumes of premium-grade products, which allows for more cost-effective mining through less waste stripping and further strengthens Kumba's position in the market as a supplier of high-quality niche products that drive the transition to green steel and the decarbonisation of the steel value chain.

The development of the Kapstevel South pit at Kolomela is a direct shipping ore replacement project designed to sustain product output at 7.2 Mtpa as per the 2024 Kolomela LoAP. The project was rephased in 2023 and delivered its first ore in June 2024.

Sishen mine DMS and Jig beneficiation plants, with the settling dams.

Exploration

Kumba's exploration programme remained focus on on-mine exploration in 2024, with the dual aim of improving confidence in the spatial definition of its Mineral Resources inside and outside current LoAPs and generating geometallurgical information to spatially characterise the beneficiation potential of its Ore Reserves and Mineral Resources. Exploration outside mining right areas focused on near-mine opportunities, which Kumba can access through joint venture arrangements.

The statement

Kumba Iron Ore Limited is a JSE-listed minerals company that focuses its business (iron ore exploration, mining, beneficiation) in the Northern Cape province of the Republic of South Africa. It proudly operates two open-pit mines, namely Kolomela and Sishen. Both operations have established infrastructure, which is applied to convert *in situ* haematite mineralisation into saleable iron ore products, of which the Premium Lump portion earns the Company a premium in the global iron ore market. Current production output is transported via a rail line connecting the mining operations to the commodity export harbour facility at Saldanha Bay on the west coast of South Africa. From where it is shipped to the various global client destinations.

Reporting framework

The online 2024 Kumba Ore Reserve (and Saleable Product) and Mineral Resource (ORMR) report is derived from a comprehensive amount of information compiled in the form of site-specific R&R Statements. It is structured to address all aspects listed in the Checklist of reporting and Assessment Criteria Table of the SAMREC Code (2016 Edition).

SAMREC
THE SOUTH AFRICAN CODE FOR THE REPORTING OF EXPLORATION RESULTS, MINERAL RESOURCES AND MINERAL RESERVES

The Kumba ORMR report aims to meet the JSE Listings Requirements as per section 12.13 for minerals companies, referencing reporting requirements as set out in the SAMREC Code (2016 Edition).

Adherence is governed in the Company's business processes via a Mineral Resource and Ore Reserve reporting policy **(https://www.angloamericankumba.com/~/media/Files/A/Anglo-American-Group/Kumba/sustainability/approach-and-policies/kumba-mineral-resource-and-ore-reserve-reporting-policy.pdf).**

The policy is supported by a detailed reporting requirements, guidelines and associated reporting templates, which channel the reporting requirements down to a site-specific level to ensure that Kumba meets the relevant JSE Listings Requirements.

The extent of the content in this report demonstrates Kumba's commitment to material, transparent and competent reporting of its Ore Reserves and Mineral Resources.

Reporting basis

The Ore Reserve (and Saleable Product) and exclusive Mineral Resource estimates are stated on a 100% basis, irrespective of attributable shareholding. Kumba's attributable ownership in operations is, however, stipulated per site in the Ore Reserve (and Saleable Product) and Mineral Resource tables as listed in this statement.

The Ore Reserves and exclusive Mineral Resources are not an inventory of all mineral occurrences identified, but an estimate of those which, under assumed and justifiable technical, environmental, legal and social conditions, may be economically extractable at present (Ore Reserves) and have reasonable prospects for eventual economic extraction (RPEEE) - Mineral Resources.

The term "Ore Reserves" in the context of this report has the same meaning as "Mineral Reserves", as defined by the SAMREC Code. In the case of Kumba, the term "Ore Reserves" is preferred because it emphasises the difference between these and Mineral Resources.

Effective date

This report states Kumba's Ore Reserves (and Saleable Product) and exclusive Mineral Resources remaining after 31 December 2024, and compares it with the R&R figures published for 2023.

Ore Reserve (economically mineable under assumed long-term macro-economic conditions)

A long-term iron ore price forecast. based on the Platts 62% index and adjusted with Kumba-specific forecasts of Lump and Fe premiums and deleterious element penalties where applicable, is measured against costs representing the total value chain to form the basis of Ore Reserves presented in this document.

These are applied to site-specific mining block models to derive a set of pit shells for each site during the annual pit optimisation process. An optimal pit shell, meeting business expectations, is chosen for each site and converted into a pit layout, which spatially envelopes the current economically mineable Ore Reserves.

The statement cont.

Ore Reserve (economically mineable under assumed long-term macro-economic conditions) cont.

The Ore Reserves are derived from:

- the in situ Measured and Indicated portion of the Mineral Resource occurring within the approved pit layouts, modified into and scheduled as RoM, to account for site-specific selective mining unit (SMU) configurations, mining efficiencies and other design, technical (at least pre-feasibility approved studies), environmental, legal and social aspects, as well as
- the Indicated Mineral Resource located on buffer stockpiles scheduled as RoM.

The resultant Proved and Probable Ore Reserves are further modified into Saleable Product, considering site-specific beneficiation capacity and efficiencies, concerning specific ore types planned for beneficiation.

Because of the method used to derive Ore Reserve and Saleable Product figures, they are not precise, and should be considered as estimates and not calculations.

Site-specific cut-off grades (fixed for Kolomela and value based for Sishen) are assigned in RoM schedules to achieve a sustainable delivery of Saleable Product, with the aim to deliver products that comply with Client product specifications.

Mineral Resource (RPEEE defined)

Mineral Resources are declared exclusive of Ore Reserves, i.e. the Mineral Resources are additional to, or in excess of, Ore Reserves.

Apart from a 50% Fe cut-off grade at Kolomela and a beneficiation potential based cut-off at Sishen, which considers the current beneficiation processes, Kumba spatially distinguishes in-situ Mineral Resources from other in-situ mineral occurrences by applying a resource shell. This is derived during the annual pit optimisation process conducted on the latest site-specific 3D mining block models, considering SMU sizes (dilution and mining loss). The site-specific resource shells are derived at higher revenue factors than those shells used to derive pit layouts which spatially constrain Ore Reserves, with the provision that the higher revenue factor (RF) price may not exceed the highest average annual basket price achieved by Kumba in the past five years. The resource shell is then subsequently applied to the geological block models, defining the classified ore occurring inside the resource shell but outside the pit layout, as well as the Inferred Mineral Resources inside the pit layout, as the resultant exclusive in-situ Mineral Resource portion considered to have RPEEE.

This process, therefore, considers site-specific mining and beneficiation practices as well as realistic pricing and cost.

In-situ Mineral Resources, by way of the methods they are derived, in essence converting spatially separated data points into large-scale continuous volumetric information, are not precise and should be considered as estimates and not calculations.

Long-term stockpiled Mineral Resources are also included in the Kumba Mineral Resource portfolio and are declared separately from in-situ Mineral Resources.

The confidence in the Mineral Resource estimates is expressed in terms of classes, i.e. Measured, Indicated and Inferred, with Measured Mineral Resource estimates having the highest and Inferred Mineral Resources the lowest confidence.

Inferred Mineral Resources inside pit layouts considered in LoAPs are separately reported in the exclusive Mineral Resource Statement, with the extrapolated Inferred portion thereof quoted in the footnotes of the exclusive Mineral Resource Statement.

Drill hole core - taken from tectonised shale unit or mylonite/proto-mylonite.

Security of tenure

All of the Ore Reserves and Mineral Resources as stated occur within mining rights granted by the South African Department of Mineral Resources and Energy (DMRE), which have been notarially executed and registered at the Mining Titles Office of the DMRE by Sishen Iron Ore Company Proprietary Limited (75.4% owned by Kumba Iron Ore Limited), and have not expired at the time of reporting.

In the case of the Ore Reserves, the associated reserve life of each operation exceeds the expiry date of the applicable right as follows:
Kolomela: By two years, with the reserve life ending 2040
Sishen: By one year, with the reserve life ending 2040

According to section 25 of the Mineral and Petroleum Resources Development Act No 28 of 2002 (MPRDA), the holder of a mining right has, subject to section 24 (stipulation of regulations to apply for renewal of a mining right), the exclusive right to apply for and be granted a renewal of the mining right in respect of the mineral and mining area in question.

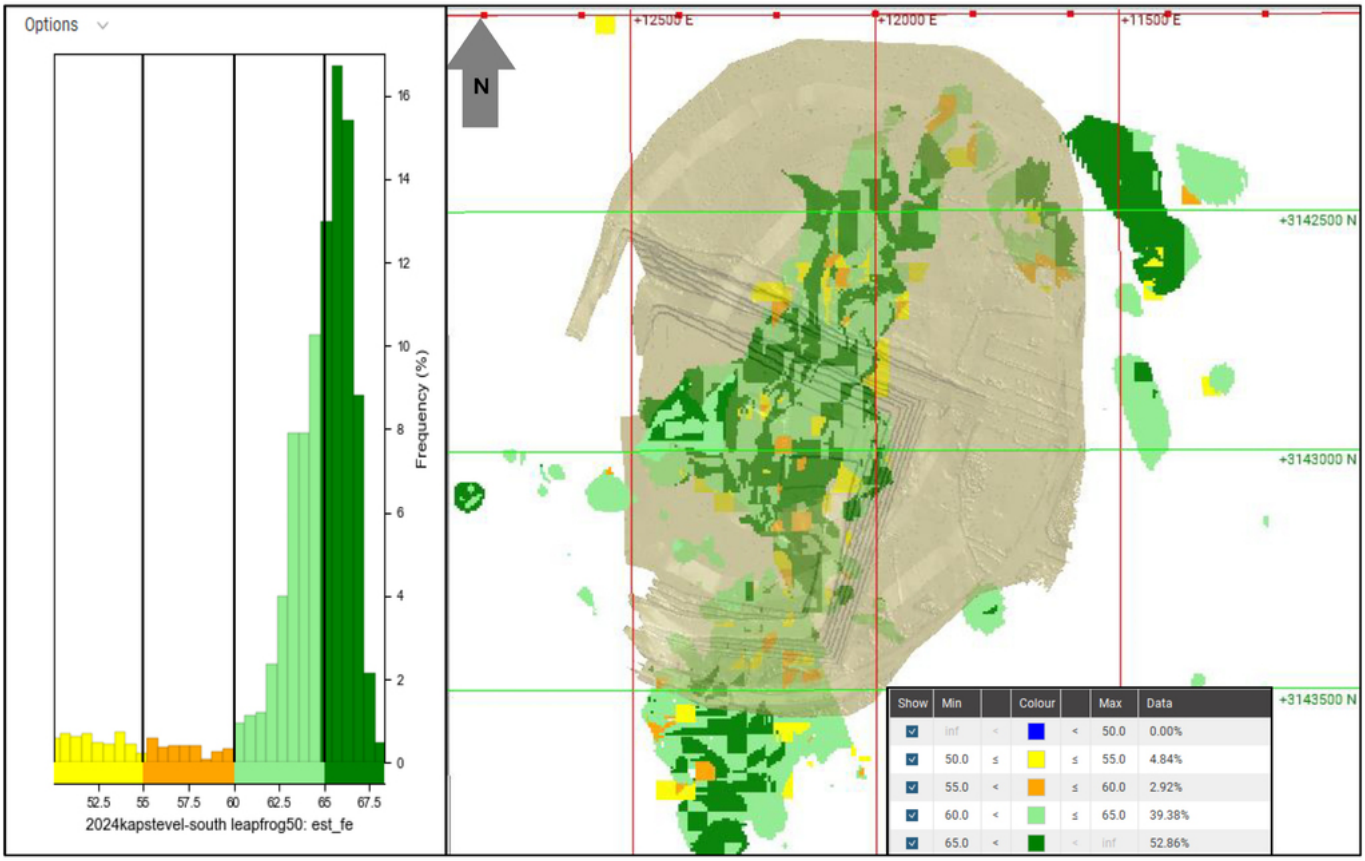
Applications to extend the mining rights noted above will be submitted at the appropriate time and there is reasonable expectation that such extensions will not be withheld. Ore Reserves and Mineral Resources are reported beyond the current tenure period.

The statement cont.

Reserve and Resource (R&R) figures are not exact

The Kumba R&R figures are derived from spatial interpretation and subsequent estimation processes, informed by technical and economical forward looking assumptions, which may not materialise as expected.

By their nature, the R&R figures quoted in this report are therefore inherently subject to some level of risk and uncertainty, and may be influenced by unforeseen future events that could cause actual figures to differ from estimated figures.



Ordinary kriged in situ %Fe estimates for Mineral Resources in Kapstevel South area at Kolomela.

Salient features

Takeaways for 2024

Key assumptions

The 2024 Ore Reserve (and Saleable Product) and exclusive Mineral Resource estimates have been derived by way of a full update of the operations' LoAPs (including pit optimisation) based on geological model updates of all deposits within the Kolomela and Sishen mining right areas.

The 2024 Ore Reserves and Mineral Resources were derived considering the following:

- Kumba's latest business expectations, involving the rightsizing of mining volumes, which required a shift in focus, from income margin protection to cost curtailment as a result of subdued Transnet rail volume forecasts, based on current demonstrated performances. This resulted in a further flattening of the LoAP Saleable Product profile from 41 Mtpa in 2023 to 37 Mtpa in 2024.
- Revised macro-economic input in the form of a more positive outlook on long-term iron ore pricing and the ZAR/US$ exchange rate as provided by Anglo American.
- A reallocation of Kolomela's medium-grade ore from Ore Reserves to Mineral Resources due to the decision taken to halt the small-scale UHDMS plant as part of Kumba's reconfiguration optimisation drive.
- A change in the Sishen Mineral Resource cut-off from 40% *in situ* Fe in 2023 to a beneficiation potential-based cut-off in 2024. This change aligns to the value-based cut-off approach used to derive the Sishen Ore Reserves as implemented in 2023. This implies that some lower-grade mineralisation (Fe < 40% in situ), is now part of the inclusive Mineral Resource portfolio, as the material has reasonable prospects for economic mining and processing since its beneficiation characteristics allow it to be converted into a saleable product. This change is furthermore supported by the approval of the UHDMS conversion project in 2024, allowing for the beneficiation of low-grade ore.

Value over volume

Kumba's haematite iron ore product is well-known for its high grades as well as physical properties, especially the premium and Standard Lump ore.

Kumba's high-quality products attracted a combined Fe, Lump and marketing premium of US$11/wet metric tonnes (wmt), which was partially offset by an unfavourable timing effect of declining prices on provisionally priced sales. This led to a total product premium of US$3/wmt, underpinning a 3% gain in Kumba's realised price, ahead of the benchmark free-on-board (FOB) export price of US$89/wmt.

Primary year-on-year movements

Ore Reserves increased over the reserve life by 11% (+79.4 Mt) and **Saleable Product by 7% (+35.4 Mt)** year-on-year, primarily due to a more positive outlook on the long-term iron ore price and ZAR/US$ exchange rate compared to 2023. The latter, combined with planned cost curtailment programmes, resulted in larger pit designs at both operations, albeit at reduced RF pit shell derivatives of 0.66 in 2024 compared to 0.8 in 2023.

Mineral Resources (in addition to Ore Reserves) decreased by 20% (-114.8 Mt) from 2023 to 2024, mainly due to the conversion of Measured and Indicated Mineral Resources to Proved and Probable Ore Reserves as a result of larger pit designs at both operations.

Primary risks

The following Ore Reserve (and Saleable Product) risks have been ranked as having a high pre-mitigation rating in 2024 (none of the risks are rated as high or significant post-mitigation or planned mitigation):

Infrastructure – logistical (external risk)

The logistical value chain (rail and port) is the dominant constraint in the Kumba value chain, and the associated risk to the Saleable Product and Ore Reserves is rated as high. Transnet's performance in terms of contracted volumes has further deteriorated from 82% in 2023 to 80% in 2024. The rail performance, as well as the renegotiation of the Sishen contract by 2027, may have a material impact on the viability of the Ore Reserve.

Mitigation: As part of the LoAP alignment with the business reconfiguration drive, Kumba has moderated its outlook on logistics capacity to ~37 Mtpa (versus the current contract of 44 Mtpa). By reducing mining volumes and optimising pit designs, Kumba is able to unlock value by improving operational deployment and maximising the benefit of the various mining areas. Stating the obvious, mitigation furthermore assumes the successful renegotiation of the Sishen rail contract in 2027.

As a member of the ore export corridor user forum, Kumba has been a strong advocate for Private Sector Participation (PSP) to potentially improve the performance of the OEC through concession models. We also continue to play an active role in the National Logistics Crisis Committee to collaborate on sustainable logistics solutions.

Financial – macro-economics (external risk)

Commodity pricing: The long-term iron ore price informing the 2024 Kolomela and Sishen LoAPs (16-year view) is materially higher than the realised iron ore prices achieved by Kumba in 2024 and substantially higher than the latest available consensus long-term iron ore price compiled by Morgan Stanley (three to five year view). Kumba, however, deems the supply and demand fundamentals informing the model used to derive the long-term iron ore price as robust. The market pulled back strongly in 2024. Volatility in price has always been considered as a risk by Kumba, and was therefore rated as high in 2024 because of the reasons set out above. A downward adjustment in future can materially impact foreseen profitability and cashflow. The long-term price applied in the 2024 pit optimisations resulted in marginal areas being included inside pit designs for Kapstevel South and Klipbankfontein at Kolomela, and larger pushbacks being included in the final pit design at Sishen. A less positive outlook for the future can lead to a reduction in Ore Reserves due to the potential exclusion of marginal revenue/high-cost mining areas.

Salient features cont.

Takeaways for 2024 cont.

Primary risks cont.

Mitigation: To counter a lower long-term price, the business expectation changed from maximising revenues/margin targeting to cost curtailment, where Kumba competes on a cost basis with other producers. In addition, the first five years of the respective Kolomela and Sishen LoAPs have been evaluated applying a substantially lower price assumption compared to the remainder of the reserve life at each operation. The post-mitigation risk rating is medium.

Closed-out risk: Kumba successfully demonstrated the value-add of the Sishen DMS to UHDMS plant conversion project in 2024, after solving for significant engineering complexity related to the design and construction of an operational UHDMS plant. The capital for implementation was approved by the Anglo and Kumba boards in 2024, thereby fully mitigating the risk as listed in 2023.

Other

Assurance

An external due diligence audit (including a one-week site visit) of the Sishen 2023 Mineral Resource and Ore Reserve estimation and reporting was conducted by Cube Consulting during the year.

The signed-off audit report listed no high or significant risks.

Progress on findings as identified by the external audit called for by Kumba in 2023 to understand the geological loss recorded with the mining of low-grade ore at Sishen.

- Finding: Historical selective sampling of banded iron formation (BIF) in exploration boreholes.

  Mitigation: Ore control drilling programme to be expanded to also focus on areas where low-grade BIF ore has poor exploration drilling coverage. Ore control drilling already about 12 months in advance.

  Approximately 900 boreholes, which intersect BIF within the resource shell, have been prioritised for resampling (Phase 1). These boreholes will be relogged and resampled where required over the next two years.

- Finding: Over-estimation and over-smoothing of Fe grades because of historical selective sampling and lack of exploration boreholes intersecting total BIF lithology at depth.

  Mitigation: The 2024 geological model update considered a revised grade estimation update for the BIF, with the old ordinary kriging method replaced by a de-trending and standardisation Kriging method. This update was the first refinement to address the geological loss identified by the external audit. In future geological model updates, the estimation method will be further refined to also incorporate ore control borehole data.

  This update enabled a significant lowering of the modification applied in the 2023 LoAP to account for low-grade ore losses, as the risk has been addressed at the source. The geological model update resulted in a 59.7 Mt decrease in Ore Reserves, but the latter was nullified by a 64.2 Mt increase in Ore Reserves due to a materially reduced mining recovery efficiency modifying factor applied in 2024 compared to 2023.

Geological modelling

To align with the value-based cut-off approach implemented by Kumba Mining Engineering in 2023 to define the Sishen Ore Reserves, Kumba Geosciences adopted a similar approach in 2024 and replaced the 40% Fe cut-off grade with a beneficiation potential based cut-off approach to define Sishen's 2024 Mineral Resources.

This was achieved by considering beneficiation potential; assigning yield and product grade parameters via the application of geometallurgical densimetric data-derived beneficiation algorithms to each mineralised geological unit in the geological model. The beneficiation potential of the iron ore mineralisation in the resource model is categorised in the form of material classes which consider yield and product cut-off grades on a bench (12.5m vertical) scale, but assigned to each 5m(X) x 5m(Y) x 3.125m(Z) cell as vertically stacked in a bench configuration in the resource model.

Mine planning

In alignment with the One-Kumba initiative, the now well-established value-based planning process has this year been further enhanced by fully integrating Sishen and Kolomela into a single optimisation process, calculating various parameters at selective mining unit (block) level for each of the mining areas, processing streams and product types. This method allows for scenario testing to be done on any of the parameters to obtain an operating and mining strategy that achieves a competitive cost position while maximising value inside the defined inventory and within the dominant system constraints.

With this approach, the need for defining ore and waste beforehand or applying a fixed cut-off grade is not necessary, as the process maximises value through the dynamic application of the value metrics for each of the scenarios.

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources

Foundation on which our business is based and continuously developed to the advantage of our shareholders, the South African government, our host communities and our employees.

Saleable Product

Kumba beneficiates its RoM through crushing and screening, and various dense media separation processes as well as jigging to produce on-site Premium Lump (Sishen only), Standard Lump, Premium Fines (Sishen only) and Standard Fines iron ore products for Client off-take.

To convert Ore Reserves to Saleable Product, Kumba has developed fundamental (Sishen) and empirical (Kolomela) beneficiation (yield and product grade) algorithms, which are applied in the three-dimensional mining block models to derive the various product potential options in terms of lump and fines, for each ore type, as per the various site-specific beneficiation processes. The LoAP scheduling process then solves for consistent (tonnage and grade) Saleable Product output, while maximising value. The fundamental beneficiation algorithms applied in the Sishen models are derived from geometallurgical densimetric test work performed on borehole core, while the empirical beneficiation algorithms applied in the Kolomela models are derived from historical production (actual RoM versus actual product) tonnage and grade figures. The beneficiation algorithms also consider the site-specific beneficiation capacities and beneficiation efficiencies as constraints.

Due to the small-scale UHDMS plant at Kolomela being halted in 2024 as part of Kumba's business reconfiguration optimisation drive to align with logistical constraints, no medium-grade RoM has been scheduled for beneficiation through the UHDMS plant in the 2024 LoAP. Given the latest rail assumptions, the UHDMS plant does not enhance the cost position or net present value (NPV) of the operation, and operating it at the end of the mine life is not viable due to scale (plant design only allows for RoM treatment of 1.5 Mtpa). A techno-economic investigation is underway to solve for a lower UHDMS plant operating cost solution that will be value accretive.

Important to note that the Saleable Product estimates as per the 2024 LoAPs assume:
- capital approval for the continued mining of the Kapstevel South pit at Kolomela
- pathways to achieve climate change ambitions will have a positive business case for implementation

The estimated remaining Saleable Product tonnages (dry metric) are summarised in **Figure 1** per site and per confidence class.

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Saleable Product cont.

Saleable Product summary

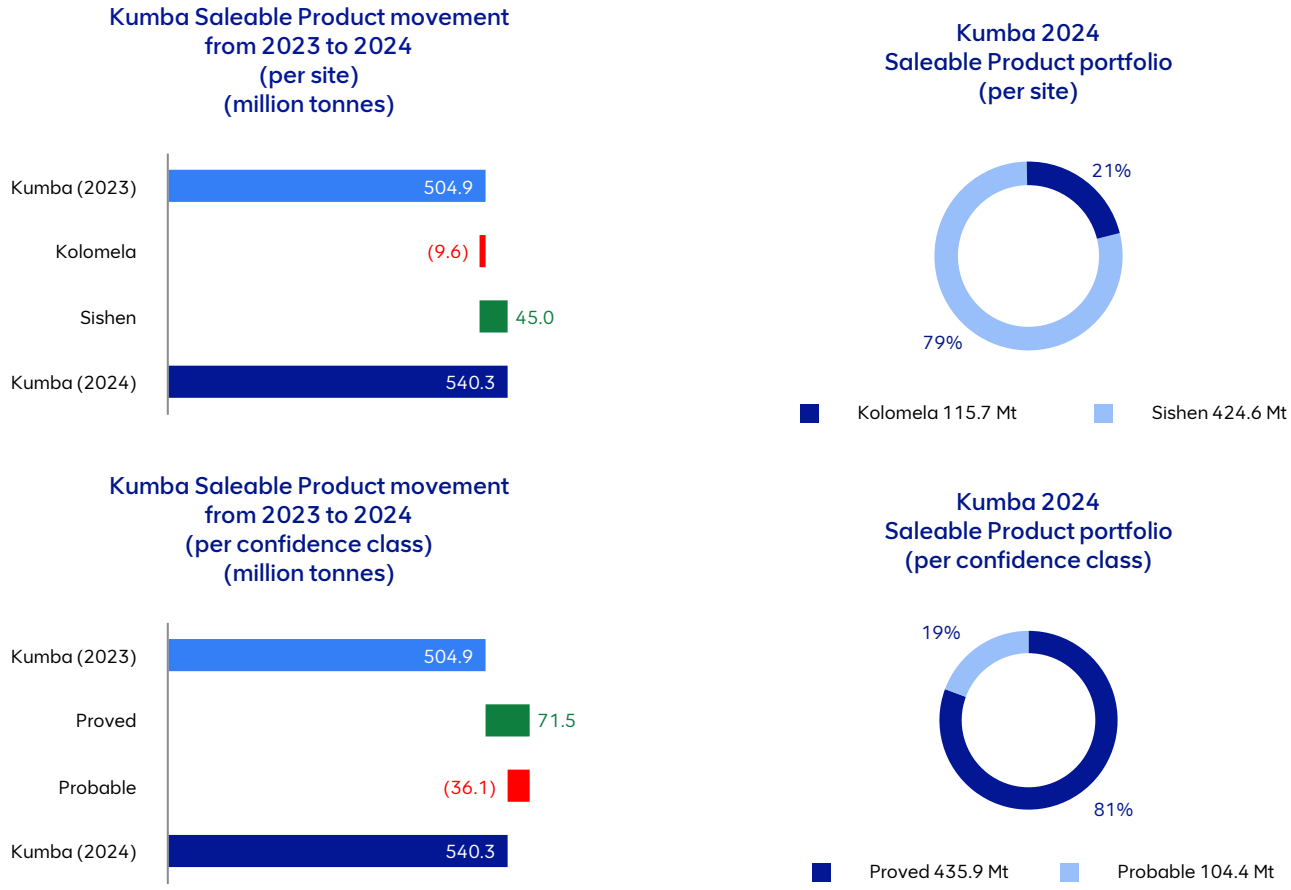


Figure 1: Kumba 2024 (versus 2023) Saleable Product summary

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Saleable Product cont.

Saleable Product summary cont.

The Saleable Product figures are not reported in addition to the Ore Reserve figures, i.e. the Ore Reserve figures are inclusive of the Saleable Product.

As of 1 January 2025, Kumba plans to produce an estimated 540.3 Mt of Saleable Product (excluding estimated modified beneficiated Inferred Mineral Resources) at an estimated average beneficiated grade of 63.9% Fe from its two mining operations over its remaining reserve life:

- **Kolomela:** 115.7 Mt @ average 63.0% Fe
- **Sishen:** 424.6 Mt @ average 64.0% Fe

The Kolomela products are co-located with the Sishen products at the Saldanha export harbour and co-loaded onto vessels for shipment, and are marketed as the following Saleable Products under the Kumba brand:

- Premium Lump: 65.1% Fe (sold at Platts 65 index or Platts 62 index with a premium)
- Standard Lump: 63.9% Fe
- Standard Fines: 63.2% Fe

Year-on-year movement

A 7% overall increase of 35.4 Mt is noted for the Kumba Saleable Product compared to 2023. The average Fe content of the Saleable Product remained unchanged at 63.9%.

1 Kolomela

Kolomela: 8% (-9.6 Mt) year-on-year decrease

The decrease is primarily attributed to the halting of the DMS plant, with less Saleable Product planned to be beneficiated in the 2024 Kolomela LoAP compared to 2023. A further contributing factor to the year-on-year decrease is the forecasted 2024 production.

(The total movement balance is detailed in footnotes of **Figure 7**)

2 Sishen

Sishen: 12% (+45.0 Mt) year-on-year increase

The increase is primarily as a result of an enlargement of the Sishen pit layout, assuming a higher long-term price forecast, allowing for additional Saleable Product being derived from more RoM scheduled for beneficiation in the 2024 Sishen LoAP.

(The total movement balance is detailed in footnotes of **Figure 7**)

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Ore Reserves

Kumba's Ore Reserves are the economically mineable and beneficiable portion of its modified (for practical, safe and achievable extraction) Measured and Indicated Mineral Resources, making use of existing and foreseen (at least approved pre-feasibility study level) infrastructure and technology.

It is modified to consider dilution and mining losses associated with practical mining at SMU scale, and to consider all value chain reconciliation measured or demonstrated performances in terms of model accuracies and mining recovery and design efficiencies.

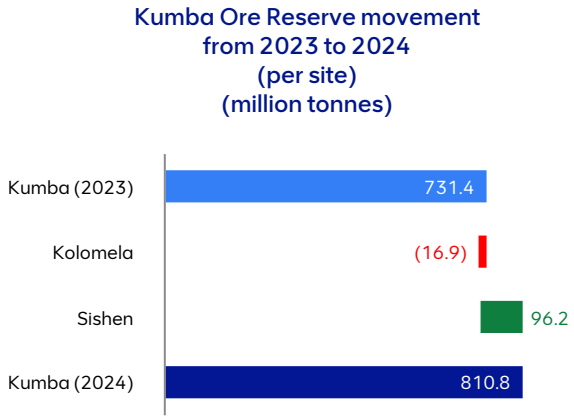
Ore Reserves are furthermore considered as economically extractable, being spatially constraint by applying long-term price and exchange rate assumptions according to Anglo American's (major shareholder) Q1 2024 view of the macro- economic parameters, as well as cost assumptions based on site-specific averages of the first three years of the respective Kolomela and Sishen LoAPs, escalated over time using RSA and USA consumer price indices. In addition, a mining cost adjustment factor based on cycle times is applied to cater for pit progress (longer hauling distances). The economical constraints were applied during pit optimisation and resulted in 0.6 RF pits shell from which pit designs at both Kolomela and Sishen were derived.

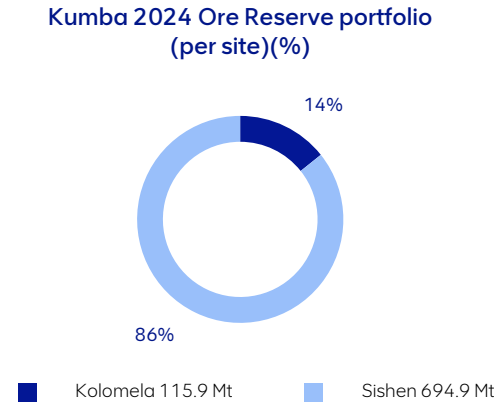
It is important to note that the Ore Reserve estimates as per the 2024 LoAPs assume:

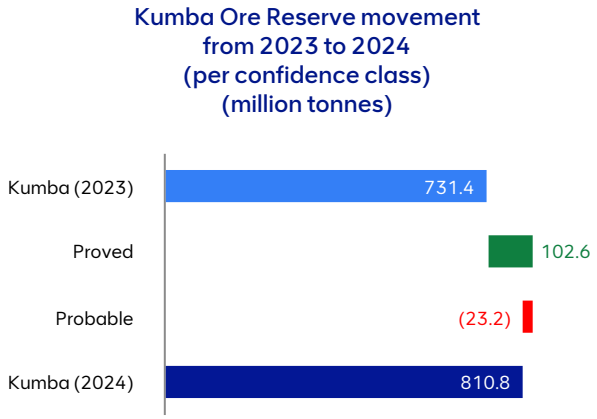
- capital approval for the continued mining of the Kapstevel South pit at Kolomela
- pathways to achieve climate change ambitions will have a positive business case for implementation

The Ore Reserve tonnages (dry metric) are summarised in **Figure 2** per site and per confidence class.

Ore Reserve summary







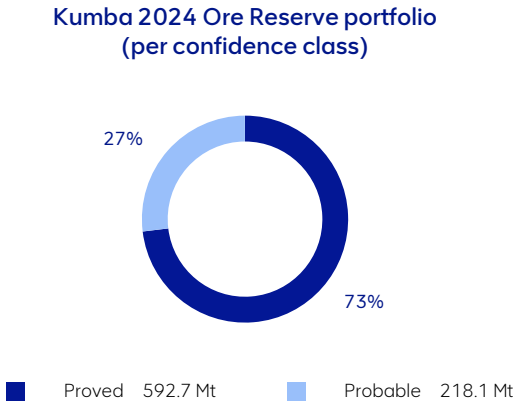


Figure 2: Kumba 2024 (versus 2023) Ore Reserve summary

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Ore Reserves cont.

Ore Reserve summary cont.

As of 1 January 2025, Kumba, from a 100% ownership reporting perspective, plans to mine an estimated haematite Ore Reserve of 810.8 Mt at an estimated average feed grade of 55.0% Fe from its two mining operations:

- **Kolomela:** 115.9 Mt @ average 63.0% Fe against a 50.0% Fe cut-off grade
- **Sishen:** 694.9 Mt @ average 53.7% Fe against a value-based cut-off

Year-on-year movement

An 11% year-on-year net increase of 79.4 Mt is noted for the Kumba Ore Reserves.

The average Fe content of the Ore Reserves (scheduled RoM) decreased from 55.6% in 2023 to 55.0% in 2024, due to less high-grade Ore Reserves scheduled for direct shipping at Kolomela and more low-grade Ore Reserves scheduled for beneficiation at Sishen compared to 2023.

1 **Kolomela**

Kolomela: 13% (-16.9 Mt) year-on-year decrease

This decrease is primarily attributed to the halting of the small-scale UHDMS plant as part of Kumba's cost-curtailment drive, resulting in the exclusion of medium-grade ore as UHDMS RoM from the 2024 Kolomela LoAP; the Ore Reserves were reallocated to exclusive Mineral Resources. A further contributing factor to the year-on-year decrease is the 2024 production as forecasted at the time of site-specific reporting.

(The total movement balance is detailed in the footnotes of **Figure 9.**)

2 **Sishen**

Sishen: 16% (+96.2 Mt) year-on-year increase

The increase is primarily as a result of an enlargement of the Sishen pit layout (assuming a higher long-term price forecast compared to 2023), allowing for additional RoM to be scheduled in the 2024 Sishen LoAP. The latter was partially offset by the 2024 production as forecasted at the time of site-specific reporting.

(The total movement balance is detailed in the footnotes of **Figure 9**.)

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Exclusive Mineral Resources

Kumba's exclusive Mineral Resources consist of:

- the in situ iron ore, of which the form, grade and quantity are spatially defined by three-dimensional geological models, constrained within RF 1.1 resource shells for Kolomela and Sishen, excluding the Measured and Indicated Mineral Resources occurring inside pit layouts that have been converted to Ore Reserves
- long-term stockpiled iron ore, which is not currently utilised in LoAPs but is considered to have RPEEE

Important to note that the exclusive Mineral Resource estimates assume:

- capital approval for the continued mining of the Kapstevel South pit at Kolomela
- pathways to achieve climate change ambitions will have a positive business case for implementation

Mineral Resources are reported exclusively, i.e. in addition to Ore Reserves. The exclusive Mineral Resource tonnages (dry metric) are summarised per site and per confidence class in **Figure 3**.

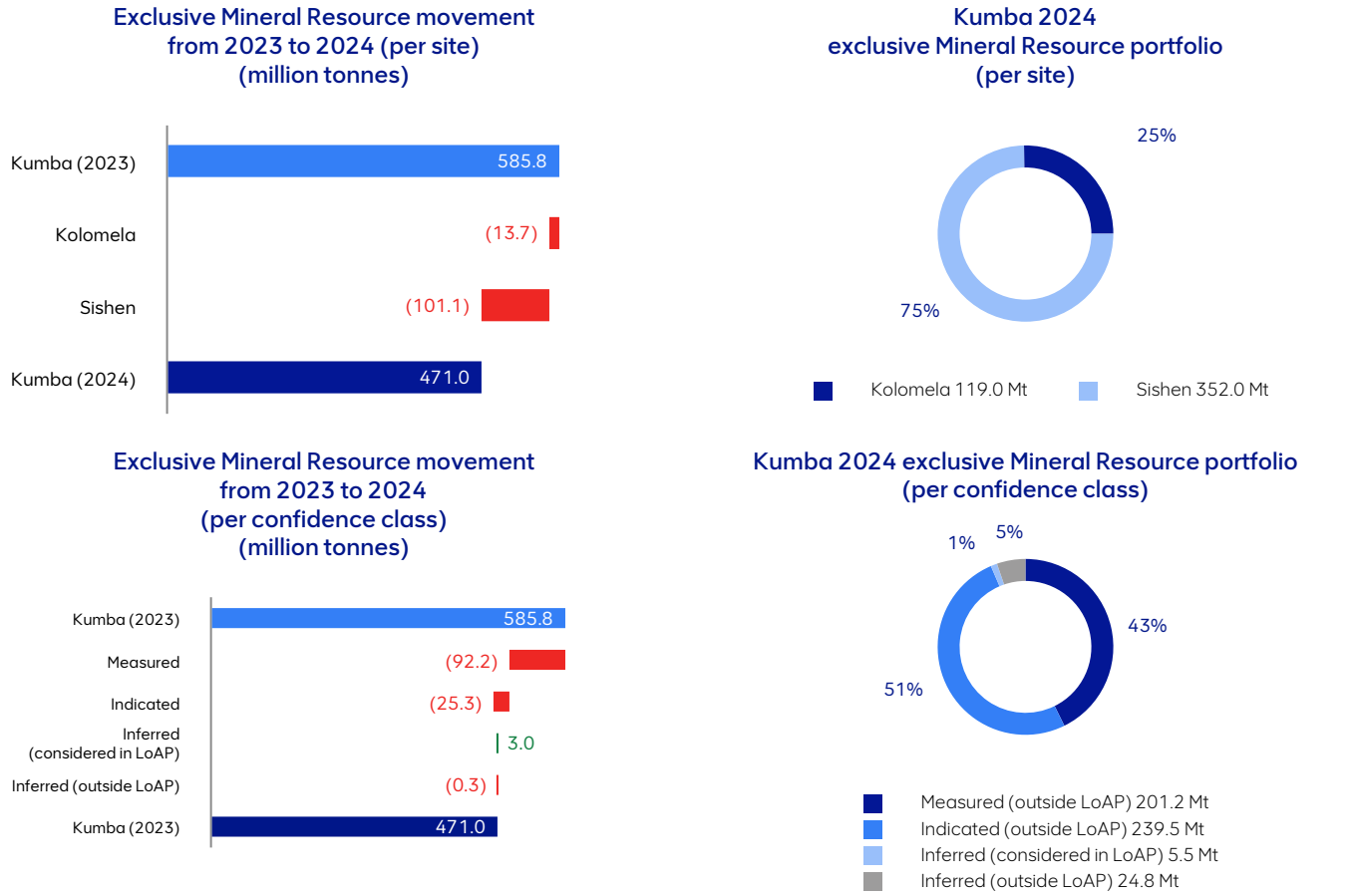


Figure 3: Kumba 2024 (versus 2023) exclusive Mineral Resource summary

The Mineral Resources reported are not an inventory of all mineral occurrences identified, but an estimate of those, which under assumed and justifiable technical, environmental, legal and social conditions have RPEEE as per Kumba's current understanding of its value chain and market conditions. The location, quantity, grade, continuity and other geological attributes of the Mineral Resources are known, interpreted and spatially estimated from specific geological evidence and knowledge. The primary input consists of borehole sample logging and assay results.

High-level overview of Kumba's Saleable Product, Ore Reserves and Mineral Resources cont.

Exclusive Mineral Resources cont.

As at 31 December 2024, Kumba's remaining exclusive (in addition to Ore Reserves) Mineral Resource base is estimated at 471.0 Mt at an estimated average in situ grade of 55.9% Fe:

- **Kolomela:** 119.0 Mt @ average 62.0% in situ Fe (against a 50.0% in situ Fe cut-off grade)
- **Sishen:** 352.0 Mt @ average 53.7% in situ Fe (against a beneficiation based cut-off*)

Year-on-year movement

A net decrease of 114.8 Mt is noted for the Kumba exclusive Mineral Resource compared to 2023.

The average in situ Fe of the exclusive Mineral Resources has decreased from 57.5% in 2023 to 55.9% in 2024, primarily due to the new cut-off methodology applied at Sishen, which changed from an in situ 40% Fe in 2023 to a beneficiation potential-based* in 2024.

1 Kolomela

Kolomela: 10% (-13.7 Mt) year-on-year net decrease

The year-on-year decrease recorded can primarily be attributed to the reallocation of Mineral Resources to Mineral Inventory (the latter being considered not to have RPEEE) due to smaller resource shells. Additionally, Measured and Indicated Mineral Resources have been converted to Ore Reserves because of an enlargement of the Kapstevel South pit layout.

The decrease was partially offset by the reallocation of buffer stockpile medium-grade Ore Reserves to Mineral Resources, unutilised in the 2024 LoAP due to the halting of the small-scale DMS plant.

(The total annual movement balance is detailed in the footnotes of **Figure 11**.)

2 Sishen

Sishen: 22% (-101.1 Mt) year-on-year net decrease

The year-on-year net decrease is primarily the result of the conversion of Measured and Indicated Mineral Resources to Ore Reserves due to a larger pit layout. Additionally there has been a decrease in low-grade Mineral Resources due to a revised grade estimation method for the BIF low-grade ore to address historical sampling biases identified during an external audit conducted in 2023.

The decrease is partially countered by a change in the cut-off, whereby the 2023 40% in situ Fe cut-off has been replaced by a beneficiation potential based cut-off to align with the Ore Reserve value-based cut-off approach implemented in 2023. The latter resulted in the conversion of some Mineral Inventory (Fe < 40%) to Mineral Resources due to the fact that it has reasonable prospects to be economically beneficiated.

(The total annual movement balance is detailed in the footnotes of **Figure 11**.)

* To align with the value-based cut-off approach applied to derive Ore Reserves in 2023, Sishen also redefined its Mineral Resources cut-off, changing from an in situ 40% Fe in 2023 to a beneficiation potential-based approach in 2024, by assigning yield and product grade parameters via the application of geometallurgical densimetric data-derived beneficiation algorithms to each mineralised geological unit in the geological model. The beneficiation potential of the various types of iron ore mineralisation in the resource model is categorised in the form of material classes, which consider yield and product cut-off grades on a bench scale (12.5m vertical scale), but assigned to each 5m(X) x 5m(Y) x 3.125m(Z) cell as vertically stacked as per the bench configuration in the resource model. This implies that material with an *in situ* Fe content lower than 40%, but with reasonable economic prospects to be converted into a saleable product, is now redefined as Mineral Resources.

Purpose

The link conveyor system at Sishen mine provides ore feed flexibility from the Jig crusher circuit to the DMS plant.

This statement describes the foundation for Kumba's long-term business as per the Company's current expectations and planning.

It is the objective of this report to declare the Kumba Ore Reserves (and Saleable Product) and exclusive Mineral Resources remaining as at 31 December 2024, and compare these figures with the 31 December 2023 published figures. In addition, it aims to provide all relevant detail in support of the aspects that may be material for investment decisions.

It must be noted that the Mineral Resource and Ore Reserve figures presented in this report are estimates. Although these have been derived using sound scientific and engineering estimation and reporting practices as validated by the Competent Persons (CPs), they are inherently subject to some level of uncertainty and inaccuracy. This uncertainty is based on forward looking assumptions, and is subject to known associated risks as well as risks related to unforeseen events. The respective CPs, however, take full responsibility for the Mineral Resource and Ore Reserve declarations.

This report is the collective view of the Ore Reserve and Mineral Resource CPs and strives to deliver a transparent and material view of the Kumba Ore Reserves and Mineral Resources to inform all relevant stakeholders.

Location

Kumba operates the Kolomela and Sishen open-pit mines out of the Northern Cape province of the Republic of South Africa.

All the Kumba sites for which Ore Reserves and Mineral Resources were declared in 2024 are located within the Republic of South Africa **(Figure 4)**. As is the case with all mineral companies, the location of operations and exploration projects is dictated by geology; in Kumba's case, the iron mining operations (Kolomela and Sishen) are located in the Northern Cape province.

▶ For more information see **www.angloamericankumba.com**

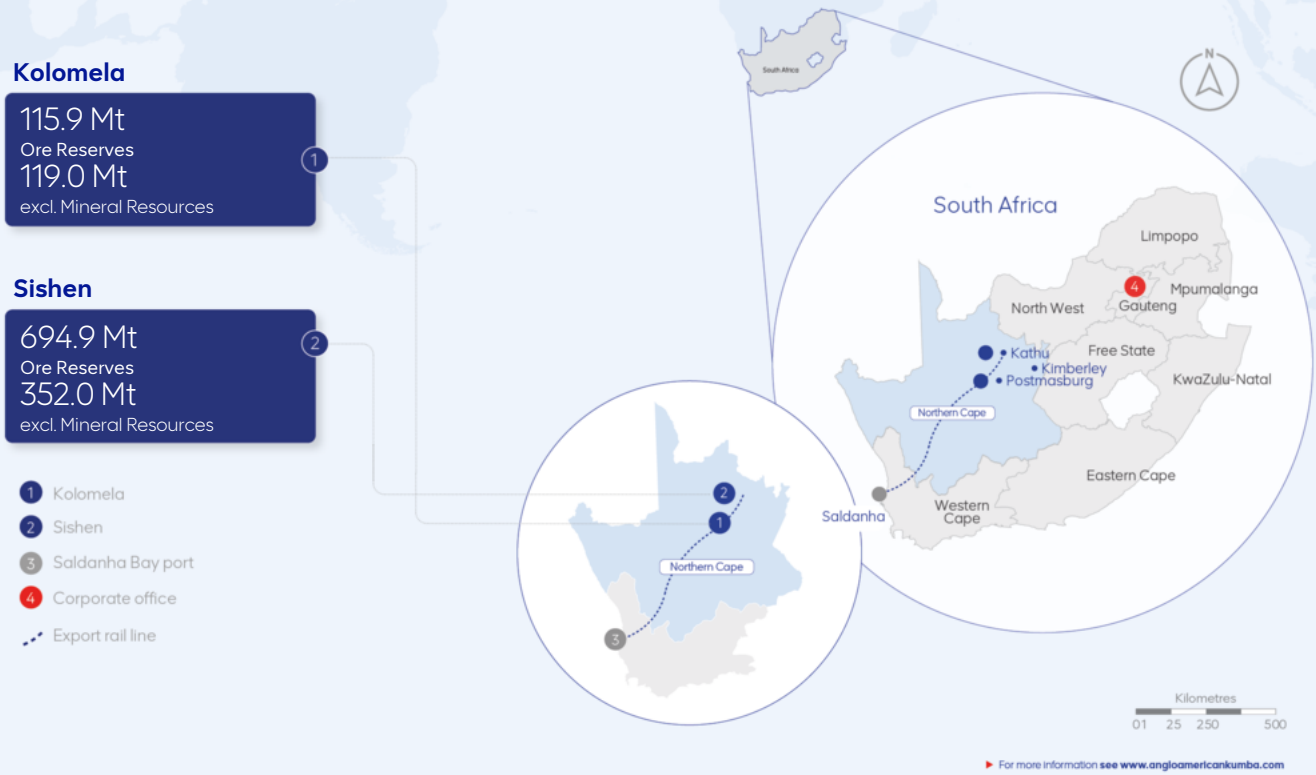


Figure 4: Geographical locations of Kumba operations for which Ore Reserves and Mineral Resources have been declared

The WGS84 latitude/longitude geographical co-ordinate map references of the Kumba entities for which Ore Reserves and Mineral Resources have been declared in 2024 are listed below:

1 Kolomela

Kolomela in the Northern Cape province near the town of Postmasburg

(28°23'30.05" S and 22°58'46.88" E)

2 Sishen

Sishen in the Northern Cape province near the town of Kathu, which accounts for the bulk of Kumba's production

(27°44'02.29" S and 23°00'39.95" E)

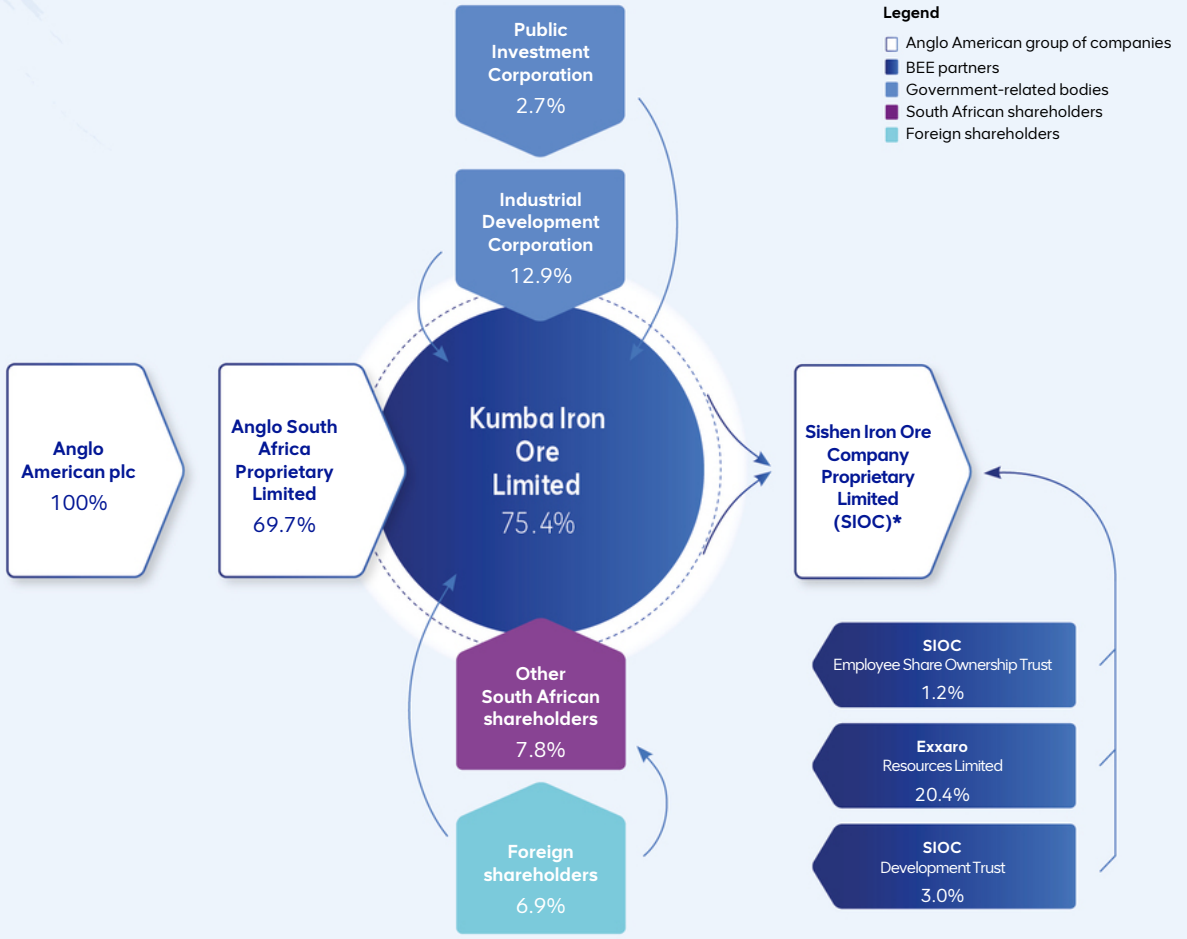
Premium Lump, Standard Lump and Standard Fines iron ore products are railed from the Kolomela and Sishen operations to the Saldanha Bay port on the west coast (located in Saldanha Bay in the Western Cape province), with both the rail and the port owned and operated by Transnet, a state-owned entity. The iron ore products are exported from the port to markets in the Asia-Pacific region, Europe and the Middle East as well as North Africa.

Kumba Iron Ore's corporate office is based in the Anglo American corporate facilities in Johannesburg (144 Oxford Road, Rosebank, Melrose, Johannesburg, 2196, Republic of South Africa).

Attributable ownership

Kumba has access to its Ore Reserves and Mineral Resources through Sishen Iron Ore Company Proprietary Limited (SIOC), in which it has 75.37% attributable ownership.

KIO, a business of the Anglo American plc (AA plc) group as the major shareholder, has access to its iron ore Reserves and Resources through SIOC, the entity to which the mining and prospecting rights have been granted. The relevant Kumba ownership structure is illustrated in **Figure 5.**



* Reference for *Security of Tenure - Status of prospecting rights* section (page 22) - SIOC owns 100% of Sibelo Resource Development Proprietary Limited.

Figure 5: Kumba ownership structure (at 31 December 2024)

For this report, all Ore Reserve (and Saleable Product) and Mineral Resource estimates, whether Kumba's attributable ownership in the specific mineral asset is less than 100% or not, are reported as 100%, with the percentages attributable to Kumba indicated in the relevant tables. The overall proportion attributable to SIOC, Kumba and AA plc is summarised in **Table 1**.

The effective shareholding of Kumba and SIOC has remained unchanged since 2023.

Table 1: SIOC, KIO and AA plc mineral asset ownership (31 December 2024)

	% owned by SIOC		% owned by Other via SIOC		% owned by Exxaro via SIOC		% owned by Kumba Iron Ore via SIOC		% owned by AA plc via KIO[1]	
Mineral asset	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023
Kolomela	**100**	100	**4.2**	4.2	**20.4**	20.4	**75.4**	75.4	**52.5**	52.5
Sishen	**100**	100	**4.2**	4.2	**20.4**	20.4	**75.4**	75.4	**52.5**	52.5

[1] The holding company, SIOC, is 75.4% owned by KIO; and KIO is 69.7% owned by AA plc (as of 31 December 2024).

Security of tenure

Kumba's right to mine

All Ore Reserves (and Saleable Product) and Mineral Resources (in addition to Ore Reserves) quoted in this document are held under notarially executed and registered mining rights granted to SIOC in terms of the MPRDA by the DMRE of the South African government. Kumba holds a 75.4% share in SIOC (at the time of reporting).

Status of mining rights

SIOC is the holder of mining rights for both its operations. In the case of both Kolomela and Sishen, the associated reserve life of each operation exceeds the expiry date of the applicable mining right. Some Ore Reserves are therefore in effect reported beyond the current tenure period:
Kolomela: By two years, with the reserve life ending 2040 (mining right expires in 2038)
Sishen: By one year, with the reserve life ending 2040 (mining right expires in 2039)

According to section 25 of the MPRDA, the holder of a mining right has, subject to section 24 (stipulation of regulations to apply for renewal of a mining right), the exclusive right to apply for and be granted a renewal of the mining right in respect of the mineral and mining area in question. Applications to extend the mining rights as noted above will be submitted at the appropriate time and there is reasonable expectation that such extensions will not be withheld.

The status of the mining rights as of 31 December 2024 is as follows:
Kolomela was granted a mining right for iron ore on 18 September 2008 for a 30-year mining period. Ancillary security of tenure information is summarised in **Table 2**.

Table 2: Kolomela security of tenure status summary

Authorisation type	Number of authorisations	Expiry date	Comments
Mining right	1 (NC30/5/1/1/2/069MR)	17 September 2038	Mining right and three deeds of amendments registered at the Mineral and Petroleum Titles Office: Pretoria.
Mining work programme (MWP)	1	End of reserve life	MWP section 102 amendment application to align with 2022 LoAP submitted to the DMRE on 13/10/2022 – granted by DMRE on 16 September 2024.
Social and labour plan (SLP)	1	31 December 2024	SLP approved by the DMRE on 19 November 2021 for the period 2020 to 2024. New SLP submitted to DMRE on 22 August 2024.
Environmental authorisation	34	End of reserve life	Enables execution of 2024 LoAP
Waste management licensing	4	End of reserve life	Enables execution of 2024 LoAP
Water use licensing	1	End of reserve life	Enables execution of 2024 LoAP
Closure provision		Immediate closure	R1,940 million liability - provided for via KIO rehabilitation trust fund (R190 million) and through bank guarantees (R1,777 million) with a R27million surplus. 0.3% less than in 2023.
Royalties		2024	Royalties – R306 million for 2024 (54% less than 2023)

Security of tenure cont.

Status of mining rights cont.

Sishen was granted a mining right for iron ore and quartzite on 11 November 2009 for a 30-year mining period. Ancillary security of tenure information is summarised in **Table 3**.

Table 3: Sishen security of tenure status summary

Authorisation type	Number of authorisations	Expiry date	Comments
Mining right	1 (NC30/5/1/2/2/259 MR)	10 November 2039	Mining right and three deeds of amendments registered at the Mineral and Petroleum Titles Office: Pretoria.
Mining work programme (MWP)	1	End of reserve life	A section 102 amendment application for an updated Sishen MWP was originally submitted to the DMRE on 22 December 2022 and resubmitted on 28 August 2023 and approved on 16 September 2024.
Social and labour plan (SLP)	1	2026	The Social and Labour Plan (SLP 3) for the period from 2022 to 2026 was provisionally approved by the DMRE on 20 April 2023. A section 102 local economic development plan amendment application was lodged on 18 September 2024 to address provisions.
Environmental authorisation	48	End of reserve life	Three (3) applications submitted from 2023 to 2024 have not yet been granted by the relevant governmental authority.
Waste management licensing	11	End of reserve life	Enables execution of 2024 LoAP
Water use licensing	1	End of reserve life	Three (3) applications submitted from 2021 to 2024 not yet granted.
Closure provision		Immediate closure	R4.73 billion liability - provided for through bank guarantees (R4.74 billion) and a rehabilitation trust (R0.8bn), with a R0.8 billion surplus. The closure provision decreased by 13% since 2023.
Royalties		2023	R1,325 million for 2024 as estimated at the time of reporting and based on provisional tax calculations (26% less than 2023).

Outstanding environmental authorisations pertaining to mining rights

The following applications considering future planned mining activities are pending approval from the relevant governmental authorities:

Kolomela

- None

Sishen

- 2023 – EMPR amendment application - extension of bioremediation site
- 2024 – EMPR amendment application - solar photovoltaic (PV) development
- 2024 – GR35 mining area water pipeline environmental authorisation
- 2021 – Hydroponic water use licence application
- 2023 – Pushbacks 8, 9, 10 and 17 mining areas water use licence applications
- 2024 – GR35 mining area water use licence application

Competing rights

Kumba is experiencing a continued bombardment of competing mining and prospecting rights:

- on land within SIOC's mining right areas where the Company has current mining activities taking place and/or future activities planned
- on land, of which SIOC is the surface rights owner
- on land, which falls within SIOC's land management strategy and/or land earmarked for biodiversity offset

These are being managed following the process below:

- Mandamus applications to compel the DMRE to decide on pending appeals.
- Bilateral engagement with the DMRE regional office led by DMRE Chief Director (led to resolution of seven competing applications either through formal withdrawal or rejection) and Regional Mining Development and Environmental Committee (RMDEC) meetings convened for the adjudication of matters.
- Collaboration with the Anglo American Legal department to undertake a risk and impact assessment.
- Ongoing monitoring and management of applications by filing objections and appeals.
- Escalation to Anglo American South Africa for intervention with the DMRE.
- Submissions to the Minerals Council South Africa.
- Participation in workshops on amendments to the MPRDA.

Security of tenure cont.

Status of prospecting rights

Kumba has declared no Mineral Resources or Ore Reserves on prospecting rights.

SIOC (75.4% owned by Kumba) has submitted a closure application for the Zandrivierspoort prospecting right, as was acknowledged by the Regional Manager of the DMRE office in Limpopo on 22 November 2021. The right expired on 21 March 2020. The closure certificate has not been issued yet. It is Kumba's understanding that the DMRE has awarded the right to another entity.

Sibelo (100% owned by SIOC) has submitted closure applications for 10 prospecting rights. The DMRE has not yet issued closure certificates for these rights and the closure applications were subsequently resubmitted on 28 March 2024. It is Kumba's understanding that the DMRE has awarded these rights to other entities.

Environmental, social and governance (ESG) reporting

In 2024, Kumba provided comprehensive feedback through its annual Sustainability report following the GRI's sustainability reporting standards (core compliance) and Mining Sector Supplement. Additionally, a Climate Change report was developed based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The reporting is also aligned with the AA1000 stakeholder engagement standard, the sustainable development principles and reporting framework of the International Council on Mining and Metals (ICMM), and the principles of the United Nations Global Performance Compact. Kumba makes use of a combined assurance model to provide the Company with assurance obtained from management and from internal and external assurance providers. Nexia SAB&T (Nexia) has provided independent assurance of selected sustainability key performance indicators. Nexia's assurance statement is provided in the stand-alone Kumba Sustainability report.

In terms of governance and ethical leadership, Kumba has set out the following structures, led by the Kumba Board, to hold Kumba management accountable to the ambitions set for 2030:

- Social, Ethics and Transformation Committee (Setco)
- Safety, Health and Sustainable Development (SHSD) Committee (which assumed relevant responsibilities from the Setco and commenced with its remit in February 2023)

Kumba, in collaboration with its parent company Anglo American, is evaluating the reporting requirements of the newly introduced South African guideline for the reporting of ESG parameters (SAMESG Guideline). It must be noted that the SAMESG Guideline has not been incorporated into the JSE Listings Requirements as stipulated for minerals companies.

Kumba's Executive Committee (Exco) is accountable for day-to-day sustainability management and performance, as well as all aspects of our overall strategy.

The Company takes a collaborative approach to ensuring sustainability across the various functions and to delivering on sustainability performance objectives. Our purpose is "re-imagining mining to improve people's lives", using innovative thinking, enabling technologies and collaborative partnerships to shape an industry that is safer, more sustainable, and better harmonised with the needs of our host communities and society.

To deliver on our purpose, Kumba has a Sustainable Mine Plan (SMP), which is built around three global sustainability pillars designed to support the United Nation's Sustainable Development Goals (UNSDGs). Refer to the Sustainability and Climate Change reports in the Kumba suite of reports for 2024 for detailed information on Kumba's progress against our SMP targets.

In maintaining a healthy environment, we have set out these ambitions for Kumba to achieve by 2030:

- A 30% reduction in operational greenhouse gas (GHG) emissions compared to a 2016 baseline.
- Kumba's operational assets are water-positive due to the dewatering activities that ensure dry and safe mining conditions, and low water use on site. We will improve our water use efficiency indicators to further reduce the total water used at our operations, and augment freshwater diverted to our host communities and third parties within the catchment areas where we operate.
- A net-positive impact on biodiversity by 2030, against a 2018 baseline.

To maintain a positive impact on our communities, Kumba has set the following ambitions to achieve by 2030 under the pillar of "Thriving Communities":

- Contribute to achieving good health and wellbeing within our host communities by supporting programmes and projects that contribute to positive health outcomes.
- Assisted support schools within our host communities to perform within the top 20% of state schools nationwide.
- Support shared prosperity in our host communities by facilitating five off-site jobs for every on-site job

Our "Trusted Corporate Leader" pillar covers three key areas: Accountability, Ethical Value Chains and Policy Advocacy. The stretched goals Kumba has set within these areas are designed to be challenging and our target is to achieve these by 2030.

To realise these ambitions, we have developed site plans with detailed pathways for each operation. Some notable planned actions are as follows:

- The construction of a 67 MW solar PV plant at Sishen as well as a 10 MW renewable solution (wheeled solar or wind) for Kolomela, through Envusa Energy.

Security of tenure cont.

Environmental, social and governance (ESG) reporting cont.

- Kumba will be conducting a regional water balance assessment, aimed at evaluating the water security risks of our host communities, to ensure that we tailor initiatives to address these. This will inform Kumba's regional water strategy, ensuring sustainable long-term provision of water to our host communities.

An underlying objective of our refreshed strategy is to ensure that we are a responsible producer of steelmaking raw materials, and an active participant in the world's green steel decarbonisation pathway. In delivering on this objective, we are restructuring our operations towards carbon neutrality, working to decarbonise our value chain, and carefully considering the broader socio-economic impacts associated with this global energy transition.

Informed by a thorough assessment of the priority energy and carbon-reduction options at Sishen and Kolomela, and by modelling different climate scenarios through to 2040, we have developed pathway options to deliver on our target of a 30% reduction in absolute GHG emissions (scope 1 and 2) by 2030, on a 2016 baseline, and an ambition to achieve a 50% reduction in scope 3 emissions by 2040 compared to a 2020 baseline.

We are currently reviewing operational site-specific targets to align with our latest mine plans and our diesel and electricity usage forecasts. We track each operational site on its monthly energy consumption and CO_2 GHG emissions against these targets. We have defined carbon emission targets linked to share awards over a three-year period.

To deliver on our reduction targets, we are focusing on various opportunities to:

- reduce the carbon and energy intensity of our mining operations by implementing efficiency measures
- investigate scope 1 savings on fossil fuel usage through fuel switching and electrification where feasible
- replace scope 2 fossil-based electricity with renewable electricity
- remove remaining carbon emissions through offset projects

In our efforts to increase renewable energy use, we are partnering with Anglo American to harness South Africa's great potential in terms of solar and wind energy. Recognising the pace and scale of developments in local and global policy frameworks, climate-related technologies and changing macro-economic pressures, our pathway has been designed to be dynamic, and will evolve to address these developments.

Competence

Kumba considers its relevant technical specialists as competent to declare Ore Reserves and Mineral Resources, in accordance with the SAMREC Code (2016 Edition), to provide the decision-maker with a transparent and material insight into the Company's Ore Reserve and Mineral Resource status at a given point in time.

The Ore Reserve and Mineral Resource estimates were prepared under the direct supervision of CPs as defined in the SAMREC Code (2016 Edition). All Mineral Resource CPs have sufficient relevant experience in estimating, assessing and evaluating the style of mineralisation and type of iron ore Mineral Resources. Similarly, Ore Reserve CPs have sufficient relevant experience in estimating, assessing and evaluating the economic extraction of iron ore Ore Reserves through open-pit mining methods.

All the CPs consent to the inclusion in this report of the information in the form and context in which it appears.

All CPs (**Table 4** and **Table 5**) informing the 2024 Kumba Ore Reserve (and Saleable Product) and Mineral Resource report assumed responsibility by signing a Competent Person appointment letter, kept by the Company's Principal – Resource Geology, at Anglo American's Rosebank office in Johannesburg, South Africa. These letters contain the full name, address, professional qualifications, and relevant experience of the CPs.

Table 4: Corporate responsibility – Lead Competent Persons – Kumba corporate office

Business unit	Field	Name	Title	Employed by	Professional organisation	Registration number	Years of relevant experience
Kumba Iron Ore	Mineral Resources	Jean Britz	Principal Mineral Resources	Sishen Iron Ore Company Proprietary Limited	SACNASP** Professional Natural Scientist	400423/04	20
	Ore Reserves*	Chris Cloete	Head of Mining	Sishen Iron Ore Company Proprietary Limited	ECSA*** Candidate Engineer	20075395	13

* The term "Ore Reserves" in the context of this report has the same meaning as "Mineral Reserves", as defined by the SAMREC Code. The term "Ore Reserves" is preferred because it emphasises the difference between these and Mineral Resources.
** SACNASP – South African Council for Natural Scientific Professions (**https://www.sacnasp.org.za/** - Address: Management Enterprise Building, 1 Mark Shuttleworth Street, Innovation Hub, Lynwood, Pretoria, 0087).
*** ECSA – Engineering Council of South Africa (**https://www.ecsa.co.za/default.aspx** - Address: Lake Office Park, 1st Floor, Waterview Corner Building, 2 Ernest Oppenheimer Avenue, Bruma, Johannesburg, 2198).

Competence cont.

Table 5: Mining operation responsibility – Kumba operations

Operations	Field	Name	Title	Employed by	Professional organisation	Registration number	Years of relevant experience
Kolomela	Mineral Resources	Venter Combrink	Specialist Modelling Resource Geologist	Sishen Iron Ore Company Proprietary Limited	SACNASP Professional Natural Scientist	400053/08	21
	Ore Reserves	Derek Esterhuysen	Principal Mining Engineer	Sishen Iron Ore Company Proprietary Limited	ECSA Professional Engineer	20040033	16
Sishen	Mineral Resources	Jacques Deacon	Specialist Estimation Resource Geologist	Sishen Iron Ore Company Proprietary Limited	SACNASP Professional Natural Scientist	119967	10
	Ore Reserves	Derek Esterhuysen	Principal Mining Engineer	Sishen Iron Ore Company Proprietary Limited	ECSA Professional Engineer	20040033	16

The Lead CPs and CPs for Ore Reserves and Mineral Resources, as appointed in 2024, can, without any qualifications, state the following:

- The Ore Reserve and Mineral Resource figures presented in this report are considered to be a true reflection of the Ore Reserve and Mineral Resource estimates as at 31 December 2024 for Kumba. Public reporting is based on site-specific R&R Statements that have been carried out in accordance with the minimum standards and guidelines of the SAMREC Code (2016 Edition).
- The Ore Reserve and Mineral Resource figures quoted in this report have been reviewed by a panel of peers, including technical specialists from Anglo American.
- The Lead CPs and CPs have not been unduly influenced by Kumba or any person commissioning the Ore Reserve (and Saleable Product) and Mineral Resource report. They are of the opinion that all critical assumptions are documented, and adequate disclosure is made of all material aspects that the informed reader may require to make a reasonable and balanced judgement of the Ore Reserve and Mineral Resource figures.
- The Lead CPs and CPs have sufficient experience relevant to the style and type of mineral deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person, as defined in the SAMREC Code (2016 Edition).
- The Lead CPs and CPs consent to the inclusion of the public R&R information (as defined in the Kumba R&R policy and reporting procedure documents) in the form and context in which it appears in this report, in the Kumba integrated report as well as in the AA plc R&R report and R&R summary section of the AA plc annual report.

Kumba appreciates any feedback regarding the competency, materiality and transparency with which its Ore Reserves and Mineral Resources have been presented in this report.

Feedback: (jean.britz@angloamerican.com)

Governance

Kumba applies a rigorous scheduled governance programme to ensure representative Ore Reserve (and Saleable Product) and Mineral Resource reporting.

Applicable R&R reporting codes are applied throughout Anglo American via a group policy for the reporting of Ore Reserves and Mineral Resources, which holistically governs R&R reporting for all the AA plc businesses, of which Kumba forms part. The policy is supported by a comprehensive requirements document [AA_RD_22_25 – Version 15 (2024)], which sets out the minimum requirements for R&R reporting throughout the Anglo American group to ensure a uniform approach to reporting and adherence to the latest applicable national reporting codes, which in the case of Kumba is the SAMREC Code (2016 Edition). The requirements document is revised annually prior to R&R reporting, with refinements approved by the AA plc R&R Reporting Committee. Kumba, being a JSE-listed entity, has its own Mineral Resource and Ore Reserve and Mineral reporting policy.

The Kumba R&R reporting governance framework is summarised in **Figure 6**.

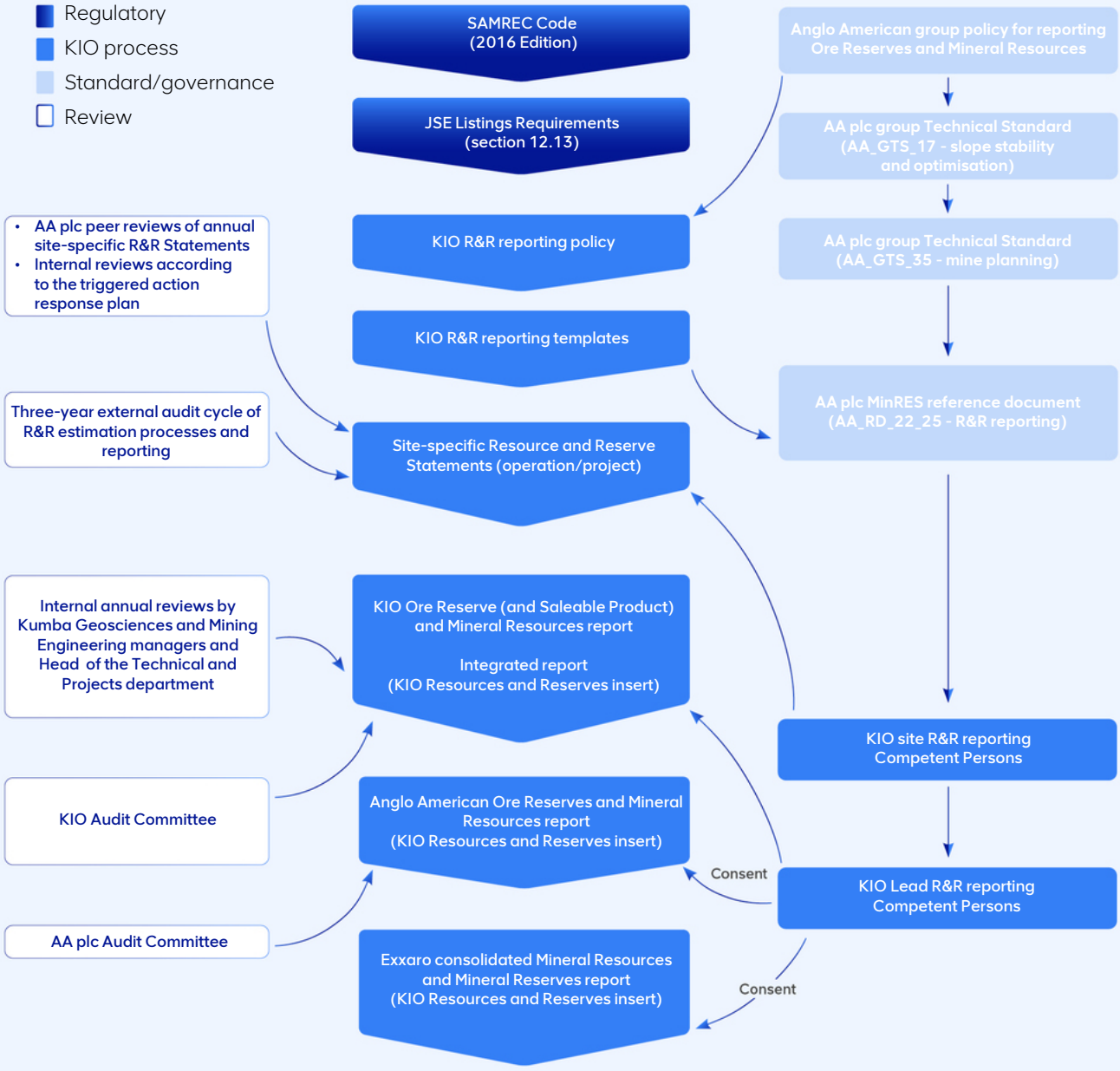


Figure 6: Kumba R&R reporting governance framework

Ore Reserves (and Saleable Product estimation)

Kumba aims to accurately plan and extract the maximum value from its mineral endowment through safe, responsible and cost-effective production that meets client requirements.

Reserve estimation

Reserve estimation process

Process step	Explanation	Software
Mining block modelling	The in situ Mineral Resource tonnages and grades as estimated and classified within 3D geological block models are initially modified by converting the geological block models into mining block models, considering the SMU sizes. With the up-blocking of the geological block model to a mining block model resolution, planned modifying factors such as dilution and mining losses are realised while other factors such as geological losses and mining recovery efficiencies, determined via value chain reconciliation of actual geological accuracies and extraction efficiencies, are applied to convert in situ ore to a RoM ore equivalent. Sishen has introduced a value-based approach to mining block modelling to allow pit optimisation to determine what portion of the Measured and Indicated Mineral Resources is economically mineable, and can be converted to Ore Reserves and subsequent Saleable Product, This involves the replacement of the 40% Fe Ore Reserve cut-off grade with a value based cut-off approach whereby the economic mineability of each SMU in the mining block model is determined by its valuation, comparing the cost of mining and beneficiating the SMU RoM and the selling of the SMU products against the income generated by the SMU products, based on the long-term price (considering grade penalties) and exchange rate. The estimated products for each SMU block are derived from cut-offs applied to the Saleable Product grade and yield parameters assigned to each block via beneficiation algorithms.	GEOVIA Surpac™ and Deswik™
Pit optimisation	The pit optimisation is conducted to spatially constrain the inventory of Ore Reserve that is mineable within the assumed economic parameters by assigning revenue and cost values to each SMU unit in the mining block model (value-per-tonne metric), and defining an acceptable cut-off cost that reflects the optimism and risk which the Company is prepared to accept in investing in the Ore Reserve. The option chosen to define the latest business expectation in terms of economically mineable is referred to as the optimal pit shell.	GEOVIA Whittle 4X™
Pit design	The optimal pit shell, as defined in the previous process, is engineered or designed into a safe and practical pit layout. This layout includes various pushbacks within the pit layout, taking into account geotechnical slope stability parameters, equipment-aligned haul roads, ramps, and bench definitions. The pit and pushback layouts envelope the current economically extractable ore volumes, forming the basis for the LoAP scheduling and resultant Ore Reserve and Saleable Product estimates.	Trimble Open Pit Design™, GEOVIA Surpac™ and Deswik™
LoA scheduling	Having defined and spatially delineated the Ore Reserves, the long-term plan devises an operating and mining strategy to achieve required business objectives, which changed year-on-year: • 2023: Maximising value for investors (an acceptable return [margin targeting] for shareholders corresponding to the market sector and corporate philosophy). • 2024: Minimise risk to investors (achieve an operating cost to deliver the final product that is acceptable compared to other world iron ore producers. The mining blocks, constrained by the pit layout, are then scheduled using guidance from the optimum scenario as well as various inputs such as equipment utilisation, mining activity effectiveness, cut-off and blending and stockpile philosophy inputs. The modified ore is scheduled for the various beneficiation plants and/or stockpile destinations, as well as from stockpiles to honour annual Saleable Product targets and Client off-take specifications, while the waste is scheduled for the various waste destinations. This is an iterative process, as the sequencing of mining activities must ensure that consistent output over time. Simultaneously, soft integration with the five-year business plan schedule is required to ensure full alignment between medium- and long-term planning.	COMET Strategy™ RPM Open Pit Metals Solution™
Infrastructure match	The infrastructure required to achieve the LoA schedule is then compared with the existing infrastructure and its associated lifespans. If adjustments are required in terms of equipment purchases, stoppages or changes in terms of waste dumping, it is indicated as such to timeously plan the subsequent infrastructure to match the LoA schedule. The placing of any additional permanent infrastructure is usually done outside the optimistic shell extents.	
Valuation	The best-fit plan is evaluated by assigning value chain costs, long-term pricing and other fiscal parameters. This valuation is conducted including and excluding modified Inferred RoM to indicate the risk associated with the modified Inferred RoM included in the LoAP.	
Reporting	The Proved and Probable Ore Reserves (as modified from the in situ Measured and Indicated Mineral Resources occurring inside the pit layout), excluding the modified Inferred RoM, are then reported as Ore Reserves, and include all the planned Proved and Probable RoM scheduled over the total LoA period. The Proved and Probable product, derived from applying relevant yield modifications to the Proved and Probable Ore Reserves, are quoted as the Saleable Product and include all the planned Proved and Probable Saleable Product derived over the total LoA period.	

Ore Reserves (and Saleable Product estimation) cont.

Reserve estimation cont.

Reserve estimation process cont.

Commodity pricing

Long-term price: Kumba prefers not to disclose its forward looking iron ore price and therefore provides a breakdown of how it is derived. The iron ore price (denoted in US$/tonne terms), as provided by the Anglo American Strategy Department, representing Anglo's view of the long-term Platts 62% price, is adjusted by Kumba to convert it from a general market figure to a site-specific figure used to define current and eventual economic extractability for each operation:

- The first adjustments made are price adjustments from the cost and freight (CFR) 62% Fine Iron Ore China price (Real, LT US$/tonne) to the CFR Kumba product price in China (Real, LT US$/tonne). These adjustments are premiums for higher Fe content and Lump products, penalties for gangue adjustments and any adjustment due to Kumba price realisations achieved in the market. This represents the CFR Kumba product price in China (Real, LT US$/tonne).
- The second adjustment is the sea freight adjustment (including estimated port and demurrage costs) and is done to reflect the long-term Kumba product price at Saldanha (Kumba's export harbour) in US$/tonne FOB terms.
- Once the product prices are calculated in US$/tonne FOB terms, the long-term real exchange rate (also provided by the Anglo American Commodity Research Department) is applied to convert the price to a Rand/tonne FOB Saldanha base.
- To calculate the Rand/tonne free-on-rail (FOR) price for the products, the long-term rail cost is subtracted for each of the sites. The rail cost includes related logistics and marketing costs.
- As a final adjustment, contractual obligations are considered to derive what is termed an effective site market price in Rand/tonne (FOR). This equates to a RF 1 pit shell price.

The long-term price and exchange rate increased materially from 2023 to 2024.

Costing

Costs applied in pit optimisation consist of three main components:

- Mining cost (expressed as Rand/tonne mined)
- Processing cost (expressed as Rand/tonne processed, and comprises of plant and services costs)
- Selling cost (expressed as Rand/tonne product, and consists only of royalties - calculated as 4% of the selling price)

Mining cost is calculated and updated during the annual budget process and is driven by mining activity. The cost is calculated for each site and is made up of petroleum products, blasting material, drilling equipment, other consumables, energy cost, general expenses, maintenance cost and outside services. It is zero based and is escalated using USA CPI factors/RSA CPI factors into nominal terms.

For the pit optimisation, the nominal mining cost for the five-year budget period is converted back to real terms and a weighted average is calculated for the five-year period. In the same manner, mining stay-in-business cost is calculated and added to the mining operational expenditure.

Processing cost combines the site's various plant costs (and includes fixed and variable but excludes stay-in-business cost) in nominal terms over the five-year budget period into a weighted average real Rand/tonne feed for the five-year period using the approved USA CPI factors/RSA CPI factors. The services cost (on-mine services) is also a weighted average real cost Rand/tonne feed and is added to the plant cost to arrive at the processing cost that is used in the pit optimisation.

Selling cost is purely royalty cost and is calculated by applying 4% to the long-term real FOR Rand/tonne price.

Long-term pricing, a long-term exchange rate as well as budget costs (representing the total mining value chain) were used to inform the five-year business plans and to define:

- the Ore Reserve that is economically mineable within the assumed economic parameters
- the acceptable cut-off cost, which reflects the optimism and risk that the Company is prepared to accept in investing in the Ore Reserve

It should be noted that costs have marginally increased from 2023 to 2024 at both operations, with mining and processing unit costs escalating primarily as a result of inflationary adjustments and lower product sales caused by logistical constraints. However, these costs were curtailed by Kumba's current cost-saving drive.

Considering all of the above, the Proved and Probable Ore Reserves in the mining block models available for RoM scheduling have been constrained by pit layouts designed from 0.66 RF shells for both Kolomela and Sishen. The 0.66 RF shells applied in 2024 match the option chosen from all the pit shells generated during site-specific pit optimisation at each operation, adhering to Kumba's business expectation of remaining in the third quartile of the global iron ore producers' cost curve, and was lower compared to 2023 due to a reduced scheduled throughput because of logistical constraints and cost inflation. The 2023 Ore Reserves were constrained by pit layouts designed from a 1.0 RF at Kolomela (applied in 2022, as the Ore Reserves were only determined by way of depletion for Kolomela in 2023) and a 0.8 RF at Sishen.

Ore Reserves (and Saleable Product estimation) cont.

Reserve estimation cont.

Reserve estimation process cont.

Application of modifying factors

The first step of modification involves the up-blocking of the geological block model into a mining block model to achieve a mining block model resolution that matches the SMU X, Y and Z dimensions. An SMU represents the smallest economical but practical mineable unit, as derived through optimisation studies taking into account site-specific ore geometry and mining equipment loading and hauling capacities.

During the up-blocking, some waste material is included in SMU-sized ore blocks, which is calculated as **dilution** if the SMU ore block is scheduled as RoM, and similarly some ore material is included in SMU-sized waste blocks, which in turn is calculated as a **mining loss** if the SMU waste block is scheduled to a waste dump destination.

An SMU block is classified as waste or ore based on certain **cut-off parameters:**

- At Kolomela, a fixed 50% Fe cut-off grade is applied to the mining block model to distinguish between ore and waste.
- At Sishen, a value-based cut-off is applied, whereby value is assigned to each SMU in the mining block model. This is done by converting the Ore Reserve tonnage and grade estimates in the SMU to Saleable Product tonnages and grades via yield and beneficiation algorithms that have been derived from densimetric geometallurgical test data and converted into beneficiation algorithms, the latter also considers plant efficiencies. Cost of mining and beneficiating and selling the estimated Ore Reserves in an SMU can then be discounted from the price obtained for selling the Saleable Product estimated for the SMU (catering for contaminant grade penalties if applicable).

Subsequently, the resource-to-reserve conversion process must consider geological accuracy and mining efficiencies. This is done by applying a **long-term planning modifying factor**, which is a combination of site-specific geological loss/gain factors as well as mining recovery efficiencies as determined by the value chain reconciliation process, comparing actual (demonstrated) with planned performance.

- **Geological gains/losses** are determined by the Kumba value chain reconciliation process, whereby the resource model is compared to the Unmodified Ore Control Model, which is informed by additional ore control borehole and pit mapping information for areas that have been mined.
- **Mining recovery efficiency** is also determined by the Kumba value chain reconciliation process, whereby the reserve model is compared to the ex-pit tonnages as officially surveyed for areas that have been mined.
- Furthermore, where applicable, **a design recovery efficiency factor** is also applied for areas where it is evident that the pit design has not been achieved through actual mining. This factor takes into account sterilisation of ore at depth caused by the former design.

This process converts in situ Mineral Resources into RoM. Only Measured and Indicated Mineral Resources inside pit layouts are converted into Proved and Probable Ore Reserves. Inferred Mineral Resources are not converted to Ore Reserves and Inferred Mineral Resources inside the pit layout, considered as RoM by the LoAP after modification, are separately reported in an unmodified state as exclusive Mineral Resources (**Table 8**).

2024 Saleable Product

Estimation summary

All mineralisation in the mining block models has the associated potential Saleable Product attributes assigned via the application of site-specific beneficiation (yield and associated product grade) algorithms (per ore type).

In the case of Kolomela, the beneficiation algorithm polynomial formulas are empirically derived and based on historical plant performance. At Sishen, the beneficiation algorithms are based on large-diameter geometallurgical borehole densimetric data and then adjusted or scaled up to represent plant beneficiation using measured plant beneficiation efficiencies.

The LoAP process schedules the various ore types in the mining block models (constraints within pit layouts) and from RoM buffer stockpiles to solve for the consistent delivery of Saleable Product that complies with product specifications. Once an optimum value option is identified for Kumba, considering all the input and business expectations, and the schedule is approved, the portion of the Saleable Product that is derived from Proved and Probable Ore Reserves (RoM), excluding modified Inferred Mineral Resources, is declared as Saleable Product.

Apart from beneficiation, RoM blending is one of the main levers used during scheduling to ensure that the resultant iron ore product is suitable for off-take in current market conditions.

It is important to note that the Saleable Product estimates remaining after 31 December 2024 assume:

- capital approval for the continued mining of the Kapstevel South pit at Kolomela, and
- pathways to achieve climate change ambitions will have a positive business case for implementation.

Ore Reserves (and Saleable Product estimation) cont.

2024 Saleable Product cont.

Saleable Product: 2024 (versus 2023) summary

The 2024 Kolomela and Sishen LoAPs, considering the current contract and Client supply agreement conditions, deliver a total estimated Saleable Product of 540.3 Mt, at an average 63.9% Fe over the reserve life years for the two mining operations (**Table 6**).

Table 6: Kumba's Saleable Product for 2024 (referenced against 2023)

Operation	Operation status	Mining method	Ore type	% owned by KIO	Saleable Product category	Yield %		Saleable Product			
								2024		2023	
						2024	2023	**Tonnage (Mt)**	**Average grade (% Fe)**	Tonnage (Mt)	Average grade (% Fe)
Mining operations											
Kolomela											
Saleable Product from pit	Steady-state	Open-pit	Haematite	75.4	Proved	99.8	94.3	105.1	63.0	83.0	65.0
					Probable			9.3	63.0	20.9	64.2
					Sub-total			**114.4**	**63.0**	**103.9**	**64.8**
Saleable Product from RoM buffer stockpiles					Proved			0.0	0.0	0.0	0.0
					Probable			1.3	63.0	21.4	56.9
					Sub-total			**1.3**	**63.0**	**21.4**	**56.9**
Total Saleable Product					Proved			105.1	63.0	83.0	65.0
					Probable			10.6	63.0	42.3	60.5
					Total			**115.7**	**63.0**	**125.3**	**63.5**
Sishen											
Saleable Product from pit	Steady-state	Open-pit	Haematite	75.4	Proved	61.1	63.4	330.8	64.8	281.5	65.0
					Probable			64.4	61.5	61.3	61.7
					Sub-total			**395.2**	**64.3**	**342.8**	**64.4**
Saleable Product from RoM buffer stockpiles					Proved			0.0	0.0	0.0	0.0
					Probable			29.4	61.2	36.8	61.1
					Sub-total			**29.4**	**61.2**	**36.8**	**61.1**
Total Saleable Product					Proved			330.8	64.8	281.5	65.0
					Probable			93.8	61.4	98.1	61.5
					Total			**424.6**	**64.0**	**379.6**	**64.1**
Company											
Kumba Iron Ore											
Grand total Saleable Product				75.4	Proved	66.6	69.0	435.9	64.4	364.4	65.0
					Probable			104.4	61.6	140.5	61.2
					Grand total			**540.3**	**63.9**	**504.9**	**63.9**

Footnotes to Saleable Product (Table 6)

- The tonnages are quoted in dry metric tonnes and million tonnes is abbreviated as Mt.
- Rounding of figures may cause computational discrepancies.
- Saleable Product figures are reported at 100% irrespective of percentage attributable ownership to Kumba.
- Yield is calculated as: Saleable Product tonnes (**Table 6**)/Ore Reserves tonnes (**Table 7**) x 100.

Ore Reserves (and Saleable Product estimation) cont.

2024 Saleable Product cont.

Year-on-year Saleable Product reconciliation

The year-on-year movement in the estimated Saleable Product is reconciled in **Figure 7**.

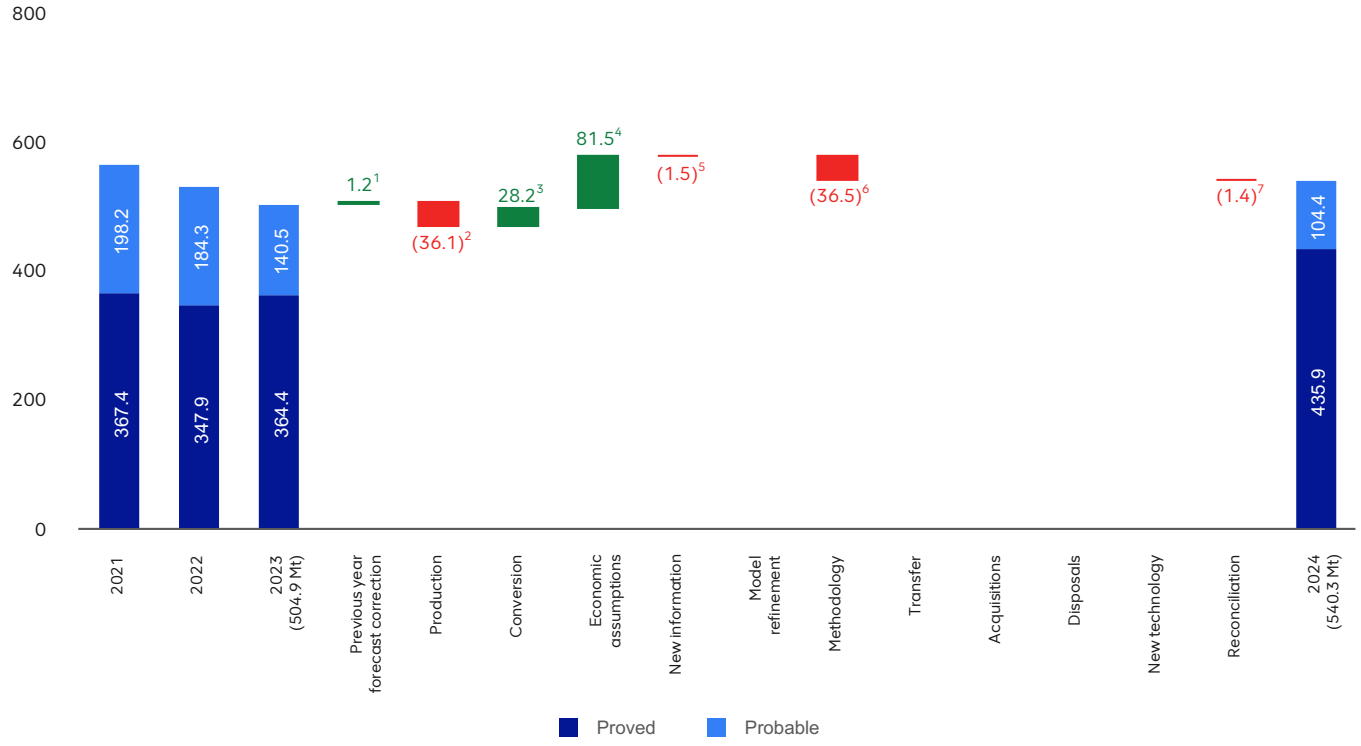


Figure 7: Kumba Saleable Product movement from 2023 to 2024

Footnotes to Saleable Product movement (Figure 7)

1 Actual production as recorded by the value chain reconciliation was 1.2 Mt less than forecasted at the time of reporting for 2023 at Kolomela and 0.04 Mt more than forecasted for Sishen.

2 The 7+5 forecasted production (seven months actual production as per value chain reconciliation and five months forecasted production as per the medium-term plan) for 2024 amounts to 10.0 Mt for Kolomela and 26.1 Mt for Sishen (excluding the production of modified beneficiated Inferred Mineral Resources).

3 The breakdown of the conversion movements are as follows:

- **Kolomela:** 20.1 Mt less Saleable Product delivered by the 2024 LoAP due to the UHDMS plant being halted. However, this decrease was offset by a 2.9 Mt increase associated with an improved mining recovery efficiency modification based on value chain reconciliation results that demonstrate improved performance. There is a further 6.2 Mt increase due to an improvement in the LoAP yield, with only the high-yield DSO plant scheduled to receive plant feed.
- **Sishen:** Overall increase of 39.2 Mt due to an update in the planned mining recovery efficiency of low-grade ore, from 47% in 2023 to 87% in 2024 (geological losses addressed by the 2024 geological model update - please see point 6). However, this increase is offset by a decrease in the yield as more low-grade ore (larger pit layout - with more low-grade ore proportionally included at depth) is beneficiated in the 2024 LoAP.

4 The Company's more positive outlook on the long-term iron ore price and exchange rate expectations resulted in an increase in the size of the Kapstevel South pit layout (13.3 Mt increase in Saleable Product) as well as the Sishen pit layout (68.2 Mt increase in Saleable Product), although constrained at a 0.6 RF in 2024 compared to a 0.8 RF in 2023, as part of the cost curtailment drive initiated by the Kumba Executive.

5 Minor changes (-3.0 Mt at Kolomela and +1.5 Mt at Sishen) in Saleable Product brought about by tectonostratigraphic interpretation refinements implemented during the 2024 geological model updates.

6 A decrease in Saleable Product derived from Sishen low-grade Ore Reserves equating to 36.5 Mt as a result of the 2024 geological model update, which considered a revised estimation method to address the historical selective sampling of BIF material.

7 Less Saleable Product was delivered by the 2024 Sishen LoAP due to unaccounted low-grade ore losses as recorded by the value chain reconciliation process.

Ore Reserves (and Saleable Product estimation) cont.

2024 Saleable Product cont.

Kumba Saleable Product profile

The Kumba combined (Sishen and Kolomela) planned Saleable Product profile (including estimated modified beneficiated Inferred ore) is depicted per operation in **Figure 8a** and per product type in **Figure 8b**.

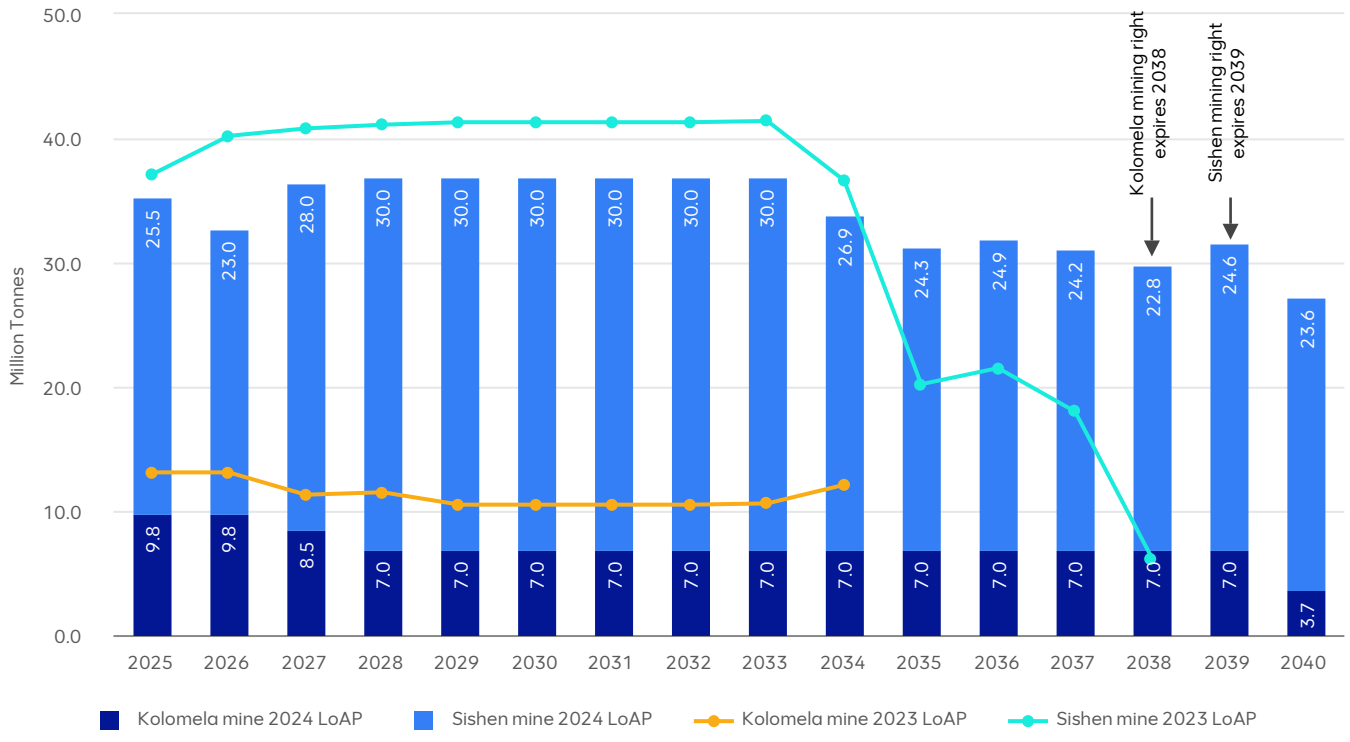


Figure 8a Kumba combined 2024 LoAP Saleable Product profile (including estimated modified beneficiated Inferred Mineral Resources) - per operation

Ore Reserves (and Saleable Product estimation) cont.

2024 Saleable Product cont.

Kumba Saleable Product profile cont.

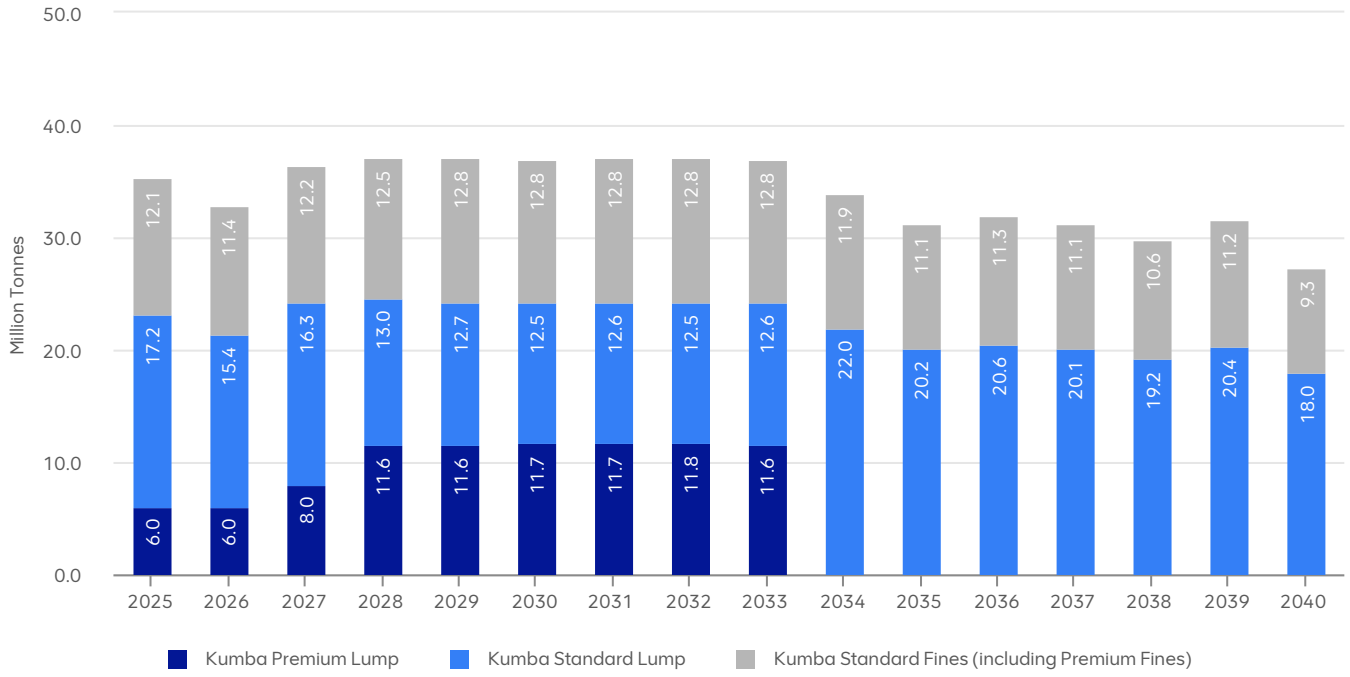


Figure 8b Kumba combined 2024 LoAP Saleable Product profile (including estimated modified beneficiated Inferred Mineral Resources) - per product type
(Anglo American Marketing in process of developing Premium Fines market in line with Sishen DMS to UHDMS plant conversion project planned Premium Fines offtake)

Ore Reserves (and Saleable Product estimation) cont.

2024 Saleable Product cont.

Saleable Product breakdown

Kolomela's Saleable Product decreased by 9.6 Mt (-8%) from 2023 to 2024, primarily attributable to the halting of the DMS plant. As a result, less Saleable Product planned is to be beneficiated in the 2024 Kolomela LoAP compared to 2023. A further contributing factor to the year-on-year decrease is the forecasted production for 2024.

The year-on-year 0.5% absolute decrease in the average Fe is due to a scheduled product grade modification. This change was implemented to align with actual product grades achieved, as demonstrated in the value chain reconciliation.

The year-on-year 5.5% absolute increase in average yield can be attributed to the cessation of the operations at the small-scale UHDMS plant at Kolomela (no longer considered in the 2024 LoAP), signifying that all of Kolomela's remaining Saleable Product is generated by the high-yield crushing and screening plant.

For Kolomela, which has a remaining reserve life of 16 years, the average Saleable Product output is projected to be 7.2 Mtpa. This includes an average output of 9.4 Mtpa for the first three years, 7.0 Mtpa for the next 12 years, and 3.7 Mtpa for the final year. These projections are part of the 2024 LoAP and include modified beneficiated Inferred Mineral Resources, compared to an average of 11.5 Mtpa in the 2023 LoAP. The downscaling in output is part of Kumba's business reconfiguration drive to optimise value in a constrained logistical environment. This optimisation process is ongoing and volume output may change again, pending capital availability and success in terms of cost curtailment.

The 2024 Kolomela LoAP delivers an average 55% Standard Lump to 45% Standard Fines Saleable Product ratio over its life. No additional Premium Lump is scheduled to be produced from Kolomela due to the inherent limitations of the Mineral Resource associated with the Kapstevel South deposit, which comprise a significant portion of the remaining Ore Reserves.

Sishen's Saleable Product increased by 45.0 Mt (+12%) from 2023 to 2024, primarily due to an enlargement of the Sishen pit layout, allowing for an additional Saleable Product to be derived from more RoM scheduled for beneficiation in the 2024 Sishen LoAP.

The average Fe of the remaining Saleable Product remained consistent, with only a 0.1% drop year-on-year.

The year-on-year -2.3% absolute decrease in average yield is the result of low-grade RoM scheduled for beneficiation in the 2024 LoAP compared to the 2023 LoAP, with the low to medium+high grade ore ratio associated with the larger (deeper) layout, which differs significantly from the shallower pit layout of 2023. A smaller contributing factor is the conversion of the DMS to UHDMS (Jig+UHDMS) plant feed ratio, which changed from 64:36 in the 2023 LoAP to 59:41 in the 2024 LoAP.

For Sishen, a 16-year remaining reserve life is anticipated with an average of 26.7 Mtpa Saleable Product. This includes an output of 25.5 Mtpa for the first three years due to the planned tie-in of the DMS to UHDMS plant conversion, followed by 30.0 Mtpa over the next six years, and 24.5 Mtpa over the last seven years as lower-grade RoM that beneficiates at lower yield starts to dominate the production profile. This output is scheduled in the 2024 LoAP, incorporating modified beneficiated Inferred Mineral Resources, compared to an average output of 25.4 Mtpa as per the 2023 LoAP.

The 2024 Sishen LoAP delivers an average 21% Premium Lump to 47% Standard Lump to 32% Standard Fines Saleable Product ratio over the mine life.

The Sishen products are co-stockpiled with the Kolomela products at the Saldanha export port to deliver the following Saleable Products for the market:

- Premium Lump: ≥65.1% Fe
- Standard Lump: ≥63.9% Fe
- Standard Fines: ≥63.2% Fe

Ore Reserves (and Saleable Product estimation) cont.

2024 Ore Reserves

The 2024 Kolomela and Sishen LoAPs, considering the latest approved economic, technical and business expectation inputs, estimate the Ore Reserves (Proved and Probable portion of the scheduled RoM) remaining after 31 December 2024, to be 810.8 Mt with an average of 55.0% Fe over the mine life for the two mining operations (**Table 7**).

It is important to note that the Ore Reserve estimates assume:
- capital approval for the continued mining of the Kapstevel South pit at Kolomela, and
- pathways to achieve climate change ambitions will have a positive business case for implementation

Ore Reserve: 2024 (versus 2023) summary

Table 7: Kumba's Ore Reserves for 2024 (referenced against 2023)

Operation	Operation status	Mining method	Ore type	% owned by KIO	Reserve category	Ore Reserves 2024 Tonnage (Mt)	2024 Average grade (% Fe)	2024 Cut-off *	2024 Reserve life** (years)	2023 Tonnage (Mt)	2023 Average grade (% Fe)	2023 Cut-off *	2023 Reserve life** (years)
Kolomela													
Ore Reserves from pit	Steady-state	Open-pit	Haematite	75.4	Proved	105.3	63.2	50% Fe	16	87.9	64.2	50% Fe	11
					Probable	9.4	61.3			22.2	63.3		
					Sub-total	**114.6**	**63.0**			**110.1**	**64.0**		
Ore Reserves from RoM buffer stockpiles					Proved	0.0	0.0			0.0	0.0		
					Probable	1.3	57.0			22.7	56.0		
					Sub-total	**1.3**	**57.0**			**22.7**	**56.0**		
Total Ore Reserves					Proved	105.3	63.2			87.9	64.2		
					Probable	10.6	60.8			44.9	59.6		
					Total	**115.9**	**63.0**			**132.8**	**62.6**		
Sishen													
Ore Reserves from pit	Steady-state	Open-pit	Haematite	75.4	Proved	487.4	56.7	Value based#	16	402.2	57.2	Value based#	15
					Probable	141.8	46.8			119.2	48.5		
					Sub-total	**629.2**	**54.5**			**521.4**	**55.2**		
Ore Reserves from RoM buffer stockpiles					Proved	0.0	0.0			0.0	0.0		
					Probable	65.7	46.0			77.2	46.3		
					Sub-total	**65.7**	**46.0**			**77.2**	**46.3**		
Total Ore Reserves					Proved	487.4	56.7			402.2	57.2		
					Probable	207.5	46.5			196.5	47.6		
					Total	**694.9**	**53.7**			**598.6**	**54.0**		
Kumba Iron Ore													
Grand total Ore Reserves				75.4	Proved	592.7	57.9			490.1	58.5		
					Probable	218.1	47.2			241.3	49.8		
					Grand total	**810.8**	**55.0**			**731.4**	**55.6**		

Ore Reserves (and Saleable Product estimation) cont.

2024 Ore Reserves cont.

Footnotes to the Ore Reserves (Table 7)

- The tonnages are quoted in dry metric tonnes and million tonnes is abbreviated as Mt.
- Rounding of figures may cause computational discrepancies.
- Ore Reserve figures are reported at 100%, irrespective of percentage attributable ownership to KIO.

* The cut-off assigned to Ore Reserves is dependent on the beneficiality and blending capacity of the modified ore scheduled as RoM, which is iteratively determined during LoAP scheduling to achieve a target that meet the Client's product specifications. In the case of Kolomela, which is considered to be a direct shipping ore operation in the 2024 LoAP, the lowest RoM Fe grade associated with a scheduled SMU is 50%. In the case of Sishen, having a large-scale installed DMS, Jig and UHDMS and planned 2024 LoAP UHDMS beneficiation capacity, the cut-off is value based, with the lowest RoM Fe grade associated with a scheduled SMU being 35.1%.

** Reserve life represents the period in years in the approved LoAP for the scheduled extraction of Proved and Probable Ore Reserves. The reserve life is limited to the period during which the Ore Reserves can be economically exploited. Where the scheduled Ore Reserves fall below 25% of the average annual production rate, the period beyond this is excluded from the reserve life.

In 2023, Sishen introduced a value-based approach to mining block modelling to allow pit optimisation to determine what portion of the Measured and Indicated Mineral Resources is economically mineable and can be converted to Ore Reserves and subsequently to a Saleable Product, whereby the economic mineability of each SMU in the mining block model is determined by comparing the cost of mining and beneficiating the SMU ore and the selling of the SMU product against the income generated by the SMU product type, based on the long-term price (considering grade penalties) and the exchange rate.

Year-on-year Ore Reserve reconciliation

The year-on-year change in the estimated Ore Reserves is reconciled in **Figure 9**.

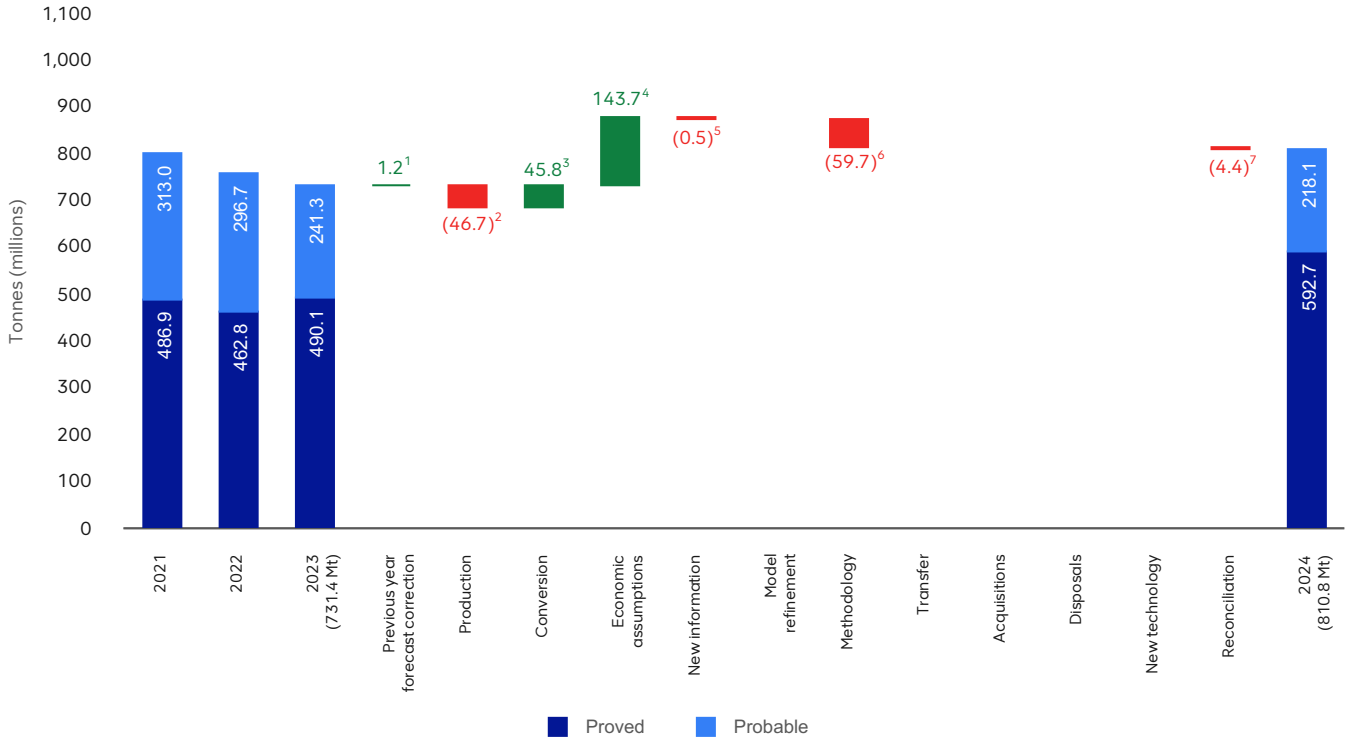


Figure 9: Kumba Ore Reserve movement from 2023 to 2024

Ore Reserves (and Saleable Product estimation) cont.

2024 Ore Reserves cont.

Year-on-year Ore Reserve reconciliation cont.

Footnotes to Ore Reserve movements (Figure 9)

1 Actual depletion, as recorded by the value chain reconciliation, was 1.2 Mt less than the 2023 forecast for Kolomela (which has a halted DMS plant) and 0.04 Mt more than the forecasted 2023 depletion for Sishen.

2 The 7+5 forecasted RoM production (seven months actual depletion as per value chain reconciliation and five months forecasted depletion as per the medium-term plan) for 2024 amounts to 10.1 Mt for Kolomela and 36.6 Mt for Sishen (excluding the depletion of modified Inferred Mineral Resources).

3 The breakdown of the conversion movements are as follows:
- **Kolomela:** 21.4 Mt of Probable medium-grade RoM buffer stockpile Ore Reserve was not utilised as DMS plant feed in the 2024 LoAP (the DMS plant was halted); the latter was offset by a 3.0 Mt increase associated with an improved mining recovery efficiency modification based on value chain reconciliation results representing demonstrated performance.
- **Sishen:** 64.2 Mt overall increase as the result of the planned low-grade ore mining recovery efficiency modification improving from 53% in 2023 to 87% in 2024 (addressing geological losses informed by the 2024 geological model update - see point 6).

4 The Company's more positive outlook on long-term iron ore price and exchange rate, expectations resulted in an increase in the size of the Kapstevel South pit layout (13.4 Mt increase in Ore Reserves) as well as the Sishen pit layout (130.3 Mt increase in Ore Reserves), although constrained at a 0.66 RF in 2024 compared to a 0.8 RF in 2023, as part of the cost curtailment drive initiated by the Kumba Executive.

5 Minor changes (-3.0 Mt at Kolomela and +2.5 Mt at Sishen) in Ore Reserves brought about by tectonostratigraphic interpretation refinements implemented during the 2024 geological model updates.

6 There was a decrease in low-grade Ore Reserves equating to 59.7 Mt as a result of the 2024 geological model update, which considered a revised estimation method to address the historical selective sampling of BIF material.

7 Unaccounted low-grade ore losses at Sishen, as recorded by the value chain reconciliation process, were planned to be mined from the pit to RoM buffer stockpiles but did not materialise on RoM buffer stockpiles.

Komatsu 860 haul truck in operation at Sishen mine

Ore Reserves (and Saleable Product estimation) cont.

2024 Ore Reserves cont.

Kumba RoM profile

The Kumba combined RoM profile (including estimated modified Inferred Mineral Resources) is illustrated in **Figure 10.**

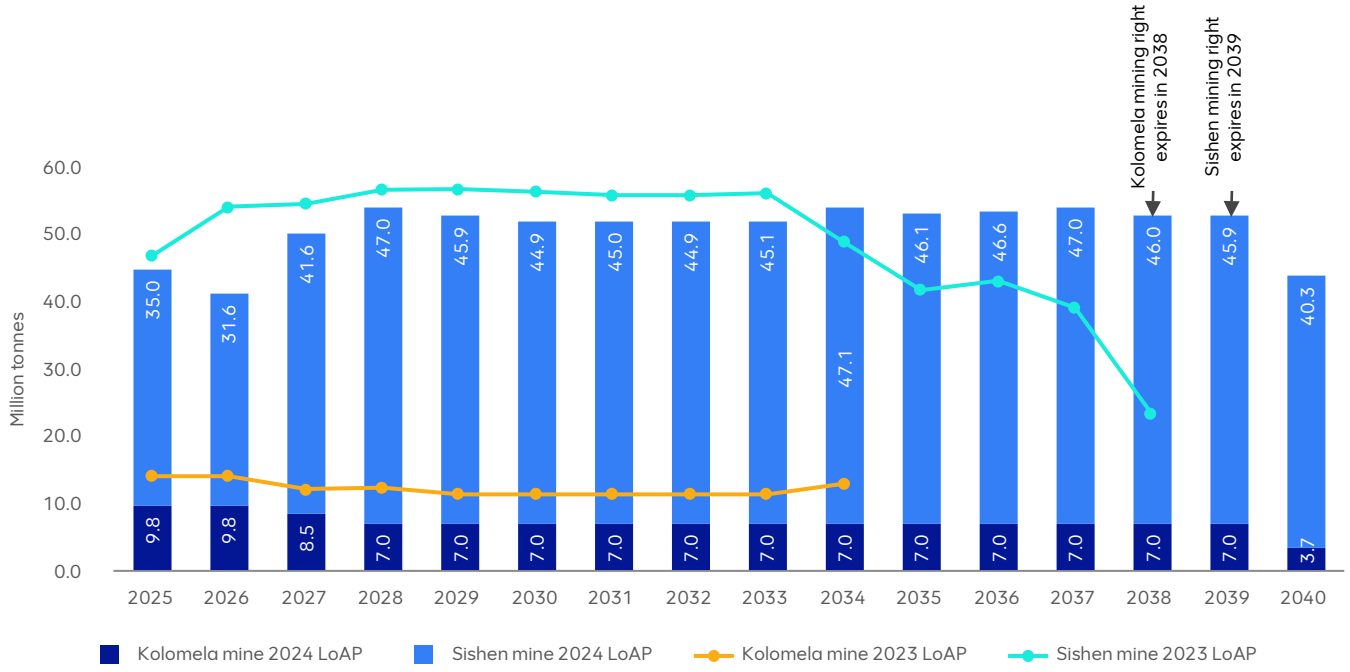


Figure 10: Kumba combined RoM profile (including estimated modified Inferred Mineral Resources)

Ore Reserves (and Saleable Product estimation) cont.

2024 Ore Reserves cont.

Ore Reserve breakdown

Kolomela's Ore Reserves decreased by 16.9 Mt (-13%) from 2023 to 2024, primarily due to stalling the small-scale UHDMS plant as part of Kumba's cost curtailment drive, resulting in the exclusion of medium-grade ore as UHDMS RoM from the 2024 Kolomela LoAP. The Ore Reserves reallocated to exclusive Mineral Resources. A further contributing factor to the year-on-year decrease is the 2024 production as forecasted at the time of site-specific reporting.

The year-on-year 0.4% absolute increase in the average RoM Fe is the result of the halting of the small-scale UHDMS plant, with the plant feed ratio changing from 86 : 14 as per the 2023 LoAP to 100 : 0 as per the 2024 LoAP, with higher RoM Fe grades required to feed the DSO crushing and screening plant.

For Kolomela, which has a remaining mine life of 16 years, the average RoM is projected to be 7.3 Mtpa. This includes an average of 9.4 Mtpa for the first three years, 7.0 Mtpa for the next 12 years, and 3.7 Mtpa for the final year. These projections are outlined in the 2024 LoAP and include modified Inferred Mineral Resources, compared to an average of 12.2 Mtpa in the 2023 LoAP. The downscaling in output is part of Kumba's business reconfiguration drive to optimise value in a constrained logistical environment. This optimisation process is still in progress and volume output may change further, pending capital availability and success in terms of cost curtailment measures.

The overall waste stripping ratio decreased from 4.4 : 1 in 2023 to 4.1 : 1 in 2024 as a result of a final pit layout and pushback redesign of the Kapstevel South pit.

In the case of the Kolomela mining operation, the Ore Reserve reference point is the primary crusher feeder where the planned RoM is delivered to the crushing and screening plant where DSO is produced.

To define the risk of having low-confidence modified Inferred Mineral Resources in the 2024 LoAP, Kolomela evaluated a long-term asset plan scheduling scenario that exclude the modified Inferred Mineral Resources. The plan remained economically viable, with only a 0.1% lower NPV at a 9.3% real discount rate. It is important to note that the 2024 LoAP does contain a two-year period of negative cash flow.

The Kolomela reserve life is 16 years.

Sishen's Ore Reserves increased by 96.2 Mt (+16%) from 2023 to 2024, primarily as a result of an enlargement of the Sishen pit layout, due to the Company adopting a more positive outlook in terms of long-term pricing and the ZAR/US$ exchange rate compared to 2023, allowing for additional RoM to be generated in the 2024 Sishen LoAP. The latter was partially offset by the 2024 production as forecasted at the time of site-specific reporting.

The average Fe content of the Ore Reserves decreased by 0.3% year-on-year, with the additional Ore Reserves associated with the larger pit layout having an increased low to medium+high grade ore ratio compared to the ore contained in the 2023 pit layout.

For Sishen, which has a remaining mine life of 16 years, the average RoM is projected to be 43.8 Mtpa. This includes an average of 36.1 Mtpa for the first three years, because of the planned tie-in of the DMS to UHDMS plant conversion, and 45.5 Mtpa over the remaining 13 years. This is scheduled in the 2024 LoAP and includes modified Inferred Mineral Resources, compared to an average of 40.0 Mtpa output as per the 2023 LoAP. The increased annual output is the direct result of the larger pit layout.

The overall waste stripping ratio to achieve the increased Ore Reserve output increased significantly from 3.3 : 1 in 2023 to 3.6 : 1 in 2024, a 44% year-on-year increase in total waste volumes.

In the case of the Sishen mining operation, the Ore Reserve reference point is the primary crusher feeders where the RoM is delivered to either the DMS plant for conversion to a UHDMS plant or the Jig plant, which also includes a plus small-scale UHDMS plant.

To define the risk of having low-confidence modified Inferred Mineral Resources in the 2024 LoAP, Sishen valuated a long-term asset plan scheduling scenario that exclude the modified Inferred Mineral Resources. The plan remained economically viable, with only a 0.8% decrease in NPV (at a 9.3% real discount).

The Sishen reserve life is 16 years.

Exclusive Mineral Resources

The iron ore mineralisation in addition to Ore Reserves, with reasonable prospects for eventual economic extraction.

Exploration

Kumba Iron Ore conducted on-mine exploration in 2024 to improve the characterisation of existing Mineral Resources associated with actively mined pits, and to improve the geological confidence of satellite deposit Mineral Resources within mining right areas not associated with actively mined pits. The focus of the on-mine exploration has also shifted to cater for more large-diameter core drilling to generate spatial geometallurgical information to better inform the conversion of Ore Reserves to Saleable Product. The scope of geometallurgical work has been expanded to include hyperspectral scanning of new as well as historical drill core, with the aim of better understanding the textural properties of the mineralisation and to investigate the possibility of geometallurgical sub-domaining of mineralised lithologies in the geological models.

Near-mine exploration for 2024 continued in areas of the Northern Cape province outside the SIOC mining right areas, in association with third-party prospecting right holders, for areas identified as potential iron ore mineralisation targets via the Kumba regional geological model of the iron ore belt. Through exploration drilling, analyses and geometallurgical test work, Kumba has advanced one such opportunity (a small deposit located south of Sishen) to a confidence level for the joint venture partner to submit a mining right application, which is currently under consideration by the DMRE.

Exploration and geometallurgical borehole drilling in 2024 was conducted by Rosond, contracted by Kumba.

Exploration expenditure

Exploration drilling activities realised 32,636 drill metres in 2024. The associated total exploration expenditure amounted to R301.7 million (**Table 8**). The 2024 exploration expenditure comprises 0.4% of Kumba's 2024 revenue.

Table 8: Summary of 2024 versus 2023 Kumba exploration expenditure (9+3 forecast)

	Total exploration spend x million		Drilling spend x million		Number of holes drilled		Metres drilled		Average drilling cost per metre	
	2024	2023	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023
Mining right areas	**R267.3**	R158.1	**R196.2**	R122.9	**144**	132	**32,636**	30,699	**R6,012.30**	R4,001.94
Third-party prospecting right areas	**R34.4**	R101.3	**R2.2**	R92.2	**—**	75	**—**	17,502	**Not applicable**	R5,265.58
Total	**R301.7**	R259.4	**R198.4**	R215.0	**144**	207	**32,636**	48,201	**R6,080.30**	R4,460.78

The exploration expenditure, as set out in the table above, includes the combined costs associated with the various types of core, reverse circulation and percussion drilling conducted in 2024. "Exploration spend" covers drilling, drill site establishment, drilling equipment logistics and drill site rehabilitation. "Total exploration spend" accounts for overheads as well as operational costs of the central facility in the Northern Cape where borehole logging/scanning, sampling and storage are conducted. The 50% year-on-year increase in the drilling unit cost is primarily associated with a rollover of R18.6 million from 2023.

Sampling and assaying

All primary geological samples, taken from drilled core, and in some instances, percussion-drilled chips of exploration boreholes, were prepared and assayed by the Chemistry Laboratory (Company registration number: 1921/0067130/06) of the Technical Solutions Division of AA plc in Johannesburg, South Africa.

All samples taken from large-diameter drilled core of geometallurgical boreholes were prepared and tested for an array of metallurgical and other physical property measurements by the Metallurgical Laboratory in Johannesburg, South Africa, and the Value-in-Use Testing Facility in Pretoria, South Africa of the Technical Solutions Division of AA plc, with associated assaying of these samples conducted by the AA plc Chemistry Laboratory.

Exclusive Mineral Resources cont.

Sampling and assaying cont.

The TS Chemistry Laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005 by the South African National Accreditation System (SANAS) under the facility accreditation number T0051, valid until 30 April 2026. The accreditation is for the preparation and assaying of iron ore samples, using methods that comply with the requirements of Kumba.

According to the 2024(9+3) forecast, Kumba Geosciences submitted:

- 23,720 exploration borehole samples to the TS Chemistry Laboratory for preparation and analysis
- 560 large-diameter borehole samples to the TS Metallurgical Laboratory for preparation and testing of geometallurgical characteristics
- 123 large-diameter borehole samples to the Anglo Value-in-Use facility for preparation and testing of refinement characteristics, particularly lump ore behaviour in the blast furnace

A total of 24,403 primary samples were submitted for assaying, geometallurgical testing and refinement testing.

The TS Chemistry Laboratory prepared 19,430 and assayed 18,662 exploration borehole samples for the year. Differences between submitted versus prepared and assayed samples are primarily because of ore control borehole samples being redirected from the Kolomela on-site Laboratory to the TS Chemistry Laboratory because of capacity overflow at the Kolomela facility, with the Kolomela ore control borehole samples taking priority over exploration borehole samples at the TS Chemistry Laboratory.

All the primary exploration samples were prepared, assayed and tested in the Republic of South Africa, except for 5% pulp replicate QC samples generated by the TS Chemistry Laboratory. These were analysed by the Bureau Veritas Laboratory in Perth, Australia, an ISO and National (Australian) Association of Testing Authorities accredited laboratory for iron ores and a member of the ISO MN-002-02 Chemical Analysis Committee, as part of the Kumba Geosciences Department's required external independent QA/QC validation.

The TS Metallurgical Laboratory prepared 540 samples in 2024. The samples were then composited, based on lithology and chemistry, to obtain minimum masses as required by certain geometallurgical tests.

Geometallurgical test work involved:

- 140 bulk density Archimedes tests
- 19 geotechnical hardness tests
- 39 comminution-related tests
- 184 densimetric tests
- 206 mineralogy tests

The Anglo TS Value-in-Use Testing facility in Pretoria prepared and tested 102 borehole samples. Refinement tests include:

- tumbler strength testing
- low-temperature Reduction-Disintegration by static method (ISO 4696-1 and ISO 4696-2)
- reducibility testing
- decrepitation testing
- fines fraction analyses

The 2024 (nine actual + three forecast) total spend on sample preparation, assaying and testing amounted to R56.4 million, accounting for 19% of the total exploration expenditure:

- Sample preparation and assaying at the AA plc TS Chemistry Laboratory: R21.0 million.
- Sample preparation and metallurgical testing at the AA plc TS Metallurgical Laboratory: R29.8 million.
- Sample preparation and testing at the AA plc Value-in-Use Testing facility: R5.6 million.

Kumba ensures exploration and geometallurgical borehole sample representativity by applying stringent QA/QC protocols:

- *KIO Exploration Drilling Guideline and associated QC Protocol for Drilling, Sampling, Sub-sampling and Assaying (Version 10)* that governs all stages of exploration borehole sampling, sub-sampling and assaying, including blind validation of sample preparation and assaying at the laboratories.
- *KIO Protocol for Geometallurgical Drilling Sampling Sub-sampling and Test Work (Rev 3)* that governs all stages of geometallurgical borehole sampling, sub-sampling and geometallurgical test work.

The results of the exploration borehole sampling validations are summarised in the annual Kumba QA/QC report, which is compiled and made available in-house at the end of October of each year, in support of the annual Kumba Iron Ore Limited Ore Reserve (and Saleable Product) and Mineral Resource report. In addition, the Anglo American Technical Solutions Chemistry and Metallurgical Laboratories also apply their own internal QA/QC protocols and provide feedback to Kumba in the form of detailed quarterly reports.

Primary sample representivity (especially percussion samples) remains the main focus area to be improved upon, based on the annual QA/QC validations.

Kumba Geosciences is often asked what its geometallurgical refinement test work entails. Kumba's refinement tests are conducted to predetermine the behaviour of the Lump iron ore in the blast furnace process and are typically conducted on samples taken from product beds, i.e. after beneficiation. In the case of Kolomela, geometallurgical borehole samples of in situ high-grade ore, that are not beneficiated and utilised as DSO, can be submitted for refinement testing. In the case of Sishen, the sink-float fractions at a ≥3.6 cut density can be combined per sample. However, samples may only be combined for refinement testing if they are from the same lithological ore unit within the same borehole and have similar in situ iron grades.

Exclusive Mineral Resources cont.

Geometallurgy

Geometallurgy is a fairly new discipline in Kumba Iron Ore. A drill hole sample data collection protocol was established in 2016, with large-diameter (85mm) geometallurgical core drilling, sampling and testing commencing in 2017. The aim of Kumba's geometallurgical programme is to:

- gain a general understanding of the geometallurgical characteristics of the various ore types, in the short- to medium-term
- become spatially predictive in terms of the conversion of Ore Reserves to Saleable Product in the medium- to long-term, with the following main streams of geometallurgical data generation being the focus:

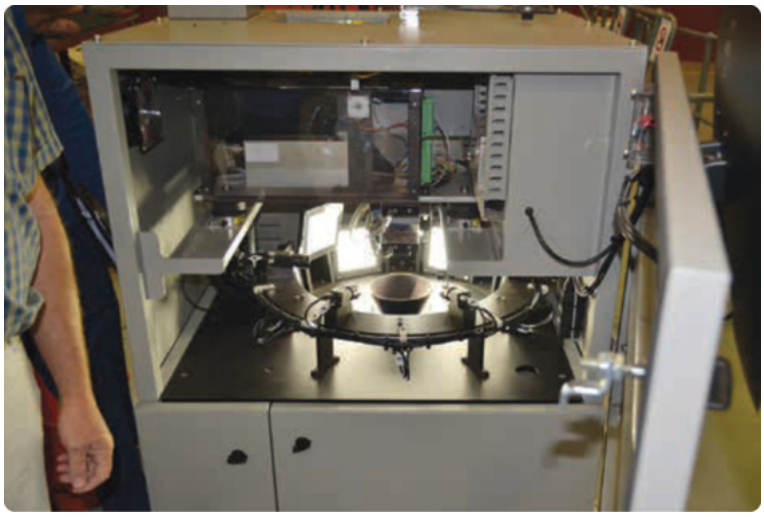
Hardness and comminution characterisation to gain a better understanding of the physical rock properties of the ore, which is indicative of run-of-mine and product sizing. If the variability of hardness through an ore body is understood and modelled, it assists in the optimisation of blasting practices and lump-to-fine ratio estimations of product, while also delivering valuable input to crusher optimisation.

The various tests, as prescribed in the KIO Protocol for Geometallurgical Drilling, Sampling, Sub sampling and Test work, are:

- UCS (Uniaxial Compressive Strength), and point-load tests
- CWI (Bond Crusher Work Index)
- SMC (SAG Mill Comminution test)
- BAIX (Bond Abrasion Index)

UCS and CWI are spatially modelled via machine learning and Kriging, with the final estimates derived by combining the machine learning and Kriging results via Bayesian probability analysis. The UCS and CWI variables were populated in the 2024 geological models for Kolomela, and in the mining block model for Sishen. Point-load tests (an established proxy for UCS testing) also inform the UCS modelled estimates. SMC and BAIX data are currently not modelled and are used on an ad hoc basis when projects require input into design or maintenance schedules.

Beneficiation characterisation involves densimetric test work of borehole samples whereby the sample is crushed to a top-size of 25mm and then split into different size fractions that mimic the lump and fine split as effected in the plants. These split-samples or sub-samples underwent sink-float analysis (prior to 2018), replaced by RhoVol analysis in 2018 to determine the yield and associate product grades at various cut densities, i.e. the split-sample is divided into density fractions that are generated from a 2.8 g/cc to 4.8 g/cc range in 0.2 g/cc increments. The density fractions are then assayed. The RhoVol technology creates a single stream of the crushed borehole sample particles, where each particle is weighed and an array of cameras creates a 3D image of each particle to determine its volume to enable a density calculation for each particle.



RhoVol (developed by De Beers Technologies SA): Following mass measurement, each particle is dropped into space where seven cameras capture silhouettes, which are processed to accurately determine volume and shape

These densimetric (yield) and associated product grade results are then converted into lump and fine beneficiation algorithms for each ore type, which is subsequently adjusted to consider monitored plant-specific efficiencies (in effect to upscale from bench testing to large-scale beneficiation).

Currently, ore type and plant-specific beneficiation algorithms are assigned to the Sishen geological and mining block models and used to convert planned RoM into planned lump and fine product for the DMS and Jig plants. These algorithms are used as input for the LoAP scheduling. With Kolomela being a direct shipping ore operation, the beneficiation algorithms are empirically derived based on the plant's historical performance.

Exclusive Mineral Resources cont.

Geometallurgy cont.

These test results are modelled via machine learning methods, using the estimated *in situ* Mineral Resource grades in the Kolomela geological models as proxies. The refinement results are not disclosed due to the sensitivity of the values in relation to the marketing of the saleable product.

Table 9 is a summary of the hardness and comminution geometallurgical results, reported for the first time in 2024.

Table 9: Kumba's hardness and comminution attributes for ore as enveloped inside the 2024 pit layouts

Geometallurgical attribute	Kolomela		Sishen	
	Mean	Standard deviation	Mean	Standard deviation
Unconfined compressive strength (average) - MPa				
High-grade ore(massive, laminated and clastic textured)	102	63	192	70
High-grade ore (conglomeratic)	Results limited			
Ferruginised Shale (medium- and low-grade ore*)	70	30	120	65
Ferruginised BIF (medium- and low-grade ore)	108	51	156	63
Bond Crushing Work Index (average) - kWh/t				
High-grade ore(massive, laminated and clastic textured)	7.1	3.6	12.5	6.3
High-grade ore (conglomeratic)	18.2	6.0	Results limited	
Ferruginised shale (medium- and low-grade ore)	6.2	2.0	14.2	7.2
Ferruginised BIF (medium- and low-grade ore*)	11.2	7.7	16.2	8.1
Bond Abrasion Index (average) - mg/min				
High-grade ore(massive, laminated and clastic textured)	0.22	0.14	Results limited	
High-grade ore (Conglomeratic)	Results limited			
Ferruginised shale (medium- and low-grade ore)	Results limited			
Ferruginised Banded Iron Formation (medium- and low-grade ore*)	Results limited			
SAG Mill Comminution (average) - kWh/m^3				
High-grade ore(massive, laminated and clastic textured)	9.7	2.9	12.5	2.8
High-grade ore (conglomeratic)	Results limited			
Ferruginised shale (medium- and low-grade ore)	Results limited		9.3	2.1
Ferruginised BIF (medium- and low-grade ore*)	8.1	2.5	8.1	2.1

* Attribute figures provided are based on borehole sample point data as constrained within the 2024 pit layouts and have not been derived from modelled estimates.

From **Table 9,** it is evident that a spatial understanding of the geometallurgical hardness and comminution attributes is essential given the large standard deviations. Kumba acknowledges that the geometallurgical attribute spatial estimations are indicative.

Exclusive Mineral Resources cont.

Geometallurgy cont.

Refinement characterisation is conducted to understand the physical and metallurgical properties of the lump fraction (-25+8mm) product of the Kolomela DSO. Refinement characterisation allows for the marketability of the lump ore to be understood, i.e. the change in size of the ore during transport and handling to the customer as well as the behaviour of the lump ore in a blast furnace. A spatial understanding of these properties enables the development of an optimised marketing strategy. The test work related to refinement characterisation include:

- Determination of the tumble and abrasion indices (ISO 3271): This test assesses the degree of ore degradation during transport from pit to port.
- Determination of reducibility by the rate of reduction index (ISO 4695): This test evaluates the rate of reduction within the blast furnace
- Determination of relative reducibility (ISO 7215): This test measures the degree of reduction after 180 minutes.
- Static test for low-temperature reduction-disintegration (ISO 4696): This index determines the resultant size distribution of particles after reduction in the blast furnace.
- Decrepitation index (ISO 8371): This test determines the size distribution of particles after the entry of the blast furnace.

From the above test work, the tumble index, relative reducibility and reduction-disintegration attributes are modelled via machine learning methods, using the estimated *in situ* Mineral Resource grades in the Kolomela geological models. The decrepitation index and rate of reduction index are currently modelled as these are not highly variable, however, the data is run through the machine learning process to ascertain the important rock properties and qualities that influence the results. The refinement results are not disclosed due to the sensitivity of the values in relation to the marketing of the saleable product.

Exclusive Mineral Resources cont.

Mineral Resource estimation

Kumba applies a uniform Mineral Resource estimation process at all its sites as explained below:

Process step	Explanation	Software
Data assembly and quality	The data generated by exploration, primarily drilling, must be representative of the volume of material being sampled. Samples are generated through quasi-regular sampling (drilling) grids and are validated by means of a stringent quality control programme, which monitors sample location, primary sampling, sample preparation and sample assaying for representivity. Because some of the historically drilled samples used for estimation do not have QA/QC metadata, Kumba introduced a sample representivity indexing method, which is considered during spatial geological confidence classification. Validated exploration data is used to compile spatially referenced 3D tectonostratigraphic models based on the geologists' understanding and interpretation of the regional and local geology and ore genesis.	acQuire™
Solids modelling	The solids model geometrically domains the high-grade iron ore types in relation to the waste lithologies within primary structural domains. Each deposit representing Ore Reserves and/or Mineral Resources is represented by a full three-dimensional tectonostratigraphical solids model. Because of the pervasive nature of the iron ore mineralisation in the Northern Cape province of South Africa, medium- and low-grade ferruginisation are of such a nature that it can only be distinguished from waste applying soft boundaries or Fe cut-off grades in the geological block models. Each domain's bounding surface in effect provides an efficient volume description of the tectonostratigraphic unit.	Seequent Leapfrog Geo™ (Kolomela) GEOVIA Surpac™ (Sishen)
Exploratory data analysis	The validated borehole sample in situ grade and density data intersecting the various solids model domains are composited to achieve constant sample support and statistically analysed (univariate and multivariate) per domain. Sub-domaining is conducted if different sample populations within a single solids domain can be spatially distinguished based on grade or drilling method.	JMP™ and Isatis™ (Kolomela) JMP™ and RMSP (Sishen)
Geological block modelling	Iron ore is a typical multivariate grade commodity and Kumba geostatistically models composited sample density and the following composited sample grade parameters of the ore domains as a minimum, i.e. Fe, SiO_2, Al_2O_3, K_2O, P, Mn and S to establish its spatial variability. Conventional variograms were derived for all variables. These calculations are done using unfolded data. The variograms are interpreted to consider spatial anisotropy. Waste lithologies, by virtue of having a poorer sample coverage, are usually characterised by default grades and densities, statistically derived from the sample data. The optimal parent block size is determined using Quantitative Kriging Neighbourhood Analysis. The Quantitative Kriging Neighbourhood Analysis is used to determine the best search envelop (number of samples and ranges) by optimising the krige variance and slope-of-regression while minimising negative weights in the krige matrix. Ordinary kriging is conducted to estimate the attributes where the data density is sufficient. In areas with sparse sampling, Simple kriging is applied or default values (global estimates) are assigned. The block grades are informed during three rounds of interpolation. In the first round block grades are estimated using the optimal Kriging neighbourhood. This represents the best possible estimates. Blocks not estimated in the first pass are then kriged using an enlarged (x 2) neighbourhood. These estimates thus use samples beyond the range of the variogram and are extrapolated and of a lower confidence. Any blocks still not informed after the second kriging run receive the global mean grade. This process is repeated for each variable. After the block models have been populated with in situ grade estimates, the Sishen block models are also populated with potential Saleable Product grades as well as yields through the application of beneficiation algorithms (derived from densimetric geometallurgical borehole data). Site-specific defined ore control *in situ* grade cut-offs are assigned to the Kolomela block models to derive material classes to also express the Mineral Resources in the form of material classes as used during ore control modelling for blast block demarcation. At Sishen, site-specific defined in situ grade as well as product grade and yield cut-offs are assigned to derive material classes to express the Mineral Resources in the form of material classes as used during ore control modelling to inform blast block demarcation.	Isatis™ (Kolomela) RMSP (Sishen) Datamine Studio RM™ (Kolomela) GEOVIA Surpac™ (Sishen)
Confidence classification	The blocks populated in the first kriging run are classified using a scorecard approach based on the *KIO Geological Confidence Classification Guideline (Version 5)*, whereby certain key site-specific parameters as identified by the CP, are indexed and used to measure geometry and grade continuity. The individual grade indices and geometry indices are then weighted as per the CP's understanding of its impact. The weights are applied to derive a combined grade index as well as a combined geometry index, which in turn is weighted as per the CP's understanding of the deposit to derive a final single geological confidence index. The final confidence index is then classed against index boundaries as derived by the CP to distinguish between Measured, Indicated and Inferred Mineral Resources. The CP also has the authority to override areas of indexed classification and downgrade it. All blocks in the geological block model populated by the second kriging run or by default grades are classified as Inferred (extrapolated).	Isatis Neo™ (Kolomela) RMSP (Sishen)
Resource reporting	Inclusive Mineral Resources are determined as that portion of the ore in the 3D geological block model, which has *in situ* grades above a specified cut-off (50% Fe for Kolomela and beneficiation potential for Sishen), that are located within a 1.1 RF resource shell (as derived through pit optimisation). Only that portion of the inclusive Mineral Resources which are not converted to Ore Reserves (everything inside the resource shell above the specified cut-off grades, excluding the Measured and Indicated Mineral Resources inside the pit layout converted into Ore Reserves) are publicly reported as exclusive Mineral Resources.	

Exclusive Mineral Resources cont.

Reasonable prospects for eventual economic extraction (RPEEE)

Kumba's 2024 Mineral Resources are not an inventory of all mineral occurrences drilled or sampled regardless of cut-off grade, likely dimensions, location, depth or continuity. Instead, they are a realistic record of those, which under assumed and justifiable technical and economic conditions, may be economically extractable in future.

The following cut-off grades are applied to define Mineral Resources:
- 50% *in situ* Fe at Kolomela
- Beneficiation potential at Sishen

Kolomela has successfully demonstrated, through RoM blending and subsequent available DSO and small-scale UHDMS* beneficiation capability and capacity, that all high-grade (Fe ≥ 61 %Fe) and medium-grade (61% > Fe ≥ 50%) ore, scheduled as RoM, can be beneficiated to achieve marketable Saleable Product.

The change from a fixed 40% in situ Fe cut-off (in 2023) to a beneficiation potential cut-off (in 2024), to define Mineral Resources at Sishen, was implemented to align with the value-based cut-off approach implemented by Kumba Mining Engineering in 2023 to define the Sishen Ore Reserves. This was achieved by evaluating the beneficiation potential and assigning yield and product grade parameters via the application of geometallurgical densimetric data-derived beneficiation algorithms to each mineralised geological unit in the geological model. The beneficiation potential of the iron ore mineralisation in the resource model is categorised into material classes, which consider yield and product cut-off grades on a bench (12.5m vertical) scale, but assigned to each 5m(X) x 5m(Y) x 3.125m(Z) cell in the resource model.

Sishen has successfully demonstrated, through RoM blending and subsequent available DMS and Jig (specifically the +small-scale UHDMS), its capability and capacity as well as planned large-scale UHDMS beneficiation, as outlined in the approved feasibility study. All material, as defined by the material classes, including the high-, medium- and low-grade ore material classes, scheduled as RoM, can be beneficiated to achieve marketable Saleable Product.

Kumba adjusted its business expectation in 2024, as part of the reconfiguration of its business, from a margin income protection strategy in 2023 to a cost curtailment strategy in 2024, with the drive to remain in the third quartile of the World (iron ore) Producer Cost Curve.

The 2024 pit optimisation assumed costs and pricing as explained for Ore Reserves (page 28) to derive an effective market price for each operation. This effective market price was multiplied by 1.1, which in effect equates to a 1.1 RF to derive the resource shells that spatially constrained the 2024 Mineral Resources. In 2023, the Kolomela Mineral Resources were constrained with 1.6 RF resource shells (this was applied in 2022, as Mineral Resources were only determined by way of depletion for Kolomela in 2023). Meanwhile, the Sishen Mineral Resources were constrained by a 1.3 RF resource shell.

Another proviso is that the 1.1 RF price must not exceed the highest average annual basket price achieved by Kumba in the past five years. If this is the case, the resource shell price must be lowered to match the highest average annual basket price achieved by Kumba in the past five years. The 2024 1.1 RF resource shell price is not higher than the highest average annual basket price achieved by Kumba in the past five years.

Kumba is of the opinion that the approach, as set out above considers site-specific beneficiation and mining practices as well as realistic pricing and cost, and is a justifiable method to spatially define the RPEEE portion of the mineral endowment.

By implication, all Mineral Resources are 3D modelled, with an associated geological confidence classification, which spatially defines the confidence in the Mineral Resource tonnage and grade estimates.

For Mineral Resource reporting purposes, Kumba, under the direction of Anglo American (major shareholder), prefers to report Mineral Resources exclusive of Ore Reserves to align with other business units in the Anglo American group. In other words, all the Measured and Indicated inclusive Mineral Resources occurring inside a pit layout (converted to Ore Reserves) are not reported as part of the exclusive Mineral Resources.

Similarly, all Inferred Mineral Resources occurring inside a pit layout are declared as part of the exclusive Mineral Resource portfolio as "Inferred (considered in LoAP)".

* Although the small-scale UHDMS plant at Kolomela has been halted, as part of Kumba's cost curtailment drive, a techno-economic study is underway, investigating opportunities to improve plant reliability and reduce operating costs. A specific valuated LoAP scenario, considering existing "high" costs and using the market consensus price, confirmed the medium-grade ore can be beneficiated economically, although not complying with current business expectations. It is therefore more than reasonable to assume eventual economic extraction of the medium-grade Mineral Resources at Kolomela and therefore the medium-grade Ore Reserves not utilised in the 2024 Kolomela LoAP have been reallocated to Mineral Resources.

Exclusive Mineral Resources cont.

2024 exclusive Mineral Resources

Exclusive Mineral Resource: 2024 (versus 2023) summary

The Kumba Mineral Resource estimates (in addition to Ore Reserves) for 2024 (referenced against 2023) are detailed in **Table 10**.

Table 10: Kumba's exclusive Mineral Resources for 2024 (referenced against 2023)

Operation	Ore type	% owned by KIO	Resource category	2024 Tonnage (Mt)	2024 Average % Fe	2024 Cut-off**	2023 Tonnage (Mt)	2023 Average % Fe	2023 Cut-off** % Fe
Kolomela									
In situ Mineral Resources (in addition to Ore Reserves)	Haematite	75.4	Measured (outside LoAP)	40.3	64.3	**50.0% Fe**	52.1	65.1	50.0
			Indicated (outside LoAP)	46.0	62.5		62.1	63.1	
			Measured and Indicated (outside LoAP)	**86.4**	**63.3**		**114.2**	**64.0**	
			Inferred (considered in LoAP)	0.1	65.0		1.2	64.7	
			Inferred (outside LoAP)	11.1	62.4		17.3	62.5	
			Total Inferred	**11.2**	**62.4**		**18.5**	**62.6**	
			Sub-total	**97.5**	**63.2**		**132.7**	**63.8**	
Long-term stockpiled Mineral Resources (in addition to Ore Reserves)			Measured (outside LoAP)	0.0	0.0		0.0	0.0	
			Indicated (outside LoAP)	21.4	56.9		0.0	0.0	
			Measured and Indicated (outside LoAP)	**21.4**	**56.9**		**0.0**	**0.0**	
			Inferred (considered in LoAP)	0.0	0.0		0.0	0.0	
			Inferred (outside LoAP)	0.0	0.0		0.0	0.0	
			Total Inferred	**0.0**	**0.0**		**0.0**	**0.0**	
			Sub-total	**21.4**	**56.9**		**0.0**	**0.0**	
Total Mineral Resources (in addition to Ore Reserves)			Measured (outside LoAP)	40.3	64.3		52.1	65.1	
			Indicated (outside LoAP)	67.5	60.7		62.1	63.1	
			Measured and Indicated (outside LoAP)	**107.8**	**62.0**		**114.2**	**64.0**	
			Inferred (considered in LoAP)	0.1	65.0		1.2	64.7	
			Inferred (outside LoAP)	11.1	62.4		17.3	62.5	
			Total Inferred	**11.2**	**62.4**		**18.5**	**62.6**	
			Total	**119.0**	**62.0**		**132.7**	**63.8**	

Exclusive Mineral Resources cont.

2024 exclusive Mineral Resources

Exclusive Mineral Resource: 2024 (versus 2023) summary

The Kumba Mineral Resource estimates (in addition to Ore Reserves) for 2024 (referenced against 2023) are detailed in **Table 10**.

Table 10: Kumba's exclusive Mineral Resources for 2024 (referenced against 2023) cont.

Operation	Ore type	% owned by KIO	Resource category	2024 Tonnage (Mt)	2024 Average % Fe	2024 Cut-off**	2023 Tonnage (Mt)	2023 Average % Fe	2023 Cut-off** % Fe
Sishen									
In situ Mineral Resources (in addition to Ore Reserves)	Haematite	75.4	Measured (outside LoAP)	160.9	53.2	Beneficiation potential	241.3	56.5	40.0
			Indicated (outside LoAP)	169.1	55.9		194.9	55.1	
			Measured and Indicated (outside LoAP)	**330.0**	**54.6**		**436.2**	**55.9**	
			Inferred (considered in LoAP)	5.4	55.2		1.4	59.5	
			Inferred (outside LoAP)	13.7	33.5		7.8	47.8	
			Total Inferred	**19.1**	**39.7**		**9.1**	**49.6**	
			Sub-total	**349.1**	**53.8**		**445.3**	**55.8**	
Long-term stockpiled Mineral Resources (in addition to Ore Reserves)			Measured (outside LoAP)	0.0	0.0		0.0	0.0	
			Indicated (outside LoAP)	2.9	49.7		7.8	53.4	
			Measured and Indicated (outside LoAP)	**2.9**	**49.7**		**7.8**	**53.4**	
			Inferred (considered in LoAP)	0.0	0.0		0.0	0.0	
			Inferred (outside LoAP)	0.0	0.0		0.0	0.0	
			Total Inferred	**0.0**	**0.0**		**0.0**	**0.0**	
			Sub-total	**2.9**	**49.7**		**7.8**	**53.4**	
Total Mineral Resources (in addition to Ore Reserves)			Measured (outside LoAP)	160.9	53.2		241.3	56.5	
			Indicated (outside LoAP)	172.0	55.8		202.7	55.0	
			Measured and Indicated (outside LoAP)	**332.9**	**54.5**		**444.0**	**55.8**	
			Inferred (considered in LoAP)	5.4	55.2		1.4	59.5	
			Inferred (outside LoAP)	13.7	33.5		7.8	47.8	
			Total Inferred	**19.1**	**39.7**		**9.1**	**49.6**	
			Total	**352.0**	**53.7**		**453.1**	**55.7**	
Kumba Iron Ore									
Grand total Mineral Resources (in addition to Ore Reserves)		75.4	Measured (outside LoAP)	201.2	55.4		293.4	58.0	
			Indicated (outside LoAP)	239.5	57.2		264.7	56.9	
			Measured and Indicated (outside LoAP)	**440.7**	**56.4**		**558.1**	**57.5**	
			Inferred (considered in LoAP)	5.5	55.4		2.6	61.9	
			Inferred (outside LoAP)	24.8	46.4		25.1	58.0	
			Total Inferred	**30.3**	**48.0**		**27.7**	**58.4**	
			Grand Total	**471.0**	**55.9**		**585.8**	**57.5**	

Footnotes to the exclusive Mineral Resources (Table 10)

- The tonnages are quoted in dry metric tonnes and million tonnes is abbreviated as Mt.
- Rounding of figures may cause computational discrepancies.
- Mineral Resource figures are reported at 100%, irrespective of percentage attributable KIO ownership.
- The term "Inferred Mineral Resource (outside LoAP)" refers to that portion of the Inferred Mineral Resources not utilised in the LoAP.
- The term "Inferred Mineral Resource (considered for LoAP)" refers to that portion of the Inferred Mineral Resources utilised in the LoAP, reported without having any modifying factors applied. Therefore, the term "considered for LoAP" instead of "inside LoAP".
- While it would be reasonable to expect that the majority of Inferred Mineral Resources would upgrade in confidence to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources, it should not be assumed that such upgrading will always occur on a one-to-one basis.

** The cut-off quoted for Kolomela is a fixed in situ 50% Fe, while the cut-off quoted for Sishen changed from a fixed in situ 40% Fe in 2023 to a beneficiation potential-based approach in 2024, by assigning yield and product grade parameters via the application of geometallurgical densimetric data-derived beneficiation algorithms to each mineralised geological unit in the geological model, to align with the value-based cut-off approach applied to derive the Sishen Ore Reserves since 2023. The beneficiation potential of the various types of iron ore mineralisation in the resource model is categorised in the form of material classes, which, in addition to in situ grade cut-offs, also consider yield and product cut-off grades on a bench scale (12.5m vertical scale), but assigned to each 5m(X) x 5m(Y) x 3.125m(Z) cell in the resource model. This implies that material with an *in situ* Fe lower than 40%, but which have reasonable economical prospects to be converted to saleable product, is now redefined as Mineral Resources.

Exclusive Mineral Resources cont.

Year-on-year Mineral Resource reconciliation

The year-on-year movement in the estimated exclusive Mineral Resources is reconciled in **Figure 11**.

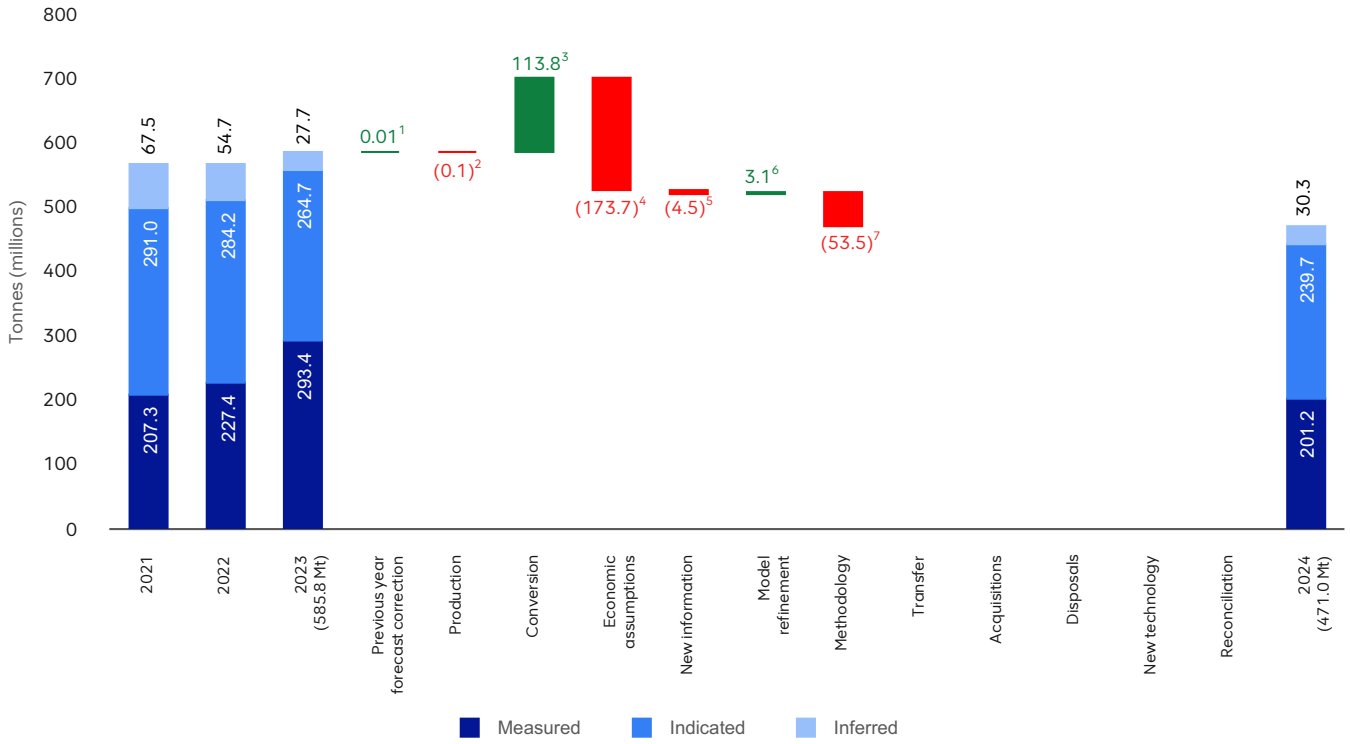


Figure 11: Kumba Mineral Resource movement from 2023 to 2024

Footnotes to the Mineral Resource movements (Figure 11)

1 The actual depletion of Inferred Mineral Resources for the forecasted period of 2023, i.e. August to December, was 0.01 Mt less at Kolomela and 0.001 Mt more at Sishen mine than planned.

2 The 7+5 (January to July actual depletion as per value chain reconciliation and August to December forecasted depletion as per medium-term plan) Inferred Mineral Resource depletion for 2024 amounts to 0.1 Mt for Kolomela and 0.001 Mt for Sishen.

3 At Kolomela, 21.4 Mt of medium-grade Probable Ore Reserves on RoM buffer stockpiles have been reallocated and recategorised as long-term stockpile Indicated Mineral Resources, not being utilised in the 2024 LoAP due to the halting of the DMS plant. At Sishen, the change in the cut-off grade from 40% *in situ* Fe in 2023 to a beneficiation potential cut-off in 2024, resulted in the conversion of 92.4 Mt of Mineral Inventory to Mineral Resources, with material <40% *in situ* Fe, which still produces value after beneficiation to Saleable Product is now included in the Mineral Resource portfolio. This step was taken to align with the value-based Ore Reserve cut-off approach implemented in 2023).

4 A substantially improved outlook taken by the Company, in terms of the forward-looking iron ore price and ZAR/US$ exchange rate compared to 2023, has resulted in a material increase in the size of the Kapstevel South pit layout at Kolomela (with 13.8 Mt of Measured and Indicated Mineral Resources being converted to Ore Reserves), as well as at Sishen (with 137.5 Mt Measured and Indicated Mineral Resources being converted to Ore Reserves). A further reallocation of 22.4 Mt Mineral Resources to Mineral Inventory was affected by a decrease in the size of the resource shells applied at both operations, being constrained by a 1.1 RF in 2024 compared to a 1.3 RF in 2023.

5 An overall decrease (-1.9 Mt at Kolomela and -2.6 Mt at Sishen) in exclusive Mineral Resources as a result of the 2024 geological model update, which considers additional exploration and ore control borehole information.

6 An overall increase of 3.1 Mt in Kolomela's Mineral Resources, in addition to Ore Reserves, based on a refinement of the 2024 geological models, involving complete rebuilds of the Kapstevel North and Kapstevel South solids models to achieve more representative tectonostratigraphic interpretations.

7 The change of *in situ* grade estimation method for the BIF geological domains at Sishen, to accommodate historical biased sampling errors as identified during an independent external audit in 2023, resulted in a 53.5 Mt decrease in low-grade Mineral Resources.

Exclusive Mineral Resources cont.

Exclusive Mineral Resource breakdown

Kolomela quotes a 13.7 Mt (-10%) decrease in exclusive Mineral Resources from 2023 to 2024, as a result of the reallocation of Mineral Resources to Mineral Inventory (the latter considered to not have RPEEE) due to smaller resource shells, as well as Measured and Indicated Mineral Resources being converted to Ore Reserves because of an enlargement of the Kapstevel South pit layout.

The decrease was partially offset by the reallocation of RoM buffer stockpile medium-grade Ore Reserves to long-term stockpile Mineral Resources, the latter unutilised in the 2024 LoAP due to the halting of the small-scale DMS plant.

Of the remaining 11.1 Mt Inferred Mineral Resources (outside the LoAP), 2.9 Mt is extrapolated. None of the Inferred Mineral Resources considered in the 2024 LoAP are extrapolated.

The year-on-year 1.8% absolute decrease in the average Fe is primarily the result of the reallocation of RoM buffer stockpile medium-grade Ore Reserves to Mineral Resources. A secondary contribution was the complete rebuild of the Kapstevel North, Kapstevel South and Ploegfontein solids models, to address an overestimation of high-grade ore.

The Sishen exclusive Mineral Resources showed a 22% year-on-year decrease of 101.1 Mt, which can primarily be attributed to the conversion of Measured and Indicated Mineral Resources to Ore Reserves due to a larger pit layout. There was also a decrease in low-grade Mineral Resources based on a revised grade estimation method for the BIF low-grade ore, addressing historical bias sampling as identified during an external audit conducted in 2023.

The decrease is partially countered by a change in the cut-off, whereby the 2023 40% in situ Fe cut-off has been replaced by a beneficiation potential based cut-off. to align with the Ore Reserve value-based cut-off approach implemented in 2023. The latter resulted in the conversion of some Mineral Inventory (Fe < 40%) to Mineral Resources due to the fact that it has reasonable prospects for economic beneficiation.

Of the 13.7 Mt Inferred Mineral Resources (outside the LoAP), all 13.7 Mt is extrapolated. None of the Inferred Mineral Resources considered in the 2024 LoAP are extrapolated.

The year-on-year 2.0% absolute decrease in the average Fe can primarily be attributed to the change in the cut-off approach, from a 40% in situ Fe in 2023 to a beneficiation potential cut-off in 2024.

Sishen mine, North Pit - also referred to as G80. Pushback 5 (left side of the picture) is active as it transitions from pre-strip waste mining to internal waste and ore exposure. In-pit dumping is visible to the right of the mined-out pushbacks. This reduces the mining footprint and reduces diesel consumption and carbon emissions.

Assurance

Kumba follows a structured internal and external review programme to not only verify Ore Reserve (and Saleable Product) as well as Mineral Resource reporting, but also the estimation thereof.

The Anglo American and KIO Audit Committees require all reporting entities, namely operations, projects and exploration to undergo a continuous and comprehensive programme of external audits and internal reviews aimed at providing confidence and assurance in respect of all components contributing to the Ore Reserve and Mineral Resource estimation processes and the public reporting of those estimates.

As all of the Kumba R&R estimation and reporting was conducted by SIOC-employed technical specialists and CPs, Kumba recognises the importance of independent external audits of its R&R estimation and reporting processes and associated output to provide assurance regarding its published R&R estimates. Since its inception, Kumba's Exco has sustained a governance cost centre that sponsors and allows for the contracting of a reputable independent external consultancy firm, with the firm being changed every four years.

Kumba requires that each operation or project declaring Ore Reserves and/or Mineral Resources undergoes an independent external due diligence audit once every three years. The scope of work encompasses a due diligence audit of about six to eight weeks and must include a one-week site visit by the auditors. The audit should not only produce findings but also identifies opportunities.

Internal reviews/validations

Mineral Resources

The borehole data informing geological models is validated to determine assay representivity using an extensive QA/QC programme that monitors and reports on primary sampling (including sample location), sample preparation and sample assay accuracy and precision. In addition, borehole database validations are conducted to ensure relational information is correct.

The fact that the Kumba borehole databases contain historical information (generated prior to 2010) that were not QA/QC validated is addressed by determining a Sample Representivity Index for each sample using a scorecard approach, employing weighting-indexed parameters such as type of drilling, material recovery, QC parameters of sample preparations and QC parameters of sample assaying. The resulting Sample Representivity Index is spatially applied and considered during geological confidence classification.

Geological solids models are peer reviewed by means of a visual step-through to evaluate interpretational representivity of ore and waste domaining, with further computational validations conducted to ensure that no gaps and overlaps exist between domains and that borehole lithological contacts are honoured 100%. Geological block models (exploratory data analysis, variography, search parameters as well as spatial grade estimations) are also peer reviewed and spatially reconciled against the previous geological block models.

For geological models informing areas being mined, the geological model is reconciled against an unmodified ore control model (informed by additional ore control borehole data generated after the geological model compilation) as part of the operations' value chain reconciliation processes. This comparison is used to quantify geological losses and gains.

Mineral Resource reporting is peer reviewed internally by Kumba and also undergoes an independent internal peer review by technical specialists of Anglo American's corporate office in November each year.

Internal Mineral Resource findings

Kolomela

1 A bias between exploration and ore control borehole sample assays not considered during in situ grade estimation can result in the overestimation of estimated RoM Fe grades and the underestimation of contaminant grades.

   Mitigation: Kumba will assess the bias and implement grade estimation procedures, assuming cored exploration borehole sample assay data is more accurate than reverse circulation ore control borehole data, in the 2025 geological block model updates to address the bias.

Assurance cont.

Internal reviews/validations cont.

Internal Mineral Resource findings cont.

Sishen

1 An error was identified with the 2024 geological confidence classification at Sishen by the Lead Competent Person for Mineral Resources. Some Mineral Resource estimates informed during the second Kriging run were classified as Measured and Indicated, whereas all these estimates should have been classified as Inferred.

Mitigation: The error has been quantified to result in an overestimation of the Sishen Ore Reserves by 4%, i.e. 4% of the 2024 Sishen LoAP RoM classified as Proved and Probable should have been classified as modified Inferred Mineral Resources considered in the LoAP. Kumba will correct this error during the 2025 geological model update of Sishen.

Ore Reserves

Geological block models are converted into mining block models and comparisons are performed to understand the dilution and mining loss components during up-blocking to SMU resolution. Other modifying factors, such as geological gains or losses and mining recovery efficiencies, are referenced against three-year averaged value chain reconciliation results. These factors are assigned to the mining block model through a single long-term planning modifying factor derived for each material type.

Subsequent pit optimisation is conducted using approved long-term economic assumptions and approved geotechnical input parameters to derive pit and resource shells. The latter is peer reviewed, whereafter pit and pushback layouts are designed and again validated in terms of practical versus economic execution, and most importantly, pit safety in terms of slope stability considering geohydrological and geotechnical aspects.

An LoAP schedule exercise is then conducted to consider various scenarios required by the business. Such scheduling is informed by the Ore Reserves and Inferred Mineral Resources located inside the pit layout (excluding extrapolated Inferred Mineral Resources), as well as RoM buffer stockpile materials. It adheres to thresholds on Saleable Product qualities, RoM buffer stockpile levels, exposed ore and mining and beneficiation infrastructure capacities, as approved by a Kumba Planning Steering Committee. The chosen LoAP scenario, of which the first five years are aligned with the business plan, is peer reviewed by the internal technical specialists and signed off by all relevant stakeholders, up to executive level, in the Company.

Ore Reserve (and Saleable Product) reporting is peer reviewed internally by Kumba, but also undergoes an independent internal peer review by technical specialists of Anglo American's corporate office in November each year.

Internal Ore Reserve findings

Kolomela

The RoM Fe and SiO_2 grades were modified in the 2024 LoAP schedule to align planned RoM Fe grades (overestimated) and SiO_2 grades (underestimated) with actual RoM grades, as achieved and demonstrated by the value chain reconciliation process.

This resulted in an insignificant amount of SMUs (0.02% of total Kolomela Ore Reserves) with an Fe lower than the 50% cut-off grade being erroneously scheduled as RoM, as identified by the Lead Competent Person for Ore Reserves.

Mitigation: This error will be corrected in the 2025 Ore Reserve estimation process by conducting the grade adjustments during mining block modelling and not during RoM scheduling.

Sishen

No findings.

Assurance cont.

Internal reviews/validations cont.

External audits

Cube Consulting (Australia) audit of 2023 Sishen low-grade Mineral Resource estimates

Due to the detailed scope required by Kumba for the external auditing of its Ore Reserves and Mineral Resources, which includes an in-depth analysis on estimation and reporting, the audit results are mostly in retrospect. However, the mitigation actions based on the findings are applied to current and forthcoming R&R estimates.

An external due diligence audit, including a one-week site visit, of the Sishen 2023 low-grade Mineral Resource estimation was conducted in 2023. This audit was requested by Kumba Geosciences on an ad hoc basis, considering the continued material geological loss recorded with the mining of low-grade ore, which is stockpiled for future beneficiation via the anticipated UHDMS plant. The risks associated with these material losses have already been adequately mitigated by Kumba in the 2023 Sishen LoAP through the application of a mining recovery efficiency modifying factor. The audit was requested to gain an understanding of the root cause of the geological risk to remove the use of a modifying factor by fundamentally correcting the geological inaccuracies in future geological model updates.

The external due diligence audit (audit report: *Sishen_C_Grade_Audit_231010.pdf)* conducted on a study area identified by Kumba (Pushback 12), where material low-grade ore losses have been recorded by the value chain reconciliation process, has revealed that the low-grade ore in the BIF is overestimated by 40%, of which 25% is because of historical selective sampling of exploration cored boreholes. The remainder is due to an overestimation of low-grade ore at depth below borehole intersections. The findings were noted as follows:

1 Historical selective sampling present in diamond core drilling for non-hematite material, resulting in biased sampling.

   Mitigation: Approximately 900 boreholes, which intersect BIF within the resource shell, have been prioritised for resampling as part of Phase 1. The re-logging, re-sampling and hyperspectral scanning of the historically drilled borehole cores have commenced in 2024, with the aim of completing it by the end of 2026. Remaining lower priority historical boreholes intersecting low-grade material within the resource shell will be re-logged, re-sampled and scanned thereafter in Phase 2 of the of resampling.

2. Very few boreholes penetrate the entire thickness of the BIF that constitutes the majority of the low-grade material. This has two main implications for the low-grade Mineral Resource estimates:
   - As the Fe grade generally decreases with depth, there is insufficient data at depth to account for this in the resulting estimate.
   - The thickness of the BIF is determined from very sparse sampling, therefore, there is a possibility that the volume of the BIF is overstated.

Mitigation: During the 2024 geological model update, Kumba Geosciences not only considered exploration borehole assay data, but also incorporated ore control borehole assay data into the variographic analysis of the BIF, and estimated the in situ BIF grades using only the exploration borehole assay data by means of a de-trending and standardisation estimation method. Ongoing work is required to consider the ore control borehole assay data because of biases if compared to the exploration borehole data. This resulted in a 45% decrease in the low-grade Mineral Resources inside the pit layout.

The mining recovery efficiency modifying factor, as applied in the 2023 LoAP, was materially decreased in the 2024 LoAP, as the geological model update was assumed to have addressed most of the losses as identified by the value chain reconciliation and the 2023 external R&R audit.

Cube Consulting (Australia) audit of 2023 Sishen Ore Reserve and Mineral Resource estimates

An external due diligence audit of the Sishen 2023 Ore Reserve and Mineral Resource estimates, including a one-week site visit, was conducted in 2024, along with the associated reporting.

Apart from the low-grade Mineral Resource risk already identified in 2023, no high or significant risk findings were noted against the 2023 Sishen Ore Reserves and Mineral Resources by the external due diligence audit (audit report: *Sishen_RR_Audit_240822*).

The 2024 Kolomela Ore Reserve and Mineral Resource estimates and associated reporting will be externally audited in 2025.

Attestation

For the attestation process, where the Kumba Executive sign off on the effectiveness of controls as per Johannesburg Stock Exchange requirements, it is confirmed that:

- the ORMR fairly presents, in all material aspects, the latest Ore Reserve (and Saleable Product) and exclusive Mineral Resource estimates in a transparent manner to conform with the SAMREC Code (2016 Edition), as required by section 12.13 of the JSE Listings Requirements
- no facts were omitted or untrue statements made that would make the ORMR false or misleading
- estimation and reporting controls have been put in place to ensure that material information relating to Kumba have been provided to effectively prepare the ORMR
- the internal technical controls are adequate and effective and can be relied upon in compiling the ORMR

The key R&R reporting controls were validated and attested to be effective, adequate and fully executed for 2024 by the Kumba Chief Executive and Chief Financial Officer on 17 February 2025.

Risk

What prominent risks have been identified that can result in the Ore Reserves and Mineral Resources not realising as estimated?

Apart from the Mineral Resource and Ore Reserve estimation confidence classifications, Kumba, on an annual basis, asks its CPs to identify and assess all risks pertaining to the Ore Reserve and exclusive Mineral Resource estimates they are endorsing.

Kumba has adopted a new risk matrix as designed by Anglo American in 2024 for the identification and rating of the R&R risks. (**Figure 12**). Kumba fully supports the new R&R risk matrix as it facilitates a standardised approach to R&R risk evaluation and reporting. All risks, notwithstanding their risk level, are recorded and registered with pre- and post-mitigation risk ratings.

The 2024 R&R risk evaluation sessions involved scheduled meetings where all relevant competent persons and technical specialists were involved. These risks are then rolled up to a business level by the Lead CPs to consider their potential impact on the total Kumba business. The top 5 Ore Reserve (OR) risks and top 5 exclusive Mineral Resource (MR) risks as identified in 2024 are plotted on the diagram in **Figure 12**, and explained in more detail in the remainder of this section.

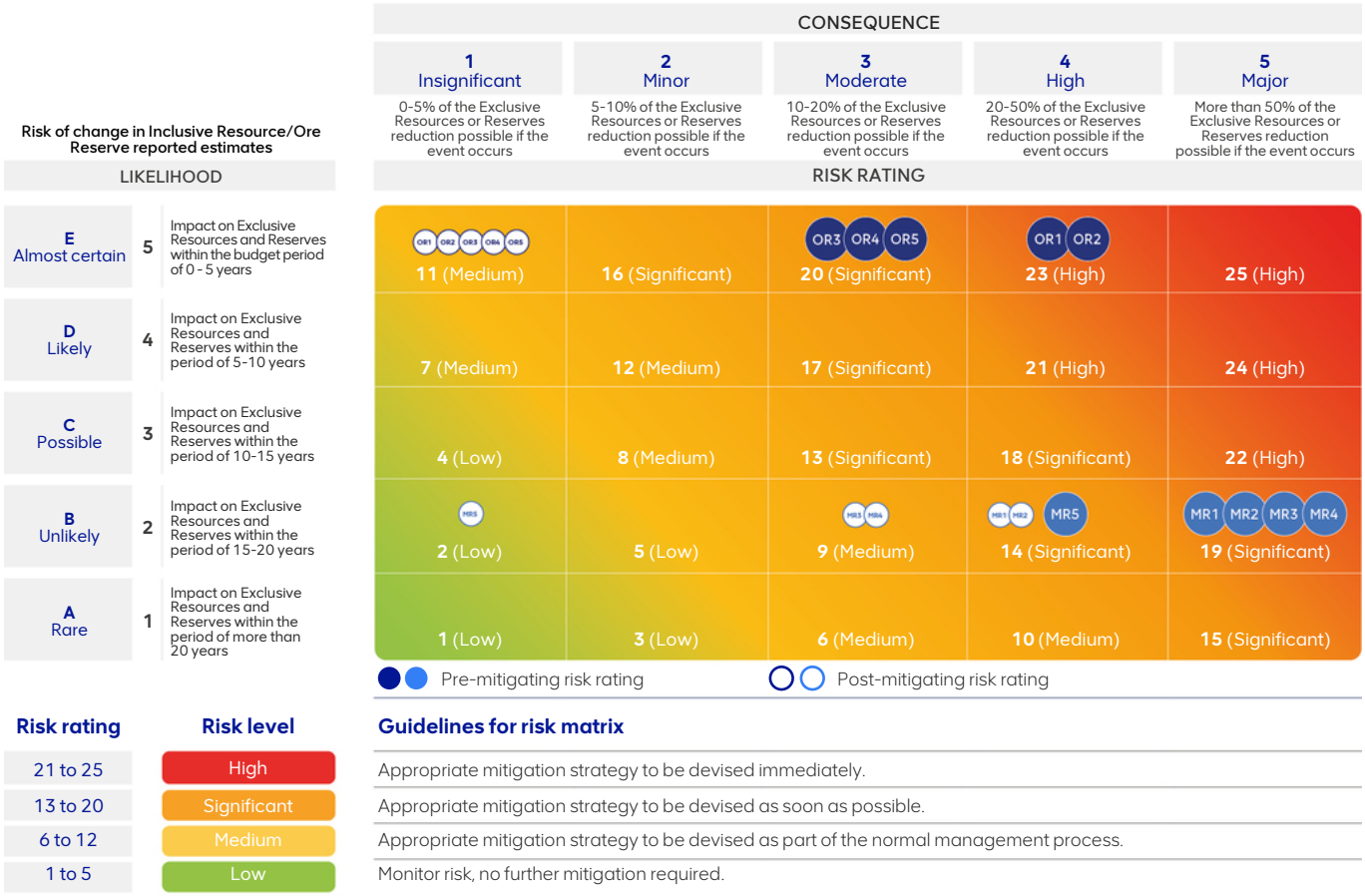


Figure 12: Resource and Reserve risk matrix

Risk cont.

Ore Reserve (and Saleable Product) risks

The 2024 Kumba Ore Reserve (and Saleable Product) estimates are subject to the following top five risks:

1 Infrastructure and services

Transport (external risk): The logistical value chain (rail and port) is the dominant constraint in the Kumba value chain and is rated as a high risk (pre-mitigation). Transnet's performance in terms of contracted volumes has further deteriorated from 82% in 2023 to 80% in 2024. The rail performance as well as the renegotiation of the Sishen contract by 2027 may have a material impact on the viability of the Ore Reserve. The risk has been calculated by evaluating various LoAP scenarios.

Mitigation: As part of the LoAP alignment with the business reconfiguration drive, Kumba has moderated its outlook on logistics capacity to ~37 Mtpa (versus the current contract of 44 Mtpa). By reducing mining volumes and optimising pit designs, Kumba is able to unlock value by improving operational deployment and maximising the benefit of the various mining areas. The post-mitigation risk rating remains medium, as was the case in 2023.

2 Macro-economic uncertainty

Commodity price (external and internal risk): The long-term iron ore price used for the 2024 Kolomela and Sishen LoAPs (16-year view) is materially higher than the realised iron ore prices achieved by Kumba in 2024, and substantially higher than the latest available consensus long-term iron ore price compiled by Morgan Stanley (next three to five-year view). Kumba, however, deems the supply and demand fundamentals informing the model used to drive the long-term iron ore price as robust. The market pulled back strongly in 2024. Volatility in price has always been considered as a risk by Kumba, but was rated as high in 2024 because of the reasons as set out above, and a downward adjustment can materially impact foreseen profitability and cash flow negatively. The long-term price applied in the 2024 pit optimisations resulted in marginal areas being included inside pit designs for Kapstevel South and Klipbankfontein at Kolomela, and new pushbacks being included in the final pit design at Sishen (with an associated 32% increase in waste material to be mined to realise the additional 16% Ore Reserves). A less positive outlook in future can therefore lead to a reduction in Ore Reserves due to the potential exclusion of marginal revenue and high-cost mining areas.

Mitigation: To counter a lower price, the business expectation for both operations changed from maximising revenue and margin targeting to cost curtailment, where Kumba competes on a cost basis with other producers. In terms of Kumba's cost curtailment efforts, the Company achieved R3.5 billion of the targeted R3.0 billion of savings for 2024. The main initiatives contributing to the savings was the reduction of mining volumes, which has enabled the optimisation of our heavy mining equipment fleet and service partners, including in-sourcing specific services. Alongside these initiatives, improved productivity and efficiency, as well as improvements to our sourcing model and utilisation of consumables, such as tyres and fuel, delivered a positive result. In addition, the first five years of the Kolomela LoAP have been valuated, applying a lower price assumption compared to the remainder of the reserve life at each operation. The post-mitigation risk rating is medium.

3 Regulatory and permitting

Competing rights (external risk): The latest Kumba survey revealed that there are 19 applications over the Kolomela and Sishen mining right areas: 11 on surface rights areas and 10 on land adjacent to the operations.

Mitigation: Various actions are taken to mitigate this risk: a) Mandamus applications to compel the DMRE to decide on pending appeals. b) Bilateral engagement with the DMRE Regional Office led by the DMRE Chief Director, which led to the resolution of seven (two at Kolomela and five at Sishen) competing right applications, either through formal withdrawal or rejection. c) The RMDEC meetings being convened for adjudication of matters. d) Submissions to Minerals Council South Africa. e) Ongoing monitoring and management of applications by filing objections and appeals. The post-mitigation risk rating is medium.

Permit approvals (internal and external risk): Applications for water use licences to extract groundwater from pushbacks 8, 9, 10 and 17 (included in the 2024 Sishen LoAP) have been submitted, but not yet granted, by the relevant governmental authority. Ore from these pushbacks, scheduled for extraction in the first five years of the 2024 LoAP, constitute 12% of the total Sishen Ore Reserve.

Mitigation: Water use licence applications to extract groundwater from these pushbacks were resubmitted by Sishen and the mine has no reason to expect that the water use licences will not be granted.

The combined pre-mitigation risk rating is significant, while the post-mitigation risk rating is medium concerning competing rights, and low concerning permit approvals.

Risk cont.

Ore Reserve (and Saleable Product) risks cont.

4 Future demand

Product specifications (internal risk): Some of the Ore Reserve contaminant grades cannot be beneficiated to the required product specifications, with the existing processing capabilities. The Kolomela and Sishen LoAPs could not address this issue through blending for all the LoAP scheduling periods, with some Saleable Product contaminant grades therefore exceeding Client product specifications for some periods in the respective LoAP schedules. This risk is considered significant for both Kolomela and Sishen.

Mitigation: It has been agreed with Anglo Marketing that the Premium Lump product specifications will always be met. Furthermore, penalties have been assigned during the valuation of the Kolomela and Sishen LoAPs to cater for the instances where contaminant grades of Standard Lump and Standard Fines products do not meet current Client product specifications. Further engagement with Anglo Marketing will be conducted in this regard to explain the risk and to determine if market alternatives are required. The post-mitigation risk rating is medium.

Supply (external risk): Kumba, together with Anglo Marketing, is still assessing the risk associated with the additional supply of Standard Fines product that will originate in the initial stages of production at the Rio Tinto Simfer's Simandou project in the Republic of Guinea in Africa. First production from the Simfer mine is expected in 2025, ramping up over 30 months to an annualised capacity of 60 Mtpa. The mine will initially deliver a single Fines product before transitioning to a dual Fines product of blast furnace and direct reduction ready ore.

5. Macro-economic uncertainty

Capital availability (internal risk): The capital required for continued waste stripping at the Kolomela Kapstevel South pit has been ranked as a high risk (pre-mitigation) for the operation. However, when considering the total Ore Reserve portfolio, this is ranked as a significant risk. The Kapstevel South pit has been included in the Kolomela LoAP since 2015 to sustain production from 2028 onwards. Historical accelerated mining to capitalise on former good iron ore prices depleted other pits faster than what was foreseen in the original Kolomela feasibility study. The reason why the Kapstevel South pit was not considered in the original feasibility study was due to the cost associated with waste stripping, which were deemed unfeasible at that time. However, more recent price assumptions since 2015 have rendered the Kapstevel South pit economically viable. The continued capital required to conduct waste stripping however remains a risk.

Mitigation: The viability of Kolomela's Kapstevel South pit is achieved through capex and opex optimisation as well as pit and pushback redesign to reduce waste in high strip ratio areas. As a result, the overall waste stripping ratio of Kolomela has decreased from 4.4 : 1 in 2023 to 4.1 : 1 in 2024. The post-mitigation risk rating is medium.

Exclusive Mineral Resource risks

According to the design of the new risk matrix and the assumption that exclusive Mineral Resources will only be converted to Ore reserves and added at the end of the LoAP (after 16 years), no exclusive Mineral Resource risks rank in the top three rows of the risk matrix. In other words, no high risks were identified for exclusive Mineral Resources in 2024. The 2024 Kumba exclusive Mineral Resource estimates are subject to the following top five risks:

1 Future demand

Product specifications (internal risk): High-grade Ore Reserves are proportionally extracted at a faster rate than medium- and low-grade Ore Reserves to remain competitive in the global iron ore market. This implies that the proportion of high-grade to medium and low-grade ore in the exclusive Mineral Resource portfolio is much higher than that of the Ore Reserve portfolio. Therefore, RoM blending may not effectively meet current product specifications regarding contaminant grades if these exclusive Mineral Resources are mined in the future. This risk is rated as significant.

Mitigation: At Sishen, the conversion of the DMS to a UHDMS plant will partially address this, but at Kolomela the small-scale UHDMS plant will not be able to achieve the required throughput. Alternatively, Kumba will have to investigate options to sell to the market at lower product specifications. The pre-mitigation risk rating is significant, while the post-mitigation risk rating is medium.

2 Climate change

Targets (internal and external risk): Kumba's climate change ambitions set for 2030 are applicable to Ore Reserves. However, it is expected that these targets will become more stringent in future as it is assumed that the global focus on environmental guardianship will intensify over time. The net result is an increase in production costs. Since Kumba is a relatively small player in the iron ore mining industry, and in the third quartile of the world iron ore producer cost curve, it may not be able to absorb the cost as efficiently as the bigger role players.

Mitigation: To remain competitive, Kumba has to achieve its climate change ambitions in a cost-effective and sustainable manner to remain competitive in the long term. The pre- and post-mitigation risk ratings are significant and dependent on Kumba's demonstrated performance to achieve its climate change ambitions in a cost-effective and sustainable manner.

Risk cont.

Exclusive Mineral Resource risks cont.

3 Infrastructure and services

Transport (external risk): This risk is the same as Ore Reserve risk 1, except it has a significant pre-mitigation risk rating due to the method of assessment, and the assumption that exclusive Mineral Resources will only be mined post the 16-year reserve life of Kolomela and Sishen.

4 Macro-economic uncertainty

Capital availability (internal risk): This risk is the same as Ore Reserve risk 2, except it has a significant pre-mitigation risk rating as the likelihood is dependent on the assumption that the exclusive Mineral Resources will only be mined post the current 16-year reserve life at both operations. The consequence rating is interpreted to be lower than for Ore Reserve risk 5 at Kolomela because 50% of the exclusive Mineral Resources are contained in separate deposits not included in the 2024 Kolomela LoAP, whereas the consequence at Sishen is interpreted to be higher than that of Ore Reserve risk 5 as most of the exclusive Mineral Resources are extensions of the Ore Reserves at depth.

5 Macro-economic uncertainty

Commodity price (internal and external risk): This risk is the same as Ore Reserve risk 5, except it has a significant pre-mitigation risk rating due to the method of assessment, and the assumption that exclusive Mineral Resources will only be mined post the 16-year reserve life of Kolomela and Sishen.

Ancillary Reserve and Resource information per operation

The ancillary Reserve and Resource information is provided to conform to the SAMREC Code requirement of materiality.

Unless otherwise stated, all the production-related figures quoted in this section are forecasted (seven actual + five planned). These figures are compiled from site-specific R&R Statements, which in turn inform the Kumba ORMR report that is published at the end of February. The reporting date prior to year end is necessitated by the time required for the independent internal review process within the Anglo American group, which requires R&R estimates to be interrogated by peers before being published.

Kolomela

Location

Kolomela is located 12km southwest of the town of Postmasburg (**Figure 13**) in the Tsantsabane Local Municipality within the boundaries of the ZF Mgcawu District of the Northern Cape province in the Republic of South Africa.

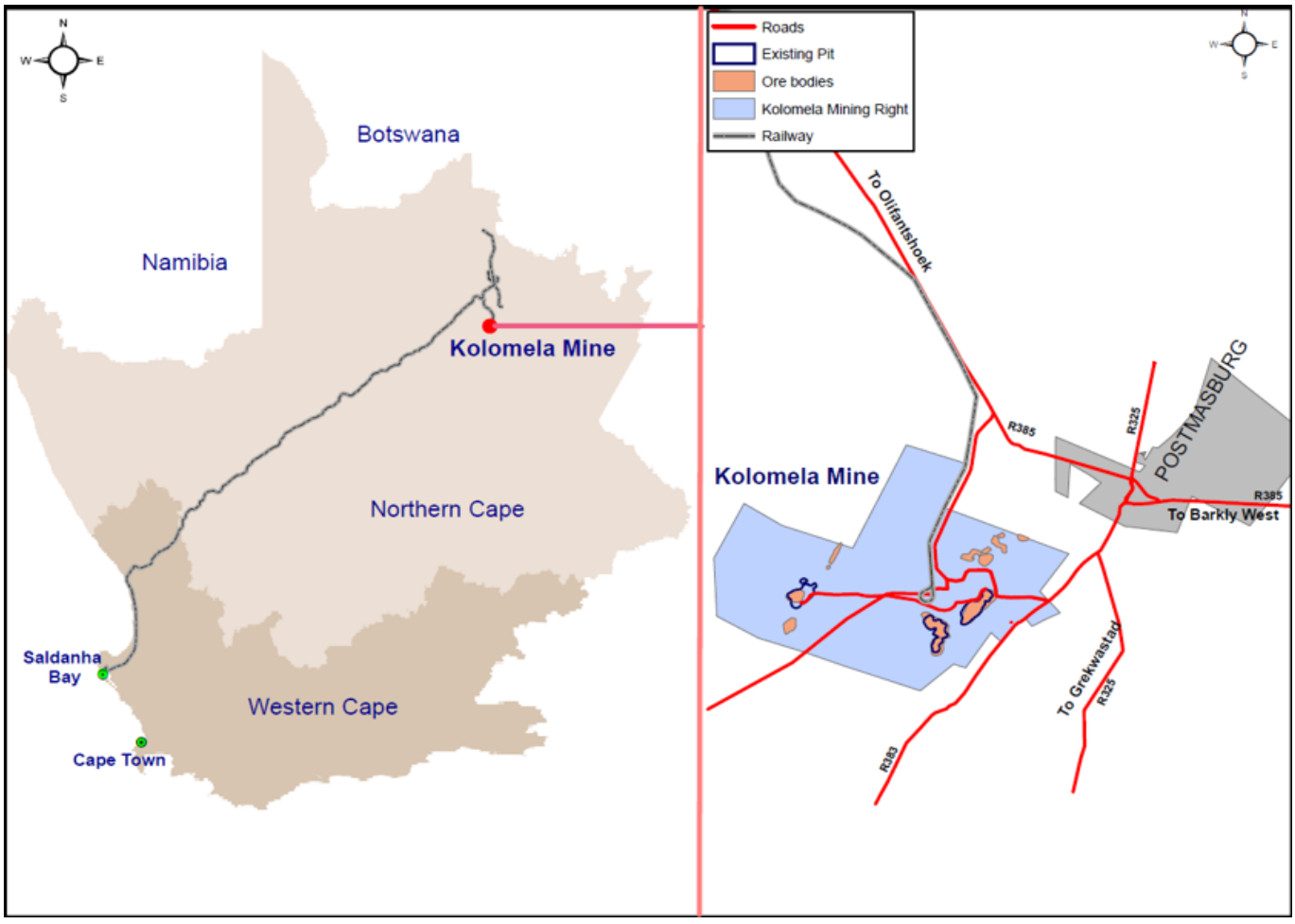


Figure 13: Location and logistics chain of Kolomela

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline

Regional geology

Kolomela is located towards the southern end of the "iron ore belt" in the Northern Cape province of South Africa (**Figure 14**).

The Transvaal Supergroup (Eriksson et al, 1993; 1995), or Griqualand West Supergroup, as it is referred to where it occurs in the Northern Cape, is host to all iron ore occurrences in the region. The Supergroup was deposited in fault-controlled basins on a basement of Archaean granite gneisses and greenstones and/or lavas of the Ventersdorp Supergroup (Beukes, 1983). In the Kathu-Postmasburg region, the oldest rocks of the approximately 8km thick Griqualand West Supergroup (Beukes, 1980) are the ~1.6 km thick carbonate platform sediments (dolomites with minor limestone, chert and shale) of the Campbell Rand Subgroup of the Ghaap group (Beukes, 1983; Altermann and Wotherspoon, 1995; Beukes, 1986).

Conformably overlying the carbonates is the BIF unit, the Asbestos Hills Subgroup (Beukes, 1980), which is considered to be a Superior-type BIF, that can be up to 500 m thick. Locally, the upper portion of the BIF (Kuruman Iron Formation) has been enriched to ore grade, i.e. Fe > 60%, and the ores found within this unit comprise the bulk of the high-grade iron ores in the region. The Kuruman Iron Formation is conformably overlain by the Griquatown Iron Formation. The two iron formations differ in that the Griquatown Iron Formation, comprising mainly allochemical sediments, was deposited in a shallow-water, storm-dominated epeiric sea (Beukes, 1984), whereas the Kuruman Iron Formation, comprising orthochemical iron formations, was developed in the basin (Beukes, 1980). However, in the Meramane Dome area, the Griquatown Iron Formation has been almost entirely removed by erosion along an unconformity separating the BIFs from the overlying clastic sediments of the Gamagara Formation.

During uplift and erosion, solution and karstification of the upper dolomitic units of the lower Ghaap group occurred and a 10 to 20 m thick, residual solution breccia, referred to as the "Manganese Marker", "Wolhaarkop Breccia" (van Wyk, 1980; van Schalkwyk and Beukes, 1986) or Wolhaarkop Formation, developed between the basal dolomites and overlying BIF. Locally, deep sinkholes developed in the dolomites, into which the overlying iron formation collapsed (Beukes, 1983).

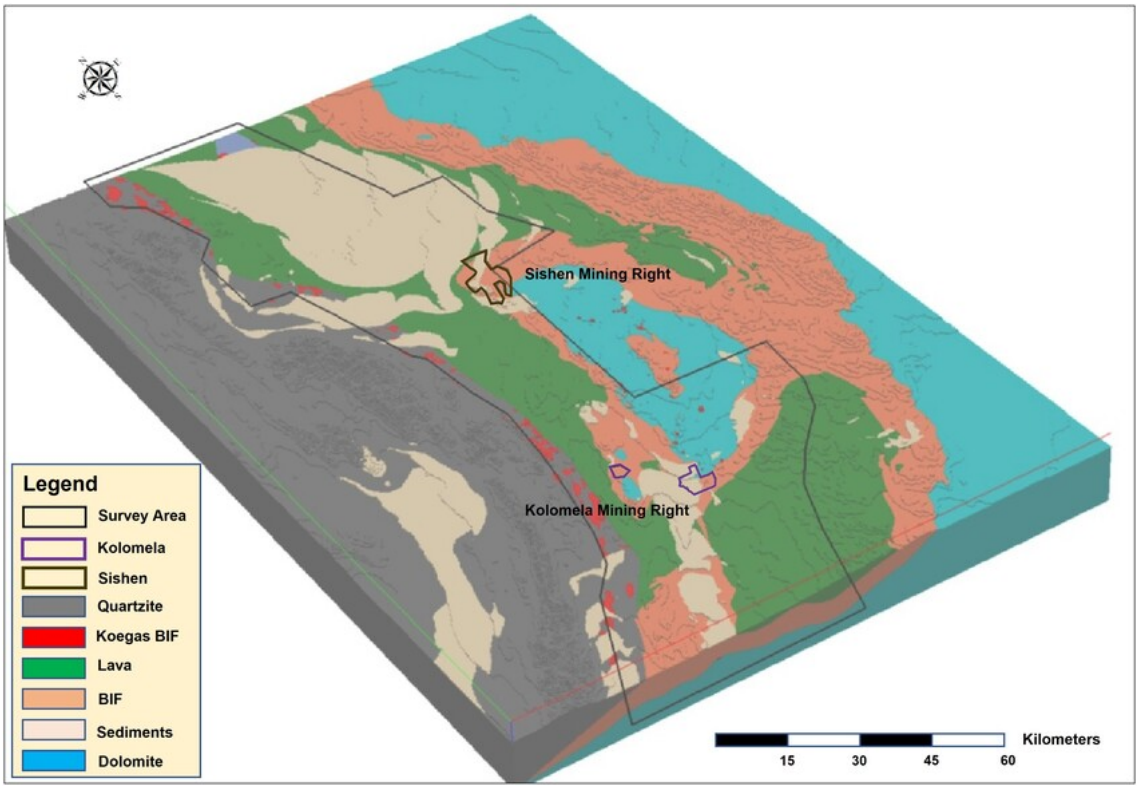


Figure 14: Kolomela's location in the Northern Cape province "iron ore belt" of South Africa

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Regional geology cont.

A thick sequence of younger clastic sediments (shales, quartzites and conglomerates) of the Gamagara Formation, unconformably overly the Ghaap group rocks and some of the conglomerates, comprised almost entirely of haematite, constitute lower-grade iron ore. The Gamagara Formation, interpreted as the base of the Paleoproterozoic (~2.10-1.83 Ga) Olifantshoek Supergroup is overlain by the Paleoproterozoic (~2.35-2.10 Ga) Postmasburg group along an interpreted thrust contact in the area (van Schalkwyk and Beukes, 1986; Friese and Alchin, 2007). The thrust fault has been folded during subsequent deformation.

An altered gabbroic sill in the Kolomela area typically separates the iron ore from the underlying host BIF, or is intrusive in the BIF at Kolomela (Carney and Mienie, 2002). It is interpreted to have intruded into the Griqualand West Supergroup in late Proterozoic times (Friese and Alchin, 2007). The localised unit is prominent in the Leeuwfontein and Klipbankfontein orebodies but absent in other areas.

Diamictite of the Makganyene Formation (de Villiers and Visser, 1977) and lava of the Ongeluk Formation (Postmasburg group) have been thrust over the Gamagara Formation sediments in the vicinity of Postmasburg, which are now preserved only within the larger synclinal basins (Schütte, 1992).

Makganyene diamictites comprise massive to poorly bedded diamictite, pebbly sandstone and siltstone, shale and mudstone up to 100 m thick, which are interpreted as piedmont glacial and glaciofluvial assemblages (Beukes, 1983; Visser 1971). A second facies within the Makganyene contains mainly stacked cycles of graded bedded diamictite-greywacke-siderite bandlutite, which have been interpreted as glaciomarine deposits (Beukes, 1983).
The Ongeluk lavas (600 m thick; Schütte, 1992) were extruded under water in a marginal basin within the continental setting of the Kaapvaal Craton (Schütte, 1992), and comprise essentially tholeiitic basaltic andesites.

The lavas have been dated at 2,240 ± 57 Ma (Walraven et al, 1982), 2,239 ±90 Ma (Armstrong, 1987) and 2,222 ±13 Ma (Cornell et al, 1996).

A considerable portion of the upper parts of the stratigraphy was eroded during Dwyka glaciation and redeposited as tillite (Visser, 1971) during the Cretaceous era. The entire, folded sequence was later truncated by Tertiary erosion and a thick blanket of calcrete, dolocrete, clays and pebble layers of the Kalahari group were deposited unconformably over older lithologies.

Stratigraphy

Iron ore at Kolomela is associated with the chemical and clastic sediments of the Proterozoic Transvaal Supergroup. These sediments define the western margin of the Kaapvaal Craton in the Northern Cape province. The stratigraphy has been deformed by thrusting from the west and has undergone extensive karstification. The thrusting has produced a series of open, north-south plunging anticlines, synclines and grabens and karstification has been responsible for the development of deep sinkholes. The iron ore at Kolomela has been preserved from erosion within these geological structures. These structures are therefore important exploration targets. The Kolomela local stratigraphy is illustrated in **Figure 15**.

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Stratigraphy cont.

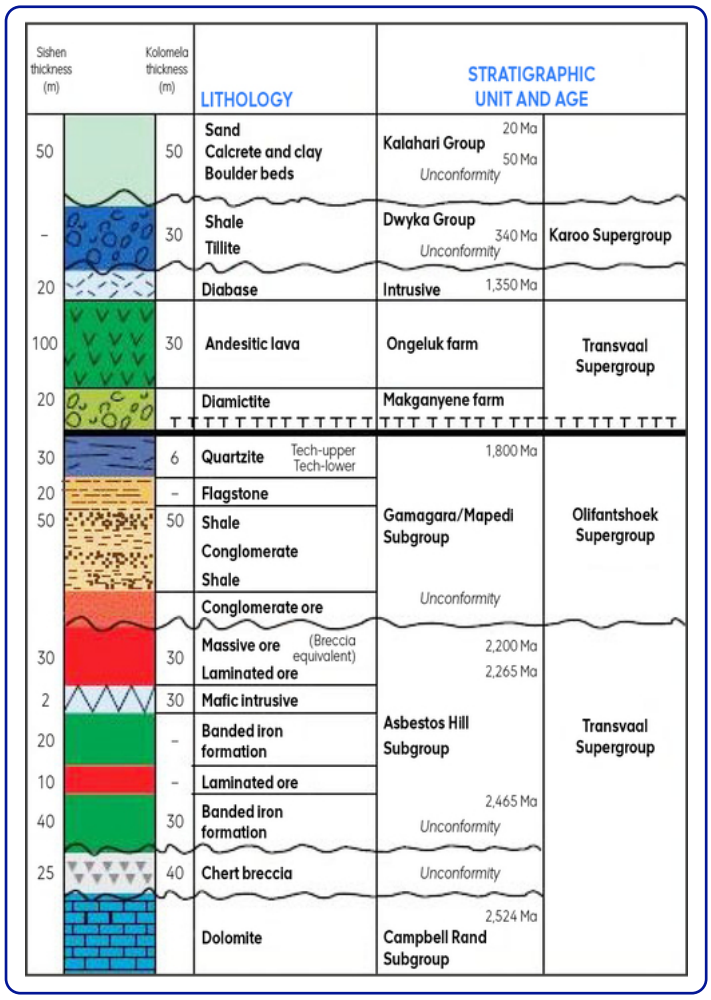


Figure 15: Simplified stratigraphic column depicting the Kolomela local geology

The Transvaal Supergroup lithologies were deposited on a basement of Archaean granite gneisses and greenstones, and/or lavas of the Ventersdorp Supergroup. In the Sishen-Postmasburg region, the oldest rocks of the Transvaal Supergroup form a carbonate platform sequence (dolomites with minor limestone, chert and shale) known as the Campbell Rand Subgroup. The upper part of the Transvaal Supergroup comprises a BIF unit, the Asbestos Hills Subgroup, which has been conformably deposited on the carbonates. In places, the upper portion of the BIF has been supergene-enriched to Fe ≥ 60%. The iron ore/BIF zone is referred to as the Kuruman Formation. The ores found within this formation comprise the bulk of the higher-grade iron ores in the region.

Iron ore at Kolomela is associated with the chemical and clastic sediments of the Proterozoic Griqualand West Supergroup. These sediments define the western margin of the Kaapvaal Craton in the Northern Cape province.

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An altered mafic intrusive sill (originally of gabbroic composition) usually separates the iron ore deposits from the underlying host iron formation. It is believed to have intruded the Griqualand West Supergroup in late Proterozoic times.

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Stratigraphy cont.

A thick sequence of younger clastic sediments (shales, quartzites and conglomerates) belonging to the Gamagara Subgroup unconformably overlies the BIFs. Some of the conglomerates comprise predominantly haematite and are of lower-grade ore quality. The unconformity separating the iron formations from the overlying clastic sediments represent a period of folding, uplift and erosion.

During this time, dissolution and karstification took place in the upper dolomitic units. This resulted in the formation of residual solution breccias, referred to as the "Manganese Marker" or "Wolhaarkop Breccia", between the dolomites and overlying BIFs. In places, deep sinkholes developed in the dolomites, into which the overlying iron formation and iron ore deposits collapsed.

Diamictite of the Makganyene Formation and lava of the Ongeluk Formation have been thrusted over the Gamagara sediments in the Kolomela region. These are preserved only within larger synclinal structures.

A considerable portion of the upper parts of the stratigraphy were eroded and redeposited as tillite during Permo-Carboniferous Dwyka glaciation. The entire folded sequence was then eroded during Tertiary times. A thick blanket of calcrete, dolocrete, clays and pebble layers (Kalahari group) was deposited unconformably over the older lithologies.

Evidence of karst formation after the development of the calcretes of the Edin and Boudin Formation can be seen in the current Leeuwfontein pit.

Tectonic setting

Structurally, Kolomela lies on the western margin of the Kaapvaal Craton, and has been affected by Kheis Orogeny.

The deformation intensity increases from east to west and the area is dominated by regional-scale synforms and antiforms – the so-called Welgevonden Basin and Wolhaarkop antiform.

The area west of the Wolhaarkop antiform (including the western limb of the antiform) is characterised by tight overturned fold structures that verge towards the east. The overturned limbs of the fold structures are locally disrupted, which have produced thrusts with limited displacement. East of the antiform (Kolomela area), the folds are upright, tight-to-open structures that have variable inter-limb angles. All of the fold structures west of the antiform are the product of east-west crustal contraction during the Kheis Orogeny, which produced eastward-directed thrusting.

Thrust faults that were intersected in drill core in the Welgevonden north area caused duplication of the stratigraphy.

The high degree of associated deformation is clearly illustrated in drill core from the Welgevonden area and duplication or elimination of iron ore may occur.

The Wolhaarkop area is structurally more intensely deformed than the Kapstevel and the Welgevonden areas. The folds are tight to isoclinal, over-folded with an eastwards vergence. With subsequent deformation, the fold structures became disrupted, resulting in thrust structures with eastwards directed movement.

The high-strain zones (thrusts) are locally characterised by a high degree of ferruginisation of extensively brecciated BIF. In some places, the ore is preserved as narrow, tightly folded lenses within the high-strain zones.

Local geology

Four distinct high-grade iron ore types have been described at Kolomela in the various separate iron ore deposits:

- High-grade (Fe-rich) laminated ore, which constitutes the main ore type and comprises alternating micro bands of high-lustre haematite with equally thin, porous bands of lower-lustre haematite and specularite. The primary lamination of the precursor BIF is still preserved, suggesting supergene enrichment (*in situ* replacement) of silica by iron.
- High-grade (Fe-rich) clastic-textured ore, comprising alternating haematite and specularite layers, thicker than those of the laminated ore and characterised by distorted, wavy bedding occurs as lenses and massive units.
- High-grade (Fe-rich) collapse breccia-type ore comprising angular fragments of laminated and clastic-textured ore in chaotic arrangement. The fragments are cemented by fine-grained specularite and haematite. The brecciation is probably as a result of karstification of the underlying dolomites, i.e. the collapse breccia ore is the product of sudden, brittle collapse of laminated and clastic-textured ores into underlying solution cavities and is preserved within deep sinkhole structures.
- High-grade (Fe-rich) conglomeratic ore, comprising poorly sorted, rounded to sub-rounded haematite pebbles and clasts in a ferruginised matrix representing, which usually occurs very localised and is considered to represent ferruginised Gamagara conglomerates.
- In addition, material defined in the geological models with an in situ 50% ≤ Fe < 61%, comprising ferruginised BIF, shale, conglomerates and collapse breccia material, is termed medium-grade ore.

The proportion of high-grade ore to medium-grade ore for the inclusive Mineral Resources as of 31 December 2024 is 82 to 18, while for the exclusive Mineral Resources it is 67 : 33.

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

The relevant Measured and Indicated Mineral Resources have been converted to Ore Reserves for five (Leeuwfontein, Kapstevel North, Kapstevel South, Phuduhudu and Klipbankfontein) of the eight deposits identified within the Kolomela mining right area in the 2024 LoAP. For the remaining deposits, i.e. Ploegfontein and the smaller Wolhaarkop and Welgevonden North and Central deposits, only Mineral Resources have been declared, while no Mineral Resources have been declared for the Heuningkranz deposit (**Figure 16**).

The 2024 geological models have been informed by validated borehole data comprising 10,601 boreholes (i.e. 3,527 exploration and 7,074 ore control boreholes). This involves 1,232 additional ore control boreholes, and four less exploration boreholes compared to 2023. The reason for the year-on-year decrease in exploration boreholes is due to the complete rebuild of the Kapstevel North, Kapstevel South and Ploegfontein solids models, which also included an in-depth review of exploration borehole information, resulting in some exploration borehole used in the 2023 geological models being declared non-representative during the 2024 geological model update. The additional boreholes are illustrated in **Figure 16.**

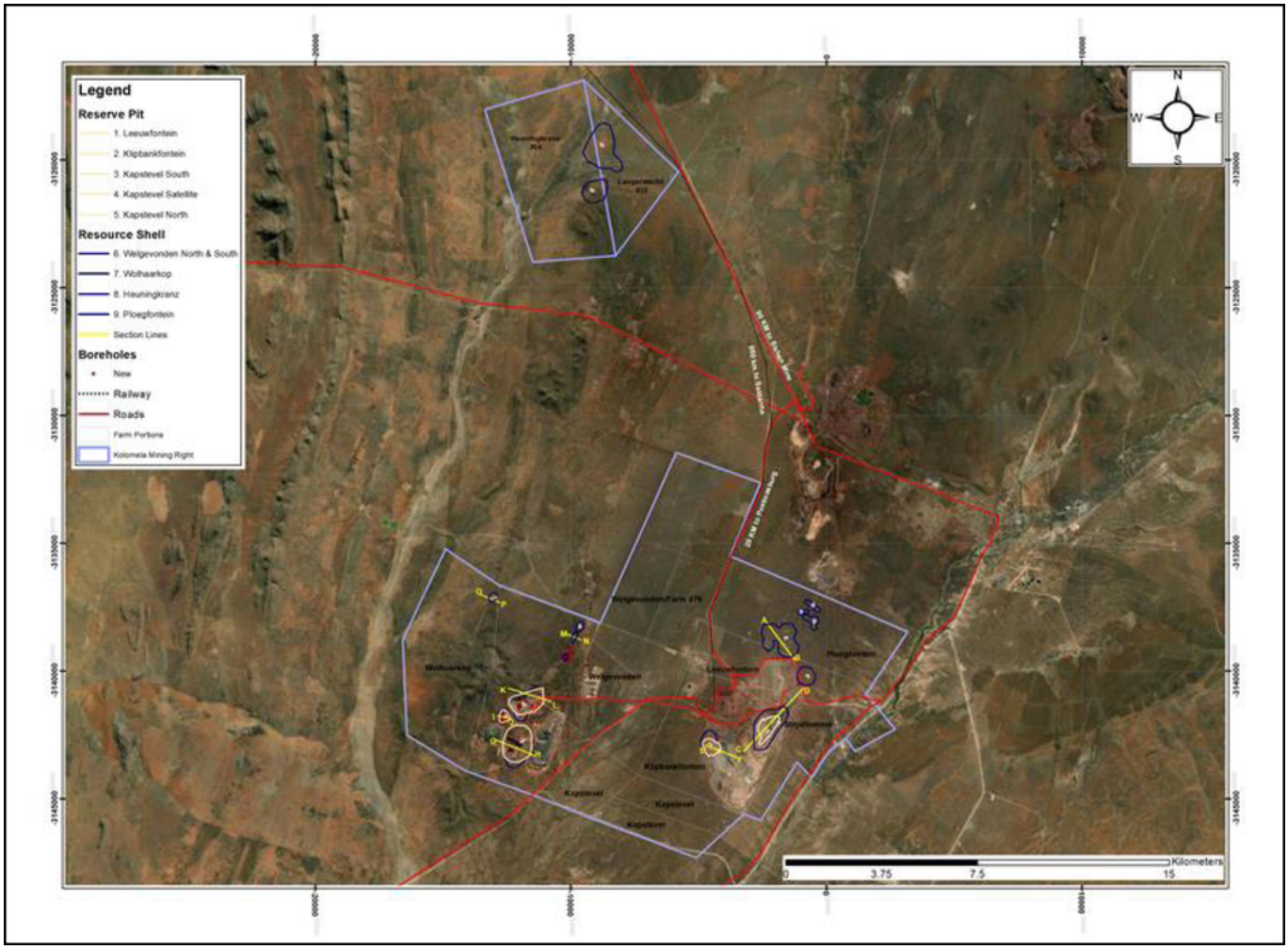


Figure 16: Kolomela mining right area

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

The geometry of the different ore bodies is depicted via cross-sections taken through the 3D solids models of the various ore bodies:

- Cross-section CD **(Figure 17)** as referenced in plan **(Figure 16)** (southwest to northeast cross-section through the Leeuwfontein ore body)
- Cross-section EF **(Figure 18)** as referenced in plan **(Figure 16)** (northwest to southeast cross-section through the Klipbankfontein ore body)
- Cross-section KL **(Figure 19)** as referenced in plan **(Figure 16)** (west-northwest to east-southeast cross-section through the Kapstevel North ore body - pit topography indicated by yellow line)
- Cross-section GH **(Figure 20)** as referenced in plan **(Figure 16)** (west to east cross-section through the Kapstevel South ore body)
- Cross-section IJ **(Figure 21)** as referenced in plan **(Figure 16)** (west-northwest to east-southeast cross-section through the Kapstevel Satellite ore body)
- Cross-section AB **(Figure 22)** as referenced in plan **(Figure 16)** (northwest to southeast cross-section through the Ploegfontein ore body)

The vertical scale has been exaggerated in all the cross-sections, for illustration purposes, resulting in ore body dip angles appearing steeper than they actually are.

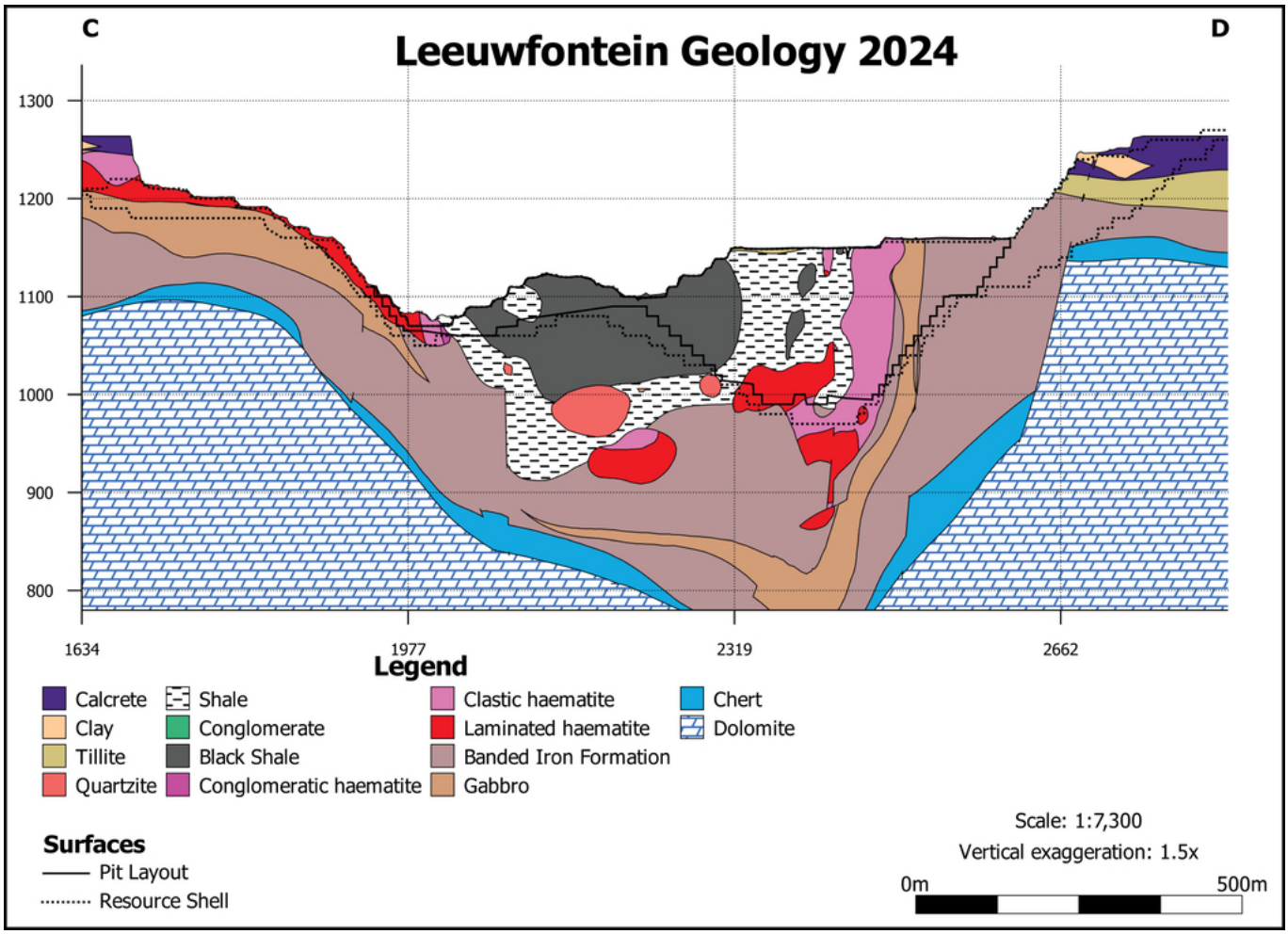


Figure 17: SW-NE cross-section (line CD in Figure 16) through the Leeuwfontein deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

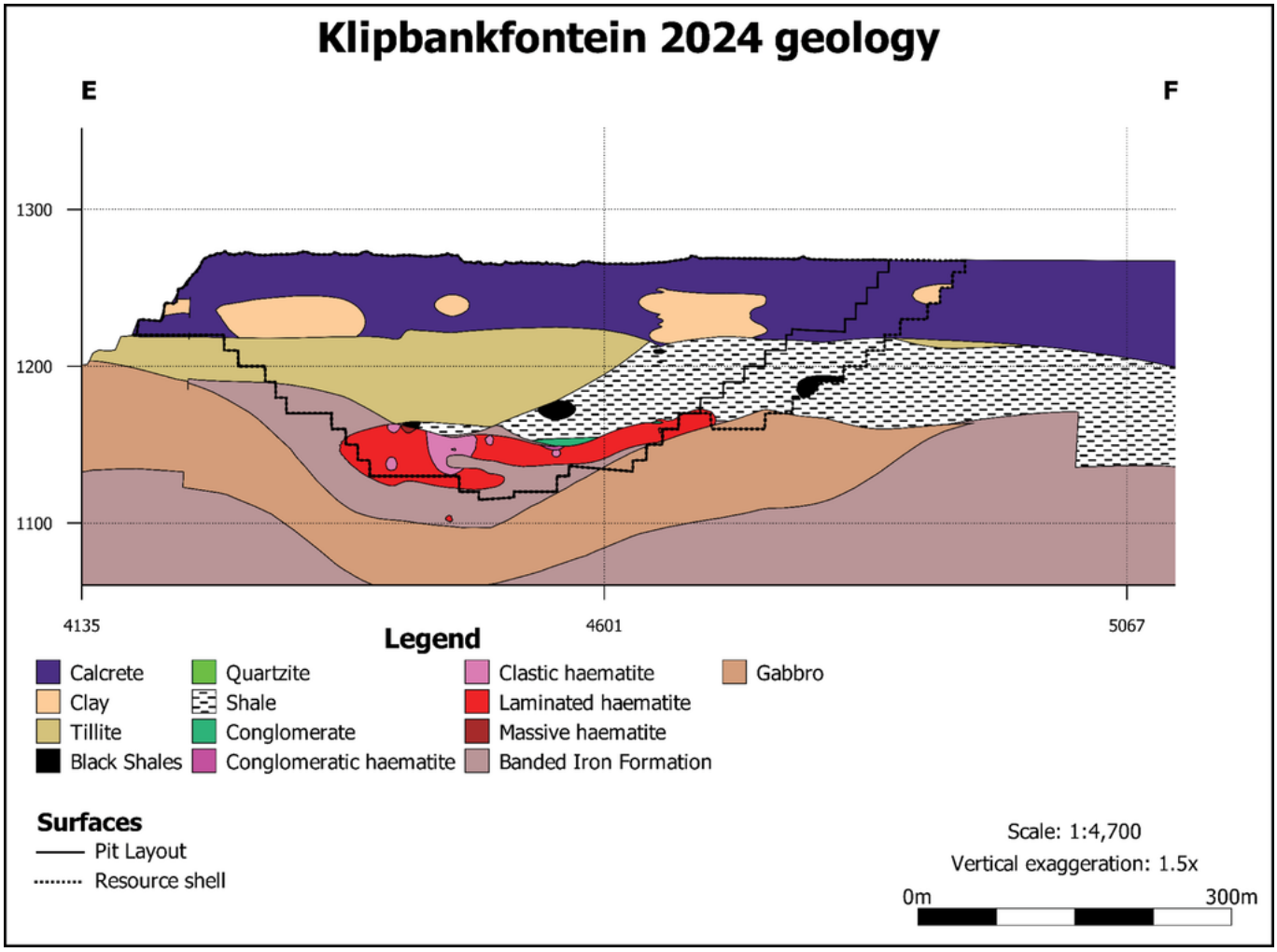


Figure 18: NW-SE cross-section (line EF in Figure 16) through unmined portion of Klipbankfontein deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

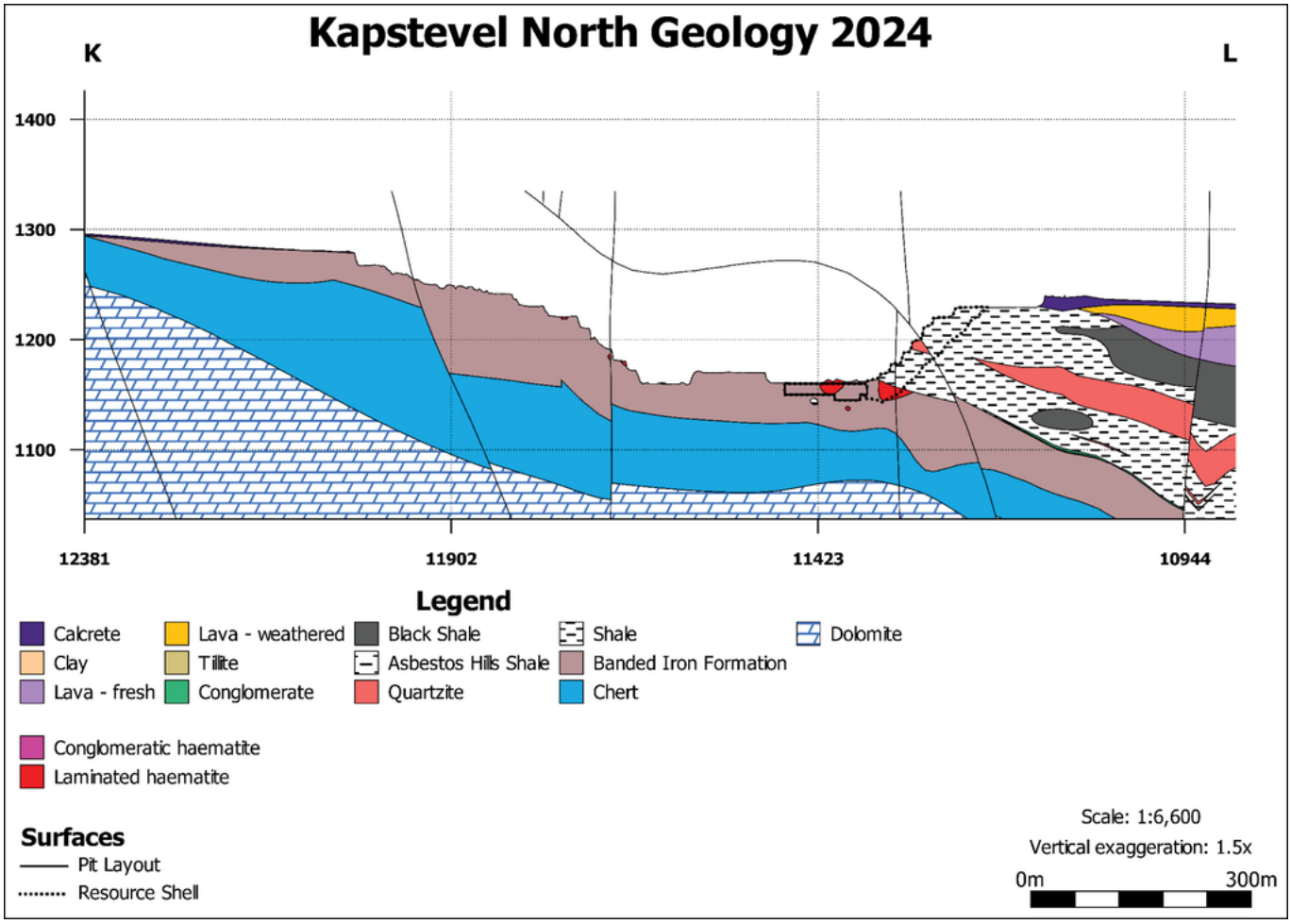


Figure 19: WNW-ESE cross-section (line KL in Figure 16) through the Kapstevel North deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

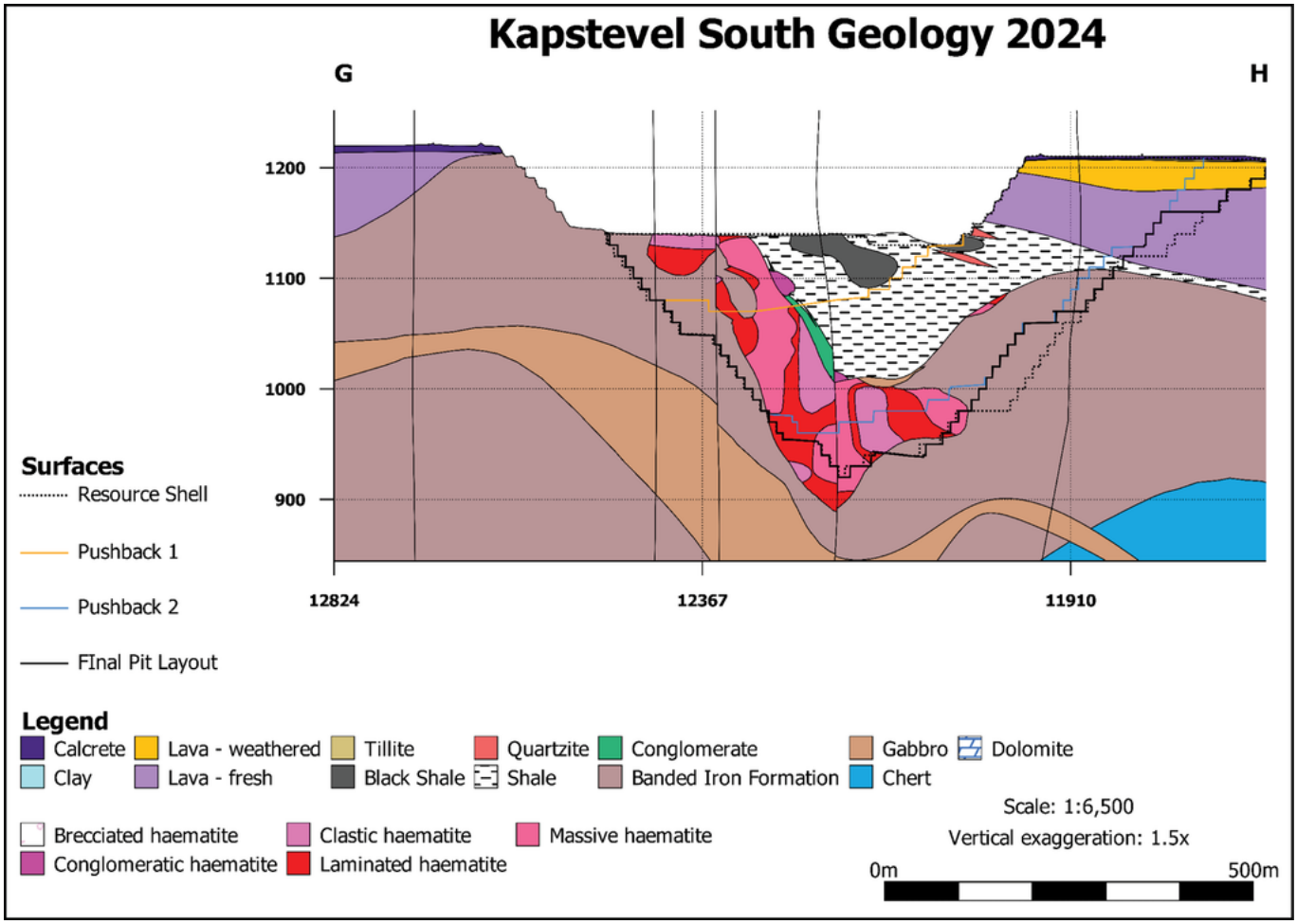


Figure 20: W-E cross-section (line GH in Figure 16) through the Kapstevel South deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

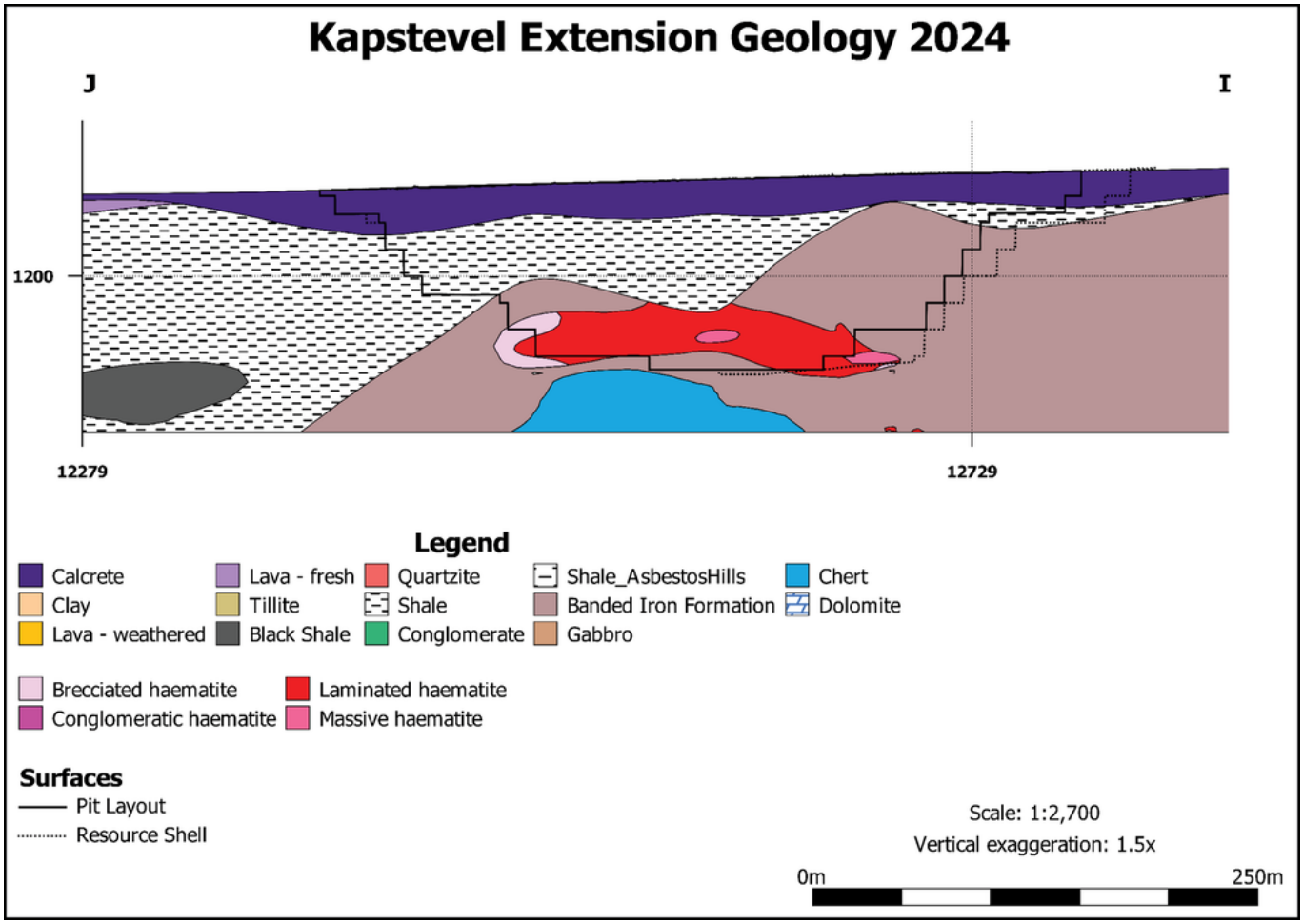


Figure 21: WNW-ESE cross-section (line IJ in Figure 16) through the Kapstevel Satellite (Phuduhudu) deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Geological outline cont.

Local geology cont.

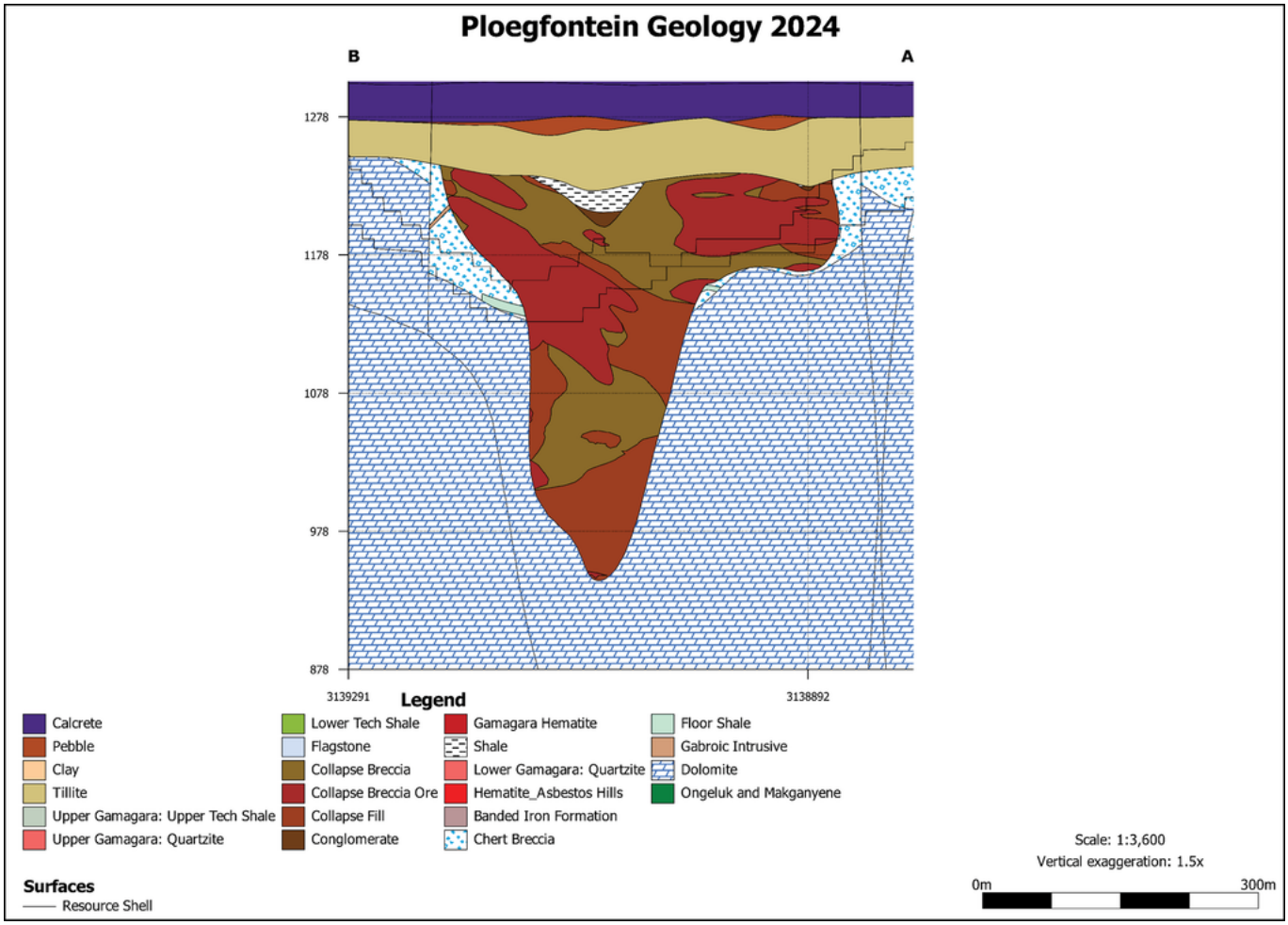


Figure 22: NW-SE cross-section (line AB in Figure 16) through the Ploegfontein deposit

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Operational outline

Kolomela was designed as a direct shipping ore operation, where conventional open-pit drilling and blasting, shovel loading and truck-hauling mining processes are applied to generate plant feed. A modular small-scale UHDMS plant was commissioned in 2016, but was halted in 2023 as part of Kumba's cost curtailment drive (a study is currently underway to determine if the plant can be operated in a more cost-efficient manner). The RoM capacity of the DSO crushing and screening facility is 12.5 Mtpa.

In 2024, ore was loaded and hauled from the Leeuwfontein, Kapstevel North and Kapstevel South pits. The 2024 LoAP also plans mining from the small Phuduhudu pit as well as from the remaining Ore Reserves in the Klipbankfontein ore body.

The iron ore is loaded according to blend (grade) requirements and transported to designated RoM finger stockpiles, dependent on the Ore Control Model estimated Fe and contaminant grades of the load. The primary crushing and screening DSO plant is fed from the finger stockpiles in blend ratios, ensuring that the Lump and Fine product is suitable for client uptake.

The 2024 LoAP schedule iron ore product type breakdown is:
- 55% Standard Lump to 45% Standard Fines.

Product is railed to the Saldanha export harbour via the Transnet (state-owned enterprise) Sishen-Saldanha iron ore export line. The product is marketed to SIOC's current overseas Client base as part of the Anglo American marketing strategy.

Kolomela's key operational parameters are summarised in **Table 11**.

Table 11: Kolomela operational outline summary

Key details	**2024** **7+5 forecast** (actual)	**2023** **8+4 forecast** (actual)
% Ownership (AA plc)	**52.5**	**52.5**
% Ownership (KIO)	**75.4**	**75.4**
Commodity	**Iron ore**	**Iron ore**
Country	**Republic of South Africa**	**Republic of South Africa**
Mining method(s)	**Open pit - Conventional**	**Open pit - Conventional**
Beneficiation method(s)	**DSO (crushing and screening)**	**DSO (crushing and screening) and small-scale UHDMS**
Reserve life* (years)	**16**	**11**
Estimated Saleable Product Lump : Fine ratio	**55 : 45**	**57 : 43**
Plant feed design capacity (Mtpa)	**12.5**	**15**
Forecasted[$] and (actual) RoM production (Mt dry), including modified Inferred Mineral Resources	**10.2** (10.1 actual)	**11.7** (10.5 actual) **(including 0.1 Mt modified Inferred Mineral Resources)**
Forecasted[$] and (actual) Saleable Product (Mt dry), including modified beneficiated Inferred Mineral Resources	**10.0** (9.9 actual)	**11.5** (10.1 actual)
Forecasted[$] and (actual) waste production (Mt dry)	**21.9** (21.8 actual**)	**52.5** (53.0 actual)
Forecasted[$] and (actual) railed product (Mt dry)	**10.0** (10.1 actual)	**10.0** (10.1 actual)
Overall planned stripping ratio (LoAP)	**4.1 : 1**	**4.4 : 1**
Product types	**Standard Lump and Standard Fines**	**Premium Lump, Standard Lump and Standard Fines**
Mining right expiry date	**17 September 2038**	**17 September 2038**

* Reserve life represents the period in years in the approved LoAP for scheduled processing of Proved and Probable Ore Reserves, where the Proved and Probable Ore Reserves make up >25% of the year's RoM.
** Kolomela waste mined in 2024 is lower than 2023, in line with the business reconfiguration plan to align production to Transnet's logistics performance, as well as balancing waste mining and production between Sishen and Kolomela.
$ The forecasted figures align with the year-on-year R&R movement figures as the site R&R Statements are reported before year end to allow for sufficient internal (Kumba) and independent internal (Anglo) peer reviews of the Resources and Reserves.

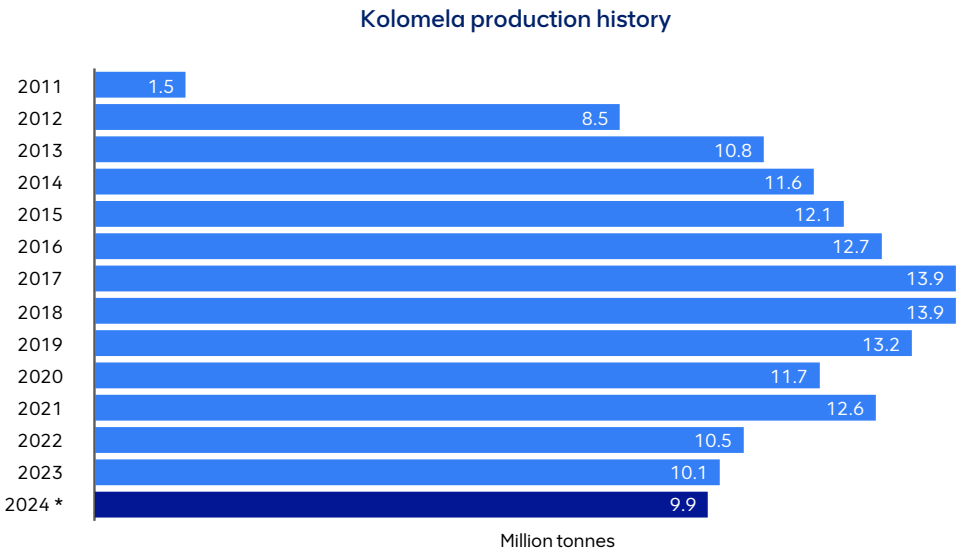
Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Operational outline cont.

Production history

Kolomela's production history of Saleable Product is summarised in **Figure 23**.



* Forecasted production as per Saleable Product movement chart (Figure 7 - footnote 2) was 10.0 Mt.

Figure 23: Kolomela production history

LoAP Saleable Product profile

The 2024 LoAP Saleable Product profile is depicted in **Figure 24**.

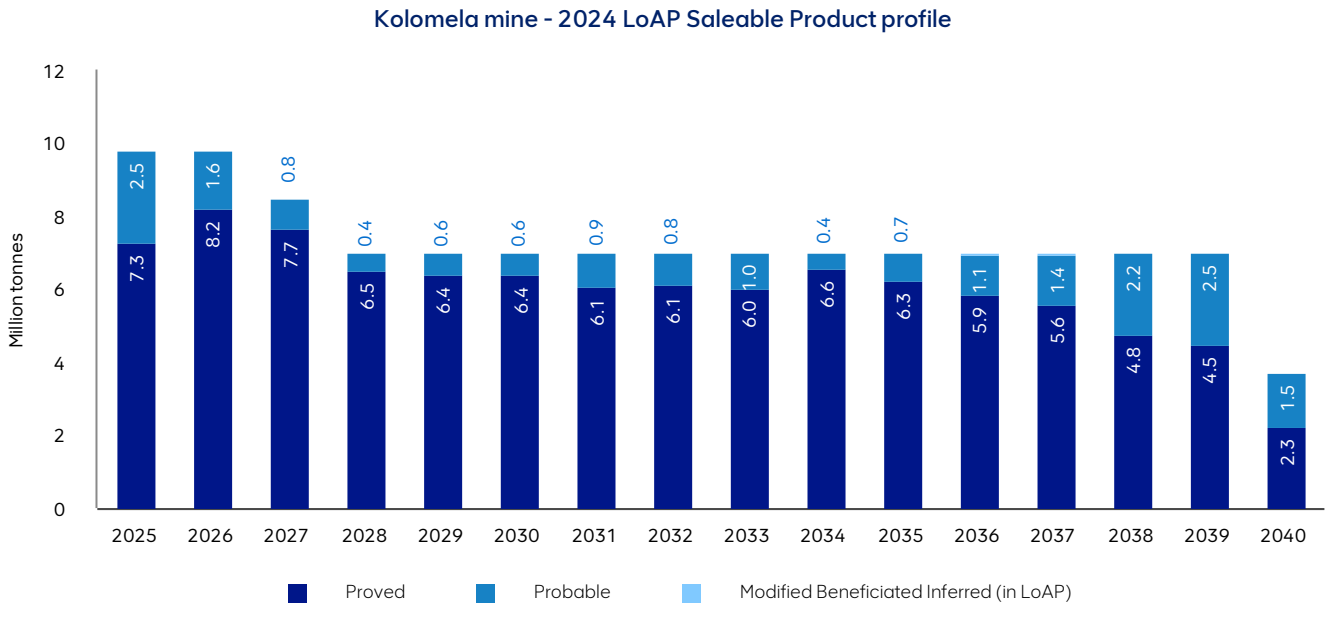


Figure 24: Kolomela's 2024 LoAP Saleable Product profile (including modified beneficiated Inferred Mineral Resources)

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Ore Reserve ancillary information

The Kolomela Ore Reserve ancillary information is summarised in **Table 12A** (background information) and **Table 12B** (Kapstevel South Ore Reserve estimation parameters – as an example).

Table 12A: Kolomela's 2024 versus 2023 Ore Reserve background information

Kolomela	2024	2023
Location		
Country	Republic of South Africa	
Province	Northern Cape	
Ownership		
Sishen Iron Ore Company Proprietary Limited	100%	100%
Kumba Iron Ore Limited	75.4%	75.4%
AA plc	52.5%	52.5%
Operational status		
Operation status	Steady-state (but at lower average annual throughput compared to 2023)	Steady-state
Mining method	Open-pit (conventional drilling and blasting and truck and shovel operation)	Open-pit (conventional drilling and blasting and truck and shovel operation)
Beneficiation method	DSO (crushing and screening of high-grade RoM with maximum 10% medium-grade RoM blend)	DSO (crushing and screening of high grade RoM) as well as DMS plant for medium-grade RoM
Average annual Saleable Product in LoAP (Mtpa)	7.2*	11.5
Average annual supply to domestic market in LoAP (Mtpa)	0	0
Average annual supply to export market in LoAP (Mtpa)	7.2**	11.5
Number of products	Two product types (Standard Lump and Standard Fines)	Three product types (Premium Lump, Standard Lump and Standard Fines)
Governance		
Code	THE SAMREC CODE – 2016 EDITION	
Kumba policy	https://www.angloamericankumba.com/~/media/Files/A/Anglo-American-Group/Kumba/sustainability/approach-and-policies/kumba-mineral-resource-and-ore-reserve-reporting-policy.pdf	
Anglo American requirements document	AA_RD_22-25 - Version 15 [2024] - (Exploration Results, Mineral Resources and Ore Reserves reporting requirements document)	AA_RD_22-25 - Version 14 [2023] - (Exploration Results, Mineral Resources and Ore Reserves reporting requirements document)
KIO reporting protocols	*KIO Reserve Classification Guideline (Version 1)*	

* Decrease in planned average annual Saleable Product output a result of Kumba's business reconfiguration (reduced mining volumes) to align with the Transnet logistical constraint.

** The planned average annual supply to the export market is at risk because of the Transnet rail volumes not achieving planned volumes.

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Ore Reserve ancillary information cont.

Table 12A: Kolomela's 2024 versus 2023 Ore Reserve background information cont.

Kolomela	2024	2023
Reporting method		
Approach	Ore Reserves are those derived from Measured and Indicated Mineral Resources only (through application of modifying factors) and do not include Inferred Mineral Resources. In the case of Kumba, all Ore Reserves are spatially constrained by practical pit layouts, mining engineered from pit shells that spatially define "current economically mineable". The three-dimensional geological block models are converted into three-dimensional mining block models, considering deposit-specific practical mineable SMU sizes. Furthermore, protocols ensure that Kumba's operations consider expected long-term revenues versus the operating and production costs associated with mining and beneficiation as well as legislative, environmental and social costs, in determining whether or not a Mineral Resource could be economically extracted and converted to an Ore Reserve. This is performed by applying a Lerchs-Grosmann algorithm to the mining model to derive an optimised pit shell. This optimised pit shell is then iteratively converted to a practical layout by applying geotechnical slope stability parameters and haul road and ramp designs, legal restrictions, etc., with safety being one of the most considered parameters. Once a practical pit layout has been established, the material within the pit is scheduled over time to achieve client specifications and thus an LoAP schedule is produced. The average % Fe grade and metric tonnage estimates of "Saleable Product" are also reported to demonstrate that beneficiation losses have been taken into account.	
Scheduled RoM metric tonnes (dry/wet)	Dry	
Tonnage calculation	Tonnages are calculated from the LoAP schedule, originating from the mining block models, and are modified tonnages considering geological losses, the effect of dilution, mining losses, mining recovery efficiencies and design recovery efficiencies to derive the RoM tonnages delivered to the crushing and screening and DMS plants.	
Fe grade	Ore Reserve % Fe grades reported represent the weighted average grade of the "plant feed" or RoM material and take into account all applicable modifying factors.	
Cut-off grade (Fe)	50% (includes diluting material)	50% (includes diluting material)
Ore type	Haematite ore	Haematite ore
Optimised pit shell RF	0.66	0.8
LoAP scheduling		
Software	COMET Strategy™ and RPM Open Pit Metals Solution (OPMS)™	OPMS™
Method	Run-of-mine blending to ensure consistent Saleable Product output, while maximising value as per Kumba's business expectations	Product tonnage and grade target driven to achieve required Client product specifications
Stripping strategy	Deferred waste stripping strategy	Deferred waste stripping strategy
Reserve life years	16	11
LoAP RoM tonnes (including modified Inferred) (expressed in million tonnes)	116.1	134.0
Overall average stripping ratio (including Inferred Mineral Resources)	4.1 : 1	4.4 : 1
Production data cut-off date (date where after which short-term plans instead of actual figures are used to estimate the annual RoM and Saleable Product production for the mine until 31 December of the reporting year)	31 July 2024	31 August 2023
Topography and pit progression assigned	31 December 2024 (planned pit boundary as per August 2024 medium-term plan)	31 December 2023 (planned pit boundary as per August 2023 medium-term plan)
Reserve schedule ID (Schedule file name + extension)	2024_Kumba_LoM_Report_Final_14102024	LTP Schedule_Sc10_20102022v4
Reserve schedule completion date	30 October 2024	20 October 2022 (depleted for 2023)

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Ore Reserve ancillary information cont.

Table 12B: Kolomela's 2024 versus 2023 Kapstevel South Ore Reserves estimation parameters

(similar tables exist for the Leeuwfontein, Kapstevel North, Phuduhudu and Klipbankfontein mining areas)

Kapstevel South	**2024**	2023
Estimation		
Mining block model name	2024_KSS_smu101010v1	KSS_smu101010LOAPv3
Smallest mining unit	10m(X) x 10m(Y) x 10m(Z)	10m(X) x 10m(Y) x 10m(Z)
Practical mining parameters		
Bench height	10m	10m
Ramp gradient	8% to 10.0% (1 in 8 to 1 in 10)	8% to 10.0% (1 in 8 to 1 in 10)
Road width	35m	35m
Minimum mining width	80m (hydraulic shovel and truck mining)	80m (hydraulic shovel and truck mining)
Geohydrology	Groundwater level maintained 20m below pit floor	Groundwater level maintained 20m below pit floor
Pit slopes	Designed according to a defendable risk matrix, guided by an appropriate factor of safety of 1.3 and a probability of failure of 10%	Designed according to a defendable risk matrix, guided by an appropriate factor of safety of 1.3 and a probability of failure of 10%
Pit optimisation		
Software	Whittle 4X	Whittle 4X
Method	Lerch-Grosmann (marginal cost cut-off analysis)	Lerch-Grosmann (marginal cost cut-off analysis)
Modification		
Modifying factors		
Geological loss (%)	0	0
Dilution (%)	5	5
Mining loss (%)	-5	-5
Mining recovery efficiency (%)	98	95
Design recovery efficiency (%)	98	98
Reserves reallocated to Resources (%)	0	-5
Yield (%)	99.8*	94.3
Estimator		
Reserve estimator	Izak Moolman	Gerco Lindeque
Reserve estimator status	Internal Technical Specialist	Internal Specialist
Estimator employer	Sishen Iron Ore Company Proprietary Limited	No longer in the employ of Sishen Iron Ore Company Proprietary Limited

* Increase in yield due to halting of UHDMS plant with yield associated with DSO crushing and screening plant very high.

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Ore Reserve ancillary information cont.

Geotechnical considerations (Leeuwfontein example)

The geotechnical global stability analysis of the Kapstevel South pit layout conducted along section lines intersecting the various pit slopes indicated that the design of the pit meets the design criteria for factor of safety ≥1.3 **(Figure 25)**.

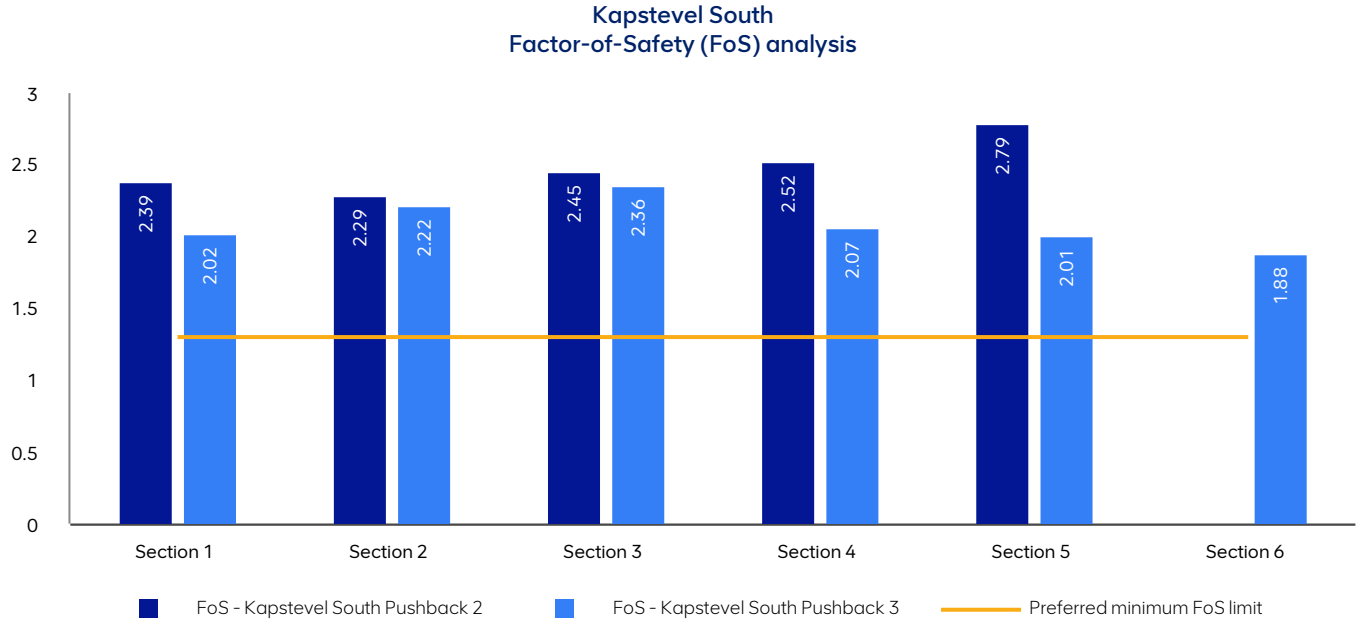


Figure 25: Kapstevel South pit slope Factor-of-Safety (FoS) analysis

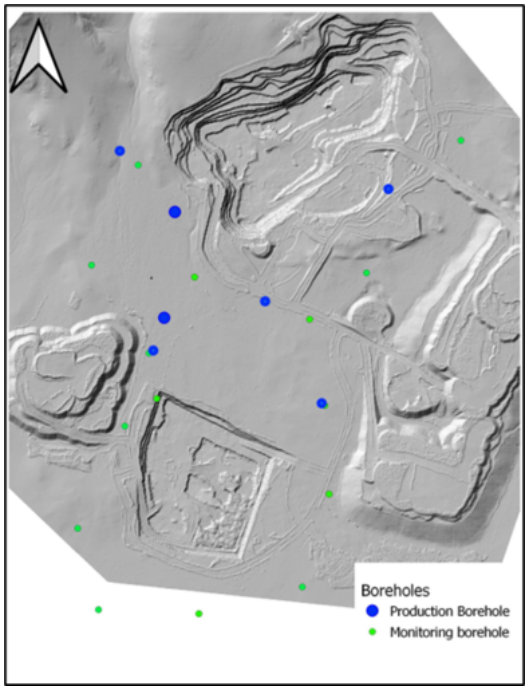


Figure 26: Kapstevel North and Kapstevel South pit groundwater production and monitoring boreholes

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Mineral Resource ancillary information

The Kolomela Mineral Resource ancillary information is summarised in **Table 13A** (background information) and **Table 13B** (Kapstevel South Mineral Resource estimation parameters – as an example).

Table 13A: Kolomela's 2024 versus 2023 Mineral Resource background information

Kolomela	2024	2023
Location		
Country	Republic of South Africa	Republic of South Africa
Province	Northern Cape	Northern Cape
Ownership (%)		
Sishen Iron Ore Company Proprietary Limited	100%	100%
Kumba Iron Ore Limited	75.4%	75.4%
Anglo American plc	52.5%	52.5%
Security of tenure		
Number of applicable mining rights	1	1
Mining right status	Registered (deeds of amendments registered)	Registered (deeds of amendments registered)
Mining right expiry date(s)	17 September 2038	17 September 2038
Exploration status		
Exploration type	Geological confidence (on-mine)	Geological confidence (on-mine)
Exploration phase	In execution	In execution
Ore type	Haematite ore	Haematite ore
Governance		
Code	THE SAMREC CODE – 2016 EDITION	
Kumba policy	https://www.angloamericankumba.com/~/media/Files/A/Anglo-American-Group/Kumba/sustainability/approach-and-policies/kumba-mineral-resource-and-ore-reserve-reporting-policy.pdf	
AA plc requirements document	AA_RD_22-25 - Version 15 [2024] - (Exploration Results, Mineral Resources and Ore Reserves reporting requirements document)	AA_RD_22-25 - Version 14 [2023] - (Exploration Results, Mineral Resources and Ore Reserves reporting requirements document)
KIO reporting protocols	*KIO Geological Confidence Classification Guideline (Version 5)*	*KIO Geological Confidence Classification Guideline (Version 5)*
Reporting method		
Approach	Mineral Resources are reported exclusive of Ore Reserves and not factoring in attributable ownership and only if: (1) spatially modelled; (2) spatially classified; (3) spatially constrained in terms of reasonable prospects for eventual economic extraction (occurring within an RPEEE-defined envelope, in other words not all mineral occurrences are declared as Mineral Resources); (4) declared within (never outside) notarially executed tenement boundaries	
In situ metric tonnes (dry/wet)	Dry	Dry
Tonnage calculation	Tonnages are added from cells in geological block model of which the centroids intersect the relevant geological ore domains in the solids models which occur inside the resource shell. The volume of each ore cell is multiplied with the estimated relative density of the same cell	Tonnages are added from cells in geological block model of which the centroids intersect the relevant geological ore domains in the solids models which occur inside the resource shell. The volume of each ore cell is multiplied with the estimated relative density of the same cell
Fe grade	Weighted average above cut-off grade	Weighted average above cut-off grade
Fe calculation	Tonnage-weighted mean of the estimated in situ Mineral Resource Fe grades contained within geological block models, constrained by the relevant Resource geological ore domains and RPEEE resource shell	Tonnage-weighted mean of the estimated in situ Mineral Resource Fe grades contained within geological block models, constrained by the relevant Resource geological ore domains and RPEEE resource shell
RPEEE		
Cut-off grade	50% Fe	50% Fe
Resource shell RF	1.1	1.6

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Mineral Resource ancillary information cont.

Table 13B: Kolomela's 2024 versus 2023 Kapstevel South Mineral Resources estimation parameters – as an example

(similar tables exist for the Leeuwfontein, Kapstevel North, Phuduhudu, Klipbankfontein, Ploegfontein, Welgevonden North and Central and Wolhaarkop ore bodies but are not stated in this report)

Kapstevel South geological model	**2024**	2023
Input data		
Borehole type	Exploration core and percussion as well as Ore Control reverse circulation borehole lithological logs and associated chemical analyses	
Relative density measurement	Minidense (pre-2010) and Picnometer analyses on pulp sub-samples (2010 to present)	
KIO QA/QC protocol	*KIO QC Protocol for Drilling, Sampling, Sub-sampling and Assaying (version 10)*	*KIO QC Protocol for Drilling, Sampling, Sub-sampling and Assaying (version 10)*
Primary laboratory	Anglo American Research Division of Anglo Operations Limited Chemistry Laboratory (Company registration number: 1921/006730/07)	Anglo American Research Division of Anglo Operations Limited Chemistry Laboratory (Company registration number: 1921/006730/07)
Accreditation	Accredited under International Standard ISO/IEC 17025:2005 by SANAS under the Facility Accreditation Number T0051 (valid until 30 April 2026)	Accredited under International Standard ISO/IEC 17025:2005 by SANAS under the Facility Accreditation Number T0051 (valid until 30 April 2026)
Borehole database software	acQuire™	acQuire™
Borehole database update cut-off date	31 March 2023	31 March 2021
Database validation conducted	Yes	Yes
Segmentation conducted	Yes. To allow for simplification of logged lithologies for spatial interpretation and modelling purposes	
Statistical and geostatistical evaluation		
Data compositing interval	2 m	2 m
Data compositing method	Length-weighted fixed interval downhole compositing per lithological domain. Threshold of 1.0m applied – if residual composite length is ≤ 1.0m, merge with composite above, if ≥ 1.0m residual forms separate composite*	Length-weighted fixed interval downhole compositing per lithological domain. Threshold of 1.0m applied – if residual composite length is ≤ 1.0m, merge with composite above, if ≥ 1.0m residual forms separate composite*
Grade parameters evaluated	% Fe, % SiO_2, % Al_2O_3, % K_2O, % P and % Mn and % S as well as relative density	% Fe, % SiO_2, % Al_2O_3, % K_2O, % P and % Mn and % S as well as relative density
Variography updated in current year	Yes	No
Search parameters updated in current year	Yes	No
Solids modelling		
Solids modelling software	Leapfrog Geo™ and Seequent Central™	Leapfrog Geo™ and Seequent Central™
Input	Previous 3D implicit solids, borehole data and structural in-pit mapping	Previous 3D implicit solids, borehole data and structural in-pit mapping
Method	Implicit solids modelling for all domains	Implicit solids modelling for all domains
Domaining	Yes, by lithology and structural controls	Yes, by lithology and structural controls
Topography and pit progression assigned	31 December 2024 (planned pit boundary)	31 December 2023 (planned pit boundary)
Validation conducted	Yes (for gaps and overlaps by software queries as well as honouring of borehole contacts) and by standard software validation tools	

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Mineral Resource ancillary information cont.

Table 13B: Kolomela's 2024 versus 2023 Kapstevel South Mineral Resources estimation parameters – as an example cont.
(similar tables exist for the Leeuwfontein, Kapstevel North, Phuduhudu, Klipbankfontein, Ploegfontein, Welgevonden North and Central and Wolhaarkop ore bodies but are not stated in this report)

Kapstevel South geological model	2024	2023
Grade estimation methodology		
Ore segments	High-grade ore: Ordinary Kriging Medium-grade ore: Ordinary Kriging and Simple Kriging (sparse data areas)	High-grade ore: Ordinary Kriging Medium-grade ore: Ordinary Kriging and Simple Kriging (sparse data areas)
Waste segments	Simple Kriging (sparse data areas) and default values (assigned to areas without data)	Simple Kriging (sparse data areas) and default values (assigned to areas without data)
Geological block modelling		
Block modelling software	Isatis Neo™ (in situ grade estimation) Datamine Studio RM™ (block modelling)	Isatis Neo™ (in situ grade estimation) Datamine Studio RM™ (block modelling)
Model type	Centroid Model	Centroid Model
Parent cell size	40m(X) x 40m(Y) x 10m(Z)	40m(X) x 40m(Y) x 10m(Z)
Minimum sub-block cell size	5m(X) x 5m(Y) x 5m(Z)	5m(X) x 5m(Y) x 5m(Z)
Cell population method		
Tonnage	Volume of lithology intersected by cell centroid and constrained by cell limits, multiplied with relative density estimate of the same lithology at same unique cell centroid position in space.	Volume of lithology intersected by cell centroid and constrained by cell limits, multiplied with relative density estimate of the same lithology at same unique cell centroid position in space.
Grade	Estimate of grade at unique cell centroid position in space applicable to total volume or tonnage constrained by the cell within a specific solids model lithological domain.	Estimate of grade at unique cell centroid position in space applicable to total volume or tonnage constrained by the cell within a specific solids model lithological domain.
Updated geological block model ID (file name + extension)	kss022024_v1.dm	kss022022_v1.dm
Update completion date	28 February 2024	28 February 2022
Geological confidence classification		
Method summary	Scorecard applied to parent blocks in geological block model populated during first Kriging run, with blocks populated during second Kriging run classified as Inferred extrapolated, and remaining blocks not populated during first and second Kriging runs (populated with default values) also classified as extrapolated Inferred. No CP override was conducted.	Scorecard applied to parent blocks in geological block model populated during first Kriging run, with blocks populated during second Kriging run classified as Inferred extrapolated, and remaining blocks not populated during first and second Kriging runs (populated with default values) also classified as extrapolated Inferred. No CP override was conducted

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Mineral Resource ancillary information cont.

Table 13B: Kolomela's 2024 versus 2023 Kapstevel South Mineral Resources estimation parameters – as an example cont.
(similar tables exist for the Leeuwfontein, Kapstevel North, Phuduhudu, Klipbankfontein, Ploegfontein, Welgevonden North and Central and Wolhaarkop ore bodies but are not stated in this report)

Kapstevel South geological model	**2024**	2023
Geological confidence classification		
• Scorecard method summary	According to the *KIO Geological Confidence Classification Guideline (Version 5)*, with each cell in the 3D geological block model populated with: Grade continuity parameters: – Fe estimate slope-of-regression (SOR) that has been indexed according to fixed SOR intervals – Sample representivity index value per borehole sample that is spatially estimated using) using the variography and search neighbourhood of the critical grade parameter, i.e. % Fe Geometry continuity parameters: – Distance to closest borehole sample (indexed according to fixed intervals); – Variability in orebody thickness determined by intersecting orebody with close-spaced dummy boreholes (indexed according to fixed intervals) – Variability in orebody dip determined by intersecting orebody with close-spaced dummy boreholes (indexed according to fixed intervals)*	According to the *KIO Geological Confidence Classification Guideline (Version 5)*, with each cell in the 3D geological block model populated with: Grade continuity parameters: – Fe estimate SOR that has been indexed according to fixed SOR intervals – Sample representivity index value per borehole sample that is spatially estimated using) using the variography and search neighbourhood of the critical grade parameter, i.e. % Fe Geometry continuity parameters: – Distance to closest borehole sample (indexed according to fixed intervals); – Variability in orebody thickness determined by intersecting orebody with close-spaced dummy boreholes (indexed according to fixed intervals) – Variability in orebody dip determined by intersecting orebody with close-spaced dummy boreholes (indexed according to fixed intervals)*
• Grade continuity parameters weighting	Fe estimate SOR (50%); Sample representivity index (50%)	Fe estimate SOR (50%); Sample representivity index (50%)
• Geometry continuity parameters weighting	Distance to closest sample (33.3%), variability in ore body dimension (33.3%) and variability in ore body dip (33.3%)	Distance to closest sample (33.3%), variability in ore body dimension (33.3%) and variability in ore body dip (33.3%)
Geological confidence weighting		
• Grade continuity weighting (%)	40	40
• Geometry continuity weighting (%)	60	60
Confidence thresholds		
• Measured	≥6.5	≥6.5
• Indicated	4.5 to <6.5	4.5 to <6.5
• Inferred	<4.5	<4.5
CP over-ride		
• Measured to Indicated (Mt)	None	None
• Indicated to Inferred (Mt)	None	None
Estimator		
Resource estimator	P Letsie	P Letsie
Resource estimator status	Internal Technical Specialist	Internal Technical Specialist
Estimator employer	Sishen Iron Ore Company Proprietary Limited	Sishen Iron Ore Company Proprietary Limited

Ancillary Reserve and Resource information per operation cont.

Kolomela cont.

Mineral Resource ancillary information cont.

Additional borehole data

The 2024 geological models have been informed by validated borehole data comprising 10,601 boreholes (3,527 exploration and 7,074 ore control boreholes). This involves 1,232 additional ore control boreholes, and four less exploration boreholes compared to 2023. The reason for the year-on-year decrease in exploration boreholes is due to the complete rebuilt of the Kapstevel North, Kapstevel South and Ploegfontein solids models, which also included an in-depth review of exploration borehole information, resulting in some exploration borehole used in the 2023 geological models being declared non- representative during the 2024 geological model update.

Kapstevel South Mineral Resource in situ SiO_2 grade

The in situ SiO_2 estimates of the Kapstevel South Mineral Resource is depicted in **Figure 27**.

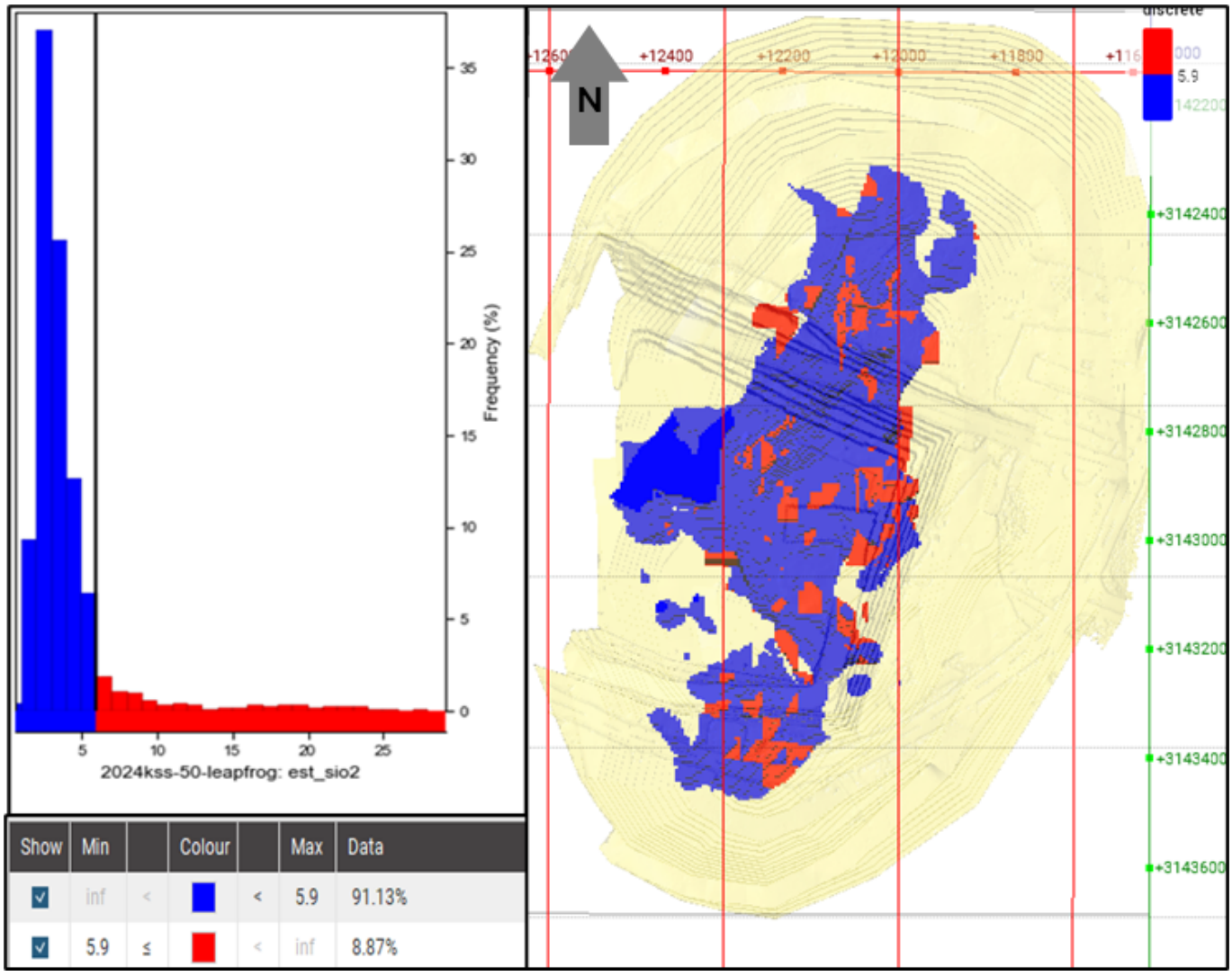


Figure 27: Kapstevel South Mineral Resource in situ SiO_2 estimates

Ancillary Reserve and Resource information per operation cont.

Sishen

Location

The bulk of KIO's annual production is generated by Sishen, located in the Northern Cape province near the town of Kathu in South Africa **(Figure 28)**. Sishen has been in operation since 1953 and is one of the largest single open-pit iron ore mines in the world.

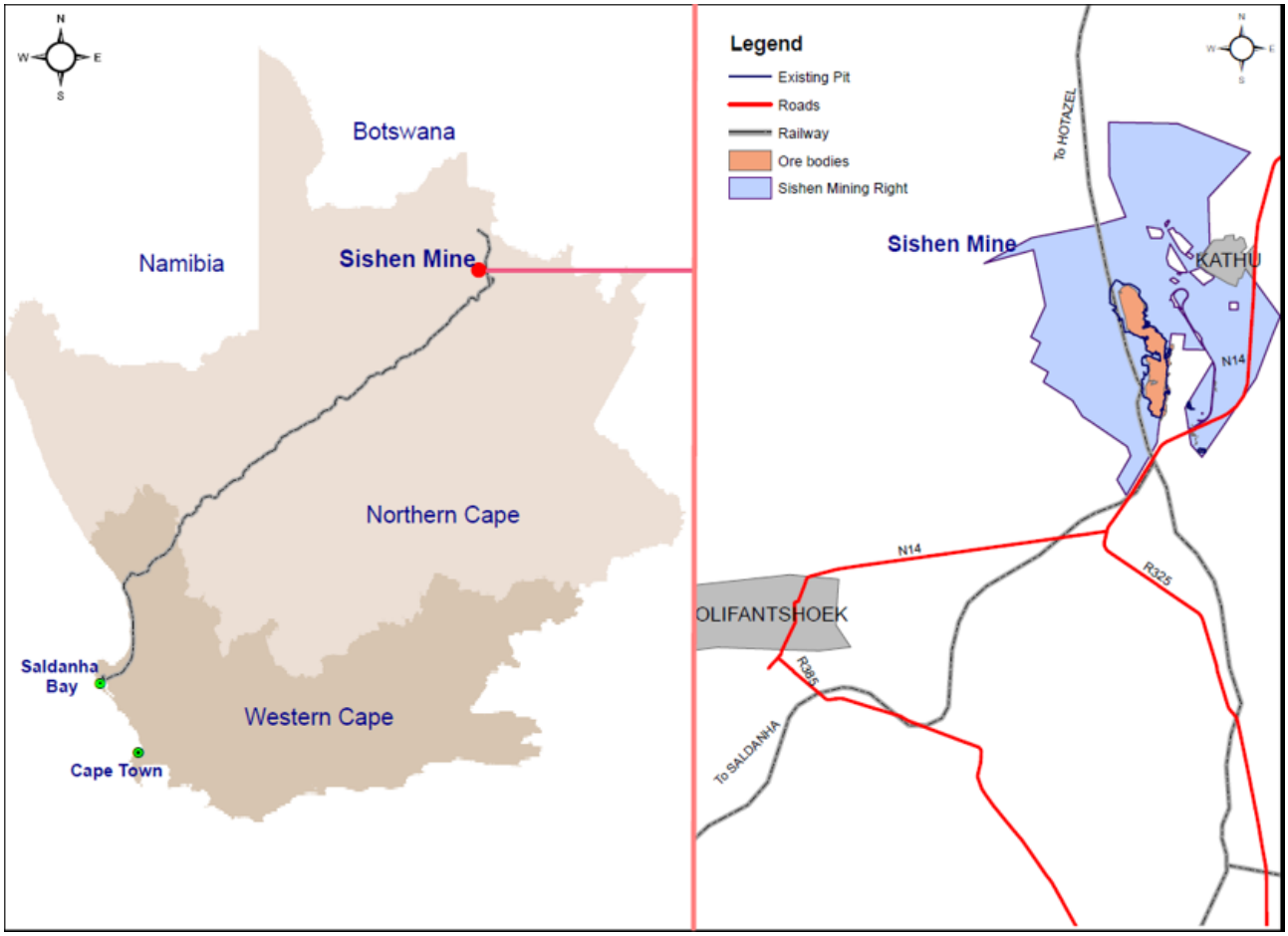


Figure 28: Location and logistics chain of Sishen

Geological outline

Regional geology

Falls within the same regional geological environment (towards northern end of Northern Cape province "iron ore belt") as Kolomela – please see "Regional geology" section (page 60).

Stratigraphy

The carbonates of the Campbell Rand Subgroup are separated from the overlying BIF of the Asbestos Hills Subgroup by a siliceous, residual breccia. This breccia is known locally as the Wolhaarkop Breccia and is developed on an irregular, karst surface.

The BIFs of the Asbestos Hills Subgroup are characteristically fractured and brecciated, especially near the contact with the Wolhaarkop Breccia. Both upper and lower contacts are erosion surfaces and together with the lack of easily identifiable marker horizons make correlation of individual beds virtually impossible.

A highly altered, slickensided, intrusive sill is commonly found separating the BIF from the overlying laminated ore. At Sishen it is generally less than 2 m thick. The sill is invariably folded into the basinal geometry and only rarely cross-cuts (intrudes) the ore bodies.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

At the Sishen deposit, the upper parts of the Asbestos Hills Subgroup have been ferruginised to ore grade. These stratiform, laminated and massive ores constitute the bulk of the resource. The laminated and massive ores are commonly folded and faulted into basinal and pseudo-graben structures.

Deep palaeo-sinkholes, filled with brecciated ore and Gamagara sedimentary rocks, are found on the southern parts of the Sishen properties. The sinkholes are restricted to antiformal structures close to the Maremane Dome on the southern portions of the mine. They are an important mechanism for preserving collapse breccia ore.

They are unconformably overlain by a thick package of sedimentary rocks (conglomerates, shales, flagstones and quartzite) termed the Gamagara Subgroup (S.A.C.S., 1995). Many researchers including, Beukes and Smit (1987) and Moore (pers. comm.), have correlated this unit with the Mapedi Formation, which constitutes the lowermost unit of the Olifantshoek Supergroup.

The Olifantshoek Supergroup is the oldest recognised red-bed sequence in the region. It is some 400 Ma younger than the Transvaal Supergroup.

Conglomerates of ore grade with well-rounded clasts and fine-grained, well-sorted, gritty ores are common at Sishen. Partly ferruginised shales, interbedded with ore conglomerates and thick flagstones are also a feature of the Gamagara Subgroup.

Along the western margin of Sishen, diamictite of the Makganyene Formation and lavas of the Ongeluk Formation have been thrust over the sedimentary rocks of the Gamagara Subgroup. The diamictite and lava have been eroded by later events. Tillite of the Dwyka group and pebble beds, clay and calcrete of the Kalahari group have been deposited on these erosional unconformities.

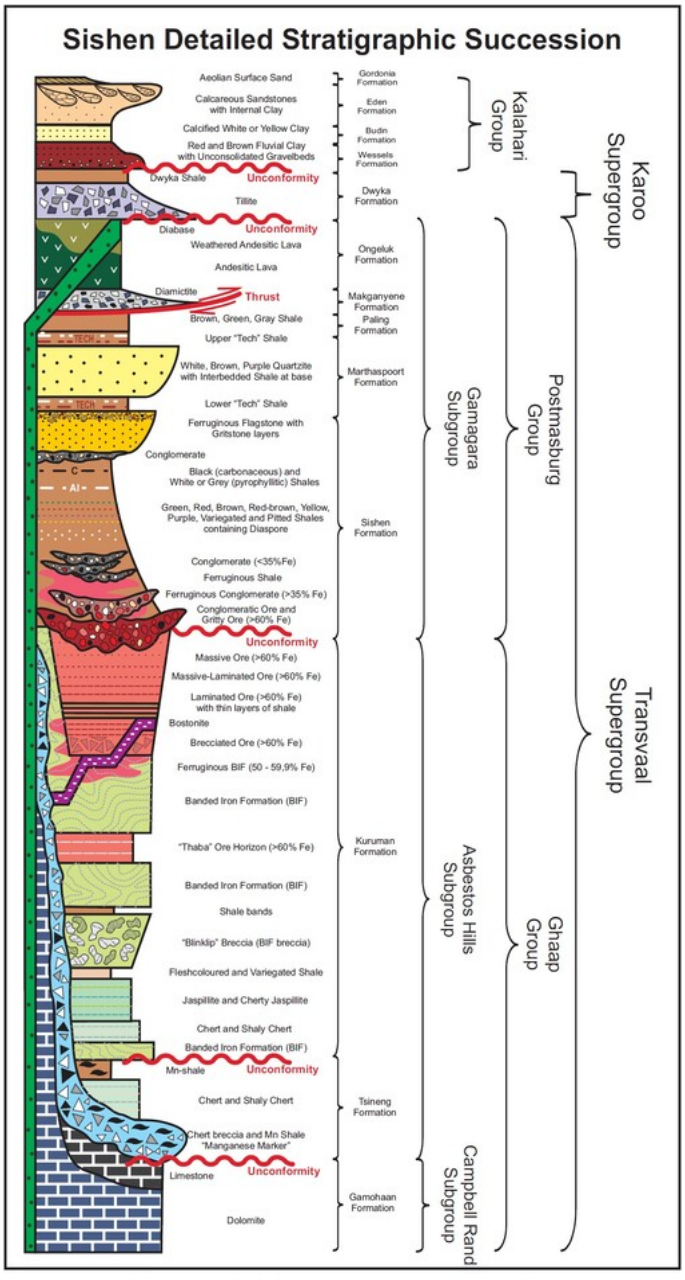
A few thin, diabase dykes with north-south and northeast-southwest orientations have intruded the stratigraphic sequence. They form impervious barriers and compartmentalise the groundwater.

A buried glacial valley, filled with Dwyka tillite and mudstones, has been identified with reconnaissance drilling. The valley is located between the mine and Kathu. It has a north-south orientation that changes to northwest-southeast between Dibeng and the mine. The valley does not fall within the planned open-pit.

The Kalahari group comprises boulder beds, clays, calcrete, dolocrete and windblown sands. The Kalahari group is developed to a maximum thickness of 60 m.

The clay beds at Sishen can attain a thickness of up to 30 m on the northern parts of the deposit. The Kalahari beds of calcrete, limestone and clay and Quaternary sand and detritus blanket more than 90% of the Sishen mining area.

A generalised version of the Sishen stratigraphy is depicted in **Figure 29**.



citation: Venter, L.J., Deacon, J. (2017) Sishen Detailed Stratigraphic Succession, Internal Company Presentation, Kumba Iron Ore.

Figure 29: Simplified stratigraphic column depicting the Sishen local geology

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Tectonic setting

Structural studies by Stowe (1986), Altermann and Hälbich (1991) and Hälbich et al (1993) concluded that the lower Transvaal Supergroup exhibits at least three major phases of compressional tectonism at the western edge of the Kaapvaal Craton. The overall number of events may be significantly higher; for example, Altermann and Hälbich (1991) suggested that there were seven events.

The development of this part of the Kaapvaal Craton is summarised below, in chronological order and using current azimuths, from Stowe (1986), Altermann and Hälbich (1991), Hälbich et al (1993), Friese (2007a, b) and Friese and Alchin (2007):

- ~2.78-2.64 Ga: Ventersdorp rift basin development. Northeast-southwest trending faults, which formed graben boundaries, developed due to basin initiation and subsidence
- ~2.64-2.6 Ga: Extrusion and deposition of the volcano sedimentary Vryburg Formation and Ventersdorp lavas
- ~2.60-2.52 Ga: Development of a carbonate platform during widespread marine transgression; consequent conformable deposition of the Schmidtsdrif and Campbell Rand Subgroup dolomites
- ~2.52-2.46 Ga: Off-craton/oceanic rifting to the west, accompanied by hydrothermal deposition of manganiferous chert of the Wolhaarkop Formation. This was followed by deposition of the Asbestos Hill Subgroup (BIF/Kuruman Formation)
- ~2.46-2.35 Ga: Incipient break-up and rifting, along a set of north-south trending, west dipping normal faults in the Kaapvaal Craton during a "second extensional stage" (Friese and Alchin, 2007). According to Dalstra and Rosière (2008), "E1" or their first extensional event occurred immediately before the "Kalahari Orogeny"
- ~2.35-2.25 Ga: The first phase of folding (F1) resulted from the E-verging "Kalahari Orogeny". Altermann and Hälbich (1991) cite the >2.24 Ga or pre-Makganyene development of the Uitkomst cataclasite as part of this event, which they attribute to a bedding-parallel thrust. F1 folds were predominantly north-south trending; therefore, the main axis of the Maremane Dome is effectively a 2.35-2.25 Ga F1 anticline or an F2-tightened F1 anticline. Pre-existing, predominantly rift-related normal faults were inverted and underwent a component of strike-slip reactivation, concomitant with this eastward tectonic vergence; their adjacent, uplifted blocks were eroded. An additional feature of this event appears to be the formation of conjugate northeast and southeast trending strike-slip faults which are radially distributed around the eastern curve of the Maremane Dome.

  This orogeny also caused uplift and erosion of underlying units, including the Ghaap group, to form the Postmasburg unconformity, which is pivotal in regional ore development and/or preservation. The deposition of the Makganyene Formation of the Lower Postmasburg group, which has a minimum age of 2.22 Ga, probably resulted from this event;
- ~2.24-1.83 Ga: Reactivation of faults related to both the north-south trending passive margin rift and the Ventersdorp Rift, causing deposition of the fault-controlled or fault-bounded volcano sedimentary/volcanoclastic Upper Postmasburg group. Ongeluk lavas signify the peak of mafic lava extrusion at c. ~2.22 Ga, via feeder dykes that exploited reactivated NNE to NE trending faults (Friese and Alchin, 2007. Dalstra and Rosière (2008) correctly inferred that dykes locally recrystallised ores. Within this interval, deposition of clastic sediments in the form of conglomerate, "grit", quartzite and shale of the lower Olifantshoek Supergroup took place at ~2.05-1.93 Ga, thereby forming and terminating the deposition of the Gamagara/Mapedi Formation, which formed within a shallow-water rift environment (Beukes, 1983). The second extensional event or "E2" of Dalstra and Rosière (2008) occurred during or shortly after this period, as reactivated normal faults displaced or offset the lower Olifantshoek group, although such structures tend to pre-date the Kheis Orogeny (see below). Apparently overlapping in age with this extensional event is the formation of south-verging folds and thrusts, which, according to Altermann and Hälbich (1991), are the oldest post-Matsap event at 2.07-1.88 Ga
- ~1.83-1.73 Ga: The Kheis Orogeny or tectono-metamorphic event, like the Kalahari Orogeny, showed eastward tectonic vergence that was accompanied by thrusting and folding (Stowe, 1986; Beukes and Smit, 1987; Altermann and Hälbich, 1991; Hälbich et al (1993)). The Kheis Orogeny is more precisely dated at ~1,780 Ma, using a 39Ar-40Ar metamorphic age derived from the Groblershoek Schist Formation of the Olifantshoek Supergroup (Schlegel, 1988). Rift structures of the Postmasburg group and Olifantshoek Supergroup depositional settings were reactivated while F2 folding and thin-skinned thrusting occurred along major unconformities and lithological contacts. In some areas, F1 folds were tightened co-axially during F2 folding. In the Sishen area, thrusting was concentrated at the shale-dominated, tectonised margins of a quartzite member within the upper Olifantshoek group; these horizons are termed "tectonised shale" in drill core, although this sequence appears to be very poorly developed at the Heuningkranz prospect. Friese (2007a, b) and Friese and Alchin (2007) have termed these and other low-angle thrusts "principal décollements"

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Tectonic setting cont.

- ~1.15-1.0 Ga: The north-northeast directed Lomanian (Namaqua-Natal) Orogeny caused deformation along the southern margin of the Kaapvaal Craton. The effects of this were manifold: reactivation and buckling of north-south trending normal and inverted normal faults, reactivation of the 2.35-2.24 Ga northeast and southeast trending conjugate strike-slip faults, usually with upthrow to the southeast and southwest, respectively, the development of east-northeast trending F3 folds, which may have contributed to broad F2/F3 fold interference patterns (q.v. Mortimer, 1994, 1995). This may also have contributed to the geometry of the Maremane Dome, which is effectively a large-scale "Ramsay style" interference fold with a radial set of fractures/faults, in which conjugate relationships may still be observed. The Dimoten and Ongeluk-Witwater Synclines, wherein the Postmasburg group is preserved, are situated towards the eastern foreland of the Maremane Dome

It has been suggested that the interference or intersection of F2 synclines and F3 synclines have resulted in deep, steep-sided, circular or ovoid depressions in which ore (and BIF) is notably thicker (q.v. Mortimer, 1994; 1995). This must be weighed against other models which suggest that areas of very thick, deep ore occupy palaeo-sinkholes, i.e. occur within palaeokarst topography within the Campbell Rand Subgroup (Beukes et al (2002).

A third model is that of Dalstra and Rosière (2008), which advocates a close association between structures and mineralisation and/or between structures and the preservation of mineralisation. Due to the complex structural and stratigraphic evolution of the area, it is entirely possible that there is a component of all three mechanisms present in a given deposit, albeit substantially complicated by variable preservation.

Subsequent tectonism, including the breakup of Gondwana and Pan-African reworking, had only a minor effect on the modelled volume. Regionally, Bushveld-age gabbroic rocks intruded into the Ghaap and Postmasburg groups within a clearly defined northeast trending graben, essentially accommodated by the reactivation of Ventersdorp faults (Friese and Alchin, 2007).

Local geology

A total of 719 additional exploration core and percussion boreholes (solids models and grade estimation) and 1,082 additional Ore Control reverse circulation boreholes (solids model only) were applied in the update of the 2024 Sishen geological models. Of the 719 additional exploration boreholes, 80 boreholes were newly drilled since the 31 March 2022 data cut-off of the previous model update, while 639 boreholes have been drilled before the previous model data cut-off, but the associated assay information was only obtained after the previous model data cut-off date. Additional boreholes drilled are illustrated in **Figure 30**.

The total amount of boreholes used as input for the 2024 Sishen geological models is:

- 14,647 exploration (core and percussion), and
- 19,506 ore control reverse circulation

Sishen is situated on the northern extremity of the Maremane anticline. At this location, the lithologies strike north-south and plunge from the centre of the anticline in a northerly direction. The bulk of the resource comprises high-grade, laminated and massive ores belonging to the Asbestos Hills Subgroup.

The ore bodies are intensely folded and faulted. Dips vary according to local structures, but at Sishen, a regional dip of 11° in a westerly direction prevails.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

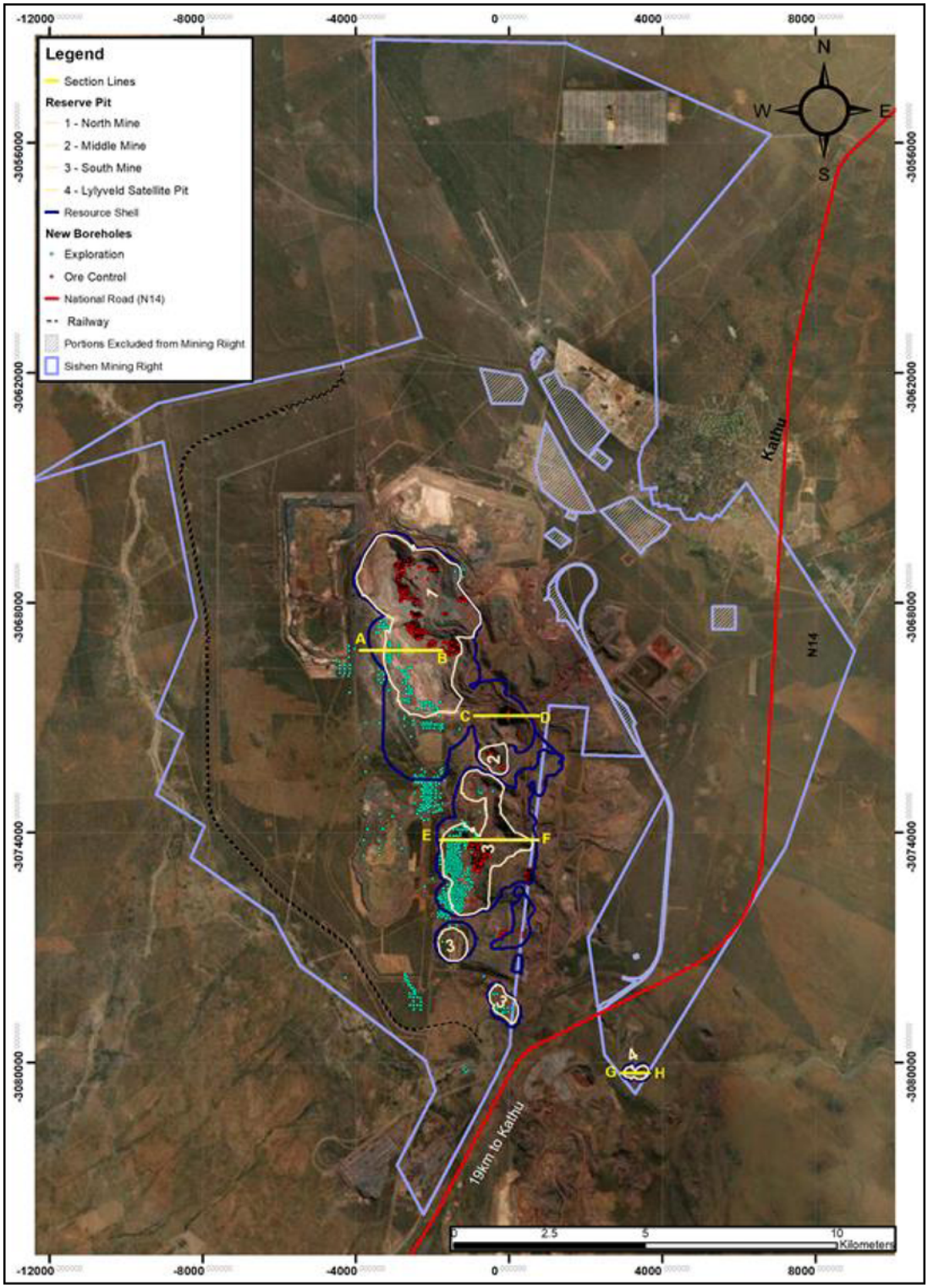


Figure 30: Sishen mining right area

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Local geology cont.

The geometry of the lithologies are depicted via cross-sections as referenced in **Figure 30.** Cross-sections were derived from the 2023 Sishen three-dimensional geological block models:

- **Figure 31** is a west to east cross-section (line AB in **Figure 30**) through the Sishen North mine area
- **Figure 32** is a west to east cross-section (line CD in **Figure 30**) through the Sishen Middle mine area
- **Figure 33** is a west to east cross-section (line EF in **Figure 30**) through the Sishen South mine area
- **Figure 34** is a west to east cross-section (line GH in **Figure 30**) through the Lylyveld satellite mine area

The vertical scale of the cross-sections has been exaggerated, for illustrative purposes, resulting in ore body dip angles appearing steeper than actual.

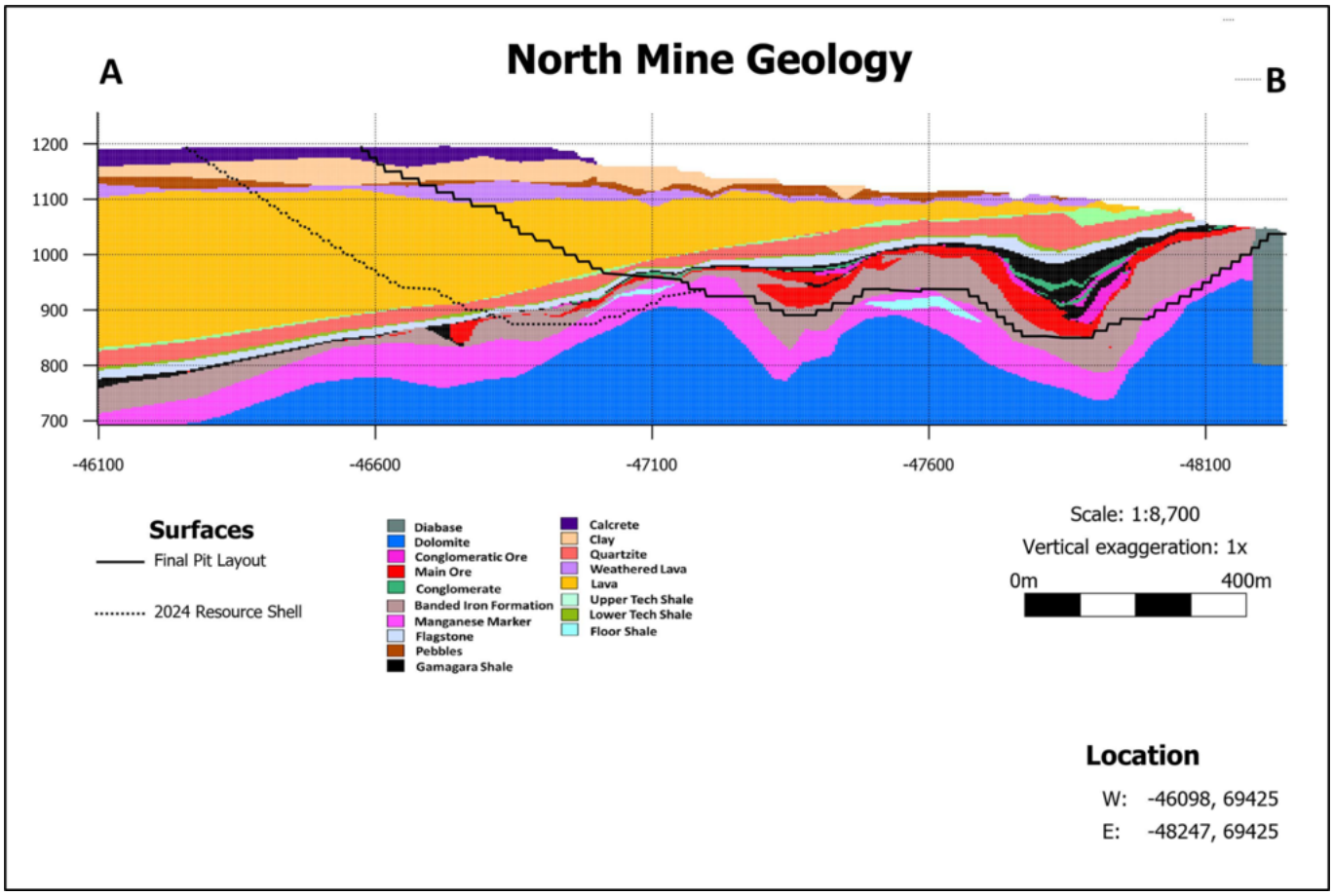


Figure 31: West-east cross-section (line AB in **Figure 30**) depicting the local geology of the Sishen north mine area

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Local geology cont.

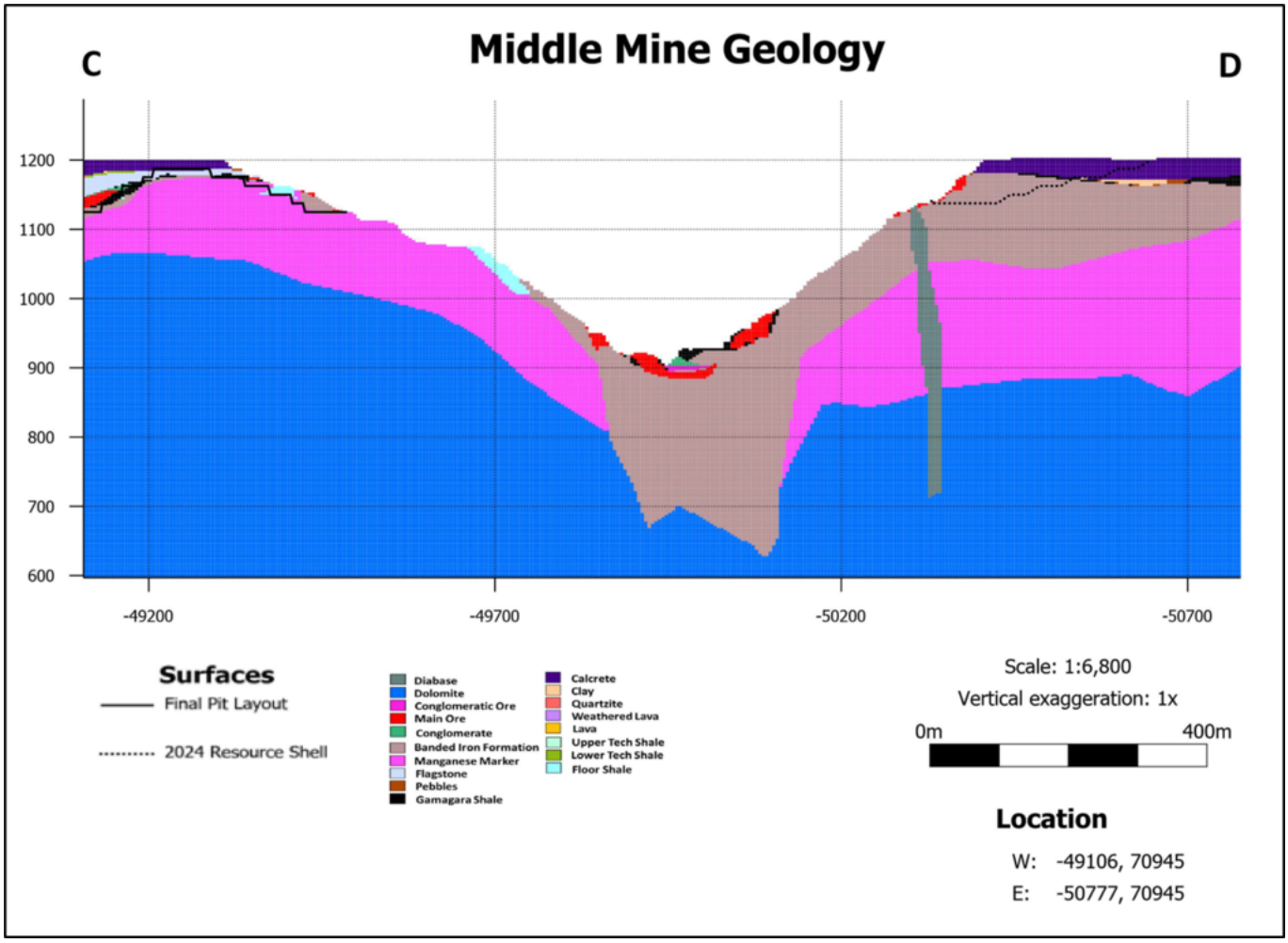


Figure 32: West-east cross-section (line CD in **Figure 30**) depicting the local geology of the Sishen Middle mine area

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Local geology cont.

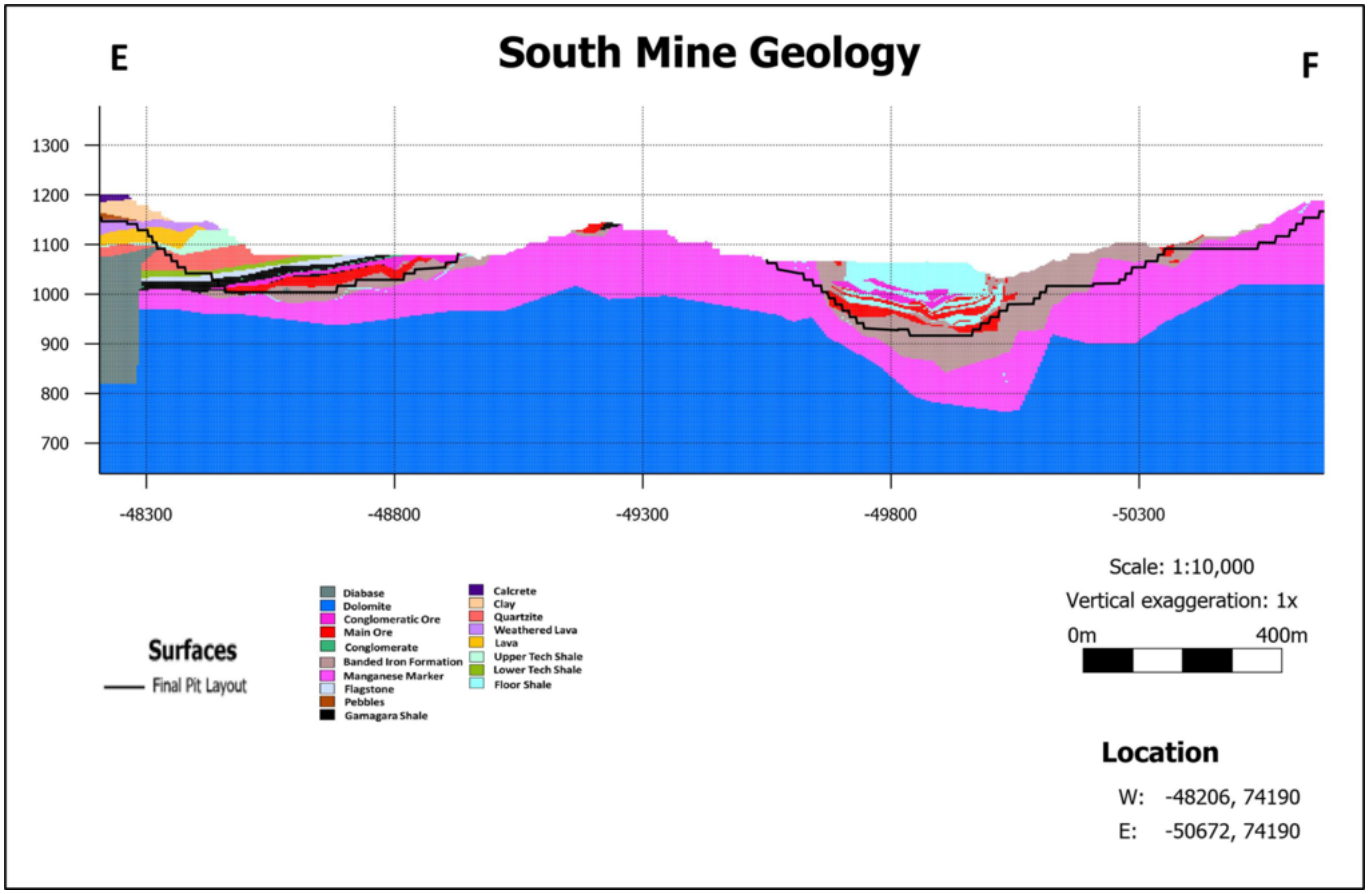


Figure 33: West-east cross-section (line EF in **Figure 30**) depicting the local geology of the Sishen south mine area

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Geological outline cont.

Local geology cont.

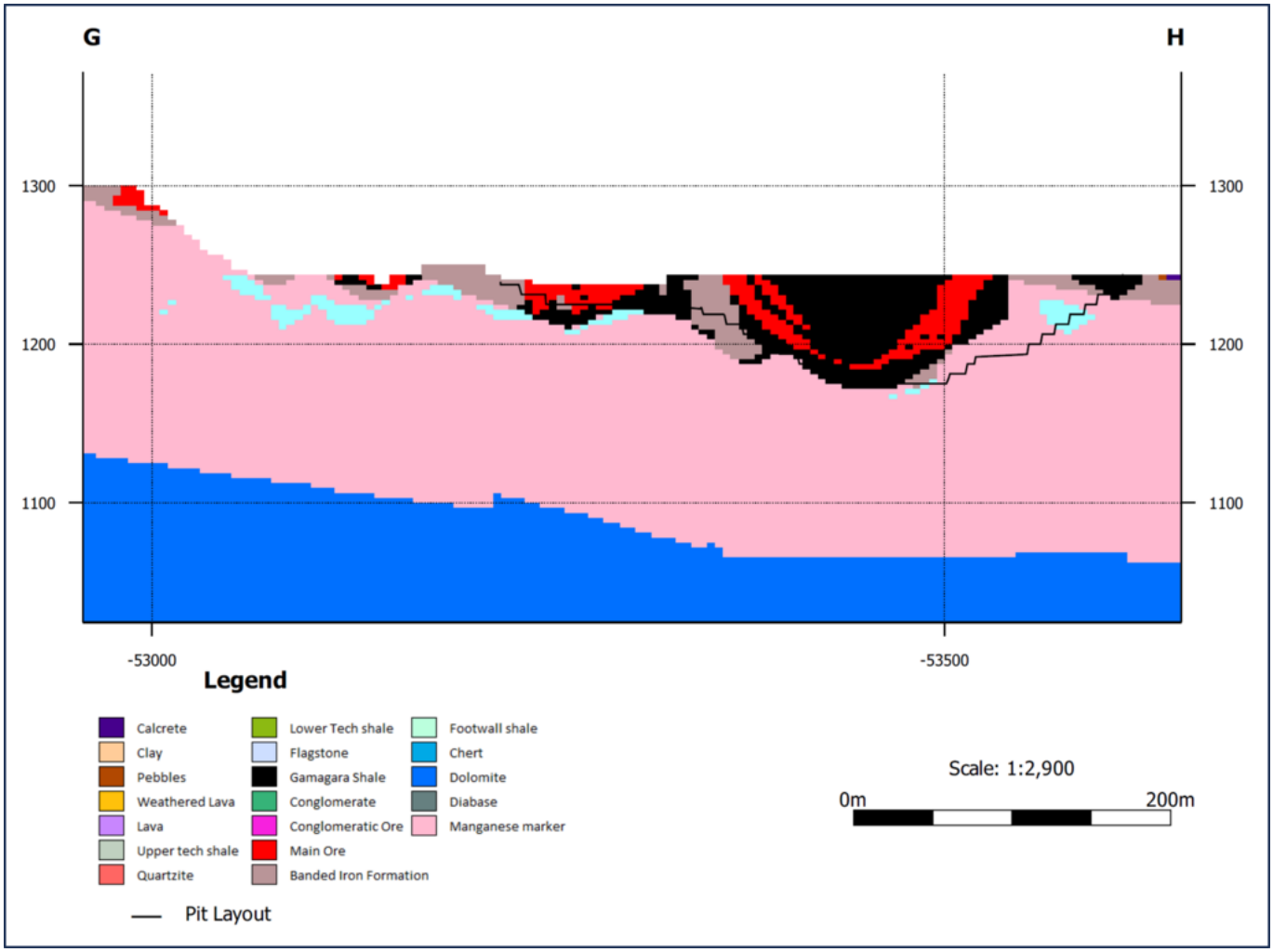


Figure 34: West-east cross-section (line GH in Figure 30) depicting the local geology of the Sishen Lylyveld satellite mining area

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Operational outline

Sishen is a conventional open-pit operation, processing RoM through two primary processing facilities:
- A DMS plant.
- A Jig plant that includes a modular UHDMS facility, treating a portion of the Jig plant discard stream.

The combined RoM capacity of the processing facilities is 49.0 Mtpa (28.0 Mtpa for the DMS plant and 21.0 Mtpa for the Jig + UHDMS plant).

The 2024 LoAP tied in the conversion of the DMS to UHDMS, enabling beneficiation at higher cut densities, from 2025 to 2027, with full UHDMS production to be achieved in 2028. The latter will cater for the beneficiation of low-grade RoM as well as the generation of more Premium Lump product. Low-grade ore extracted from the pit is stockpiled in anticipation of the UHDMS facility. The UHDMS plant RoM design capacity is 28.0 Mtpa

The mining process entails topsoil removal and stockpiling for later use during the waste dump rehabilitation process, followed by drilling and blasting of waste and ore. The waste material is in-pit dumped where such areas are available or hauled to waste rock dumps. The iron ore is loaded according to blend (grade) requirements and hauled to designated RoM buffer stockpiles or the beneficiation plants, where it is crushed, screened and beneficiated. Plant slimes are not beneficiated and are pumped to evaporation dams while the DMS and Jig (and UHDMS) discard material is stacked on a plant discard dump.

Three iron ore products (derived from up to seven interim products produced on-site conforming to different chemical and physical specifications) are produced at Sishen. The product is reclaimed from product beds and loaded into trains, to be transported either to local steel mills (domestic market) and Saldanha Bay (for export market), from where it is shipped together with Kolomela product and sold to international Clients under three KIO-branded products referred to as Premium Lump ore, Standard Lump ore and Standard Fines ore.

Kumba has an agreement with ArcelorMittal South Africa to supply it domestically with a maximum of 6.25 Mtpa of Saleable Product. Recent off-take has however not matched the maximum contract levels and all of the Sishen production is exported via the Saldanha Bay port to various international steel markets.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Operational outline cont.

Sishen's key operational parameters are summarised in **Table 14**.

Table 14: Sishen operational outline summary

Key details	2024	2023
	7+5 forecast (actual)	**8+4 forecast** (actual)
% Ownership (AA plc)	**52.5**	**52.5**
% Ownership (KIO)	**75.4**	**75.4**
Commodity	**Iron Ore**	**Iron Ore**
Country	**Republic of South Africa**	**Republic of South Africa**
Mining method(s)	**Open pit - Conventional**	**Open pit - Conventional**
Beneficiation method(s)	**Dense media separation and jigging**	**Dense media separation and jigging**
Reserve life* (years)	**16**	**15**
Estimated Saleable Product Lump : Fine ratio	**68 : 32**	**70 : 30**
Plant feed design capacity (Mtpa)	**49.0**	**49.7**
Forecasted[$] and (actual) RoM production (Mt dry) *including modified Inferred Mineral Resources*	**36.6** (33.6 actual)	**33.3** (33.3 actual) **(including 2.4 Mt modified Inferred Mineral Resources)**
Forecasted[$] and (actual) Saleable Product (Mt dry) *including modified beneficiated Inferred Mineral Resources*	**26.1** (25.3 actual)	**25.4** (25.0 actual) **(including 1.9 Mt produced from Inferred Mineral Resources)**
Forecasted[$] and (actual) waste production (Mt dry)	**135.7** (133.9 actual**)	**159.0** (163.8 actual)
Forecasted[$] and (actual) railed product (Mt dry)	**25.9** (25.0 actual)	**25.9** (25.6 actual)
Overall LoAP planned stripping ratio	**3.6 : 1**	**3.3 : 1**
Product types	**In total, four Lump and three Fines product types of varying grade are produced on-site but sold as three products under the Kumba branding together with Kolomela product as Kumba Premium Lump, Kumba Standard Lump and Kumba Standard Fines**	**In total, four Lump and three Fines product types of varying grade are produced on-site but sold as three products under the Kumba branding together with Kolomela product as Kumba Premium Lump, Kumba Standard Lump and Kumba Standard Fines**
Mining right expiry date	**10 November 2039**	**10 November 2039**

* Reserve life represents the period in years in the approved LoAP for scheduled processing of Proved and Probable Reserves, where the Proved and Probable Ore Reserves makes up >25% of the year's RoM.

** Sishen waste mined in 2024 is lower than 2023, in line with the business reconfiguration plan to align production to Transnet's logistics performance, and also as a result of pit and pushback design optimisation

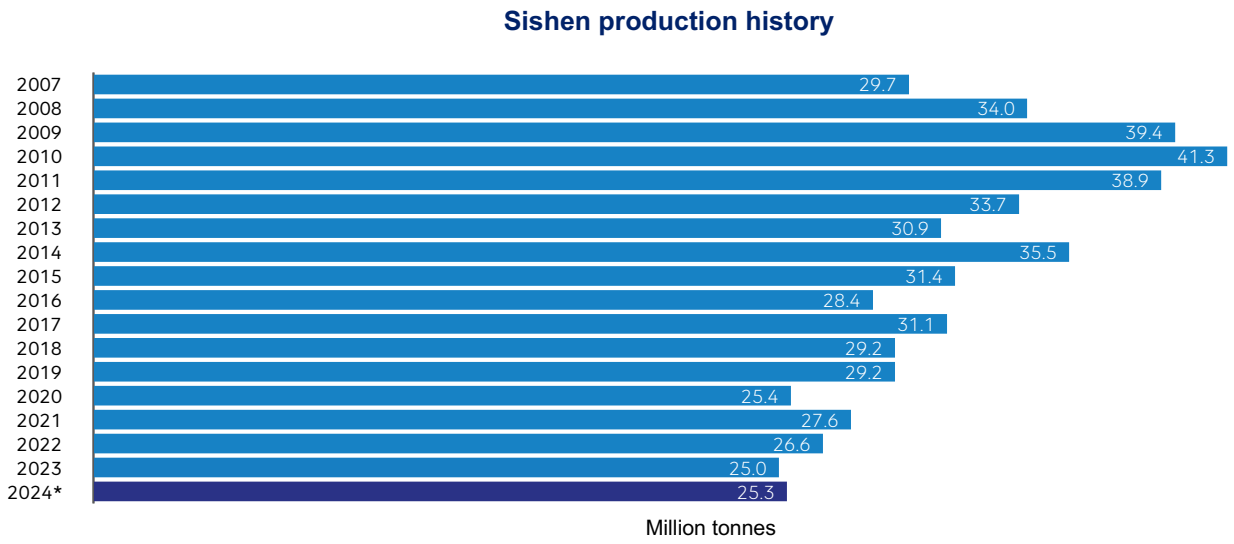
$ The forecasted figures align with the year-on-year R&R movement figures as per site R&R Statements, which are finalised before year end to allow for sufficient internal (Kumba) and independent internal (Anglo) peer reviews before final R&R figures are published.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Production history

The historical production (actual depletion of Saleable Product tonnes) of Sishen is summarised in **Figure 35**.



* Forecasted production as per Saleable Product movement chart (Figure 7 - footnote 2) was 26.1 Mt.

Figure 35: Sishen production history

LoAP Saleable Product profile

The Sishen 2024 LoAP (2021 LoAP depleted for 2022) Saleable Product profile is depicted in **Figure 36**.

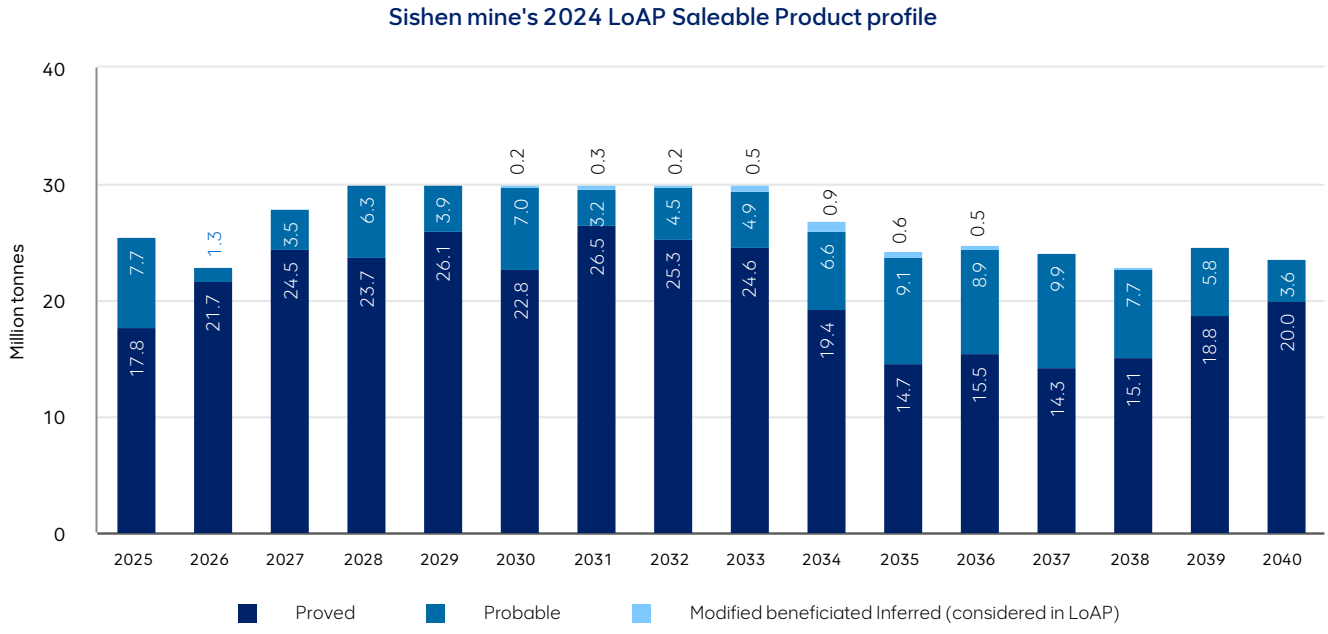


Figure 36: Sishen's 2024 LoAP Saleable Product profile (including modified beneficiated Inferred Mineral Resources)

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information

The Sishen Ore Reserve ancillary information is summarised in **Table 15A** (background information) and **Table 15B** (main pit Ore Reserve estimation parameters – as an example).

Table 15A: Sishen's 2024 versus 2023 Ore Reserve background information

Sishen	2024	2023
Location		
Country	Republic of South Africa	
Province	Northern Cape	
Ownership		
Sishen Iron Ore Company Proprietary Limited	100%	100%
Kumba Iron Ore Limited	75.4%	75.4%
AA plc	52.5%	52.5%
Operational status		
Operation status	Steady-state	Steady-state
Mining method	Open-pit (conventional drilling and blasting and truck and shovel operation)	Open pit (conventional drilling and blasting and truck and shovel operation)
Beneficiation method	DMS and Jig beneficiation and modular UHDMS associated with the Jig discard	DMS and Jig beneficiation and modular UHDMS associated with the Jig discard
Average annual Saleable Product in LoAP (Mtpa)	26.7	25.5
Average annual supply to domestic market in LoAP (Mtpa)	0	0
Average annual supply to export market in LoAP (Mtpa)	26.7	25.5
Number of products	Three final Saleable Products from Saldanha: Premium Lump, Standard Lump, and Standard Fines, but with more intermediate products produced at Sishen	Three final Saleable Products from Saldanha: Premium Lump, Standard Lump and Standard Fines, but with more intermediate products produced at Sishen
Governance		
Code	THE SAMREC CODE – 2016 EDITION	
Kumba policy	https://www.angloamericankumba.com/~/media/Files/A/Anglo-American-Group/Kumba/sustainability/approach-and-policies/kumba-mineral-resource-and-ore-reserve-reporting-policy.pdf	
AA plc requirements document	AA_RD_22-25 - Version 15 [2024] - (Exploration results, Mineral Resources and Ore Reserves reporting requirements document)	AA_RD_22-25 - Version 14 [2023] - (Exploration results, Mineral Resources and Ore Reserves reporting requirements document)
KIO reporting protocols	*KIO Reserve classification guideline (Version 1)*	

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information cont.

Table 15A: Sishen's 2024 versus 2023 Ore Reserve background information cont.

Sishen	2024	2023
Reporting method		
Approach	Ore Reserves are those derived from Measured and Indicated Mineral Resources only (through application of modifying factors) and do not include Inferred Mineral Resources. In the case of Kumba, all Ore Reserves are spatially constrained by practical pit layouts, mining engineered from pit shells that define "current economically mineable". The geological block model(s) is converted into a mining block model considering a site-specific practical mineable SMU. Furthermore, protocols ensure that Kumba's operations/projects consider expected long-term revenues versus the operating and production costs associated with mining and beneficiation as well as legislative, environmental and social costs, in determining whether or not a Mineral Resource could be economically extracted and converted to an Ore Reserve. This is performed by applying a Lerchs-Grosmann algorithm to the mining model to derive an optimised pit shell. This optimised pit shell is then iteratively converted to a practical layout by applying geotechnical slope stability parameters and haul road and ramp designs, legal restrictions, etc., with safety being one of the most considered parameters. Once a practical pit layout has been established, the material within the pit is scheduled over time to achieve client specifications and thus an LoAP schedule is produced. The average % Fe grade and metric tonnage estimates of "Saleable Product" are also reported to demonstrate that beneficiation losses have been taken into account.	
Scheduled RoM metric tonnes (dry/wet)	Dry	Dry
Tonnage calculation	Tonnages are calculated from the LoAP schedule, originating from the mining block models, and are modified tonnages considering geological losses, the effect of dilution, mining losses, mining recovery efficiencies and design recovery efficiencies to derive the RoM tonnages delivered to the DMS (and planned UHDMS - conversion of DMS to UHDMS plant) and Jig+UHDMS beneficiation plants.	
Fe grade	Ore Reserve % Fe grades reported, represent the weighted average grade of the "plant feed" or RoM material and take into account all applicable modifying factors.	
Cut-off grade (Fe)	Value-based	Value-based
Ore type	Haematite ore	Haematite ore
Optimised pit shell RF	0.66	0.8
LoAP scheduling		
Software	COMET Strategy™ and RPM Open Pit Metals Solution (OPMS)™	OPMS
Method	Run-of-mine blending to solve for consistent Saleable Product output, while maximising value as per Kumba's business expectations	Product tonnage and grade target driven to achieve required client product specifications
Stripping strategy	A stripping strategy that follows a constant annual tonnage target, which remains between the minimum and maximum stripping limits, were chosen for the LoA scheduling. A deferred waste stripping strategy was applied to save costs in the medium term.	A stripping strategy that follows a constant annual tonnage target, which remains between the minimum and maximum stripping limits, were chosen for the LoA scheduling. A deferred waste stripping strategy was applied to save costs in the medium term.
Reserve life years	16	15

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information cont.

Table 15A: Sishen's 2024 versus 2023 Ore Reserve background information cont.

Sishen	2024	2023
LoAP scheduling		
LoAP RoM tonnes (including modified Inferred) (expressed in million tonnes)	700.1	600.0
Overall average stripping ratio (including Inferred Mineral Resources)	3.6 : 1	3.3 : 1
Production data cut-off date (date whereafter short-term plan instead of actual figures are used to estimate the annual RoM and Saleable Product production for the mine until 31 December of year of reporting)	31 July 2024	31 August 2023
Topography and pit progression assigned	31 December 2024 planned pit boundary	31 December 2023 planned pit boundary
Reserve schedule ID	2024_Kumba_LoM_Report_Final_14102024	2023_Sishen_LoM_Report_Final_Case1_Reserve
Reserve schedule completion date	30 October 2024	30 October 2023

Table 15B: Sishen's 2024 versus 2023 main pit Ore Reserves estimation parameters

(a similar table is available for the Lylyveld satellite pit mining area)

Main Pit	2024	2023
Estimation		
Mining block model name	north2024_reserve_model_lumpfine.dm; south2024_reserve_model_lumpfine.dm	north2023_reserve_model_lumpfine.dm; south2023_reserve_model_lumpfine.dm
Smallest mining unit	20 m(X) x 20 m(Y) x 12.5 m(Z)	20 m(X) x 20 m(Y) x 12.5 m(Z)
Practical mining parameters		
Bench height	12.5 m	12.5 m
Ramp gradient	10% (1 in 10)	8% (1 in 12.5)
Road width	30 m to 56 m	30 m to 56 m
Minimum mining width	80 m (rope shovel and truck mining)	80 m (rope shovel and truck mining)
Geohydrology	Groundwater level maintained 12.5 m below pit floor	Groundwater level maintained 12.5 m below pit floor
Pit slopes	Designed according to a defendable risk matrix, guided by an appropriate factor of safety of 1.3 and a probability of failure of 10%	Designed according to a defendable risk matrix, guided by an appropriate factor of safety of 1.3 and a probability of failure of 10%

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information cont.

Table 15B: Sishen's 2024 versus 2023 main pit Ore Reserves estimation parameters cont.
(a similar table is available for the Lylyveld satellite pit mining area)

Main Pit	2024	2023
Pit optimisation		
Software	Whittle 4X	Whittle 4X
Method	Lerchs-Grosmann (primary LoA maximisation, secondary NPV maximisation)	Lerchs-Grosmann (primary LoA maximisation, secondary NPV maximisation)
Modifying factors		
Geological loss (%)	0	0
Dilution (%)	8*	23*
Mining loss (%)	'-4*	-2*
Mining recovery efficiency (%)	97	89
Design recovery efficiency (%)	100	99
Ore Reserves reallocated to Mineral Resources (%)	0	0
Yield (%)	62.8	65.8
Estimator		
Reserve estimator	Izak Moolman	Izak Moolman
Reserve estimator status	Internal Technical Specialist	Internal Technical Specialist
Estimator employer	Sishen Iron Ore Company Proprietary Limited	Sishen Iron Ore Company Proprietary Limited

* As indicated in the 2023 Kumba ORMR report, Sishen introduced a value-based approach to mining block modelling to allow pit optimisation to determine what portion of the Measured and Indicated Mineral Resources is economically mineable and can be converted to Ore Reserves and subsequent Saleable Product. This involved the replacement of the 40% Fe Ore Reserve cut-off grade with a value-based cut-off approach whereby the economic mineability of each SMU in the mining block model is determined by its valuation, comparing the cost of mining and beneficiating the SMU ore and the selling of the SMU product against the income generated by the SMU product type, based on the long-term price (considering grade penalties) and exchange rate. The 2023 Mineral Resources were however derived using a fixed 40% Fe cut-off grade, resulting in an apparent increase in dilution and increase in mining loss.

In 2024 the Mineral Resource cut-off was adjusted from 40% in situ Fe to a beneficiation potential cut-off, to align with the Ore Reserve value-based cut-off approach. The dilution and mining loss modifications as reflected for 2024, calculated during up-blocking from the geological block model to the mining block model, therefore accurately reflects these modifications.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information cont.

Geotechnical considerations (main pit example)

The geotechnical global stability analysis of the Sishen main pit layout (which considered prescribed lithological rock mass derived pit slope angle input) indicated that the design of the pit meets the design criteria for factor of safety ≥1.3 (**Figure 37**).

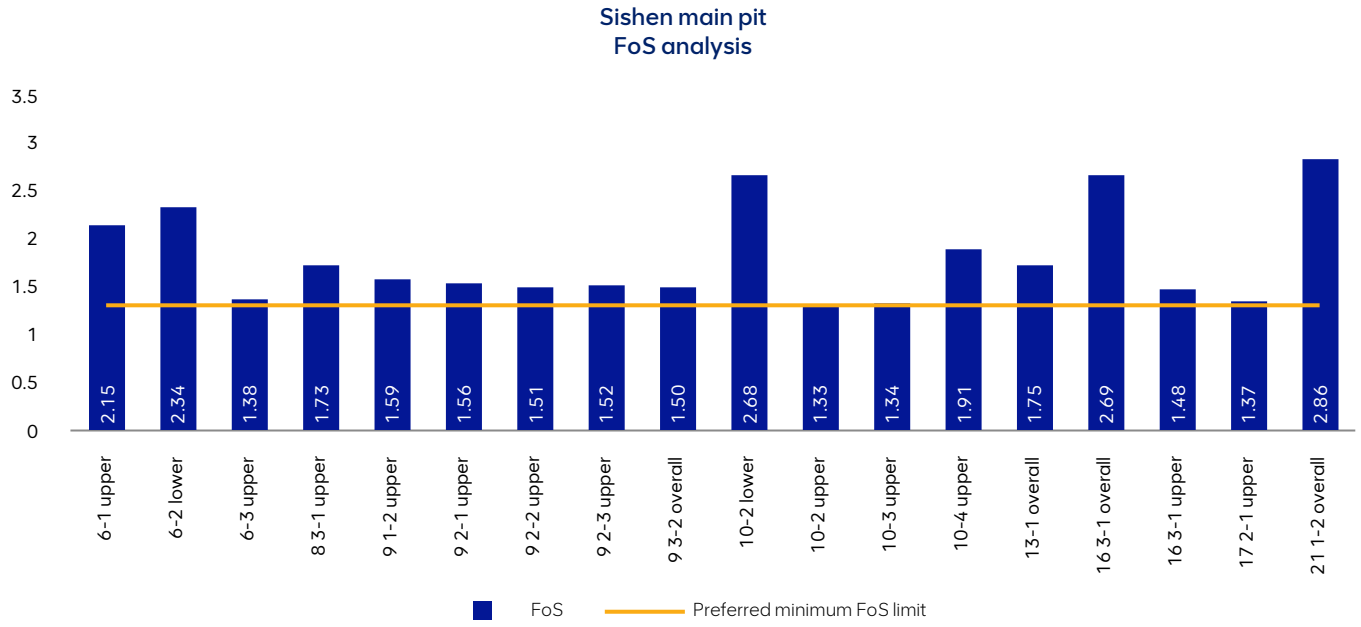


Figure 37: Sishen main pit slope Factor-of-Safety (FoS) analysis

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Ore Reserve ancillary information cont.

Sishen main pit groundwater abstraction

The Sishen main pit dewatering network is depicted in **Figure 38**.

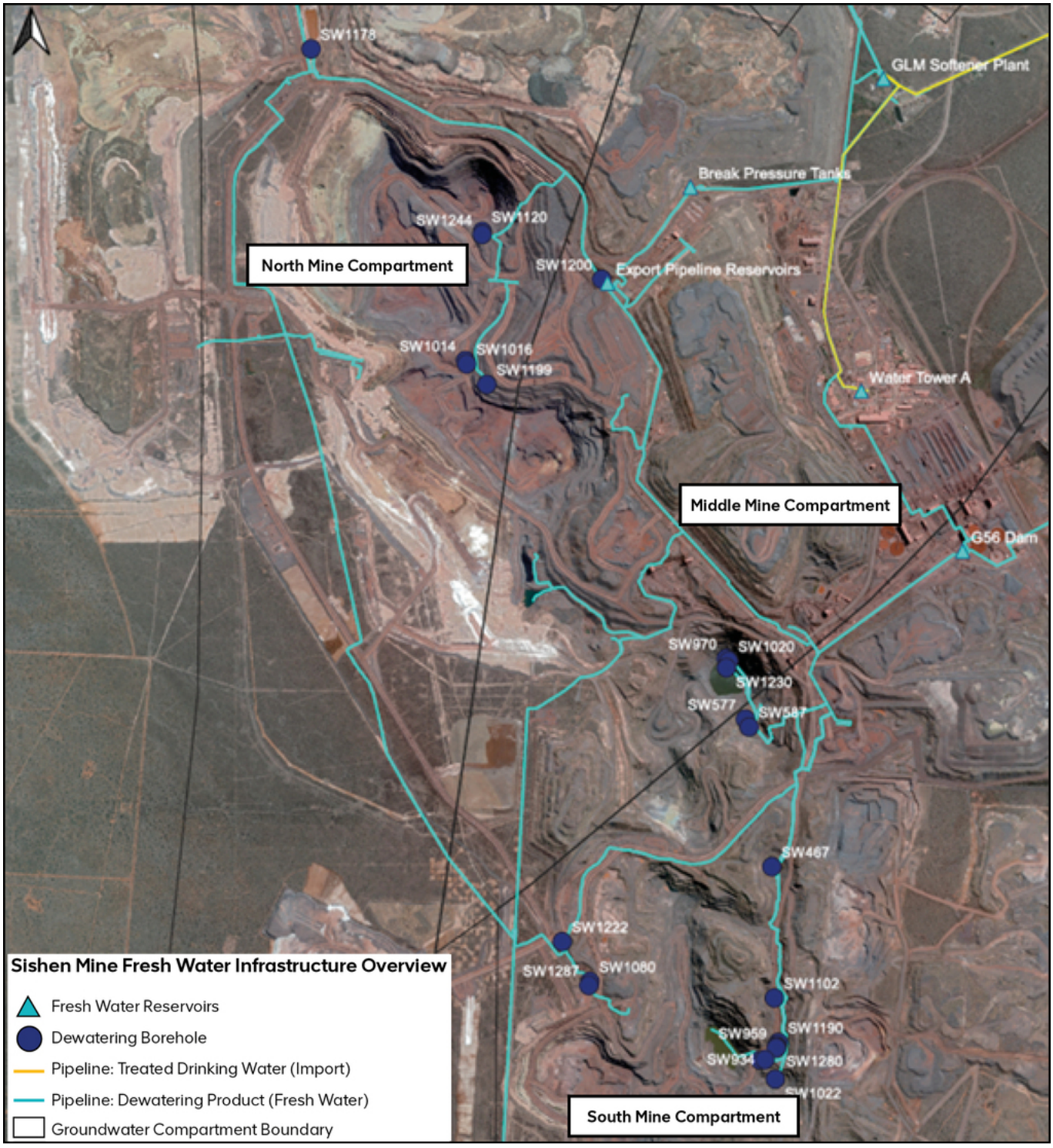


Figure 38: Sishen main pit groundwater abstraction network

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information

The Sishen Mineral Resource ancillary information is summarised in **Table 16A** (background information) and **Table 16B** (main pit geological models' Mineral Resource estimation parameters – as an example).

Table 16A: Sishen's 2024 versus 2023 Mineral Resource background information

Sishen	2024	2023
Location		
Country	Republic of South Africa	
Province	Northern Cape	
Ownership (%)		
Sishen Iron Ore Company Proprietary Limited	100	100
Kumba Iron Ore Limited	75.4	75.4
Anglo American plc	52.5	52.5
Security of tenure		
Number of applicable mining rights	1	1
Mining right status	Registered (amendments registered)	Registered (amendments executed)
Mining right expiry date(s)	10 November 2039	10 November 2039
Exploration status		
Exploration type	Geological confidence (on-mine)	Geological confidence (on-mine)
Exploration phase	In execution	In execution
Ore type	Haematite ore	Haematite ore
Governance		
Code	THE SAMREC CODE – 2016 EDITION	
Kumba policy	https://www.angloamericankumba.com/~/media/Files/A/Anglo-American-Group/Kumba/sustainability/approach-and-policies/kumba-mineral-resource-and-ore-reserve-reporting-policy.pdf	
AA plc requirements document	AA_RD_22-25 - Version 15 [2024] - (Exploration results, Mineral Resources and Ore Reserves reporting requirements document)	AA_RD_22-25 - Version 14 [2023] - (Exploration results, Mineral Resources and Ore Reserves reporting requirements document)
KIO reporting protocols	*KIO Geological Confidence Classification Guideline (Version 5)*	*KIO Geological Confidence Classification Guideline (Version 5)*

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16A: Sishen's 2024 versus 2023 Mineral Resource background information cont.

Sishen	2024	2023
Reporting method		
Approach	Mineral Resources are reported exclusive of Ore Reserves and not factoring in attributable ownership and only if: (1) spatially modelled; (2) spatially classified; (3) spatially constrained in terms of reasonable and realistic prospects for eventual economic extraction (occurring within an RPEEE-defined envelope, in other words not all mineral occurrences are declared as Mineral Resources); and (4) declared within (never outside) executed tenement boundaries.	
In situ metric tonnes (dry/wet)	Dry	Dry
Tonnage calculation	Tonnages are added from cells in geological block model, of which the centroids intersect the relevant geological ore domains in the solids models, which occur inside the resource shell. The volume of each ore cell is multiplied with the estimated relative density of the same cell	Tonnages are added from cells in geological block model, of which the centroids intersect the relevant geological ore domains in the solids models, which occur inside the resource shell. The volume of each ore cell is multiplied with the estimated relative density of the same cell
Fe grade	Weighted average above cut-off grade	Weighted average above cut-off grade
Fe calculation	Tonnage-weighted mean of the estimated in situ Mineral Resource Fe grades contained within geological block models, constrained by the relevant Resource geological ore domains and RPEEE resource shell	Tonnage-weighted mean of the estimated in situ Mineral Resource Fe grades contained within geological block models, constrained by the relevant Resource geological ore domains and RPEEE resource shell
RPEEE		
Cut-off	Beneficiation potential*	40% Fe
Resource shell RF	1.1	1.3

* The cut-off quoted for Sishen changed from a fixed in situ 40% Fe in 2023 to a beneficiation potential-based approach in 2024, by assigning yield and product grade parameters via the application of geometallurgical densimetric data-derived beneficiation algorithms to each mineralised geological unit in the geological model, to align with the value-based cut-off approach applied to derive the Sishen Ore Reserves since 2023 .The beneficiation potential of the various types of iron ore mineralisation in the resource model is categorised in the form of material classes, which considers yield and product cut-off grades on a bench scale (12.5m vertical scale), but assigned to each 5m(X) x 5m(Y) x 3.125m(Z) cell in the resource model. Per implication this means that material with an in situ Fe lower than 40%, but which have reasonable economic prospects to be converted into Saleable Product, are now redefined as Mineral Resources.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16B: Sishen's 2024 versus 2023 Main Pit geological models' Mineral Resources estimation parameters – as an example cont.
(a similar table exists for the Lylyveld geological model but is not stated in this report)

Main pit geological models	2024	2023
Estimation		
Input data		
Borehole type	Core and percussion borehole lithological logs and associated chemical analyses, with ore control reverse circulation borehole information informing the BIF estimation method	Core and percussion borehole lithological logs and associated chemical analyses
Relative density measurement	Minidense (pre-2010) and Picnometer analyses on pulp sub-samples (2010 to present)	
KIO QA/QC protocol	*KIO QC Protocol for Drilling, Sampling, Sub-sampling and Assaying (Version 10)*	*KIO QC Protocol for Drilling, Sampling, Sub-sampling and Assaying (Version 10)*
Primary laboratory	Technical Solutions Division of Anglo Operations Limited Chemistry Laboratory (Company registration number: 1921/006730/07)	Technical Solutions Division of Anglo Operations Limited Chemistry Laboratory (Company registration number: 1921/006730/07)
Accreditation	Accredited under International Standard ISO/IEC 17025:2005 by SANAS under the Facility Accreditation Number T0051 (valid until 30 April 2026)	Accredited under International Standard ISO/IEC 17025:2005 by SANAS under the Facility Accreditation Number T0051 (valid until 30 April 2026)
Borehole database software	acQuire™	acQuire™
Borehole database update cut-off date	31 March 2023	31 March 2022
Database validation conducted	Yes	Yes
Segmentation conducted	Yes. To allow for simplification of logged lithologies for spatial correlation purposes	
Statistical and geostatistical evaluation		
Data compositing interval	3m	3m
Data compositing method	Length-weighted fixed interval downhole compositing per lithological domain. Threshold of 0.5m applied – if residual composite length is ≤ 0.5m, include with composite above, if ≥ 0.5m residual forms separate composite.	Length-weighted fixed interval downhole compositing per lithological domain. Threshold of 0.5m applied – if residual composite length is ≤ 0.5m, include with composite above, if ≥ 0.5m residual forms separate composite.
Grade parameters evaluated	% Fe, % SiO_2, % Al_2O_3, % K_2O, % P, % Mn and % S as well as relative density	% Fe, % SiO_2, % Al_2O_3, % K_2O, % P, % Mn and % S as well as relative density
Variography updated in current year	Yes	Yes
Search parameters updated in current year	Yes	Yes

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16B: Sishen's main pit geological models' Mineral Resources estimation parameters – as an example cont.
(a similar table exists for the Lylyveld geological model but is not stated in this report)

Main pit geological models	**2024**	2023
Estimation		
Solids modelling		
Solids modelling software	GEOVIA Surpac™	GEOVIA Surpac™
Input	Updated solids models	Updated solids models
Method	Digital wireframe modelling for ore segments and some waste segments (waste in contact with ore zones) Digital terrain models for other waste segments	Digital wireframe modelling for ore segments and some waste segments (waste in contact with ore zones) Digital terrain models for other waste segments
Domaining	Primary lithological domains are sub-domained based on structural discontinuities, and distinguishable variation in grade, i.e. K_2O as well as where volumes have been informed predominantly by core or percussion borehole data, i.e. different data populations.	Primary lithological domains are sub-domained based on structural discontinuities, and distinguishable variation in grade, i.e. K_2O as well as where volumes have been informed predominantly by core or percussion borehole data, i.e. different data populations.
Topography and pit progression assigned	31 December 2024 (planned boundary)	31 December 2023 (planned boundary)
Validation conducted	Yes (for gaps and overlaps by software queries as well as honouring of borehole contacts) and by standard software validation tools (open sides, self-intersecting triangles)	Yes (for gaps and overlaps by software queries as well as honouring of borehole contacts) and by standard software validation tools (open sides, self-intersecting triangles)

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16B: Sishen's 2024 versus 2023 main pit geological models' Mineral Resources estimation parameters – as an example cont.
(a similar table exists for the Lylyveld geological model but is not stated in this report)

Main pit geological models	**2024**	2023
Grade estimation methodology		
Ore segments	High-grade ore: Ordinary Kriging Medium- and Ordinary Kriging and Low-grade ore: Simple Kriging (sparse data areas)	High-grade ore: Ordinary Kriging Medium- and Ordinary Kriging and Low-grade ore: Simple Kriging (sparse data areas)
Waste segments	Simple Kriging (sparse data areas) and default values (assigned to areas without data)	Simple Kriging (sparse data areas) and default values (assigned to areas without data)
Geological block modelling		
Block modelling software	RMSP™ (in situ grade estimation) GEOVIA Surpac™ (material class scripting and block modelling)	Isatis™ and GEOVIA Surpac™
Model type	Centroid model	Centroid model
Parent cell size	20 m(X) x 20 m(Y) x 12.5 m(Z)	20 m(X) x 20 m(Y) x 12.5 m(Z)
Minimum sub-block cell size	5 m(X) x 5 m(Y) x 3.125 m(Z)	5 m(X) x 5 m(Y) x 3.125 m(Z)
Cell population method		
Tonnage	Volume of lithology intersected by cell centroid and constrained by cell limits, multiplied with relative density estimate of the same lithology at same unique cell centroid position in space	Volume of lithology intersected by cell centroid and constrained by cell limits, multiplied with relative density estimate of the same lithology at same unique cell centroid position in space
Grade	Estimate of grade at unique cell centroid position in space applicable to total volume or tonnage constrained by the cell	Estimate of grade at unique cell centroid position in space applicable to total volume or tonnage constrained by the cell
Updated geological block model ID (file name + extension)	Models2024_V5_NN1.7z and nn1 V6.rar, Models2024_V5_NN2.7z and nn2 V6.rar, Models2024_V5_NN3.7z and nn3 V6.rar, Models2024_V5_NN4.7z and nn4 V6.rar, Models2024_V5_MM1.7z and mm1 V6.rar, ss1 v5.rar and ss1 V6.rar, Models2024_V5_SS2.7z and ss2 v6 14032024.rar as well as Models2024_V5_SS3.7z and ss3 V6.rar	nn1 (a to c).mdl, nn2 (a to c).mdl, nn3 (a to c).mdl, nn3 (a to c).mdl, mm1 (a to c).mdl, ss1 (a to c).mdl, ss2 (a to c).mdl, as well as ss3 (a to c).mdl
Update completion date	28 February 2024	28 February 2023
Geological confidence classification		
Method summary	Scorecard applied to parent blocks in geological block model populated during first Kriging run, with blocks populated during second Kriging run classified as Inferred and remaining blocks not populated during first and second Kriging runs (populated with default values) classified as extrapolated Inferred.*	Scorecard applied to parent blocks in geological block model populated during first Kriging run, with blocks populated during second Kriging run classified as Inferred and remaining blocks not populated during first and second Kriging runs (populated with default values) classified as extrapolated Inferred.

* An error was detected with the 2024 geological confidence classification, with the cells populated during second Kriging run not classified as Inferred as per the Guideline but incorrectly classified using the scorecard approach. This error will be corrected in 2025.

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16B: Sishen's 2024 versus 2023 main pit geological models' Mineral Resources estimation parameters – as an example cont.
(a similar table exists for the Lylyveld geological model but is not stated in this report)

Main pit geological models	**2024**	2023
Geological confidence classification		
• Scorecard method summary	According to the *KIO Geological Confidence Classification Guideline (Version 5)*, with each cell in the 3D geological block model populated with: Grade continuity parameters: – Fe estimate SOR that has been indexed according to fixed SOR intervals. – Sample Representivity Index that is spatially estimated using the sample type, i.e. 1 is assigned to a cell if the Fe grade estimation in the block is informed by core samples only and a value of 0 if it is informed by percussion samples only, and ranges between one and zero dependent on the ratio of samples informing the block and their distances from the block using an inverse distance interpolation based on the Fe search neighbourhood. – Borehole sample total oxides percentage is indexed, i.e. 1 if inside high precision tolerance limits and 0 if inside lower precision tolerance limits. The index value is then estimated using an inverse distance squared interpolation method. Geometry continuity parameter: – Distance to closest logged borehole sample (indexed according to fixed intervals)	According to the *KIO Geological Confidence Classification Guideline (Version 5)*, with each cell in the 3D geological block model populated with: Grade continuity parameters: – Fe estimate SOR that has been indexed according to fixed SOR intervals. – Sample Representivity Index that is spatially estimated using the sample type, i.e. 1 is assigned to a cell if the Fe grade estimation in the block is informed by core samples only and a value of 0 if it is informed by percussion samples only, and ranges between one and zero dependent on the ratio of samples informing the block and their distances from the block using an inverse distance interpolation based on the Fe search neighbourhood. – Borehole sample total oxides percentage is indexed, i.e. 1 if inside high precision tolerance limits and 0 if inside lower precision tolerance limits. The index value is then estimated using an inverse distance squared interpolation method. Geometry continuity parameter: – Distance to closest logged borehole sample (indexed according to fixed intervals)
– Grade continuity parameter weighting	Fe estimate SOR (33.3%) Sample Representivity Index (33.3%) Total Oxide (33.3%)	Fe estimate SOR (33.3%) Sample Representivity Index (33.3%) Total Oxide (33.3%)
– Geometry continuity parameter weighting	Distance to closest logged sample (100%)	Distance to closest logged sample (100%)
• Geological confidence weighting		
– Grade weighting (%)	60	60
– Geometry weighting (%)	40	40

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Table 16B: Sishen's 2024 versus 2023 main pit geological models Mineral Resources estimation parameters – as an example cont.
(a similar table exists for the Lylyveld geological model but is not stated in this report)

Main pit geological models	2024	2023
Geological confidence thresholds		
– Measured	≥7	≥7
– Indicated	5 to <7	5 to <7
– Inferred	1 to <5	1 to <5
CP override		
– Measured to Indicated (Mt)	None	34 (geological complex areas as identified by CP)
– Indicated to Inferred (Mt)	None	None
Estimator		
Resource estimator	Fanie Nel / Tshele Sekoere	Fanie Nel, Tshele Sekoere, Obed Nkuna, Jacques Deacon
Resource estimator status	External technical specialist / Internal technical specialist	Internal technical specialists
Estimator employer	VBKOM Consulting (South Africa) Proprietary Limited / Sishen Iron Ore Company Proprietary Limited	Sishen Iron Ore Company Proprietary Limited

Ancillary Reserve and Resource information per operation cont.

Sishen cont.

Mineral Resource ancillary information cont.

Material classes

Numerous references have been made in this report to the new beneficiation potential cut-off applied in 2024 to define the Sishen Mineral Resources, to align with the value-based cut-off used to define the Sishen Ore Reserve. As indicated, the in situ Mineral Resources are converted to potential Saleable Product through the application of lithology specific yield and grade beneficiation algorithms (based on geometallurgical borehole densimetric data and plant efficiency measurements). Various yield, product grade and in situ grade cut-offs are then applied considering or dependent on the lithology or lithology combination intersected to define material classes (**Figure 39**).

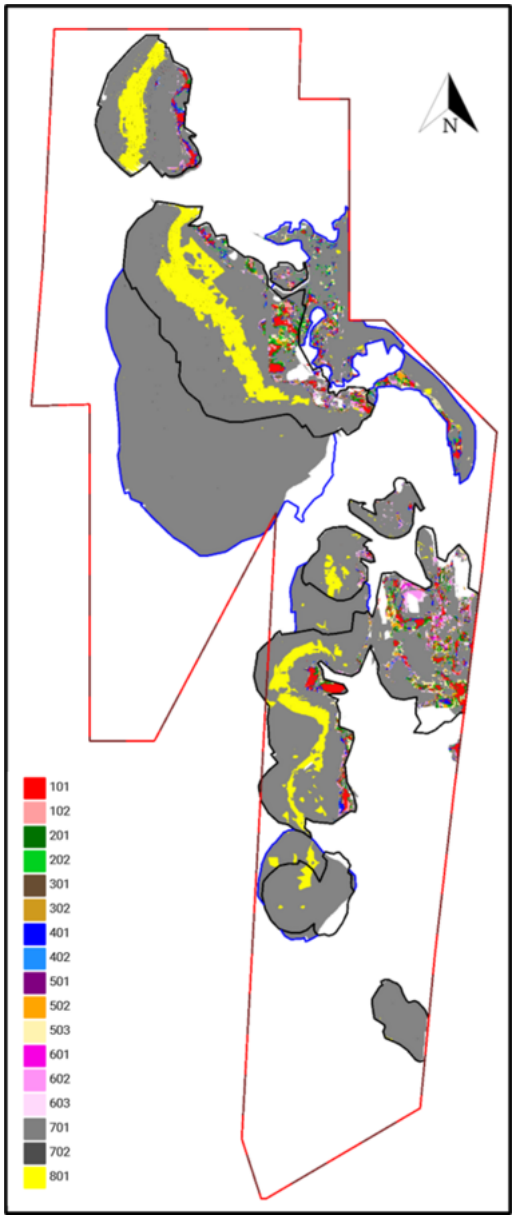


Figure 39: A planar section through the 2024 Sishen main pit geological models depicting material classes (with 701, 702 and 801 depicting waste classes and the rest Mineral Resource material classes)

Endorsement

The persons who accept overall responsibility (Lead CPs) and accountability (Executive) for the declaration of the 2024 Kumba Ore Reserve and Mineral Resource estimates.

The person designated by the Kumba executive as Lead Competent Person to take responsibility on behalf of Kumba for Mineral Resources is Jean Britz. Mr Britz has extensively reviewed the Mineral Resource estimates reported for 2024 and considers these to be compliant with the SAMREC Code (the relevant portions of Table 1 of the Code) and the JSE Listings Requirements (section 12.13), and consents to the inclusion of these estimates in the form and context in which they appear in the *Kumba Iron Ore Limited Ore Reserve (and Saleable Product) and Mineral Resource report 2024*.

Jean Britz is a professional natural scientist registered with the South African Council for Natural Scientific Professions (registration number: 400423/04). He has a BSc (Hons) in Geology and an M. Eng in Mining. With 32 years of experience as a mining and exploration geologist in both iron ore and coal, he has dedicated 20 of those years specifically to iron ore Mineral Resource estimation and evaluation.

Jean Britz is a full-time employee of Sishen Iron Ore Company Proprietary Limited, serving as the Principal, Mineral Resources - Kumba Iron Ore Geosciences.

Jean Britz
Principal, Mineral Resources – Kumba Iron Ore Geosciences

The Kumba executive has designated Chris Cloete as the Lead Competent Person responsible for Ore Reserves on behalf of Kumba. Mr. Cloete has extensively reviewed the Ore Reserve estimates reported for 2024 and considers these to be compliant with the SAMREC Code (the relevant portions of Table 1 of the Code) and the JSE Listings Requirements (section 12.13). He consents to the inclusion of these estimates in the form and context in which they appear in the *Kumba Iron Ore Limited Ore Reserve (and Saleable Product) and Mineral Resource report 2024*.

Mr Cloete is a registered candidate Mining Engineer with ECSA (20075395). He holds a B. Eng. degree in Mining Engineering and has 21 years of experience as a mining engineer in production management and technical roles in coal, zinc, platinum and iron ore mining. He has spent 13 years focused on Ore Reserve estimation and evaluation.

Mr Cloete is a full-time employee of Sishen Iron Ore Company Proprietary Limited, serving as the Head: Kumba Iron Ore Mining.

Chris Cloete
Head: Kumba Iron Ore Mining

Gerrie Nortje, Kumba's Executive Head: Technical and Strategy serves as an Executive Committee member for the Company. He endorses the Mineral Resource and Ore Reserve estimates presented in this report, and acknowledges that the Kumba Iron Ore policy, which governs Mineral Resource and Ore Reserve reporting, has been adhered to. As a signatory of this report, Mr Nortje assumes accountability for the Ore Reserve and Mineral Resource estimates on behalf of Kumba Iron Ore.

Gerrie Nortje
Executive Head: Technical and Strategy, Kumba Iron Ore

Glossary of terms and acronyms

AA plc	Anglo American plc
Al_2O_3	Aluminium dioxide
BIF	Banded iron formation
CFR	Cost and freight
CP	Competent Person
CPI	Consumer price index
DMRE	Department of Mineral Resources and Energy
DMS	Dense media separation
DSO	Direct shipping ore
ECSA	Engineering Council of South Africa
ESG	Environmental, social and governance
Fe	Iron
FOB	Free-on-board
FOR	Free-on-rail
FoS	Factor-of-Safety
Ga	Giga-annum
g/cc	gram per cubic centimetre
GHG	Greenhouse gas
IFRS	International Financial Reporting Standards
JSE	Johannesburg Stock Exchange
K_2O	Potassium oxide
KIO	Kumba Iron Ore
Kumba	Kumba Iron Ore
kWh	Kilowatt hour
LoA	Life-of-asset
LoAP	Life-of-asset plan (replacing the term life-of-mine plan as used in 2021)
LT	Long term
Ma	Mega annum
Mn	Manganese
MPRDA	Mineral and Petroleum Resources Development Act No 28 of 2002
Mt	Million tonnes
Mtpa	Million tonnes per annum
NPV	Net present value
ORMR	Ore Reserve (and Saleable Product) and Mineral Resource
P	Phosphorus
PV	Photovoltaic
QA/QC	Quality assurance and quality control
R&R	Reserve and Resource
RF	Revenue factor
RMDEC	Regional Mining Development and Environmental Committee
RoM	Run-of-mine
RhoVol	The RhoVol machine is a densimetric system that determines the density of an ore sample, by measurement of the mass and volume of the sample, on an individual particle basis
RPEEE	Reasonable prospects for eventual economic extraction
S	Sulfur
SACNASP	South African Council for Natural Scientific Professions
SAMESG Guideline	South African guideline for the reporting of environmental, social and governance parameters
SAMREC Code	The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves – 2016 Edition
SANAS	South African National Accreditation System
SiO_2	Silicon dioxide

Glossary of terms and acronyms cont.

SIOC	Sishen Iron Ore Company Proprietary Limited
SMP	Sustainable Mine Plan
SMU	Selective mining unit
SOR	Slope-of-regression
UHDMS	Ultra-high dense media separation
wmt	Wet metric tonnes

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