



FEASIBILITY STUDY - TECHNICAL REPORT SUMMARY

KABANGA NICKEL PROJECT

Lifeline Metals Limited

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ABBREVIATIONS

Abbreviation	Definition
AACE	Association for the Advancement of Cost Engineering
AARL	Anglo American Research Laboratories
AAS	Atomic Absorption Spectroscopy
AE	acoustic emission
AEP	annual exceedance probability
Ai	Bond abrasion index
AISC	all-in sustaining cost
ALS	ALS Metallurgy Pty Ltd
ANCOLD	Australian National Committee on Large Dams
APP	Approved Professional Person
BAC	bulk air cooler
BHEM	borehole electromagnetic
BHP	BHP Billiton (UK) DDS Limited (also refers to BHP Group, subsidiaries and ancestors)
BoQ	Bill of Quantities
BNPU	Banded Pelite stratigraphic unit
BV	Bureau Veritas Minerals Pty Ltd
BWi	Bond ball mill work index
CCT	condenser cooling towers
CET	Common External Tariff
CIF	Cost, Insurance and Freight (Incoterms® 2020)
CIT	corporate income tax
CMC	carboxy methyl cellulose
Co	cobalt
CRM	Certified Reference Material
CRU	CRU International Ltd
CSR	Corporate Social Responsibility
Cu	copper
CuSO ₄	copper sulfate
CuSX	copper solvent extraction
CWi	Bond crusher work index
DFS	Definitive Feasibility Study
DRA	DRA Projects (Pty) Ltd
DRC	Democratic Republic of the Congo
DWT	deadweight tonnage
EAC	East African Community
EBSP	Economic Benefit Sharing Principle
EC&I	electrical control and instrumentation
EDH	economically displaced households
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EM	electromagnetic

Abbreviation	Definition
EPC	Engineering, Procurement and Construction
EPCM	Engineering, Procurement and Construction Management
ESG	Environmental, Social and Governance
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Energy Storage Systems
EU	European Union
EV	electric vehicle
EW	electrowinning
FAR	fresh air raise
FBC	Flexible Bulk Container
FEL	front-end loader
FID	Final Investment Decision
FLEM	fixed loop EM
FLRA	Field Level Risk Assessment
FS	Feasibility Study
FW	footwall
G&A	General and Administrative
GAB	gabbro lithology
GAB_KAB	generally unmineralized gabbro/gabbro-norite in the Karagwe-Ankole Belt
GISTM	Global Industry Standard on Tailings Management
Golder	Golder Associates Inc.
GoT	Government of Tanzania
GSW	gland seal water
GTS	Gravity Transfer Systems
H ₂ SO ₄	sulfuric acid
HCFT	High Confidence Flotation Test
HCl	hydrochloric acid
HDPE	high-density polyethylene
HDS	high-density sludge
HG	high grade
HIV	Human Immunodeficiency Virus
HPAL	high-pressure acid leaching
HR	Human Resources
HW	hanging wall
IBIS	IBIS Consulting
ICMM	International Council on Mining and Metals
ICP	Inductively Coupled Plasma Spectroscopy Analytical Technique
ICP-MS	Inductively Coupled Plasma Mass Spectroscopy
ICP-OES	Inductively Coupled Plasma Optical Emission Spectroscopy
IFC	International Finance Corporation
IFC PS	International Finance Corporation Performance Standards

Abbreviation	Definition
IRR	internal rate of return
ISO	International Organization for Standardization
ITRB	Independent Tailings Review Board
JFM	Joint Financial Model
JV	Joint Venture
KAB	Karagwe-Ankole Belt
KNCL	Kabanga Nickel Company Limited (pre-Lifezone ownership)
KNL	Kabanga Nickel Limited
LCT	locked-cycle test
LFP	lithium iron phosphate
LHD	load-haul-dump
LME	London Metal Exchange
LoM	Life of Mine
LRP	Livelihood Restoration Plan
LRPU	Lower Pelite stratigraphic unit
LSSC	Lower Spotted Schist stratigraphic unit
LTIFR	lost time injury frequency rate
LZM	Lifezone Metals Limited
M&E	monitoring and evaluation
MAF	generic mafic lithology
MCC	motor control center
MEL	mechanical equipment list
MG	medium-grade
MHP	mixed hydroxide precipitate
MI	Measured and Indicated Mineral Resource Classifications
MIA	mine infrastructure area
MIBC	methyl isobutyl carbinol
MII	Measured, Indicated, and Inferred Mineral Resource Classifications
MineFill	MineFill Services Pty Ltd
MP-AES	Microwave Plasma Atomic Emission Spectroscopy
MPP	mini pilot plant
MRU	Mineral Resource Update
MSSX	massive sulfide mineralization (as logged in drillholes and modeled)
MSXI	massive sulfide mineralization with xenolith intrusions (as logged in drillholes)
NATA	National Association of Testing Authorities
NEMC	National Environment Management Council
Ni	nickel
NiEq	nickel-equivalent
NiEq24	2024 nickel-equivalent
NMC	nickel manganese cobalt
No.	number
NPI	nickel pig iron

Abbreviation	Definition
NPV	net present value
NSR	net sales return
OHL	overhead line (power)
OHS	Occupational Health and Safety
OOG	out of gauge
OreWin	OreWin Pty Ltd
P&C	Paterson & Cooke Consulting Engineers (Pty) Ltd
P&G	preliminary and general
P&ID	pipng and instrumentation diagram
PAF	Paste Aggregate Fill
PAH	Project Affected Household
PAP	Project Affected Person
pCAM	precursor cathode active material
PCD	pollution control dam
PD	positive displacement
PDC	process design criteria
PDH	physically displaced household
PES	Project Execution Schedule
PEX	potassium ethyl xanthate
PFS	Pre-feasibility Study
PLS	pregnant leach solution
PPE	Personal Protective Equipment
PS	Performance Standard
PSA	Particle Size Analyzer
PSD	particle size distribution
PSWP	plant site water pond
QA/QC	quality assurance/quality control
QP	Qualified Person
QRA	quantitative risk assessment
RAP	Resettlement Action Plan
RAR	return air raise
RFL	Refining Licence
RO	reverse osmosis
RoM	Run-of-Mine
RWG	Resettlement Working Group
SADC	Southern African Development Community
SEC	U.S. Securities and Exchange Commission
SG	specific gravity
SGR	Standard Gauge Rail
SHA	Seismic Hazard Analysis
SI	International System of Units
SLD	single-line diagrams

Abbreviation	Definition
SML	Special Mining Licence
SMM	Shanghai Metals Market
SMP	Security Management Plan
SOP	standard operating procedure
SQUID	Superconducting Quantum Interference Device
TAA	Tanzania Airports Authority
TANESCO	Tanzania Electric Supply Company Limited
TANROADS	Tanzania National Roads Agency
TAZARA	Tanzania-Zambia Railway Authority
TEM	Transient Electromagnetic
TML	Transportable Moisture Limit
TNCL	Tembo Nickel Corporation Limited
TPA	Tanzania Ports Authority
TRC	Tanzania Railways Corporation
TRS	Technical Report Summary (as defined in S-K 1300)
TSF	tailings storage facility
UCS	uniaxial compressive strength
UMAF	generic ultramafic lithological unit
UMAF_1a	mineralized ultramafic (as logged in drillholes)
UMAF_KAB	unmineralized ultramafic (as logged in drillholes)
UMIN	mineralized ultramafic (as modeled)
UNDP	United Nations Development Programme
URT	United Republic of Tanzania
USD	United States dollars
VPP	Vulnerable Peoples Plan
VSD	variable speed drive
VTEM	Versatile Time Domain Electromagnetic
WASM	Western Australia School of Mines
WRD	waste rock dump
WSP (AUS)	WSP Australia Ltd
WSP (NZ)	WSP New Zealand Ltd
WSP (SA)	WSP South Africa (Pty) Ltd
WTP	water treatment plant
XPS	Xstrata Process Solutions
XRF	X-ray Fluorescence

UNITS OF MEASURE

Abbreviation	Definition
°C	degree Celsius
µm	micrometer/micron
DWT	deadweight tonnage (metric)
h	hour
ha	hectare
kg	kilogram
kg/m ² h	kilogram per square meter per hour
kg D.S./m ² h	kilogram dry solids per square meter per hour
USD/t conc. (wet)	USD per tonne (metric) concentrate (wet)
km	kilometer
kPa(g)	kilopascal (gauge)
kt	kilotonne (metric)
ktpa	kilotonne (metric) per annum
kV	kilovolt
kVA	kilovolt-ampere
kWh/t	kilowatt hour per metric tonne
L	liter
L/s	liter per second
m	meter
M	million (mega)
m ²	square meter
m ³	cubic meter
Ma	one million years
mAMSL	meter above mean sea level
mBS	meter below surface
min	minute
Mtpa	million tonne (metric) per annum
MVA	megavolt-ampere
MW	megawatt
MWc	megawatt consumed
MWr	megawatt refrigeration
Ø	diameter
pH	Quantitative measure of the acidity or basicity of aqueous or other liquid solutions
t	tonne (metric)
tpa	tonne (metric) per annum
tph	tonne (metric) per hour
V	volt
w/w	weight by weight

SYSTEM OF UNITS

The International System of Units (SI), the metric system, will be used throughout the design in all documentation, specifications, drawings, reports and all other documents associated with the study.

1 EXECUTIVE SUMMARY

1.1 Introduction

DRA Projects (Pty) Ltd (DRA) and Sharron Sylvester were engaged by Lifezone Metals Limited (NYSE LTM) (LTM) to prepare an independent Feasibility Study (FS) Technical Report Summary (TRS) for the Kabanga Nickel Project (the Project), located in northwest Tanzania. The TRS was prepared in accordance with the United States Securities and Exchange Commission's (SEC) Modernized Property Disclosure Requirements under Subpart 229.1300 of Regulation S-K (S-K 1300) and Item 601(b)(96). The purpose of the FS is to declare Mineral Reserves and to provide an independently validated assessment of the Project's technical and economic viability.

The FS assesses the initial phase of the Project development for an underground mine, concentrator, tailings storage facility (TSF), surface infrastructure, and logistics required to export concentrate. This FS TRS follows the Initial Assessment (IA) TRS disclosed in LTM's filing of June 2, 2025 which outlined the overall phased development plan for the Project including a potential future beneficiation facility. This future development phase is not assessed in the FS.

The Project, in which LTM holds a 84.0% ownership interest, is a fully integrated, greenfield development that will produce nickel, copper, and cobalt products for the global market. The Project is also expected to generate social and economic benefits for local communities. As one of the world's largest undeveloped high-grade nickel sulfide deposits, the Project represents a globally significant opportunity aligned with the accelerating transition to a low-carbon economy and is positioned to deliver both strategic value to the global supply chain and meaningful economic and social benefits to Tanzania and its citizens.

1.2 Property Description, Mineral Tenure, Ownership, Surface Rights, Royalties, Agreements and Permits

The Project is located in the northwest of Tanzania, approximately 1,300 km northwest of Dar es Salaam, adjacent to the Burundi border (see Figure 1-1). The Kabanga Mine, Concentrator, and associated infrastructure are situated at the Kabanga Site, where nickel sulfide concentrate will be produced. The Kahama Site is the proposed location for a potential future phase of Project development.

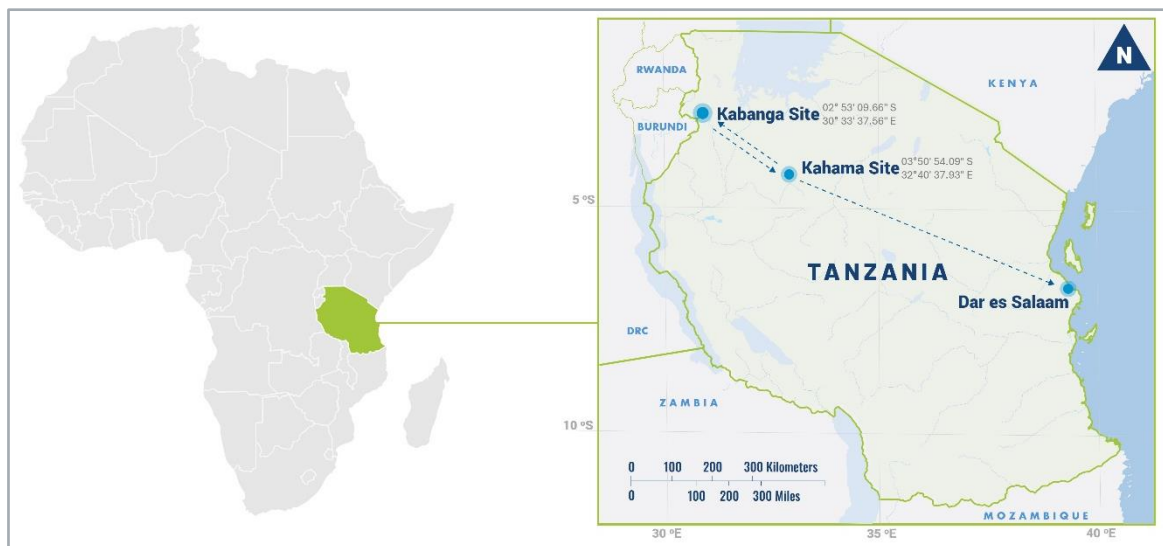


Figure 1-1: Kabanga Nickel Project Location in Tanzania

The site is reached by 77 km of unpaved public road (southern access road) from the paved National Route B3 (see Figure 1-2). Grid electricity (33 kV, 9 MVA) is currently supplied to the site by the Tanzania Electric Supply Company Limited (TANESCO) and is sufficient for construction and initial mine development. The development of the site includes the resettlement of economically displaced households (EDHs) and physically displaced households (PDHs). The PDHs will be moved to seven identified relocation host sites (Resettlement Sites).

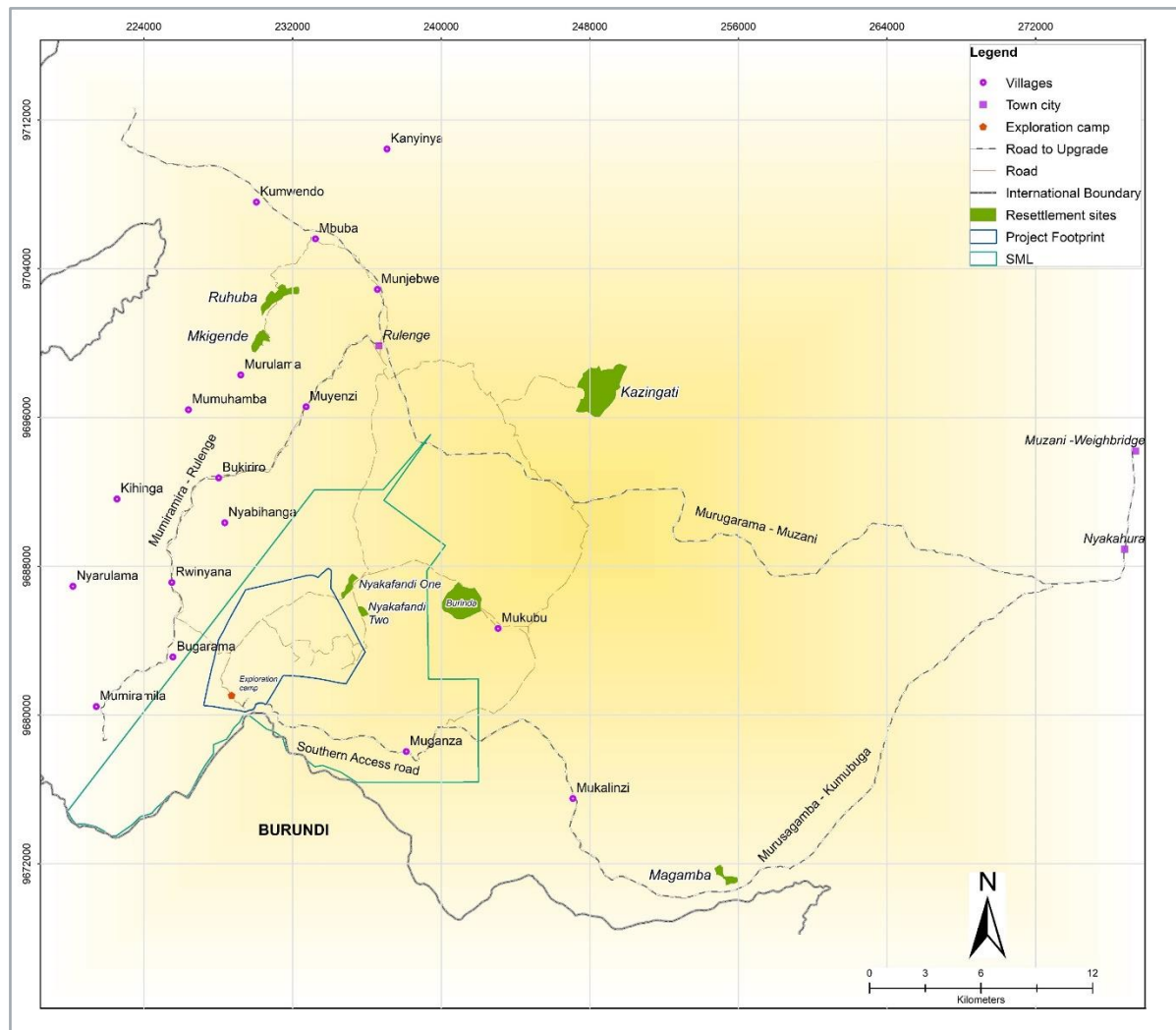
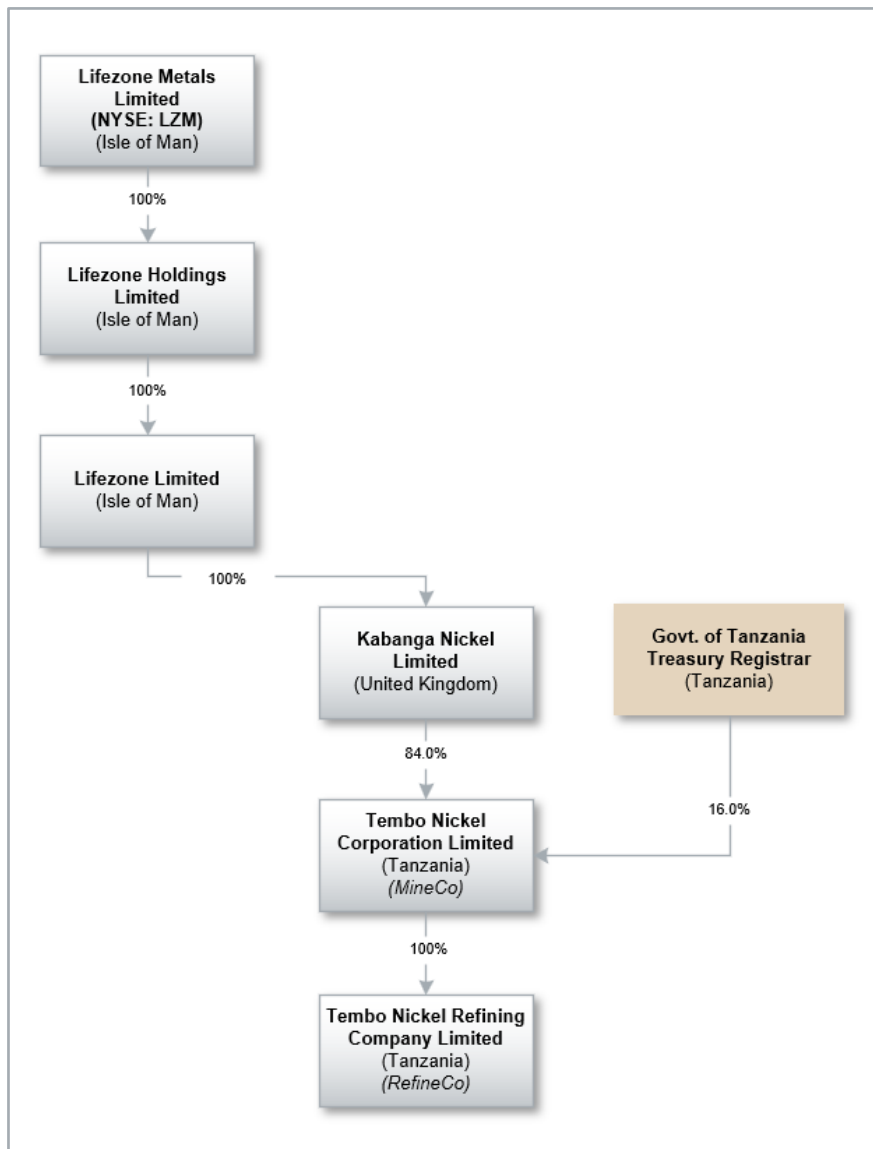


Figure 1-2: Kabanga Special Mining Licence (SML), Site Project Footprint, Resettlement Sites and Southern Access Road

The Kahama Site, approximately 320 km from the Kabanga Site, partly on the paved B3 highway, includes the Kahama Airport. This commercial airport operated by the Tanzania Airports Authority (TAA) will serve as the primary arrival point for personnel travelling to the Kabanga Site, with the final transport leg completed by bus. The Kahama Site is in close proximity to the Isaka Dry Port and provides a staging and laydown area during construction of the Kabanga Mine, Concentrator, and surface infrastructure. The Isaka Dry Port will provide a 982 km Standard Gauge Rail (SGR) link to the Port of Dar es Salaam via Tabora and Kwana Dry Port.

Both Kabanga Site and Kahama Site are situated within a temperate moist sub-humid climatic zone, experiencing bi-modal rainfall patterns with an average annual precipitation of approximately 1,000 mm, and mean annual temperatures around 20 °C, allowing for year-round site access.

The Project is owned by Tembo Nickel Corporation Limited (TNCL). TNCL is 84.0% owned by Kabanga Nickel Limited (KNL) and 16.0% by the Government of Tanzania (GoT) Treasury Registrar. KNL is 100% owned by LZM through its 100% owned subsidiaries. The LZM-attributable ownership is thus 84.0%, after accounting for the GoT shareholding. The current Project ownership structure is shown in Figure 1-3.



Note: The RefineCo entity relates to a potential future project phase, not assessed in this FS.

Figure 1-3: Current Ownership Structure of the Kabanga Nickel Project

A Framework Agreement exists with the GoT for the development and operation of the Project, which describes the equitable Economic Benefit Sharing Principle (EBSP) between KNL and the GoT. The overarching principle is that KNL and the GoT equally share income derived from the Project over the life, where GoT's income is derived from dividends, taxes, royalties, duties, and levies.

TNCL holds a 201.85 km² Special Mining Licence (SML) granted on October 29, 2021, which is valid up to 33 years (2054) and includes all mineralized areas relating to the resource. In addition, TNCL holds six prospecting licences covering a combined area of 101.44 km², which are not part of the Project.

On July 18, 2025 Lifezone Limited entered into a definitive agreement with BHP to acquire BHP's existing 17.0% equity interest in KNL, the majority owner of the Project. As a result of entering into the transaction, Lifezone Limited owns 100% of KNL, which in turn holds an 84.0% interest in TNCL. The remaining 16.0% of TNCL is held by the GoT. In addition, all existing agreements with BHP have been terminated. Lifezone Limited has assumed full control of 100% of the offtake from the Project.

The acquisition by Lifezone Limited of BHP's 17.0% equity interest in KNL does not impact the SML or the Framework Agreement between KNL and the GoT.

1.3 Geology

1.3.1 Geological Setting

The Kabanga nickel deposit is located within the East African Nickel Belt, which extends approximately 1,500 km along a northeast trend that extends from Zambia in the southwest to Uganda in the northeast. In the northern and central sections of the East African Nickel Belt, a thick package of Paleoproterozoic to Mesoproterozoic metasedimentary rocks, known as the Karagwe-Ankole Belt (KAB), overlies this boundary, within which occurs a suite of broadly coeval, bimodal intrusions that correspond to the Mesoproterozoic Kibaran tectonothermal event between 1,350 Ma and 1,400 Ma.

The Kibaran igneous rocks comprise mafic-ultramafic intrusions, including well-differentiated lopolitic layered intrusions and small, narrow, tube-like sills, often concentrically zoned, called chonoliths. The nickel mineralization zones discovered to date have exclusively been found associated with the mafic-ultramafic intrusions, in particular, along the Kabanga-Musongati Alignment.

The intrusions that host the potentially economic nickel-bearing massive sulfide zones in the Project area, namely, from southwest to northeast, Main, MNB, Kima, North, Tembo, and Safari, are hosted within steeply dipping overturned metasediments (dipping 70° to 80° to the west), with a north–northeast strike orientation (025°) from Main Zone to North Zone, changing to a northeast strike orientation (055°) (dipping northwest) from North to Tembo. These zones are located within and at the bottom margin of the mafic ultramafic chonoliths. The chonoliths are concentrically zoned with a gabbro-norite margin and an ultramafic cumulate core.

Three lithological groups are present at Kabanga:

- Metasediments comprising a series of pelitic units, schists, and quartzites, forming the hanging wall and footwall of the massive sulfide mineralization.
- Ultramafic intrusive complex rocks, which display a wide range of metamorphism/metasomatism and can carry significant sulfide mineralization (logged as UMAF_1a when ≥ 30% sulfides and UMAF_KAB when < 30% sulfides).
- Remobilized massive sulfide (MSSX) mineralization (i.e., MSSX (> 80% sulfides), which carries 90% of the sulfide occurrence, and massive sulfide mineralization with xenoliths of metasedimentary or gabbro/ultramafic (logged as MSXI when ≥ 50% and < 80% sulfides).

1.3.2 Style of Mineralization

The principal sulfide in the massive sulfide is pyrrhotite, with up to 15% pentlandite. The pentlandite shows distinct globular recrystallization textures, with crystals reaching up to 5 cm in size. Sulfide mineralization occurs both as:

- Disseminated to net-textured interstitial sulfides within and external to the cumulate core of the chonoliths.
- Massive and semi-massive bodies along the lower or side margins of the chonolith.

1.3.3 Exploration History

Exploration at the Project has been undertaken in several different phases for over 45 years, with more than 637 km of drilling completed up to the effective date of the current Mineral Resource estimate reported in December 2024.

The first drilling on the deposit was undertaken between 1976 and 1979 by the United Nations Development Programme (UNDP). This program resulted in over 20 km of drilling and the estimation of a Mineral Resource for Main Zone.

In 1990, Sutton Resources Ltd (Sutton) negotiated the mineral rights to the Project. Between 1990 and 1999, Sutton, in two separate joint ventures (JVs), completed over 100 km of drilling that resulted in Mineral Resource estimates for Main Zone and North Zone.

In 1999, Barrick Gold Corporation (Barrick) purchased Sutton and commenced a 14-year exploration program. During the first four years of this program, Barrick explored the Main Zone and North Zone areas further, resulting in the discovery of MNB zone and Kima zone, updates to the resource models,

and the completion of a scoping study. In 2005, Barrick entered into a JV with Falconbridge Limited (Falconbridge) (which became Xstrata plc (Xstrata), then ultimately Glencore plc (Glencore)) that lasted for nine years and resulted in two additional scoping studies, a Pre-feasibility Study (PFS), an FS, and a draft FS update. During this period, over 450 km of drilling was completed, the Tembo Zone mineralization was discovered, and Mineral Resource updates were generated for all the known zones.

Other historical exploration work completed included the following:

- Geophysical surveys:
 - Crone borehole electromagnetic (BHEM) geophysical surveys with physical properties, ground geophysical surveys, and airborne versatile time domain electromagnetic (VTEM) surveys (which were used, in conjunction with historical soil surveys and a BHP GEOTEM® airborne magnetic survey, to target the ground surveys).
 - Superconducting quantum interference device (SQUID) and fixed-loop transient electromagnetic (TEM) surface electromagnetic surveys (Crone and UTEM), as well as a helicopter-borne versatile time domain electromagnetic VTEM survey.
- Collection and testing of metallurgical samples.
- Geotechnical drilling at planned infrastructure sites.

In December 2021, drilling activities commenced at the Kabanga Site, after SML 651/2021 was granted. Since that time, over 52 km of additional drilling has been completed.

In December 2024, a revised Mineral Resource estimate (2024MRU) was generated based on all the Project drilling completed up to June 4, 2024, and this FS is based on that Mineral Resource estimate.

The Project drillhole database is currently maintained using Fusion software. Data collection activities have been performed using industry-standard practices.

1.3.4 Sample Preparation, Analyses, Security and Data Verification

The Kabanga sample preparation, assaying, quality assurance and quality control (QA/QC) activities and protocols can be summarized as follows:

- Sample preparation was completed in Tanzania at the ALS Metallurgy Pty Ltd (ALS)-Chemex laboratory in Mwanza (ALS-Chemex Mwanza).
- All the material was crushed to –2 mm, and 2 × 250 g pulp bags were sent to the ALS-Chemex laboratory in Perth, Western Australia (ALS-Chemex Perth) for analysis.
- The Perth samples were pulverized to –75 µm and analyzed as follows:
 - 4-acid digestion/inductively coupled plasma mass spectroscopy (ICP-MS) for Ni, Cu, Co, Ag, Fe, Cr, Mg, Mn, As, Pb, Bi, Cd, and Sb.
 - Fire assay/ICP-MS for Au, Pd, and Pt.
 - Ni and Cu samples exceeding 10,000 ppm, and Au, Pd, and Pt samples exceeding 1.0 g/t were re-analyzed with a more accurate technique.
 - LECO technique for the determination of sulfur.
 - Gravimetric method for specific gravity (SG) determination (pycnometry) on all samples.
- Not all the samples were assayed for the complete elemental suite: only 66% for North (10,053 of 15,200 samples), and 95% for Tembo (6,422 of 6,717 samples).
- An industry-standard QA/QC protocol was used at the Project, using certified reference material (CRM) standards, blanks, check assays, and duplicates.
- ALS is an independent laboratory accredited by the National Association of Testing Authorities (NATA) and complies with international standards such as ISO/IEC 17025 for testing and calibration in laboratories.
- SGS laboratory in Mwanza is an independent laboratory that is ISO/IEC 10725 accredited by the South African National Accreditation System (SANAS).

All the aspects of the data that could materially impact the integrity of the Mineral Resource estimates (core logging, sampling, analytical results, and database management) were reviewed by OreWin Pty Ltd (OreWin) with TNCL staff. OreWin personnel met with the TNCL staff to ascertain exploration and production procedures and protocols. Drill rigs were visited, and core was observed being obtained from the diamond drillholes and being logged at the exploration camp to confirm that the logging information accurately reflects the actual core. The lithology contacts that were checked matched the information reported in the core logs.

1.4 Mineral Processing and Metallurgical Testing

Extensive historical metallurgical testwork was previously undertaken for the Kabanga Concentrator over the period 2005 to 2010, including mineralogical, comminution, flotation (bench and pilot scale), and dewatering testwork, which provided a basis for the additional metallurgical testwork undertaken as part of the 2022–25 concentrator testwork program.

As part of this program, comminution and flotation flowsheet development and variability testwork was conducted on 4,616 kg of quarter, half, and full NQ-sized (approximately 47.6 mm) drill core. The testwork was conducted to FS level, on a range of composite and variability samples which were selected to represent the major feed types and feed blends expected to be processed over the Life of Mine (LoM). Sample selection and composite preparation were considered:

- Grade ranges and expected LoM grades.
- Spatial coverage, including depth and along strike.
- Appropriate levels of planned and unplanned mining dilution advised by the relevant mining disciplines.
- The proportion of MSSX and UMAF_1a tonnage over the LoM.

Testing included comprehensive head grade analysis, mineralogy, comminution (physical crushing and grinding) tests, open-circuit and locked-cycle bench-scale flotation tests, open-circuit bulk flotation tests, feed oxidation assessments, concentrate regrind, thickening, filtration, and rheology testing. The aim of the testwork was to further characterize the flotation response, optimize the flowsheet, generate bulk concentrate samples for vendor testing, concentrate characterization and other downstream testing, and to evaluate the degree of variability that could be expected across the deposit.

The comminution testwork confirmed the previous historical testwork findings, demonstrating that the MSSX and MSXI material is characterized as soft to medium with respect to hardness, while the UMAF_1a and waste dilution are characterized as medium-hard to hard. All the samples had a low abrasion tendency.

The flotation testwork demonstrated that a conventional flotation flowsheet, using a typical flotation reagent regime, could be used for the effective separation of pentlandite and chalcopyrite from the pyrrhotite and non-sulfide gangue. It also confirmed the historical optimal flotation circuit feed size of 80% passing 100 µm and a feed solids concentration of 35% (w/w). The regrind testwork highlighted the relatively soft nature of the sulfide rougher concentrate.

The dewatering testwork was aligned with historical testing by equipment vendors, showing the concentrate and tailings could readily thicken to a density > 65% solids (w/w) and are amenable to pressure filtration, achieving a final concentrate moisture level of 9% (w/w). Tailings testwork showed that rheology is not expected to cause pumping issues at design densities.

The concentrator metallurgical performance projections indicate that the Concentrator will produce a steady-state average of 350 ktpa (dry) nickel-copper-cobalt sulfide flotation concentrate, containing 17.7% nickel. Nickel recovery is expected to average 87.3% over the LoM, while the copper and cobalt recoveries are expected to average 96.5% and 89.6%, respectively.

1.5 Mineral Resource Estimate

The 2024MRU was based on industry best practice, is similar in approach to the resource modeling of previous estimates, conforms to the requirements of S-K 1300, and is suitable for reporting as current estimates of Mineral Resources.

The 2024MRU was completed using Datamine software, with macros developed to estimate the full suite of component elements and density for each zone (Main, MNB, North, Kima, and Tembo). All zones were estimated using the ordinary kriging method, with domain-specific search and estimation parameters determined by statistical and geostatistical analyses.

Three distinct mineralization units were interpreted for the Main, MNB, Kima, North, Tembo, and Safari zones:

- Massive sulfide (MSSX),
- Ultramafic (UMIN), and
- Intrusive (INTRUSIV/INTR) unit, which is generally poorly mineralized but occurs in close association with the mineralized units.

Within these three units, additional sub-domains were created based on spatial continuity, intersecting geological structures, and geochemical variability.

Solid wireframes were constructed for the intrusive bodies at each zone, which predominantly represented the logged generally unmineralized ultramafic (peridotite) (UMAF_KAB) lithology but also served as an 'umbrella' unit for any intervals logged as generic mafic (MAF), generally unmineralized gabbro-gabbro-norite (GAB_KAB), UMAF_1a, MSSX, and MSXI. The stratigraphic contacts between the Banded Pelite unit (BNPU) and the Lower Pelite unit (LRPU) were also used to interpret folding structures and unconformities to help orient the sulfide mineralization interpretations.

A multivariate statistical analysis was completed for all domains within each zone. It was based on the assay data limited to the samples that have the complete suite of elements assayed.

Some individual domains were combined where they were found to be statistically similar and could be plausibly related in a geological and spatial sense. The classification criteria and zoning used for the 2024MRU were based on a two-stage approach that considered objective criteria and visual observation.

The criteria referenced for the assignment of Inferred and Indicated mineralization globally included the distance from the cell centroid to the drillhole samples and the search pass in which the estimate was achieved. This global classification was then reviewed visually with specific focus on geological factors, including the geometry of the mineralized zones, spatial and geochemical continuity of the mineralization, and the success rate when intersecting the mineralization at predicted locations and thicknesses with the new drilling. Manually defined wireframe solids were then developed to enclose those areas that warrant upgrading to Indicated or Measured. As the Kabanga North and Tembo zones contain multi-element mineralization, a nickel-equivalent (NiEq) formula, updated for current metal prices, costs, and other modifying factors, has been used for reporting from the Mineral Resource.

The 2024 nickel-equivalent (NiEq24) formula is as follows:

- $MSSX\ NiEq24\% = Ni\% + (Cu\% \times 0.454) + (Co\% \times 2.497)$
- $UMIN\ NiEq24\% = Ni\% + (Cu\% \times 0.547) + (Co\% \times 2.480)$

The 2024 NiEq cut-off grades are:

- MSSX NiEq24% is 0.73%
- UMIN NiEq24% is 0.77%

Metal price assumptions used for cut-off grade determination were USD 9.50/lb for nickel, USD 4.50/lb for copper, and USD 23.00/lb for cobalt. Other input parameters and assumptions used for the NiEq24% formula and determining the cut-off grade are discussed in Section 11.4.

Reasonable prospects for economic extraction for the Mineral Resource determination were assessed by way of an Initial Assessment (IA), as defined in S-K 1300. Note that the IA Mineral Resource was reported in June 2025, which was prior to the declaration of Mineral Reserves; therefore, the Mineral Resource tables in the June 2025 IA TRS show the entire Mineral Resource, inclusive of the volume subsequently declared in this FS TRS to be Mineral Reserve.

The LZM-attributable tonnage, grades, and metallurgical recoveries of the Mineral Resource estimates, exclusive of Mineral Reserves, are shown in Table 1-1.

The LZM-attributable tonnage, grades, and contained metals of the Mineral Resource estimates, exclusive of Mineral Reserves, are shown in Table 1-2.

The Mineral Resource estimates have an effective date of December 4, 2024. Mineral Resource estimates have been reported in accordance with S-K 1300.

Table 1-1: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves, as at December 4, 2024 – Grades and Metallurgical Recovery

Mineral Resource Classification	LZM Tonnage ² (Mt)	Grades (%)				Metallurgical Recovery (%)		
		NiEq24	Ni	Cu	Co	Ni	Cu	Co
MINERAL RESOURCE ALL ZONES – MSSX Only								
Measured	1.2	2.98	2.38	0.30	0.19	86.2	94.7	89.2
Indicated	3.0	2.80	2.21	0.33	0.18	84.1	95.0	86.6
Measured + Indicated	4.2	2.85	2.26	0.32	0.18	84.7	94.9	87.4
Inferred	11.3	2.89	2.32	0.32	0.17	85.2	94.9	88.1
MINERAL RESOURCE ALL ZONES – UMIN Only								
Measured	4.7	1.17	0.91	0.13	0.08	64.5	77.4	66.5
Indicated	9.4	1.14	0.87	0.14	0.08	63.5	77.9	65.4
Measured + Indicated	14.1	1.15	0.89	0.14	0.08	63.9	77.8	65.8
Inferred	2.2	1.05	0.83	0.12	0.06	62.5	77.1	64.1
MINERAL RESOURCE ALL ZONES – MSSX plus UMIN								
Measured	5.9	1.54	1.21	0.16	0.10	73.2	84.1	75.3
Indicated	12.4	1.54	1.20	0.19	0.10	72.7	85.2	74.5
Measured + Indicated	18.3	1.54	1.20	0.18	0.10	72.9	84.9	74.7
Inferred	13.5	2.59	2.08	0.28	0.15	83.7	93.7	86.5

Notes:

1. Mineral Resources in Table 1-1 are reported exclusive of Mineral Reserves.
2. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
3. Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
4. NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480).
5. The point of reference for Mineral Resources is the point of feed into a concentrator.
6. All Mineral Resources in the 2024MRU were assessed for reasonable prospects for economic extraction by reporting only material above cut-off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%.
7. Totals may vary due to rounding.

Table 1-2: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves, as at December 4, 2024 – Grades and Contained Metals

Mineral Resource Classification	LZM Tonnage ² (Mt)	Grades (%)				Contained Metals (kt)			
		NiEq24	Ni	Cu	Co	NiEq24	Ni	Cu	Co
MINERAL RESOURCE ALL ZONES – MSSX Only									
Measured	1.2	2.98	2.38	0.30	0.19	36	29	4	2
Indicated	3.0	2.80	2.21	0.33	0.18	84	66	10	5
Measured + Indicated	4.2	2.85	2.26	0.32	0.18	120	95	13	8
Inferred	11.3	2.89	2.32	0.32	0.17	327	263	36	19
MINERAL RESOURCE ALL ZONES – UMIN Only									
Measured	4.7	1.17	0.91	0.13	0.08	55	43	6	4
Indicated	9.4	1.14	0.87	0.14	0.08	107	82	13	7
Measured + Indicated	14.1	1.15	0.89	0.14	0.08	162	125	19	11
Inferred	2.2	1.05	0.83	0.12	0.06	24	19	3	1
MINERAL RESOURCE ALL ZONES – MSSX plus UMIN									
Measured	5.9	1.54	1.21	0.16	0.10	91	72	10	6
Indicated	12.4	1.54	1.20	0.19	0.10	191	148	23	12
Measured + Indicated	18.3	1.54	1.20	0.18	0.10	282	220	33	18
Inferred	13.5	2.59	2.08	0.28	0.15	351	281	39	21

Notes:

1. Mineral Resources in Table 1-2 are reported exclusive of Mineral Reserves.
2. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
3. Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
4. NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480)
5. The point of reference for Mineral Resources is the point of feed into a concentrator.
6. All Mineral Resources in the 2024MRU were assessed for reasonable prospects for economic extraction by reporting only material above cut off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%
7. Totals may vary due to rounding.

1.6 Mineral Reserve Estimate

Mineral Reserve estimates have been classified in accordance with the definitions for Mineral Reserves in S-K 1300. An underground mining scenario is assumed using longhole stoping with paste backfill which, following ramp-up, will produce 3.4 Mtpa. The Proven and Probable Mineral Reserves were estimated by calculating economic cut-off values for mining underground stopes, in the various Mine locations within the mine design.

Measured Mineral Resources within the mine design were converted to Proven Mineral Reserves, and Indicated Mineral Resources within the mine design were converted to Probable Mineral Reserves. The Mineral Reserve excludes any Inferred Mineral Resources. The Mineral Reserve estimates have an effective date of July 18, 2025.

Table 1-3 shows the LZM's attributable share (84.0%) of the Mineral Reserve estimates, including tonnage, grades, contained metal, and metallurgical recoveries, broken down by Mine. Table 1-4 shows the LZM-attributable share of the Mineral Reserve estimate – MSSX only, split by Mine. Table 1-5 shows the summary of the LZM-attributable share of the Mineral Reserve estimate – UMIN only, split by Mine. Table 1-6 shows the summary of the Mineral Reserve estimate, on a 100% basis and LZM-attributable share split by ore type.

Table 1-3: Project Mineral Reserve Estimate by Mine –as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage ³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – MSSX plus UMIN										
Proven	6.4	2.10	0.28	0.16	135	18	11	88.9	96.7	91.3
Probable	0.9	2.03	0.27	0.14	17	2	1	89.0	96.6	91.4
Proven + Probable	7.3	2.09	0.28	0.16	152	20	12	88.9	96.7	91.3
North Lower – MSSX plus UMIN										
Proven	0.3	1.66	0.21	0.12	6	1	0	82.1	89.5	84.8
Probable	18.0	2.42	0.33	0.16	435	58	30	89.0	97.5	91.4
Proven + Probable	18.3	2.41	0.32	0.16	441	59	30	88.9	97.4	91.3
Tembo – MSSX plus UMIN										
Proven	8.1	1.64	0.23	0.14	133	18	11	83.8	93.5	86.5
Probable	5.7	1.50	0.20	0.12	86	12	7	81.5	92.1	84.3
Proven + Probable	13.8	1.58	0.22	0.13	219	30	18	82.9	93.0	85.6
Main – MSSX plus UMIN										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	4.4	1.25	0.18	0.09	55	8	4	77.3	90.6	79.7
Proven + Probable	4.4	1.25	0.18	0.09	55	8	4	77.3	90.6	79.7
Total – MSSX plus UMIN										
Proven	14.9	1.84	0.25	0.15	273	37	22	87.0	94.9	89.4
Probable	29.0	2.05	0.28	0.14	594	81	42	87.5	96.0	89.7
Proven + Probable	43.9	1.98	0.27	0.15	868	118	64	87.3	95.6	89.6

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-offs grades are based on a USD8.50/lb nickel price, USD4.24/lb copper price and USD18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated net sales return (NSR) cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North (lower) and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.

7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for the respective MSSX and UMIN categories have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade. The total combined recovery for the blend (MSSX+UMIN) reflects the outputs of the same recovery formula applied to the FS mine production and processing schedule.

Table 1-4: Project Mineral Reserve Estimate by Mine – MSSX only, as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage ³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – MSSX Only										
Proven	6.2	2.12	0.28	0.16	131	17	10	89.3	97.1	91.7
Probable	0.8	2.04	0.28	0.15	17	2	1	89.3	97.0	91.7
Proven + Probable	7.0	2.11	0.28	0.16	148	20	11	89.3	97.1	91.7
North Lower – MSSX Only										
Proven	0.2	1.86	0.24	0.13	3	0	0	87.6	96.2	90.1
Probable	17.3	2.46	0.33	0.17	426	57	29	89.3	97.9	91.7
Proven + Probable	17.5	2.45	0.33	0.17	429	58	29	89.3	97.9	91.6
Tembo – MSSX Only										
Proven	6.3	1.72	0.24	0.15	108	15	9	85.6	96.1	88.3
Probable	4.2	1.56	0.21	0.13	66	9	5	83.1	95.2	85.9
Proven + Probable	10.5	1.66	0.23	0.14	174	24	15	84.7	95.7	87.4
Main – MSSX Only										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	3.1	1.35	0.19	0.10	42	6	3	79.8	94.0	82.6
Proven + Probable	3.1	1.35	0.19	0.10	42	6	3	79.8	94.0	82.6
Total – MSSX Only										
Proven	12.6	1.92	0.26	0.16	242	33	20	88.3	96.6	90.8
Probable	25.5	2.16	0.29	0.15	551	75	39	88.5	97.1	90.9
Proven + Probable	38.1	2.08	0.28	0.15	793	107	58	88.5	97.0	90.8

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-offs grades are based on a USD8.50/lb nickel price, USD4.24/lb copper price and USD18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated net sales return (NSR) cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North (lower) and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for MSSX have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade.

Table 1-5: Project Mineral Reserve Estimate by Mine – UMIN only, as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage ³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – UMIN										
Proven	0.2	1.65	0.22	0.13	4	0	0	76.1	82.6	78.8
Probable	0.0	1.80	0.25	0.12	0	0	0	76.1	82.6	78.8
Proven + Probable	0.2	1.67	0.22	0.13	4	1	0	76.1	82.6	78.8
North Lower – UMIN										
Proven	0.2	1.48	0.18	0.10	3	0	0	76.1	81.6	78.8
Probable	0.6	1.41	0.19	0.09	9	1	1	76.1	82.1	78.8
Proven + Probable	0.8	1.43	0.19	0.09	12	2	1	76.1	82.0	78.8
Tembo – UMIN										
Proven	1.8	1.36	0.18	0.12	25	3	2	76.1	81.7	78.8
Probable	1.5	1.36	0.18	0.11	20	3	2	76.1	81.6	78.8
Proven + Probable	3.3	1.36	0.18	0.12	45	6	4	76.1	81.7	78.8
Main – UMIN										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	1.3	1.01	0.16	0.08	13	2	1	69.3	80.9	71.3
Proven + Probable	1.3	1.01	0.16	0.08	13	2	1	69.3	80.9	71.3
Total										
Proven	2.2	1.40	0.18	0.12	31	4	3	76.3	81.7	79.2
Probable	3.5	1.24	0.17	0.10	43	6	3	74.2	81.4	76.7
Proven + Probable	5.7	1.30	0.18	0.11	74	10	6	75.1	81.5	77.8

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-offs grades are based on a USD8.50/lb nickel price, USD4.24/lb copper price and USD18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated net sales return (NSR) cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North (lower) and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for UMIN have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade.

Table 1-6: Project Mineral Reserve Estimate with Tonnage on a 100% and LZM-attributable share (84.0%), as at July 18, 2025

Mineral Reserve Classification	Tonnage (Mt)		Grades (%)			Metallurgical Recovery (%)		
	100% basis	LZM-attributable	Ni	Cu	Co	Ni	Cu	Co
MSSX Only								
Proven	15.1	12.6	1.92	0.26	0.16	88.3	96.6	90.8
Probable	30.4	25.5	2.16	0.29	0.15	89.3	97.3	91.7
Proven + Probable	45.4	38.1	2.08	0.28	0.15	89.0	97.1	91.3
UMIN Only								
Proven	2.7	2.2	1.40	0.18	0.12	76.1	81.7	78.8
Probable	4.2	3.5	1.24	0.17	0.10	74.0	81.3	76.5
Proven + Probable	6.8	5.7	1.30	0.18	0.11	74.9	81.5	77.5
Total (MSSX plus UMIN)								
Proven	17.7	14.9	1.84	0.25	0.15	86.4	94.9	88.9
Probable	34.5	29.0	2.05	0.28	0.14	87.7	96.0	90.0
Proven + Probable	52.2	43.9	1.98	0.27	0.15	87.3	95.6	89.6

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing 100% of the total Project Mineral Reserve and the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-off grades are based on a USD 8.50/lb nickel price, USD 4.24/lb copper price and USD 18.34/lb cobalt price; the overall average nickel, copper and cobalt recoveries are 81%, 89% and 84%, respectively.
5. Elevated net sales return (NSR) cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North (lower) and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for the respective MSSX and UMIN categories have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade. The total combined recovery for the blend (MSSX+UMIN) reflects the outputs of the same recovery formula applied to the FS mine plan.

A summary of the key steps taken to convert Mineral Resources to Mineral Reserves is as follows:

- In situ economic stoping inventory: Stope designs were generated using an automatic stope design optimization tool. Measured and Indicated resource model cells with grades lower than the economic stope cut-off values were assigned to internal dilution. All Inferred and unclassified resource model cells within the stopes was considered internal dilution and the tonnages were accounted for with zero grade.
- In situ mine design: A mine design was completed from the stoping inventory, including the engineering for all mine access development, mine ventilation infrastructure, materials haulage systems, etc. Some isolated stopes above the cut-off values were eliminated from consideration because the development to extract them would cost more than the economic return. Each stope and development section in the design is assigned the dominant Mineral Resource classification to better account for the planned dilution.
- Dilution and recovery factors. Unplanned mining dilution was calculated, which reduces the head grade. The mining recovery of 90% was applied to stopes.
- Tail cutting: Production schedule tail cutting resulted in a net loss from the mined ore inventory.

NSR calculation assumptions are shown in Table 1-7.

Table 1-7: NSR Calculation Assumptions

Parameter	Unit	Value	
Revenue			
Nickel Price	USD/lb	8.50	
Copper Price	USD/lb	4.24	
Cobalt Price	USD/lb	18.34	
Concentrator Recovery	%	Formula	
Transport	USD/t Conc. (wet)	209.75	
Royalties	%	7.30	
Costs		MSSX	UMIN
Mining	USD/t	52.18	52.18
Processing	USD/t	10.38	11.69
G&A	USD/t	8.18	8.18
TSF	USD/t	2.21	2.21
Surface Infrastructure	USD/t	1.60	1.60
Total Costs	USD/t	75.57	76.89
Cut-off		MSSX	UMIN
NSR	USD/t	75.57	76.89

The NSR break-even cut-off for the MSSX and UMIN mineralization was calculated as USD 75.57/t feed and USD 76.89/t feed, respectively.

Higher NSR cut-off values were selected for each zone when considering the mine plan. These elevated cut-off values, per mine, are USD 170/t at North Upper, USD 100/t at North Lower and Tembo, and USD 85/t at Main. Applying the higher cut-offs increased ore head grade.

The QP is not aware of any risk factors associated with, or changes to, any aspects of the modifying factors such as mining, metallurgical, infrastructure, logistics, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

1.7 Mining Methods

The FS mine plan has been prepared using the 2024MRU cell model. The total planned production for the economic analysis is 52 Mt at 1.98% Ni, 0.27% Cu, and 0.15% Co (100% basis). At this time, mining has not commenced.

The mine plan assumes a four-year construction and ramp-up period, forecast to reach steady-state production of 3.4 Mtpa in Year 4. In the first 15 years, approximately two-thirds of the mill feed will be sourced from North Mine, with Tembo Mine contributing the remaining one-third. In the final years Main Mine will supplement mill feed. Figure 1-4 illustrates the mine design and Figure 1-5 shows the annual FS production schedule by source.

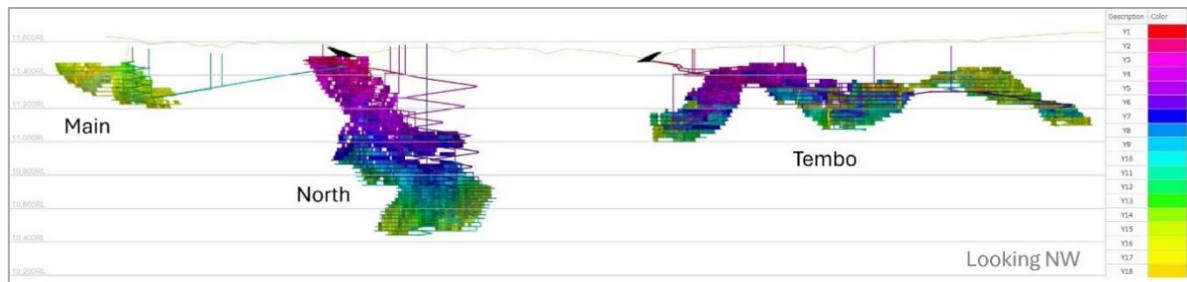


Figure 1-4: Mine Design and Sequence (in Years)

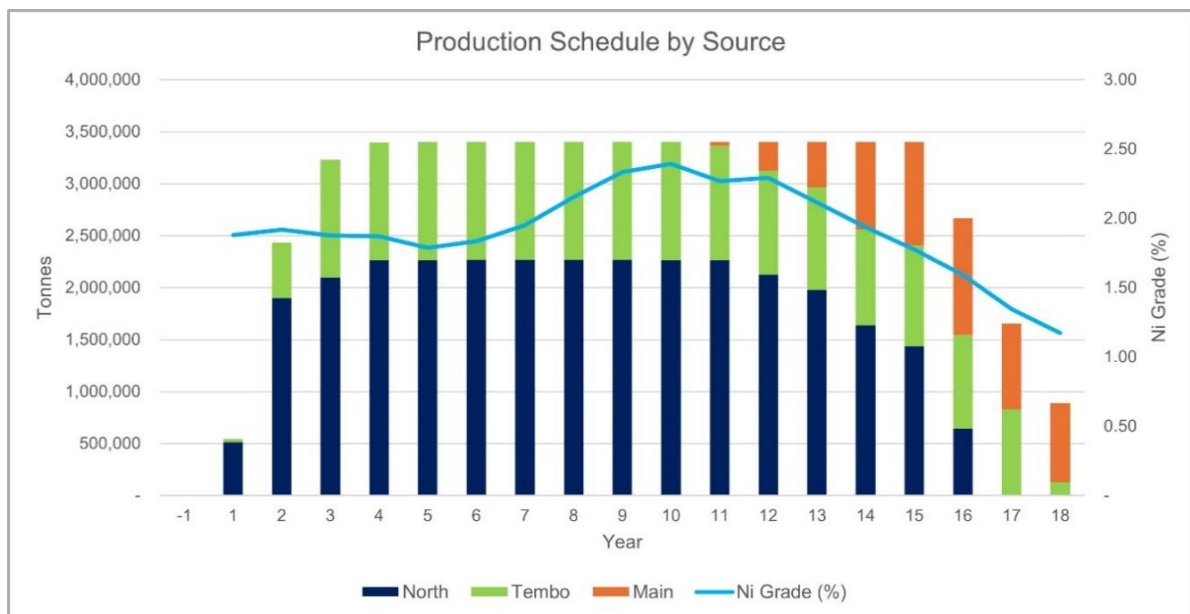


Figure 1-5: Production Schedule by Source

In the FS mine design, North Zone (50–1,100 m deep) and Tembo Zone (120–650 m deep) are each accessed via separate 5.5 m (W) x 5.8 m (H) declines starting from small boxcuts, while Main Zone (100–400 m deep) is accessed underground from North Mine. Fresh rock beyond the weathering profile is expected to be encountered 180–250 m laterally along the decline from the portals. Longhole stope with paste backfill is the mining method. Level spacing is typically 25 m floor-to-floor and stope strike lengths will vary between 20 and 30 m, depending on mineralization depth and thickness. Most stopes are to be extracted via longitudinal retreat stope, except in thicker mineralized areas in North Mine, where transverse retreat stope from the hanging wall drives will be implemented. Mined tonnes are transported to the surface via conventional trucking. Main and Tembo mines are each serviced by a single decline, while North Mine's higher material movement warrants a second decline to establish a dedicated trucking loop. Figure 1-6 presents a three-dimensional (3D) illustration of a typical mine design for North Mine. Main and Tembo mines are each serviced by a single decline whilst North Mine's higher material movement warrants a second decline to establish a dedicated trucking loop.

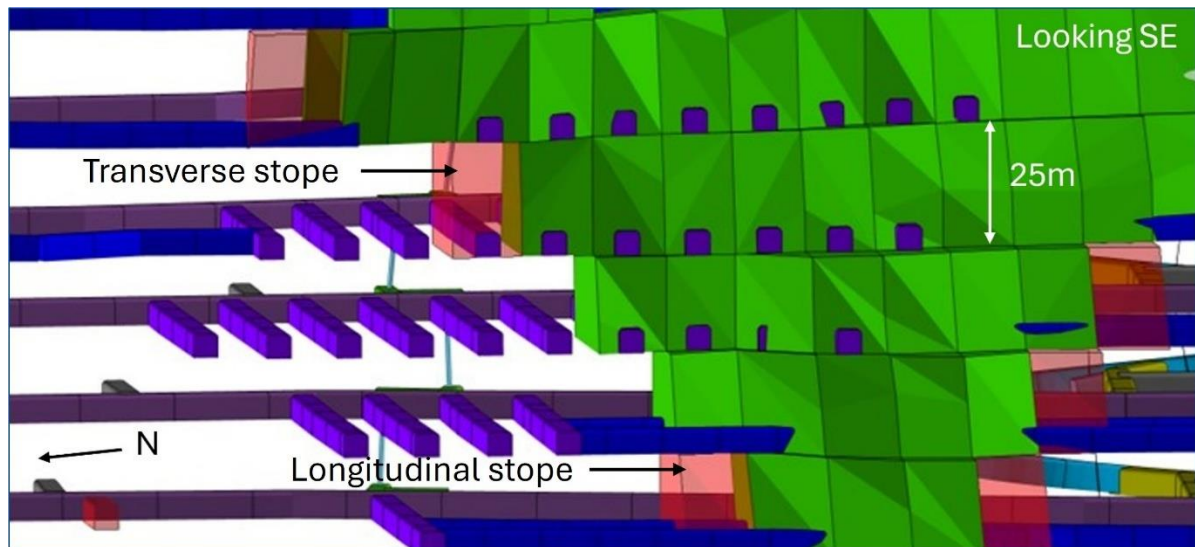


Figure 1-6: Typical Mine Design – North Mine 3D view

The geotechnical study for the FS has been carried out to provide geotechnical parameters for the mine designs at the Project based on 2023 geotechnical diamond drilling and extensive historical datasets. Ground Support Standard recommendations were derived from empirical rock mass quality assessment, kinematic analysis, and numerical modeling. Four acoustic emission stress measurements were collected, which indicate that Kabanga is in a low stress environment. The major fault model developed by Golder Associates Inc. (Golder) in 2009 was reviewed and verified with 2022–23 drilling. A 3D finite element modeling was conducted for North and Tembo mines to assess global stability based on rock mass quality, material strength, faults, and foliation, using the planned mine geometry and extraction sequence. This modeling indicated no issues with the extraction sequence, placement of levels and capital infrastructure, and the approach can be adapted based on favorable results, providing flexibility in the sequence.

Ground support for declines and ore drives consisting of resin and cable bolts, frictions sets, mesh, and fibercrete has been specified based on depth and weathering.

Schedule productivity rates are summarized in Table 1-8. Vertical development activities are scheduled at rates between 2 m/d and 3 m/d, depending on the type and size.

Table 1-8: Lateral Development Productivity Rates

Lateral Development Description	Single Heading Rate (m/month)
Access Drive	90
Crosscut Drive	90
Decline	120
Footwall Drive	90
Production Drive	60

Benchmarking was undertaken to verify the development rates used, specifically the Jumbo development productivity rate. Information was gathered from 16 mines with similar ground conditions, locations, contractor/owner mining arrangements and project phases. It was confirmed that the Project development rate assumptions are appropriate.

A break-even cut-off value was determined for MSSX and UMIN as USD 75.57/t feed and USD 76.89/t feed respectively. To improve project economics in the mine plan, elevated cut-off values were applied, eliminating from the plan payable ore that does not adequately contribute to capital recovery. USD 170/t was applied at North Mine (upper), USD 100/t at North Mine (lower) and Tembo, and USD 85/t at Main Mine.

Generally, the mining sequence will follow a top-down approach, with some localized bottom-up mining as needed to address specific operational requirements. In the deeper sections of North Mine, the planned mining sequence will be a conventional center-out sequence, as shown in Figure 1-7. Geotechnical modeling has indicated that this approach can be adapted based on favorable results, providing flexibility in the sequence. Tembo Mine sequencing employs similar mining principles, utilizing a center-out approach combined with top-down mining where feasible. Due to the extensive three-kilometer strike length of the Tembo mineralized zone, multiple mining fronts will be established, allowing efficient management across the strike. Higher-value stopes will be accessed and mined early where possible. Notably, Tembo Mine's operations would commence seven months after those at North Mine.

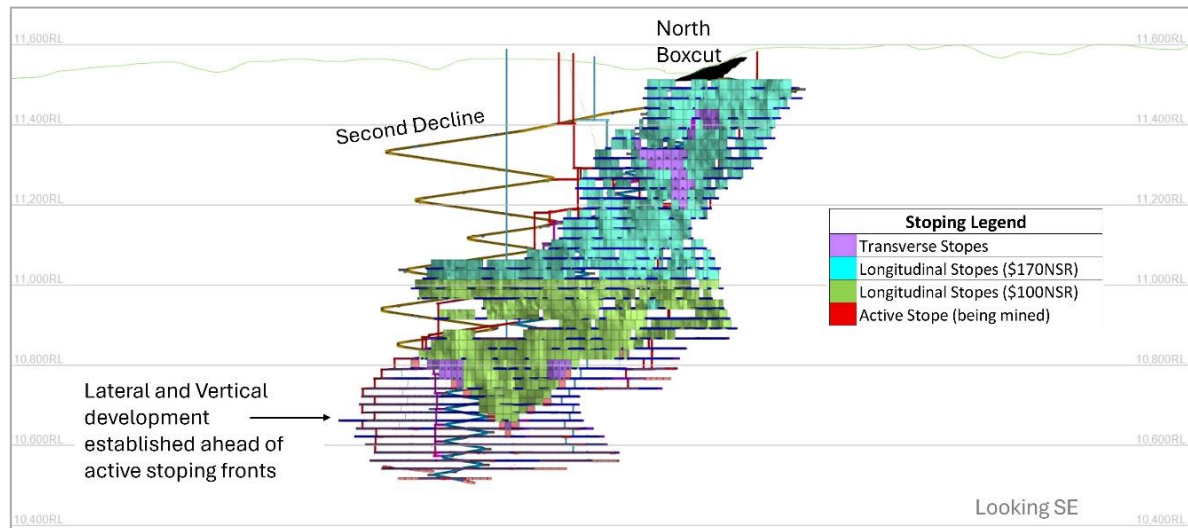


Figure 1-7: Schematic of North Mining Sequence

Unplanned (external) dilution has been included in the stoping as an overbreak allowance. This is included as a total amount of overbreak and varies based on the hanging wall dip, and width and height of the stopes. The average external dilution at North is 9.4%, at Tembo is 10.0%, and at Main is 11.5%. The average expected external dilution for the Project is 9.8%.

As a result of the dip and geometry of the mineralized zones, there is some internal dilution within the Stope Optimizer shapes generated in Deswik software (Deswik), which is referred to as 'planned dilution'. This planned dilution at North Mine is 16.1%, at Tembo Mine is 15.1%, and at Main Mine is 19.1%, and the average project planned dilution is 16.1%. All stopes have a mining recovery of 90%.

Ventilation models were constructed to size and position ventilation infrastructure. Peak primary fresh air requirements for Tembo and North mines are provided by six 5 m diameter return air raises (RAR), each equipped with two bifurcated centrifugal or axial fans and five 5 m diameter fresh air raises (FAR).

Secondary ventilation to development ends will be provided via dual stage 110 kW fans with 1,400 mm ventilation bags. Production level ends will be force-ventilated using dual stage dual speed 75 kW fans 'in-level'.

From Year 5 at Tembo Mine and Year 7 at North Mine, air entering the mine at the FARs will be cooled on surface in three 5.3 MWc bulk air coolers (BAC), each served by a 6.0 MWr refrigeration plant.

A centrally located surface explosive magazine will be provided to service both North and Tembo mines. As per the Tanzanian Explosive Act 56 of 1963, detonators will be stored on one side of the compound with boosters on the opposite side. The area is provided with a 500 m clearance radius to other infrastructure, fencing and access control. Emulsion storage facilities at North and Tembo mines, each consisting of two 28 t silos, will handle the receipt, storage, and dispensing of emulsion and sensitizer. Each of North and Tembo Mines will have an underground magazine for detonators and explosives to be stored.

A maximum of 8,500 m³/d of groundwater ingress (along with mine service water) is projected to be pumped from underground to high-rate settlers placed on surface, from where excess water will be pumped to the Concentrator. The mine is projected to maintain a marginally positive water balance,

while the overall Kabanga Site is expected to remain approximately water neutral over the LoM. Mine service water of 0.4 m³/t is expected to be used.

DRA has prepared designs for the underground infrastructure for pumping, mine services, workshops, electrical, explosives storage, and instrumentation and control. The Project will utilize the Safescape Escapeway System and a total of 34 MineARC refuge chambers.

Workforce requirements have been estimated using the equipment fleet requirements as well as estimates of the required supervision, mining method / activities planned, technical and engineering personnel. A total of 804 persons are required.

Based on laboratory testing of multiple paste recipes, the proposed backfill system comprises two identical plants that will use non-pyrrhotite tailings (55%), -5 mm crushed waste rock (45%), and low-heat cement to produce a stable Paste Aggregate Fill (PAF). One plant is located at the surface in proximity to North Mine (feeding both North and Main mines) while the other is located at the surface in proximity to Tembo Mine. Crushing and screening of the waste rock is undertaken at North Mine's waste rock stockpile area before hauling to each plant. The plants are fitted with a combined tailings storage capacity of 3,000 m³ and are configured to enable a higher portion of tailings addition where appropriate. Both plants are designed for an instantaneous production rate of 95 m³/h such that backfill requirements at North and Tembo can be satisfied with a system utilization of 64% and 31%, respectively.

An experienced mining contractor will be engaged to operate the mine during the first five years of production, with responsibility for key underground activities including development, drilling, mucking, haulage, pastefill, raiseboring, mine infrastructure, and explosives management. The contractor would also procure, operate, and maintain all underground equipment. The Project has sourced indicative pricing among tier-1 contractors with relevant experience in Africa.

1.8 Processing and Recovery Methods

The Kabanga Concentrator has been designed to process 3.4 Mtpa of Run of Mine (RoM) and includes primary and secondary crushing and screening, milling and classification, aeration and conditioning, Ni-Cu-Co rougher flotation and concentrate regrind, Ni-Cu-Co cleaner, re-cleaner and cleaner scavenger flotation, Ni-Cu-Co concentrate dewatering, filtration, bagging and dispatch, and supporting reagent and utility systems as seen in Figure 1-8. A 3D model view of the concentrator can be seen in Figure 1-9.

Tailings is separated by rougher flotation into a non-pyrrhotite tailings stream for use in the backfill mix, and a pyrrhotite tailings stream to be disposed of in the TSF after dewatering/thickening. The Concentrator will produce approximately 350 ktpa (dry) of Ni-Cu-Co flotation concentrate, containing 17.7% Ni at steady-state. The concentrate will contain approximately 2.6% Cu, 1.3% Co, 32% S, and an average of 0.6% MgO over the LoM. The design comprises two 1.7 Mtpa milling and flotation modules that share a common 3.4 Mtpa crushing circuit, tailings pumping circuit, concentrate handling circuit, utilities and services. This approach allows for variations and flexibility in feed types, competency, and rates and caters for a wide throughput operating window which provides increased processing flexibility and introduces redundancy. The flowsheet is shown in Figure 1-8 conventional and well known in industry, uses common reagents, and has historically been proven as a suitable processing route for base metal sulfide ores. A 3D layout of the proposed Concentrator is shown schematically in Figure 1-9.

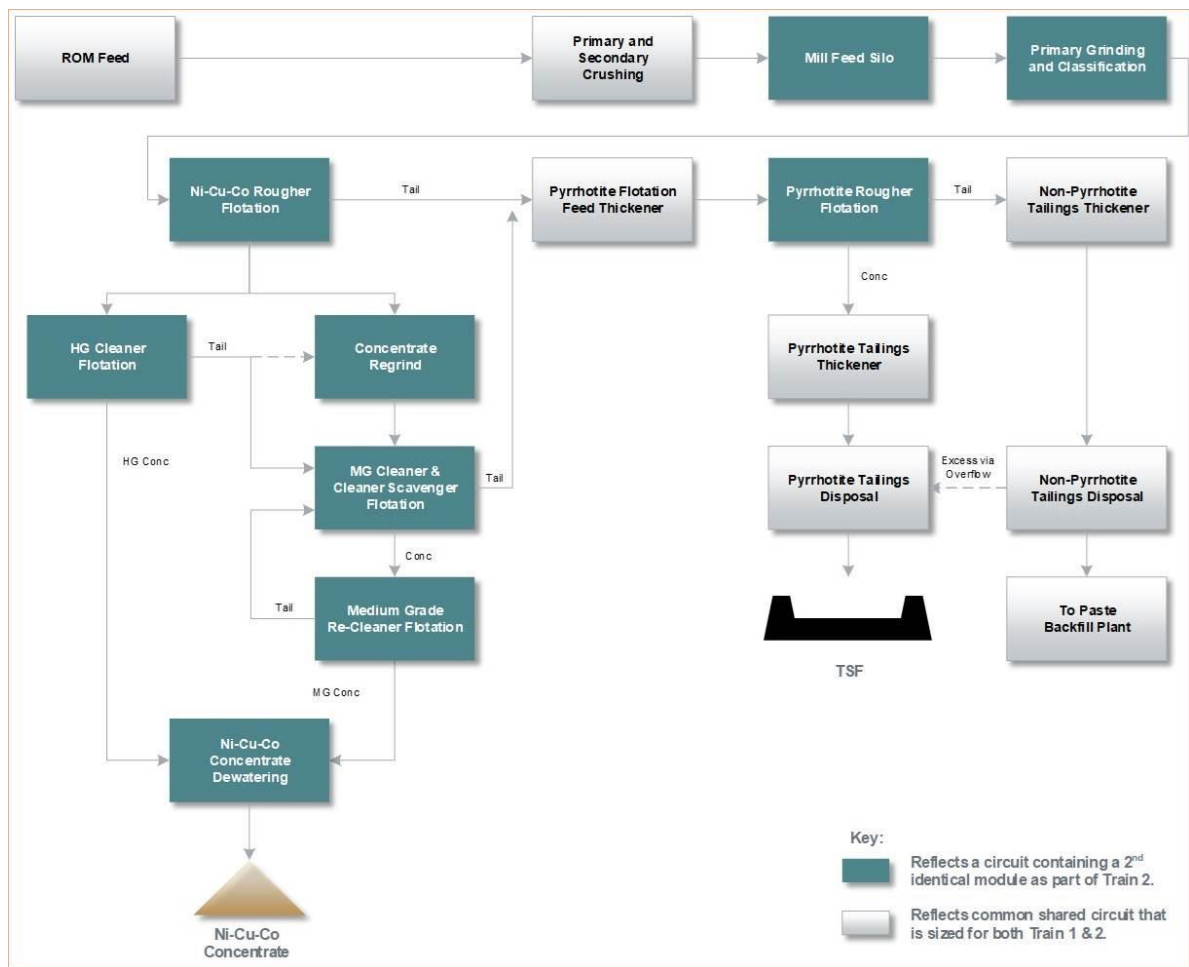


Figure 1-8: Simplified Concentrator Flowsheet

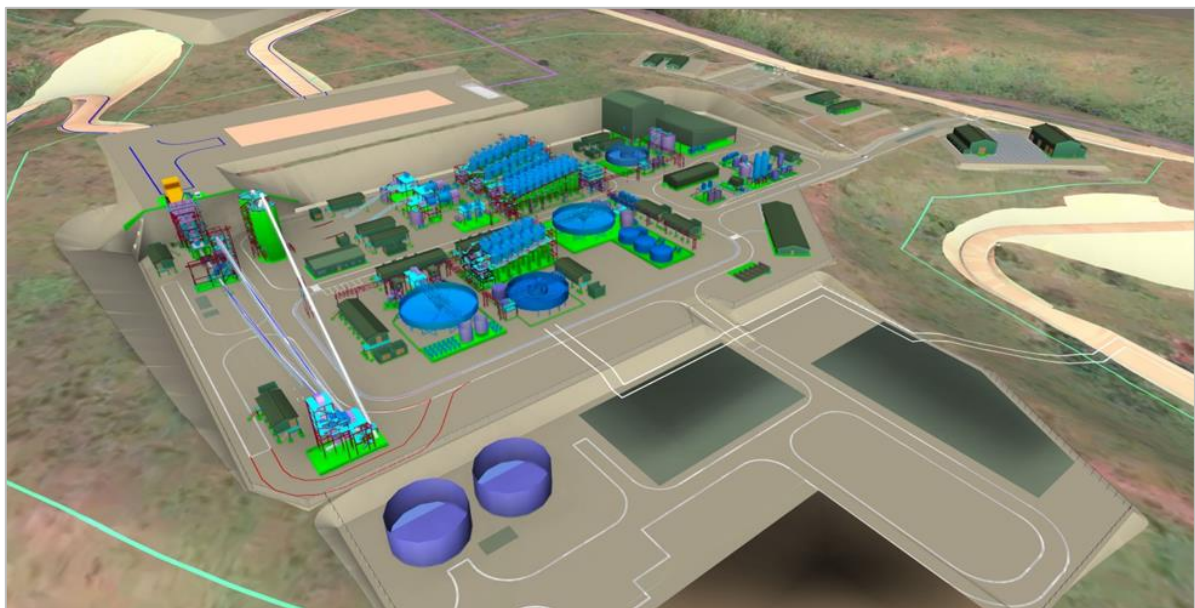


Figure 1-9: Concentrator 3D Model Layout

The planned TSF is a valley-type downstream constructed lined facility located 7 km to the east of the Concentrator. The TSF footprint will be 120 ha and is designed to hold up to 50 Mt of tailings solids, with embankments constructed as a starter wall and five subsequent raises using borrow materials

from the TSF basin and surrounding area. The main embankment has a maximum height of 72 m, while the saddle embankment has a height of 9 m and each phase will be equipped with an emergency spillway.

Due to the acid generating potential of the tailings, subaqueous deposition will be used, both by spigot and a floating barge deposition system, always maintaining a minimum water cover of 0.8 m above the tailings. Water return will be by submersible barge pump to the pumpstation for return to the Concentrator. A liner leakage collection system and a spring water transfer system have been incorporated into the design.

The TSF design was undertaken by WSP Australia Pty Ltd (WSP (AUS)) building on earlier PFS and basic engineering level work completed between 2006 and 2014 and supplemented by additional geophysical and geotechnical investigations in 2023. Relevant parts of Australian National Committee on Large Dams (ANCOLD), Global Industry Standard on Tailings Management (GISTM), Tanzanian Dam Safety Guidelines, and other standards have been met, and the residual risks have been reduced to as low as reasonably practicable. Reviews of the TSF design have been conducted by an Independent Tailings Review Board (ITRB), a Tanzanian Ministry of Water Approved Professional Person (APP), and other subject matter experts.

1.9 Project Infrastructure

1.9.1 Kabanga Site

Kabanga Site is established, with existing infrastructure including an exploration camp (see Figure 1-10), office buildings, security access control, and facilities for geological assessment, technical services, and community relations. Additional amenities include a canteen, clinic, workshops, staff housing, and space for sample and drill core storage. The exploration camp will be expanded to 300 beds and will facilitate all personnel during initial construction activities, while the permanent camp is constructed.

The Kabanga Site is equipped with mobile telephone networks and video conferencing facilities for communication. The exploration camp, as seen in Figure 1-10, is currently serviced by a newly upgraded 33 kV electrical supply from TANESCO.



Figure 1-10: Kabanga Site Exploration Camp Aerial Photo (looking southeast)

Water to the exploration camp is currently sourced from a borehole located 900 m to the northwest of the exploration camp.

The Project scope includes the design and development of the necessary temporary construction facilities and permanent infrastructure to support the construction and operation of the Kabanga Mine and Concentrator. This includes site access and internal roads, earthworks, electrical power supply

and reticulation, water supply and associated water systems, accommodation and messing facilities, site buildings, waste rock dumps, a tailings storage facility, waste and sewage management, fuel services, laydown areas, security, laboratory, surface mining infrastructure, and other miscellaneous requirements.

Key infrastructure that will be required at the Kabanga Site includes:

- Bulk earthworks and terracing with materials from local borrow pits.
- Upgraded access road and internal roads with concrete surfacing on steep haul road sections.
- A comprehensive water drainage system for management of contact and non-contact water.
- Water supply by boreholes and abstraction from the Ruvubu River.
- Modular potable water and sewage treatment facilities and high-density sludge and reverse osmosis water treatment plants.
- A new 88 km 220 kV overhead line, with transformers stepping power down to 33 kV on-site.
- Three x 3.5 MVA back-up diesel generation as redundancy for critical systems.
- Operational and support buildings (offices, workshops, laboratory, training rooms, etc.) and phased accommodation facilities for up to 936 personnel.
- A TSF.
- Lined waste rock dumps (WRDs) with water management.
- A central incinerator and landfill facility for recyclable, hazardous, and domestic waste.
- Two backfilling pastefill plants.
- Surface fans and three refrigeration plants included from Year 5.

1.9.2 Logistics

1.9.2.1 Construction Logistics

A detailed construction logistics study has been completed, covering transport of abnormal loads from Dar es Salaam to the Kabanga Site, including route assessments and logistical constraints.

1.9.2.2 Operational Logistics

The Project will implement a comprehensive logistics system to transport concentrate from the Kabanga Site to the Port of Dar es Salaam, and bulk shipping to international off-taker(s), averaging approximately 350 ktpa (dry) at steady state (see Figure 1-11). At the Kabanga Site, concentrate will be loaded under a covered area into reusable Flexible Bulk Containers (FBC), containing approximately 9.3 t per bag, and onto contractor provided flatbed trucks for the 347 km haul to the Isaka Dry Port.

From Isaka, the FBCs will be railed 894 km to the Kwala Dry Port in dedicated low-sided flatbed wagons via the SGR, which is currently under construction and expected to be operational at Isaka by 2026. The typical freight train will consist of 40 wagons, with each wagon carrying five FBCs, delivering a train payload of approximately 1,860 t with departures every 48 hours. At Kwala Dry Port, FBCs will be stored in a leased area with sufficient capacity to cater for the approximately monthly shipments. From Kwala Dry Port, the concentrate will travel the final 88 km to the Port of Dar es Salaam via a dedicated "Port Link" rail.

At the Port of Dar es Salaam, Dubai Ports World (DP World) will handle the loading of dedicated 12,000–30,000 deadweight tonnage (DWT) bulk carriers using cranes to bottom discharge from the FBCs into the vessel holds. Refer to Figure 1-11 for the Concentrator logistics tube map.

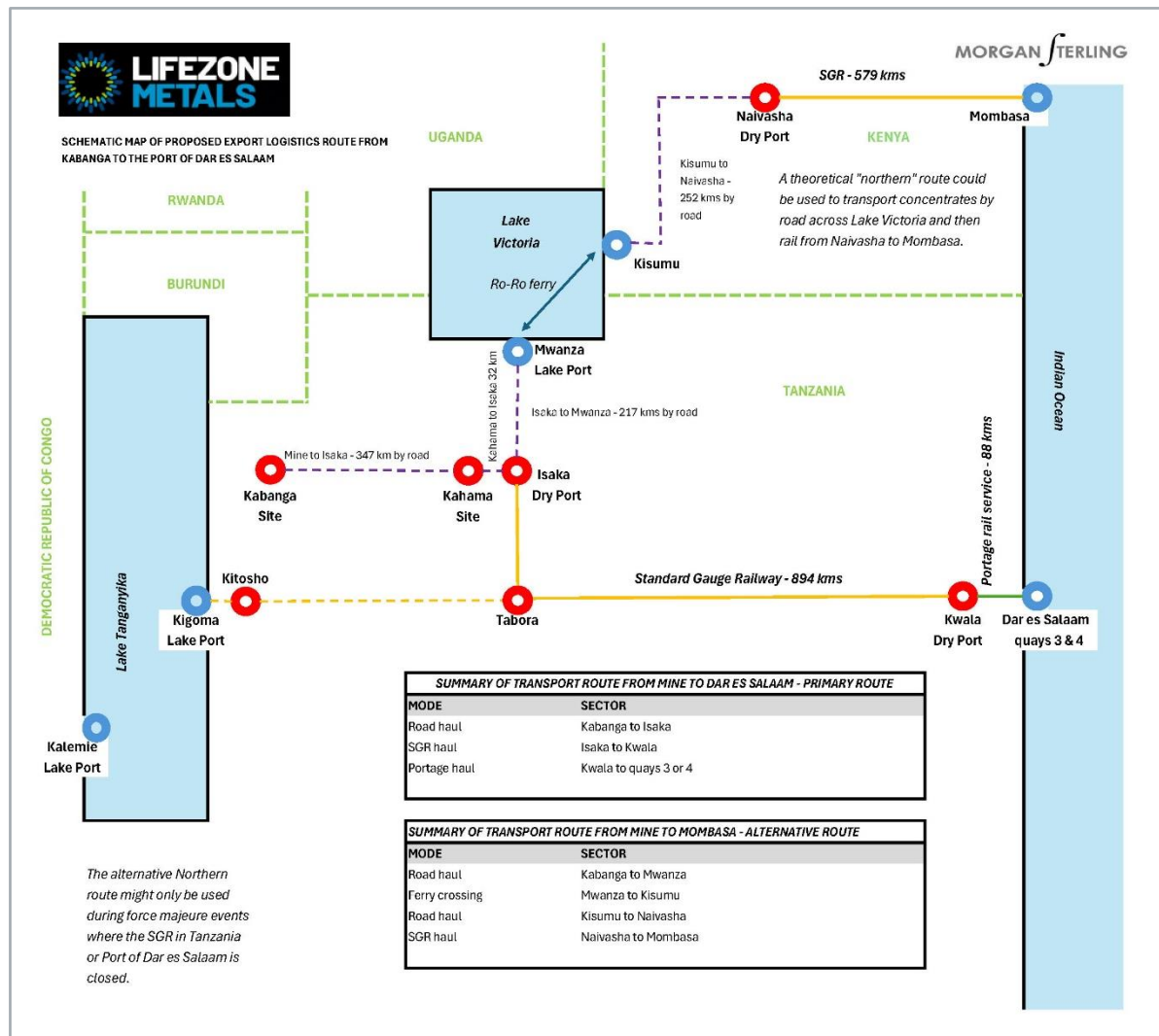


Figure 1-11: Concentrator Logistics Tube Map

1.10 Market Studies

The following market information on nickel, copper, and cobalt supply and demand is summarized from information provided by CRU International Ltd (CRU), a leading independent data intelligence company focusing on the mining, metals and fertilizers industry. CRU data and forecasts were prepared in May 2025.

The long-term nickel, copper, and cobalt metal price assumptions used in the FS are based on May 2025 consensus industry pricing forecasts and compared to those used in other published studies and forecasts by independent research organizations.

A nickel-rich sulfide concentrate containing payable levels of copper and cobalt and levels of impurities below penalty limits is planned to be produced at the Kabanga Site. Concentrate will be sold to the export market at the commencement of operations. Potential concentrate customers have been engaged, and indicative, non-binding concentrate payment and delivery terms for 100% of the concentrate during this period have been provided to support the FS. This concentrate will be trucked, railed, and shipped to international customers.

Markets for nickel, copper, and cobalt are well established and demand for these metals is expected to continue to grow in the long term given the global trend of decarbonization and electrification. All three metals are key components in batteries, consumer electronics, energy storage and renewable energy capacity, and the long-term outlook for these sectors remains robust.

In the short to medium term, nickel and cobalt demand is robust, driven by strong growth in global electrification, battery manufacturing for electric vehicles and stainless-steel sectors, especially in Asia. The long-term supply-demand dynamics indicate a favorable market for nickel and cobalt, aligning well with Kabanga's production timeline. In the long term, there is a forecast supply gap which is expected to put upwards pressure on nickel and cobalt pricing. Copper demand remains strong with the green energy transition providing most of the demand support over the medium and long term.

1.10.1 Nickel

Nickel demand spans several categories of product, including stainless steel, batteries, plating, alloy and steel castings, non-ferrous alloys, and other products. Demand is forecast to be approximately 4.5 Mtpa by 2029, coinciding with Kabanga's anticipated production start. This timing aligns with a projected decline in supply, eventually falling slightly below consumption levels.

Current global supply is predominantly concentrated in Indonesia and China, which together account for approximately 75% of total supply. Total nickel demand is primarily driven by the stainless-steel sector which remains the largest end-use of nickel, and increasingly by the battery sector for electric vehicles (EVs), which is projected to grow at the fastest rate among major demand categories. The majority of nickel consumption occurs in Asia, particularly China, with comparatively lower demand in Europe and the Americas.

Nickel demand is expected to remain strong over the short, medium, and long term due to increasing demand for EVs, Energy Storage Systems (ESS), and other portable power and motive batteries, alongside steady growth in stainless steel consumption. Nickel demand for battery applications is forecast to double over the next five years and nearly triple by 2035. In the short to medium term, there is a forecast nickel market surplus, but a supply gap is expected to form in the early 2030s.

Based on CRU's assessment, key longer-term drivers to the nickel price include:

- **Advancements in Battery Technology:** The increased adoption of manganese-rich cathodes and lithium iron phosphate (LFP) batteries, particularly outside China, could reduce demand for nickel from the battery sector, exerting downward pressure on nickel prices.
- **Onshoring of Critical Mineral Supply Chains:** Environmental and country-of-origin regulations, such as the Foreign Entity of Concern sourcing obligations in the U.S. Inflation Reduction Act, are driving a preference for low carbon emissions and/or secure nickel supply chains, with incentives offered for domestic or trusted sources, aiming to reduce reliance on sources from jurisdictions with less stringent environmental and labor standards.
- **Increasing Marginal Costs in Indonesia:** The cost of producing nickel in Indonesia may rise due to factors like declining ore grades, higher energy costs, higher acid costs, increased feed ore prices, higher royalty costs, and more expensive tailings storage.
- **Expansion of Low-Cost Production Capacity:** Continued growth in Indonesian ferronickel, nickel pig iron (NPI), and high-pressure acid leaching (HPAL) capacity has reduced the need for other new nickel projects, subsequently lowering the price required to economically incentivize new nickel output.
- **Increased Recycling:** Demand for primary nickel may be lower than forecast due to faster-than-anticipated recycling of nickel from batteries, driven by shorter battery lifespans and improved collection and recoveries. Additionally, China may accelerate its use of scrap in stainless steel production.

1.10.2 Cobalt

Cobalt demand is propelled by EVs and renewable energy. Similarly to nickel, the pricing and demand outlook for cobalt has changed as LFP cathode materials for use in battery EVs and energy storage applications have seen a strong momentum shift over the last year. The growth in the EV market is still expected to drive long-term cobalt demand, despite a substantial decline in cobalt intensity within EV batteries due to the increased adoption of cobalt-free LFP and nickel-rich, cobalt-lean nickel-manganese-cobalt (NMC) cathodes.

Supply of cobalt is primarily a by-product of nickel and/or copper production, making its price typically more volatile than either primary metal. Supply is concentrated in the Democratic Republic of the

Congo (DRC), raising supply chain security, ethical sourcing environmental, social and governance (ESG) concerns, especially with the European Union's (EU) Critical Raw Materials Act. Long-term cobalt demand is expected to outstrip supply.

Recent oversupply has been driven by historically high copper prices boosting production in the DRC from copper-cobalt ores and increasing supply from Indonesian nickel-cobalt HPAL production. Despite this putting downward pressure on prices, the longer-term outlook for cobalt remains positive. Demand forecasts are strong, and it is expected to outstrip supply in the medium to long term.

Notably, the DRC imposed a shock export ban in February 2025, aimed to provide sustained price support, boost artisanal and small-scale mining output and incentivize further processing in-country. Speculation and a paucity of spot volumes have so far fueled a short-term price rally across the market, but the timing and manner of the ban's resolution will determine whether these controls will be deemed a success. Export quotas will be necessary to rebalance the market. The key risk to the short- to medium-term cobalt price is the resolution of the export ban in the DRC.

Based on CRU's assessment, key longer-term drivers to the cobalt price include:

- **Concentration of Production:** Cobalt production is limited to a few countries, with the DRC accounting for a significant portion of global output. Even as Indonesian production rises, the DRC will be the main source of global cobalt throughout the 2020s and 2030s. This concentration increases supply risk and reduces supply chain resilience. The realization of this risk has been seen in 2025, as the DRC has banned cobalt exports for a period of four months due to low market prices. However, major producers such as CMOC Group Limited or Glencore are unlikely to curtail cobalt production, assuming the ban will last only four months. This could create storage challenges for those accumulating several months' worth of hydroxide production on site. Regardless, any curtailments are unlikely to amount to more than 20 kt of contained cobalt, much lower than the expected 2025 cobalt surplus.
- **ESG Concerns:** ESG issues in cobalt mining may have an impact on the supply chain, especially with the EU's Critical Raw Materials Act coming into effect this year. Regulatory changes in the European Union will require companies to address ESG issues or risk losing access to financing in the EU.
- **Rapid Changes in Battery Chemistry:** The pace of change in battery chemistry is swift, with higher cobalt prices and supply chain uncertainties driving a shift towards lower or no-cobalt battery types in some markets.

1.10.3 Copper

Copper is a primary driver for EVs, energy storage, and renewable energy sectors, reflecting demand growth across transport and utility industries. Strong demand is expected as industries continue with electrification, decarbonization, and energy transition, particularly in the EV and renewable energy sectors.

On the supply side, copper-producing regions like Chile and Peru face regulatory changes, environmental concerns, aging mines, and declining ore grades, all which challenge output. This is compounded by insufficient new project tonnage coming online to replace exhausted assets and meet additional demand.

Copper demand remains strong with the green energy transition providing most of the demand support over the medium- and long-term. This demand growth will require USD 130 billion of investments to adequately meet demand. Projects have slowed in the development process and ore grades are expected to continue to decline. With over 60 uncommitted projects required to meet long-term copper demand CRU expects approximately 7.9 Mtpa copper supply gap to emerge by 2035.

Based on CRU's assessment, key longer-term drivers to the copper price include:

- **Economic Activity:** Copper demand is closely tied to global economic activity, often considered a bellwether for the global economy.
- **Geopolitical Factors:** Trade wars, sanctions, and political instability in major copper-producing nations significantly impact copper prices.
- **Energy Transition:** Over and above economic activity, copper will be more intensively used through the green energy transition, leading to an intensity step-change as much more of the global economy electrifies items that once were powered by fossil fuels.

1.10.4 Concentrate Specification, Smelter Capacity and Pricing

The Project has received indicative, non-binding offtake terms for 100% of the concentrate with potential customers providing payment and delivery terms. This concentrate will be trucked, railed, and shipped to international customers. The market for nickel concentrate is well established, and demand for Kabanga's high-grade product is strong, particularly due to its high grade and low impurities.

CRU undertook a review of potential key nickel sulfide smelters, their capacities, and idle capacity available for third party concentrate purchases. Idled smelters have been excluded. The review demonstrated sufficient capacity and appetite for third-party concentrates. It is likely that the superior specifications of the Kabanga concentrate would result in it being prioritized over lower grade third-party concentrates. This smelter capacity and associated demand assessment is supported by the terms provided by potential customers for over 100% of the concentrate production.

The nickel, copper, and cobalt metal price assumptions used in the FS are based on May 2025 consensus industry pricing forecasts and compared to those used in other published studies and forecasts by independent research organizations. The specific assumptions are shown in Table 1-9, in real terms.

Table 1-9: Kabanga Long-term Metal Price Assumptions (in Real Terms)

Metal	Long-term Price (USD/lb) (Real Terms)
Nickel	8.49
Copper	4.30
Cobalt	18.31

The Kabanga concentrate product has a high nickel grade, contains payable levels of copper and cobalt, and levels of impurities below penalty limits. Deleterious elements such as arsenic, antimony, lead, and zinc, which can potentially attract penalties in nickel concentrates, have been determined through both historical and current testwork to not reach threshold limits.

Metallurgical algorithms have been developed from testwork to model concentrate grades based on the mine production schedule. The algorithms consider the different feed types, feed grades, and feed blends to determine annualized recoveries and concentrate grades for the payable metals, specifically nickel, copper, and cobalt. The recoveries and concentrate grades of sulfur, iron, and magnesium/magnesia have also been modeled based on recovery algorithms derived from the testwork and the concentrate mass recovery. Minor element grades are based on comprehensive assays of flotation testwork concentrate samples.

The LoM concentrate grade is 17.5% nickel, 2.6% copper, and 1.3% cobalt. Over the same period, the concentrate has a calculated sulfur grade of 32%, iron grade of 39%, and a low magnesium oxide grade of 0.6%. The typical Kabanga concentrate specifications are presented in Table 1-10.

Table 1-10: Kabanga Concentrate Typical Specification

Element	Unit	Typical	Minimum	Maximum
Ni	%	17.5	16	18
Co	%	1.3	1.0	1.5
Cu	%	2.6	2.0	3.0
Fe	%	39	37	40
S	%	32	31	33
Pt	ppm	0.25	0.05	0.45
Pd	ppm	0.35	0.2	0.5
MgO	%	0.6	0.5	1.1
SiO ₂	%	7	5	9
Al	%	0.7		< 1
Ca	%	0.2		< 0.5
Mn	%	0.03		< 0.05
Cr	%	0.1		< 0.2
As	ppm	50	< 50	100
Bi	ppm	5		< 10
Sb	ppm	5		< 10
Pb	ppm	200		< 500
Zn	ppm	150		< 200
Cd	ppm	10		< 20
Cl + F	ppm	< 200		< 500
Au	ppm	0.5		
Ag	ppm	7		
Fe/MgO	#	46	36	75
Moisture	% w/w	9.0	> DEM	< TML

Notes : DEM: Dust Extinction Moisture; TML: Transportable Moisture Limit.

The FS uses a concentrate metal payability for nickel, copper, and cobalt based on Cost, Insurance and Freight (Incoterms® 2020) (CIF) delivery terms to the destination port as per the indicative terms provided by potential customers.

1.11 Environmental, Permitting and Social License

The Project is committed to responsible mining practices that protect environmental resources, promote social welfare and engagement, and ensure transparent and accountable governance.

The Project aligns with key international standards, including International Finance Corporation (IFC) Performance Standards (PS), the Equator Principles, and the GISTM. Regulatory approvals are required for the development of the Project and operation of the facilities. These include the Environmental and Social Impact Assessments (ESIAs) and permits for the Kabanga Site and the Kabanga Resettlement Sites.

International standard ESIAs were completed for the Kabanga Site and the Kabanga Resettlement Sites, securing approval certificates from the National Environment Management Council (NEMC).

The key environmental and social licenses and permits submitted for the Project are discussed below:

1.11.1 Kabanga Site

- Environmental Impact Assessment (EIA) Certificate (EC/EIS/824) – granted June 16, 2021
- Ruvubu River Water Use Permit (95100766) – granted September 19, 2024
- Resettlement of host sites: EIA Certificate (EC/EIA/2023/6288) – granted September 3, 2024

1.11.2 Land Access and Resettlement

In order to develop the Kabanga Mine and Concentrator, the Project requires a footprint of 4,073 ha from which 353 households will be physically displaced, while 967 households will be economically displaced (land used for agriculture only).

A Resettlement Action Plan (RAP) has been developed to restart the process of adequately managing the physical and economic resettlement of the Project Affected Persons (PAPs) during the project land acquisition process in a sustainable manner. The RAP addresses the socio-economic impact on the Project Affected Households (PAHs) and is informed by the Kabanga Relocation Host Site ESIA, which focuses on the seven host sites to where PDHs will be relocated. The resettlement process is aligned with both national and international standards. Approximately 96% of cash compensation agreements have been signed since November 2023 and the PAHs have indicated their willingness to be resettled, allowing the Project to commence with building of houses and relocation.

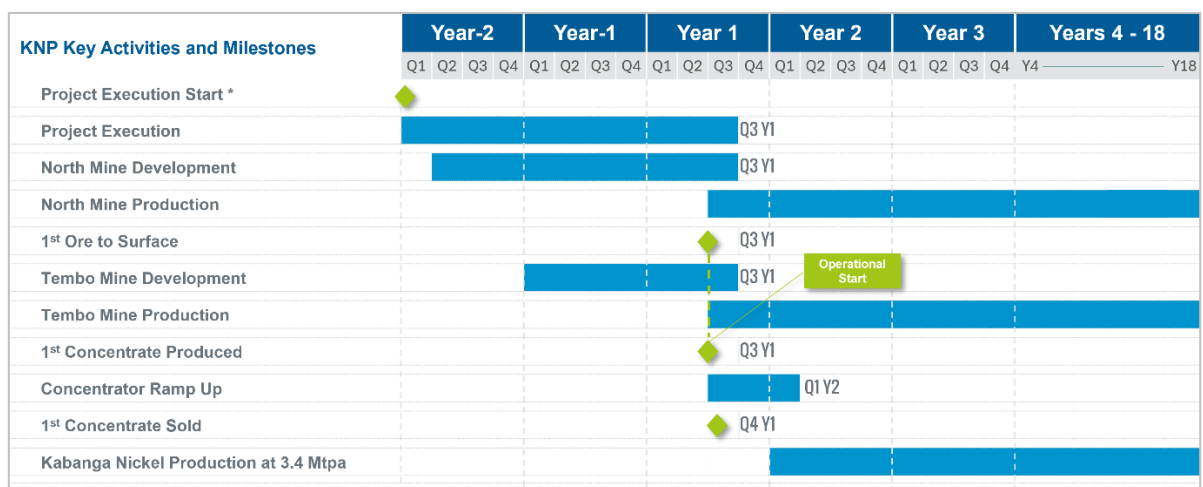
1.11.3 Mine and Facility Closure

The mine closure strategy has been developed to align with Tanzanian legislation and global standards, such as the IFC, International Council on Mining and Metals (ICMM), and GISTM standards, focusing on responsible environmental rehabilitation, financial assurance, stakeholder engagement, and the development of an eco-enterprise legacy, while ensuring regular plan updates, regulatory compliance, and sustainable tailings management for long-term community and environmental protection.

1.12 Capital and Operating Costs

1.12.1 Project Schedule

The Project is envisaged to be constructed over a 32-month duration from Project commencement to first concentrate production. The pre-production Capex budget will be spent over this period. Figure 1-12 shows the pre-production period up to first concentrate, followed by the operations commencing until LoM completion in Year 18.



Note: *The Project commencement is contingent on FID and completion of permitting, financing, and execution readiness.

Figure 1-12: Project Execution Schedule

1.12.2 Capital Costs

Pre-production capital scope includes the design, construction and commissioning on an Engineering, Procurement and Construction Management (EPCM) basis of the Kabanga Mine and Concentrator and the associated on-site and off-site infrastructure such as the TSF, accommodation camps, access road upgrades, and electrical grid connection. Funding of the relocation and livelihood restoration plans has also been included in this construction phase. An Association for the Advancement of Cost Engineering (AACE) 47R-11 Class 3 Cost Estimate with an accuracy range of $\pm 15\%$ has been delivered, meeting the requirements of an FS under S-K 1300 guidelines.

The sustaining capital cost estimate (Sustaining Capex) includes capitalized maintenance, fleet replacement, ventilation and cooling, and TSF wall raises.

Growth capital expenditures for the Project include provisions for exploration and geophysical programs to delineate additional resources and support future expansion, as well as provisions for studying future project beneficiation phases.

All closure and rehabilitation related costs are presented as Closure Capex.

The capital cost estimate (exclusive of escalation) presents capital expenditure (Capex) in United States dollars (USD), base dated Q1 2025. Table 1-11 provides a summary of the Project's capital cost estimate, including Pre-Production, Sustaining, Growth, and Closure Capex, excluding contingency, categorized by major Project area in accordance with the Work Breakdown Structure.

Table 1-11: Project Capital Cost Estimate Summary (excluding contingency)

Capex Areas	Pre-Production	Sustaining	Growth	Closure
	USD Million			
2000 – Mining	211.79	1,115.86	18.82	-
3000 – Concentrator	243.3	42.29	-	-
5000 – Future Project Beneficiation Phase	-		22.8	-
6000 – Infrastructure, Utilities and Ancillaries	227.95	97.85	-	-
7000 – Site Cost	4.68			
8000 – Owners Cost, Administration and Overheads	87.41	14.47	-	63.11
10000 – Land Access and Resettlement	83.90	6.17	-	-
Total Capex (excluding contingency)	859.04	1,276.64	41.62	63.11

A summary of the Pre-Production Capex is presented in Table 1-12.

Table 1-12: Pre-Production Capex Summary

Pre-Production Capex Areas	Proportion of Total Pre-Production Capex	Total Cost
	%	USD Million
Direct Cost	79.51	683.05
Mining	24.65	211.79
Mining Surface Infrastructure	3.59	30.80
Underground Mining	21.07	181.00
Concentrator and Infrastructure	46.75	401.57
Concentrator	28.32	243.30
Infrastructure	16.27	139.79
TSF	2.15	18.48
External Infrastructure	8.11	69.69
220 kV Overhead Line	5.57	47.89
Concentrate Logistics Infrastructure	2.54	21.80
Indirect Cost	20.49	175.99
Construction Facilities and Services	0.54	4.68
EPCM	8.66	74.35
Owners Cost	1.52	13.06
Land Access and Resettlement	9.77	83.90
Total Pre-Production Capex	100.00	859.04
Contingency (as a percentage of Pre-Production Capex)	9.70	83.43
Pre-Production Capex and Contingency		942.47

1.12.3 Operating Costs

The AACE 47R-11 Class 3 estimate has been developed, with an accuracy range of $\pm 15\%$, in line with the expectations requirements of an FS under S-K 1300 guidelines.

The operating cost estimates (Opex) for the Concentrator and infrastructure were developed using a zero-based approach, incorporating comprehensive testwork, engineering inputs, and consultations with industry experts. The estimates incorporate labor, power, water, reagents and consumables, maintenance, materials handling, laboratory and concentrate transport, and are divided into fixed and variable costs. The mining costs were developed by applying the mining physicals and pricing from a well-advanced contract mining tender process.

The operating cost estimate (exclusive of escalation) presents Opex in USD, base dated Q1 2025. Table 1-13 provides a summary of the Project's operating cost estimate.

Table 1-13: Operating Cost Estimate Summary

Area	LoM Cost (USD Million)	LoM Opex Summary (USD/t Milled)
Mining	2,725.05	52.18
Processing ¹	634.46	12.15
Owners Cost	280.86	5.38
Mining Licence Fee ²	20.39	0.39
Total Site Opex	3,660.76	70.10
Concentrate Transport and Insurance	860.32	16.47
Total Opex	4,521.08	86.57

Notes:

1. The processing costs reflect the combined concentrator (A3000) and infrastructure (A6000) costs (USD 12.07/t) in combination with provision for pre-production costs (USD 0.07/t).
2. The "mining licence fee" is an annual rent due to the GoT based on the SML area. It was excluded from the Project Opex estimate and has been accounted for directly in the Economic Model.

1.13 Economic Analysis

The Project economic results and Project cash flows, based on the Mineral Reserves as per the mine plan, are shown in Table 1-14 and Figure 1-13.

Key assumptions and results of the economic analysis are summarized in Section 19.

Table 1-14: Key Project Metrics

Description	Units	Value
Discount Rate	%	8
Net Present Value (NPV _{8%})	USD million	1,579
Internal Rate of Return (IRR)	%	23.3
Capital Efficiency (Pre-Production and Capitalized Opex)	-	1.4
Total Capital (Pre-Production incl. contingency, Capitalized Opex, Growth, Sustaining and Closure,)	USD million	2,491
Pre-Production Capital	USD million	942
Capitalized Opex	USD million	168
Sustaining Capital	USD million	1,277
Peak Funding	USD million	1,049
Total AISC (net of by-product credits)	USD/lb Payable Ni	3.36
Site Operating Costs	USD/t Milled	70
Project Life	Years	20
Payback Period (from first production)	Years	4.5
Payback Period (from first investment)	Years	7.1

Notes: AISC - all-in sustaining cost.

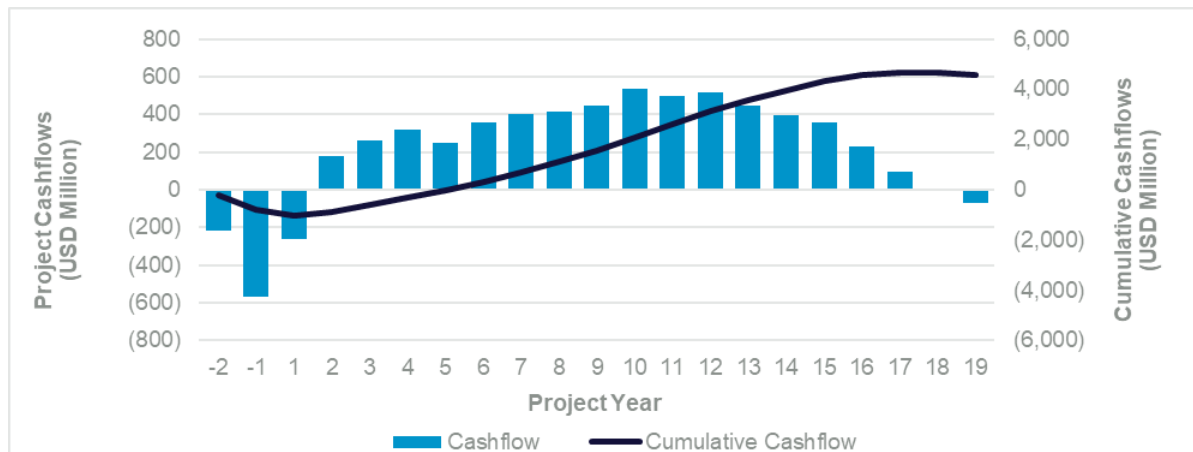


Figure 1-13: Project Cash Flows

With Kabanga's supplied costs with CRU by-product revenue assumptions, its AISC sits within the first quartile of the cost curve. This cost assessment is based on the Kabanga Mine and Concentrator only, selling concentrates to third parties as presented in Figure 1-14.

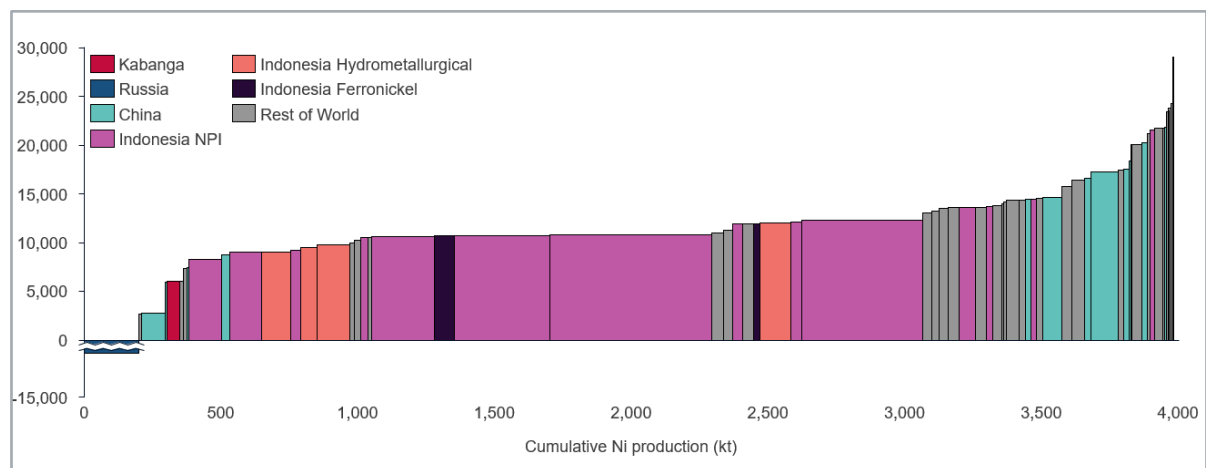


Figure 1-14: Nickel All-in Sustaining Costs for 2025 - USD/t Payable Nickel (2024 Real terms)

1.14 Interpretation and Conclusions

1.14.1 Geology and Mineral Resources

The Mineral Resource estimate in this FS TRS is based on resource modeling completed and published in December 2024. The QP has prepared the modeling and reviewed supplied data and considers the Mineral Resource estimate to be acceptable.

Mineral Resource estimates in the FS TRS are reported in accordance with U.S. Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (S-K 1300) and have been restated exclusive of Mineral Reserve.

The Mineral Resource estimates were shown to meet reasonable prospects for economic extraction through an IA analysis prepared by DRA in June 2025.

1.14.2 Mineral Reserves

The Mineral Reserve estimation for the Project is reported using the definition in Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations in Regulations S-K 1300 and conforms to industry-accepted practices. The QP is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors not discussed in this FS TRS that could materially affect the Mineral Reserve estimate.

1.14.3 Economic Analysis

Based on the assumptions and parameters presented in the FS TRS, the Project has a mine plan that is technically feasible and economically viable. The positive financials of the Project (USD 1,579 million after-tax NPV_{8%} and 23.3% after-tax IRR) support the Mineral Reserve.

1.14.4 Risks

- Tanzania is a constitutional multi-party democracy with political dominance by the governing CCM (Chama Cha Mapinduzi) party. National elections are upcoming in October 2025 and the regulatory environment is expected to remain stable. Tanzania has low unemployment and a fast-growing economy supported by ongoing infrastructure development.
- Recent negotiated settlements and policy clarifications have improved investor sentiment; however, risks around regulatory predictability and resource nationalism remain.
- A Framework Agreement signed between the GoT and Kabanga Nickel Limited (KNL) in 2021, followed by an SML for the development and operation of the Project, will require amendment to include concentrate export.
- The initial phase for the Project requires an export permit for concentrate. Tanzania prioritizes in-country beneficiation and the Project will continue to develop a plan for a downstream beneficiation facility.
- An equitable EBSF is outlined in the Framework Agreement and describes the requirement for a JFM to guide the management and operations and how and when the GoT will derive income from taxes, royalties, duties, levies, and dividends from its 16% interest in the Project. The JFM currently exists in draft between KNL and the GoT, and LKM will continue to engage with the GoT to ensure that this is finalized and signed by the parties, giving investors certainty on the quantum of taxes, royalties, duties, etc. Finalization of the JFM is a condition precedent for the Project Final Investment Decision (FID) and therefore any delays could impact on the overall Project execution timeline.
- The Project should expedite the finalization of the Implementation Agreement with TANESCO relating to the development of the 88 km, 220 kV overhead line (OHL) to the Kabanga Site. This would include progressing with permitting and planning to ensure timely completion. In addition, since the Project has committed to the implementation of IFC Performance Standards and Equator Principles, the existing TANESCO ESIA and future RAP required for construction need to be reviewed and uplifted.
- Underground development and production ramp-up rates may not be achieved as planned, which could impact early revenue generation and overall project schedule. While planned rates have been benchmarked against other underground operations in Africa, actual performance may vary due to factors such as contractor productivity, ground conditions, equipment availability, workforce readiness, and logistical constraints. These uncertainties may result in slower-than-anticipated development or stope access delays during early years of production.
- For the Project to proceed, the resettlement of PAPs will need to be completed to provide access to the Project construction areas. A RAP aligned with both national and international standards has been developed to address the socio-economic impact on the PAHs. 96% of cash compensation has been completed. to be followed by the building of houses and relocation of PAHs. Any delays in resettlement could impact land access for the Project development.
- Based on the dam breach analysis, the TSF has been classified as an 'Extreme' consequence dam under GISTM and rated 'Very High "A"' under Tanzanian guidelines, due to potential environmental and safety impacts. The TSF will be designed and operated in line with GISTM guidelines including independent third-party oversight.
- The availability of skilled labor presents a moderate risk to early project execution and operations. Limited education levels in local communities will necessitate training investment to build local capacity, while shortages in specialist skills may require increased reliance on expatriate personnel, subject to Labour Commissioner work permit approvals.

1.15 Recommendations

The QPs recommend advancing the Project as described in this FS TRS, by advancing activities relating to the critical path and workstreams enabling the FID. Furthermore, it is recommended to continue with GoT engagement, especially in relation to the Framework Agreement, concentrate export permit and the 220 kV OHL. The work plan for the following recommendations is estimated to cost USD 17.6 million.

1.15.1 Permitting and Licenses

- Amend the Framework Agreement to incorporate the provision to export concentrate.
- Obtain a concentrate export permit from the Tanzania Mining Commission.
- Advance the application for TSF construction permit.

1.15.2 Mining

Complete a competitive tender process for contract mining to support the FID, including commercial, technical, and contractual evaluations to select a preferred mining contractor to establish execution certainty and final pricing.

1.15.3 Infrastructure

- Continue engagement with TANESCO to finalize the implementation agreement, power supply agreement (including the rebate calculation), and early works streams including ESAs, RAP, and permitting for the 220 kV OHL.
- Conduct additional geotechnical investigations to support detailed design of the North boxcut, WRDs, and concentrator heavy structures.
- Complete a competitive tender process for earthworks contractor prior to FID, including commercial, technical, and contractual evaluations to select a preferred contractor to establish execution certainty for the critical path facilities.
- Continue engagement with the Tanzanian National Roads Agency (TANROADS) regarding upgrades to the southern access road.

1.15.4 Tailings Storage Facility

- Appoint an internationally recognized TSF design engineer consultant for detailed design and execution as early as possible.
- Advance the TSF detailed design with continued adherence to national and international guidelines including the Tanzanian Dam Safety Guidelines requirements and the GISTM standards, with ongoing reviews of the TSF design by an ITRB, a Tanzanian Ministry of Water APP, and other subject matter experts.
- Finalize Emergency Response and Preparedness Plans for the TSF to support permit application for construction of the TSF.

1.15.5 Logistics

- Continue engagement with the Tanzania Railways Corporation (TRC) regarding the completion of the SGR line between Tabora and Isaka and to secure the required rolling stock, capacity on the line and access to the sidings to facilitate the stockpiling and management of concentrate en-route to the Port of Dar es Salaam.
- Further engagement with the Tanzania Ports Authority (TPA) and DP World relating to concentrate management and export logistics.
- Commission a dynamic simulation to evaluate Project operational logistics.

1.15.6 Environmental and Social Studies, Resettlement and Closure

- Finalize the remaining ESIA's to IFC standards and action recommendations.
- Secure Resettlement Sites and complete compensation agreements and payments.
- Prioritize effective and internationally compliant resettlement and livelihood restoration.
- Complete a RAP for the Ruvubu Water Pipeline to be undertaken to an international standards compliant level and submit it to the NEMC to obtain the relevant approvals and permits.
- Commence hardship and in-migration studies, vulnerability survey and project health impact assessments.
- Update the Conceptual Closure Plan that has been compiled as part of the Kabanga ESIA (May 2025), into a Preliminary Mine Closure Plan (PMCP), prior to construction.

1.15.7 Economic Analysis

- Negotiate and finalize the JFM, including taxes, royalties, duties, levies, dividends, and terms of the financing of the GoT's 16% free carry, as outlined in the Framework Agreement.
- Finalize concentrate offtake agreements.

1.15.8 Human Resources

- Engage proactively with the Department of Labour to ensure compliance with the Non-Citizens (Employment Regulation) Act, 2015 and Mining (Local Content) Regulations, 2018.
- Finalize and expand national and local skills surveys to inform recruitment, training, and localization strategies.

1.15.9 Execution Readiness

- Initiate key project setup activities, including advancing contracting and procurement processes, obtaining quotations for long-lead items, completing the EPCM tender process, and appointing quantity surveyors.
- Engage with the Mining Commission on the strategy for procurement packages not available in Tanzania.

2 INTRODUCTION

The Kabanga Nickel Project (the Project) encompasses the development of an underground Mine, the construction of a Concentrator, tailings storage facility (TSF), and required surface infrastructure at the Kabanga Site located in northwest Tanzania.

This Feasibility Study (FS) Technical Report Summary (TRS) has been prepared by various consultants, namely DRA Projects (Pty) Ltd (DRA), OreWin Pty Ltd (OreWin), WSP (SA, AUS and NZ), and personnel employed by Lifezone Metals Limited (LZM) and its associated entities.

LZM has advised that the book value of the property and its associated plant and equipment at the Kabanga Nickel Limited (KNL) (formerly LZ Nickel Ltd) group level as of May 2025 is USD 132.2 million.

The FS TRS was prepared with reference to the requirements of the United States Securities and Exchange Commission (US SEC) Regulation S-K 1300. The purpose of the FS is to declare Mineral Reserves and to provide an independently validated assessment of the Project's technical and economic viability.

2.1 Background

DRA and Sharron Sylvester have been requested by LZM to prepare an S-K 1300 TRS on the FS of the Kabanga Nickel Project, located in the Ngara District of Northwest Tanzania. The majority owner of the Project, KNL, of which LZM holds a 100% ownership interest, is the primary source of the information presented in this TRS. LZM is a public company listed on the New York Stock Exchange (NYSE).

2.2 Registrant for Whom the Technical Report Summary was Prepared

This report was prepared as an FS-level Technical Report Summary in accordance with the SEC S-K 1300 regulations (Title 17, Part 229, Items 601 and 1300 through 1305) for LZM.

2.3 Terms of Reference and Purpose of the Report

The key objective of this FS TRS is to provide an independent comprehensive and technically detailed assessment of the Project, demonstrating that the Project can be developed and operated in a technically feasible and economically viable manner; and to provide a basis for detailed design and construction. This FS TRS supports the declaration of Mineral Reserves in accordance with the requirements of S-K 1300 and is based on detailed engineering, cost estimation, and supporting studies, including mining, processing, environmental, and economic analyses.

The quality of information, conclusions, and estimates contained herein is based upon the following:

- Information available at the time of preparation; and
- The assumptions, conditions, and qualifications set forth in this report.

This FS TRS is intended for use by LZM subject to the terms and conditions of its contract with DRA and relevant securities legislation. The contract permits LZM to file this report as a TRS with US SEC securities regulatory authorities pursuant to the S-K regulations, more specifically Title 17, Subpart 229.600, item 601(b)(96) - Technical Report Summary and Title 17, Subpart 229.1300 - Disclosure by Registrants Engaged in Mining Operations.

This FS is a comprehensive study of the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method and an effective method of mineral processing are determined. It includes a financial analysis based on modifying factors and other reasonable assumptions which are sufficient for a QP, acting reasonably, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting. Modifying factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, logistics, economic, marketing, legal, environmental, social, and governmental factors.

2.4 Source of Information and Data

The FS TRS relies on historical information and recent data generated by the Project. The FS TRS uses information from previous public filings and studies related to the Project.

The Project has undergone several phases of exploration and assessment since the 1970s. The first drilling program was undertaken by the United Nations Development Programme between 1976 and 1979. Further exploration and various studies of the Project were subsequently undertaken, with the most recent historical studies prior to the current LZM work being a draft FS completed in 2014. An investigation into mine optimization was completed in 2019, and a Mineral Resource estimate was published by LZM in November 2023 and updated in December 2024.

Historical information prepared by previous owners and information from publicly available sources were utilized in this FS TRS. The information sources and references relied upon are discussed in the relevant sections.

Technical Report Summaries filed previously by LZM are described in Section 5.7.

This FS TRS uses information from historical geological investigations, as well as drillhole samples provided from recent drilling campaigns undertaken by the Project. The assessment, use, and verification of this data is described in Section 9.

Geophysical, geotechnical, and geohydrological investigations were undertaken by WSP (SA). The assessment and use of this data are described in Sections 13.3 and 15.1.

The design of the Concentrator plant is based on historical testwork data and data generated from the metallurgical testwork program undertaken within the scope of this FS, as described in Sections 10 and 14.

Information from an FS carried out by the Tanzania Electric Supply Company Limited (TANESCO) was relied upon with respect to the development of the 220 kV supply to the Kabanga Site as described in Section 15, although an updated capital cost estimate for this scope was provided by DRA.

2.5 Qualified Persons

The Qualified Persons (QP) for this FS TRS are DRA and Sharron Sylvester.

The QP / third-party firm responsibilities for each report section are detailed in Table 2-1. LZM has determined that the appointed consultants meet the qualifications specified under the definition of QP in 17 CFR § 229.1300.

2.5.1 QP – Sharron Sylvester

Sharron Sylvester, BSc (Geol), RPGeo AIG (10125), is employed as Technical Director – Geology, OreWin Pty Ltd, and was responsible for the preparation of the sections relating to geology and Mineral Resources as the QP (individual).

2.5.2 QP – DRA

DRA is a third-party firm comprising mining experts in their respective fields in accordance with 17 CFR § 229.1302(b)(1).

Table 2-1: Qualified Persons' Responsibility Breakdown per Report Section

No.	Section Title	QP or Third-Party Firm
1	Executive Summary (except 1.3, 0 and 1.14.1)	DRA
1.3	Geology	Sharron Sylvester
1.5	Mineral Resource Estimate	Sharron Sylvester
1.14.1	Interpretations and Conclusions – Geology and Mineral Resources	Sharron Sylvester
2	Introduction (except 2.5.1 and 2.6.1)	DRA
2.5.1	QP – Sharron Sylvester	Sharron Sylvester

No.	Section Title	QP or Third-Party Firm
2.6.1	Site Inspections – Sharron Sylvester	Sharron Sylvester
3	Property Description	DRA
4	Accessibility, Climate, Local Resources, Infrastructure, and Physiography	DRA
5	History	Sharron Sylvester
6	Geological Setting, Mineralization, and Deposit	Sharron Sylvester
7	Exploration	Sharron Sylvester
8	Sample Preparation, Analyses, and Security	Sharron Sylvester
9	Data Verification	Sharron Sylvester
10	Mineral Processing and Metallurgical Testing	DRA
11	Mineral Resource Estimate (except sections 11.4, 11.5, and 11.8.2)	Sharron Sylvester
11.4	Mineral Resource Cut-off Grade	DRA
11.5	Reasonable Prospects of Economic Extraction	DRA
11.8.2	QP Opinion - Other	DRA
12	Mineral Reserve Estimates	DRA
13	Mining Methods	DRA
14	Processing and Recovery Methods	DRA
15	Project Infrastructure	DRA
16	Market Studies	DRA
17	Environmental Studies, Permitting, and Plans, Negotiations, or Agreements with Local Individuals or Groups	DRA
18	Capital and Operating Costs	DRA
19	Economic Analysis	DRA
20	Adjacent Properties	DRA
21	Other Relevant Data and Information	DRA
22	Interpretation and Conclusions (except section 22.1)	DRA
22.1	Interpretation and Conclusions – Geology and Mineral Resources	Sharron Sylvester
23	Recommendations (except sections 23.2 and 23.12.1)	DRA
23.2	Recommendations – Geology and Mineral Resources	Sharron Sylvester
23.12.1	QP Opinion – Geology and Mineral Resources	Sharron Sylvester
24	References (except “Section 5-9,11: Geology and Mineral Resources”)	DRA
24.5-9,11	“Section 5-9,11: Geology and Mineral Resources”	Sharron Sylvester
25	Reliance on Information Provided by the Registrant	DRA / Sharron Sylvester

2.6 Details of Personal Inspection

Table 2-2 and Table 2-3 summarize the details of the personal inspections on the property by the QP and third-party firm, respectively.

2.6.1 Site Inspections – Sharron Sylvester

Table 2-2 summarizes the details of the personal inspections on the property by the QP Sharron Sylvester.

Table 2-2: QP Site Inspection Details – Sharron Sylvester

Expertise	QP	Date of Visit	Details of Site Inspection
Geology/Mineral Resource	Sharron Sylvester	October 27–30, 2023 March 21–30, 2023 October 20–21, 2022	The site visits included briefings from KNL exploration and corporate personnel, and site inspections of the drill rigs, proposed mine, and plant and infrastructure locations at the Project. Sharron Sylvester, OreWin Technical Director – Geology and QP, visited the SGS assay laboratories at Mwanza in Tanzania, had discussions with SGS management, and inspected the facilities. All aspects that could materially impact the integrity of the data informing the Mineral Resource estimates (core logging, sampling, analytical results, and database management) were reviewed with LZM staff. The QP met with KNL staff to ascertain exploration and production procedures and protocols. The QP observed the core from diamond drillholes and confirmed that the logging information accurately reflects the actual core. The lithology contacts checked by the QP matched the information reported in the core logs.

2.6.2 Site Inspections – DRA

Table 2-3 summarizes the details of the personal inspections on the property by the third-party firm DRA.

Table 2-3: QP Site Inspection Details – DRA

Expertise	QP	Date of Visit	Details of Site Inspection
Mining	DRA	May 5–8, 2025	The site visit included the following: - Discussions and viewing of bulk infrastructure which include power supply, water supply and both the southern and northern access roads. - Viewing of existing and proposed Project infrastructure facilities, which include camp sites, laydown areas, processing plant, TSF, boxcuts and waste dumps, road infrastructure, and waste handling. - Reviewed and discussed the permitting process and progress thereof. - Reviewed and discussed the resettlement program. Inspected two of the model houses. - Visited and inspected the SEZ at Kahama Site. - Inspected portions of the new SGR line between Isaka and Mwanza. - Engaged with Grindrod and inspected the M.V. Mpungu ferry operating on Lake Victoria at Mwanza.
Metallurgy testwork/ Mineral recovery/ infrastructure	DRA	October 8–9, 2023 and May 6–7, 2025; February 8–9, 2023; March 9–13, 2023	Kabanga inspections on available infrastructure
Logistics	DRA	May 8, 2025	Isaka Dryport inspection

2.7 Units and Currency

This FS TRS uses U.S. English spelling and metric units of measure. Any reference to tonnes, or when abbreviated as “t”, should always be deemed as metric tonnes.

Costs are presented in constant U.S. dollars, as of March 31, 2025.

2.8 Effective Dates

The effective date of this FS TRS is July 18, 2025, while the effective date of the Mineral Resource Estimate is December 4, 2024.

3 PROPERTY DESCRIPTION

3.1 Project Location

The Project is located in the Ngara District of the Kagera Region in the northwest of Tanzania, 44 km south of the town of Ngara, 5 km southeast of the nearest town of Bugarama, approximately 1,300 km northwest of the Port of Dar es Salaam, and adjacent to the Burundi border. The Project site (Kabanga Site) will comprise an underground Mine, Concentrator, TSF and surface infrastructure all of which will be within the Special Mining Licence (SML) issued to Tembo Nickel Corporation Limited (TNCL) in 2021 by the Government of Tanzania (GoT).

The location of the Project within Tanzania and in the broader African context is shown in Figure 3-1.

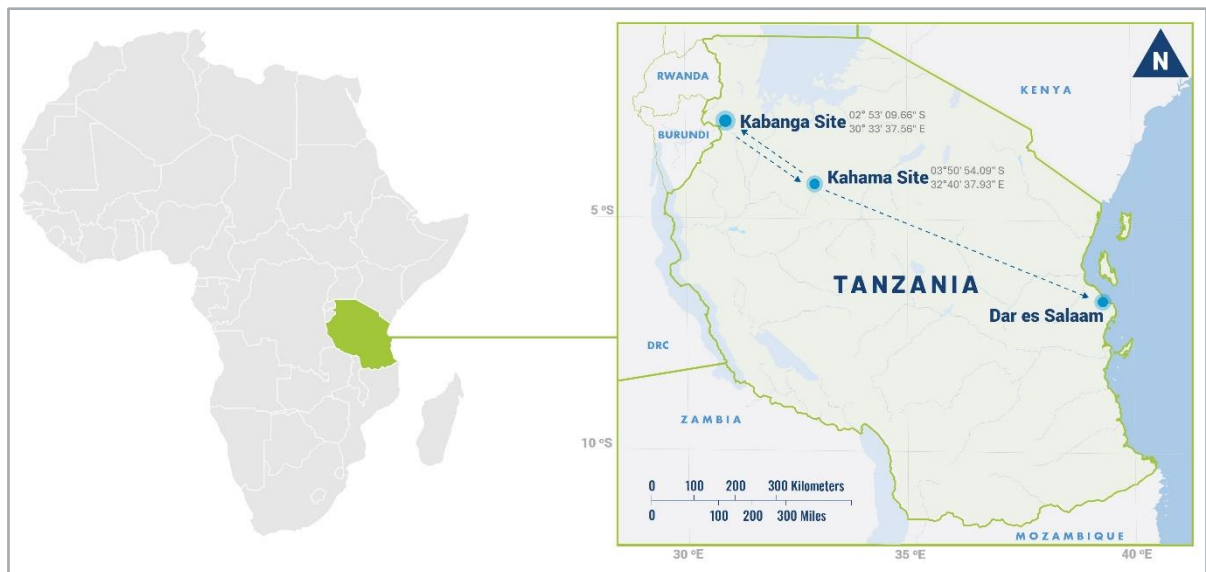


Figure 3-1: Kabanga Nickel Project Location in Tanzania

The Kabanga Site is established, with existing administration offices, workshops, store, drill core shed, clinic, kitchen and messing facilities, laundry, exploration and drilling camps, recreational facilities, powerhouse, other facilities and internal roads. Access to the Kabanga Site is via unpaved roads with two main access routes linking to paved highways. The southern access road, a 77 km unpaved public road, connects to the paved National Route B3 at Muzani. A northern access road connects the site to paved roads to the north, near the town of Ngara. Grid electricity (33 kV, 9 MVA) is currently supplied by TANESCO and is adequate for construction and early-stage mine development.

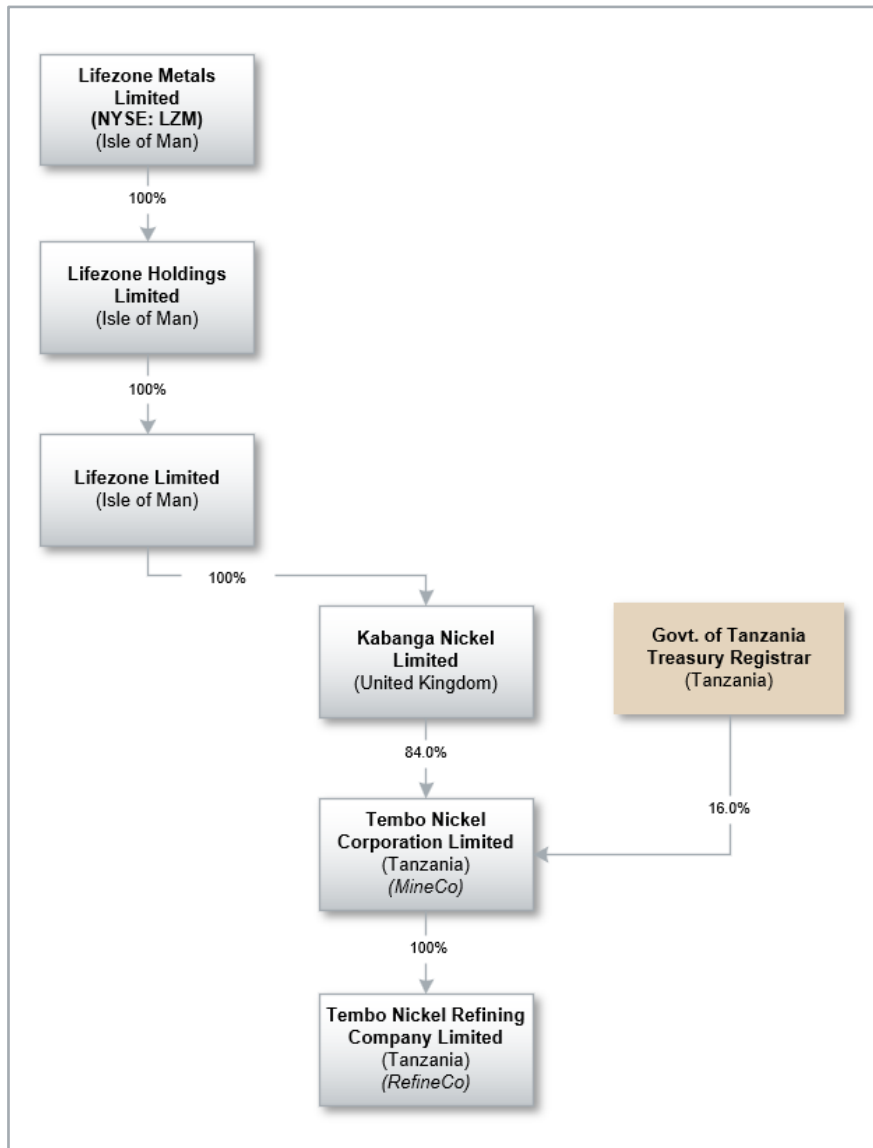
3.1.1 Co-ordinates System

All co-ordinates presented in this TRS are Universal Transverse Mercator (UTM) projection, unless otherwise specified. The Project is located within UTM zone 36 M as seen in Figure 3-1.

The Kabanga Site is situated at 2° 53' S latitude (227,636 mE) and 30° 33' E longitude (9,681,009 mN).

3.2 Ownership

The Project is owned by Tembo Nickel Corporation Limited (TNCL). TNCL is 84% owned by KNL and 16% by the GoT Treasury Registrar. KNL is 100% owned by LZM, through its 100% owned subsidiaries. The LZM-attributable ownership is thus 84%, after accounting for the GoT shareholding. The current Project ownership structure is presented in Figure 3-2.



Note: The RefineCo entity relates to a potential future project phase, not assessed in this FS.

Figure 3-2: Current Ownership Structure of the Kabanga Nickel Project

3.3 Framework Agreement Summary and Economic Benefits Sharing Principal

A Framework Agreement was signed on January 19, 2021, between the GoT and KNL (the Parties) for the development and operation of the Project, a mining, processing, and refining operation. TNCL will produce and sell offshore a high-grade nickel sulfide mineral concentrate, also containing copper and cobalt.

The Framework Agreement is focused on an equitable Economic Benefits Sharing Principal (EBSP) between KNL and the GoT outlined in Article 3 of that agreement. The key principles of the Framework Agreement, as they relate to the scope of the FS, are intended to underline and guide the development of the Project for the mutual benefit of the Parties. The key principles include:

- The application of EBSP over the life of the Project.
- Having a JFM to guide the management and operations of all Project entities.
- Jointly managing the resident project companies pursuant to the current shareholders' agreement.
- Agreeing on the fiscal assumptions underlying the EBSP.

The Parties agree to equitably share the economic benefits derived from the Project in accordance with the JFM. The EBSP underpins the philosophy of the Framework Agreement and will be defined in and governed by the JFM on a going-forward basis, which is currently in draft form between KNL and the GoT. The overarching principle of the EBSP is that over the life of the Project, KNL and the GoT equally share (50/50) income derived from the Project, on an undiscounted basis. The GoT's source of income is derived from taxes, royalties, duties, levies, and dividends from its 16% interest in the resident project companies. KNL's source of income is derived from its 84% interest in the resident project companies.

3.4 Special Mining Licence

Following the signing of the Framework Agreement, the GoT granted SML number 651/2021, on October 29, 2021, to TNCL for the Project, to conduct mining operations in the Ngara District, Kagera Region, QDS 29/3, 29W/4. The SML is currently in force as of the date of this FS TRS.

The SML confers to TNCL the exclusive right to search for, mine, dig, mill, process, refine, transport, use, and/or market nickel or other minerals found to occur in association with that mineral, vertically under the SML area, and execute such other works as necessary for that purpose. The SML shall remain valid for a period of the estimated Life of Mine (LoM) indicated in the FS or such period as the applicant may request, unless it is cancelled, suspended, or surrendered in accordance with the law. In accordance with the Mining (Mineral Rights) Regulations, the holder is required to pay an annual mining licence fee of USD 1,032 million, payable to the Commissioner for Minerals. Timely payment of the mining licence fee is required to maintain the SML in good standing. As of the effective date of this report, the license is valid and all mining license fee payments are current.

The SML requires TNCL to comply with Tanzania's mining laws. As part of this, all exploration and mineral data collected within the licence area remains the property of the GoT and must be submitted to the Geological Survey of Tanzania, in line with the Mining Act.

The SML includes several conditions. By accepting the licence, TNCL has committed to a strategic partnership with the GoT, which holds a minimum 16% free-carried, non-dilutable equity interest in the project company. This arrangement is governed by the terms of the Mining Act and its associated regulations, as currently in force or as may be amended during the life of the licence or its renewal.

The SML area is 201.85 km², and the SML and Project outline are shown in Figure 3-3.

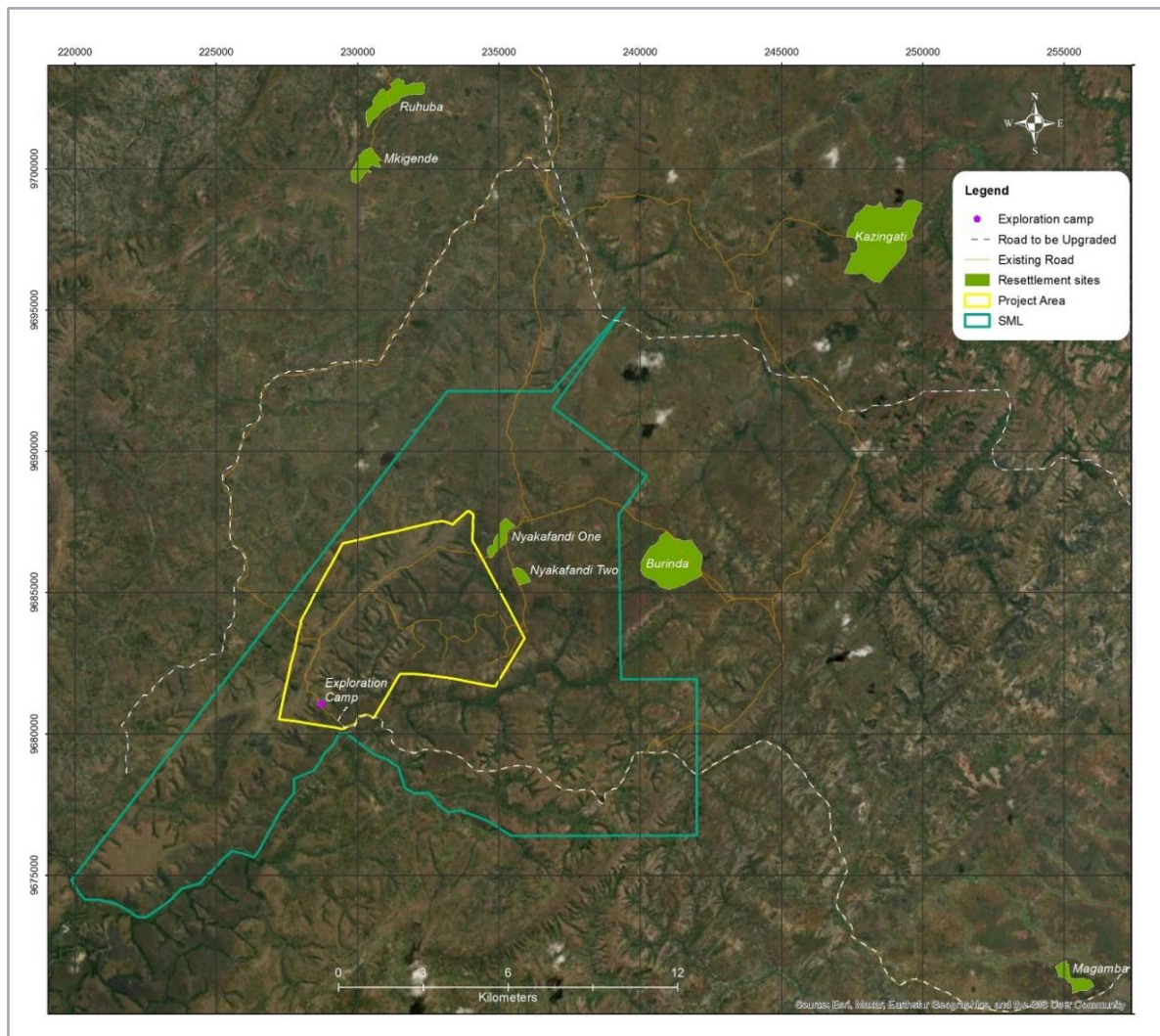


Figure 3-3: Location of the Proposed Mine Site showing SML 651/2021

With the phased development plan for the Project an export permit is required to be obtained for future concentrate production and export until a potential future beneficiation facility is commissioned and can meet the Project full production.

Under Section 100(C) of the Mining Act (Amendment) 2019, the export of raw minerals, including concentrates, is generally prohibited. Key provisions include:

- Raw minerals may only be withdrawn from the Government Minerals Warehouse for domestic beneficiation or for use by licensed mineral dealers.
- All minerals must be processed within the United Republic.
- Unauthorized exportation is subject to confiscation.

However, exceptions to this rule exist. Exportation may be authorized under special agreements or arrangements, particularly through Framework Agreements between the Government and the investing company.

For newly established projects, such as Kabanga Nickel, the Government may grant export approvals provided that:

- A valid Framework Agreement exists.
- The project has submitted a Feasibility Study and Business Plan supporting the request.

- The export is seen as transitional, facilitating early-stage project financing and de-risking development of a future downstream beneficiation facility.
- There is a clear plan to establish mineral beneficiation in country.

According to the Mining (Minerals Trading) Regulations 2010:

- A mineral export permit is required for each consignment.
- The application must include detailed information on the source, value, and shipment of the concentrates.
- Applicable royalties and inspection fees must be paid.
- Approval is subject to compliance with the Mining Act and supporting regulations.

LZM believes there is provision within the law for the GoT to allow the export of concentrate over the life of the mine. The GoT may make the exportation of the nickel sulfide concentrate as temporary/conditional and require TNCL to specify the volume of concentrate to be exported prior to issuing any export permit. LZM is presently engaged in negotiations with the GoT to amend the existing Framework Agreement and to obtain approval for the exportation of concentrate produced by TNCL. LZM anticipate the negotiations with the GoT to be completed in 2025.

The Kahama Site is the proposed location for a potential future phase of Project development at the gazetted Buzwagi Special Economic Zone (SEZ) in Kahama. This phase of development is not assessed within the scope of this FS.

3.5 Mineral Rights, Surface Rights and Environmental Rights

Under the Framework Agreement, the GoT is committed to assisting TNCL in acquiring the necessary mineral and surface rights, along with environmental approvals for the Project. TNCL needs surface use rights for up to 4,073 ha of land, which will cause physical and economic displacement of households in the affected villages.

An FS final draft was completed in 2014 (KNCL, 2014a), under a previous joint venture agreement between Glencore plc (Glencore) and Barrick Gold Corporation (Barrick), with Glencore as the operating partner. As the Project required land, a Resettlement Action Plan (RAP) was originally prepared in 2013, serving as the foundational Resettlement Policy Framework. However, in 2014, prior to the Project advancing to physical development, operations were suspended, and the resettlement process was cancelled with goodwill payments distributed. Following the recommencement of the Project in 2021 by LZM, and under the conditions of the SML, the resettlement process restarted, with a moratorium on new construction declared in July 2022 following the announcement of an eligibility cut-off date. Independent consultants were engaged to update the resettlement work, and a new RAP was submitted to Tanzanian regulatory standards in 2023, receiving approval on August 16, 2023. Further work has been conducted to enhance the RAP to meet international standards.

As part of the Project, several Environmental and Social Impact Assessments (ESIAs) and permits have been completed. The key environmental and social licenses and permits include:

Kabanga Site:

- SML 651/2021 – granted October 29, 2021
- EIA Transfer Certificate (EC/EIS/824) – granted June 16, 2021
- ESMP Update Approval – granted June 19, 2023
- Ruvubu River Water Use Permit (95100766) – granted September 3, 2024

Kahama Site:

- Refining Licence (RFL) 006/2024 – granted March 19, 2024

Resettlement Sites:

- EIA Certificate (EC/EIA/2023/6288) for Resettlement Sites – granted September 3, 2024

ESIAs were completed for the Kabanga Site and the Resettlement Sites, securing approval certificates from the National Environment Management Council (NEMC).

Project changes, including an increase in mine production throughput to 3.4 Mtpa, triggered a requirement to notify NEMC. These changes have necessitated amendments to the existing Environmental and Social Management Plan (ESMP) for the Kabanga Site, which are currently in progress.

International standard ESIAs have been completed for the Kabanga Site and the Kabanga Resettlement Sites.

Following a review of the current supplied information, the opinion of the QP is that the current plans, including the RAP and ESMPs to international standards, appear adequate to address any known issues related to environmental compliance, permitting, and local individuals or groups.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY

4.1 Overview

Tanzania is located on the east coast of Africa, just south of the equator. It is bordered to the north by Kenya and Uganda, to the west by Rwanda, Burundi, and the Democratic Republic of the Congo (DRC) (with an all-water boundary in Lake Tanganyika), and to the south by Zambia, Malawi and Mozambique. The Indian Ocean lies to the east.

Tanzania is the largest and most populous East African country. The Tanzanian population is concentrated mostly along the east coast and in the northern half of country near Lake Victoria. The Port of Dar es Salaam, on the east coast of Tanzania, is the country's largest city and principal port. The port also serves the landlocked countries of Burundi, DRC, Malawi, Rwanda, Uganda, and Zambia.

4.2 Kabanga Site

4.2.1 Location

The Kabanga Site, where the mining and concentrating activities will take place, is located in northwest Tanzania in the Ngara District of the Kagera Region and is situated 5 km from the village of Bugarama and 44 km, by road, south of Rulenge. The border with Burundi lies 1.4 km to the southwest of the Kabanga Site. The Port of Dar es Salaam is approximately 1,300 km southeast. The Project location is shown in Figure 4-1.

The Kabanga Site lies in the Ruvubu River sub-watershed of the Kagera River, a major river that flows into Lake Victoria. The Ruvubu River, which originates in Burundi and flows in a general northerly direction, defines a portion of the international boundary between Tanzania and Burundi near the Project area. Thereafter, the Ruvubu River continues northwards through Tanzania, and joins the Kagera River at the international boundary with Rwanda, and then flows north, and then east to Lake Victoria.

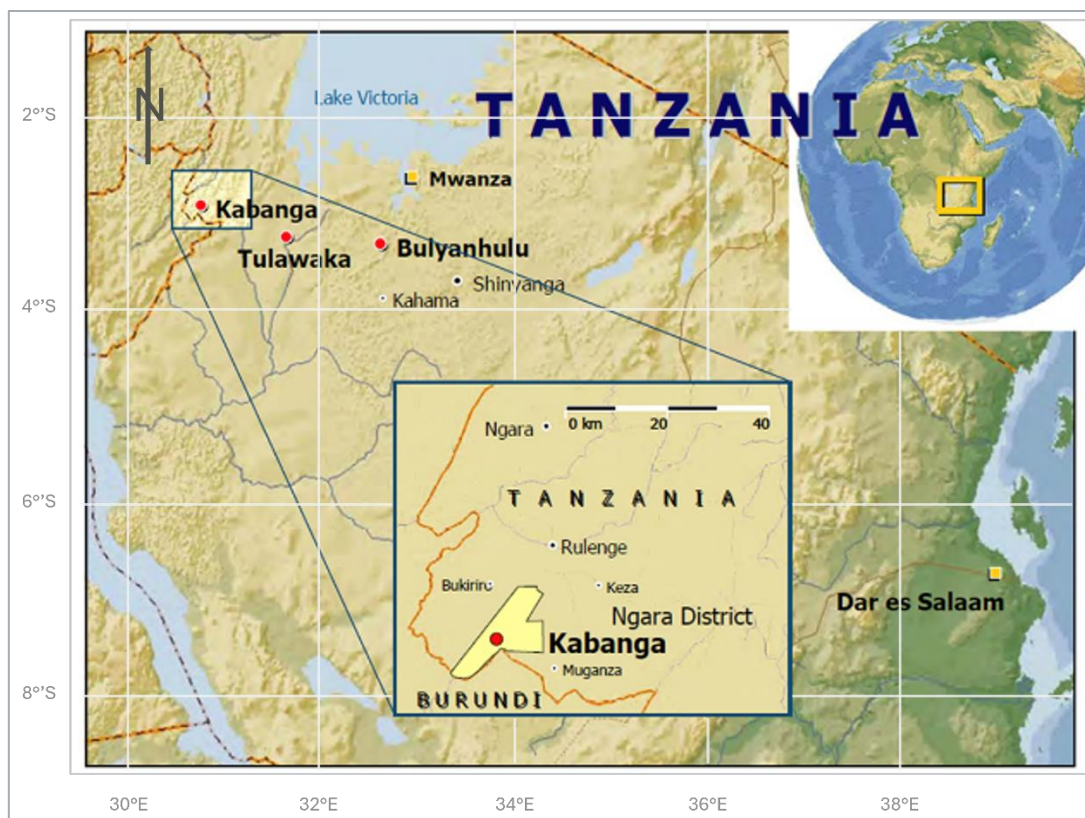


Figure 4-1: Kabanga Location in the Ngara District

4.2.2 Accessibility

The Kabanga Site is accessible via unpaved roads with two main access routes linking to paved highways. The southern access route, a 77 km unpaved road, connects to National Route B3 at Muzani. The northern access route connects to paved roads to the north, near the town of Ngara. The roads in the surrounding area are managed and maintained by the Tanzanian National Roads Agency (TANROADS), a government agency.

Currently, the northern access road is used for heavy vehicle traffic, while the southern access road will be upgraded to facilitate construction logistics and will be used during operations, as this offers the shortest and most direct routing to the Isaka Dry Port for rail access, the Port of Dar es Salaam, and the interior of Tanzania.

The northern access road also provides a link to the Ngara Airport, 89 km away, which is the closest airport and can be used for emergency evacuations and charter flights if required. The closest commercial airport is at Kahama, 324 km from the Kabanga Site. The Kahama Airport (International Air Transport Association (IATA) code 'KBH'), which was historically managed and operated by the Buzwagi Gold Mine, has been handed over to the Tanzania Airports Authority (TAA). The Kahama Airport terminal building was recently upgraded (January 2024), increasing the airport's capabilities to allow for 200 travelers at a time and smaller-sized cargo to fly in and out on a regular basis. The airport has direct flights from Dar es Salaam.

There are no railheads in close proximity to the Kabanga Site. However, the Isaka Dry Port, which operates as an inland container terminal, is 347 km away. Customs documentation can be completed at Isaka instead of the Port of Dar es Salaam, with importers able to take delivery of products at the Isaka dry port, by issuing their Bill of Lading.

4.2.3 Existing Infrastructure

The area surrounding the Kabanga Site is rural and the local economy is underpinned by small-scale agriculture. The closest village is Bugarama, which is 5 km to the northwest. Bugarama is a small market village with no notable infrastructure. The town nearest to the Kabanga Site is Rulenge, which is approximately 44 km to the north. Rulenge has a population of approximately 23,300 people as per the 2022 census. The district capital, Ngara, is a further 50 km north of Rulenge and has a similar-sized population.

The Kabanga Site has an existing exploration camp, which is well-maintained, enclosed by a perimeter fence, and includes office buildings, security access control, facilities for geological assessment, technical services, and community relations. Additional amenities include a canteen, clinic, workshops, staff housing, and space for sample and drill core storage. The exploration camp will be expanded to 300 beds and will facilitate all personnel during initial construction activities, while the permanent camp is constructed.

The Kabanga Site is equipped with mobile telephone networks and video conferencing facilities for communication. Cell phone reception via Vodacom and Simba network services providers is well established.

The exploration camp is currently serviced by a newly upgraded 33 kV electrical supply from TANESCO. This supply is limited to 9 MVA of electrical power, which is suitable for construction and initial mine development. However, this capacity is insufficient for steady-state operation and consequently, a new 88 km transmission line and substation are planned to deliver a 220 kV feed as part of the Project development.

4.2.4 Physiography and Vegetation (and Habitats/Species of Conservation Importance)

The Kabanga Site is situated at 2° 53' S latitude and 30° 33' E longitude, within the Ruvubu River sub-watershed of the Kagera River. This major river flows into Lake Victoria, with elevations ranging between 1,375 and 1,730 m above mean sea level (mAMSL). The local topography features a prominent plateau oriented in a northeast-southwest direction, set within an undulating landscape interspersed with valleys. On-site vegetation consists of grasslands with a broadleaf understory and scattered deciduous trees, providing an intermittent canopy.

The Project area is dominated by the Rubona Ridge, a rocky north-northeast trending formation exceeding 1,640 mAMSL, flanked by sloping plateaux, incised streams, and valley bottom lands

associated with the Nyamwongo, Muruhamba, Mu Kinyangona, and Muhongo rivers. These valleys lie approximately 150–200 m below the ridge and ultimately drain into the Ruvubu River system.

The Ruvubu River originates east of Bujumbura, Burundi, flows southward before turning north-northeast along the Tanzania-Burundi border, and joins the Kagera River at the Rwanda border near Rusumo Falls. Both rivers feature shallow rapids and broad floodplains, making them unsuitable for navigation.

Land use on Rubona Ridge is limited due to steep, rocky terrain but includes grazing, fruit and wood harvesting, and beekeeping. Seasonal crops such as maize, cassava, and bananas are cultivated on grasslands, while more intensive dry-season farming of beans and vegetables occurs in valley bottoms. Papyrus-dominated wetlands remain uncultivated. Soil erosion is minimal, though elevated wet-season sediment loads in streams are linked to cultivation near watercourses.

The region has a long history of subsistence agriculture, resulting in a highly modified landscape with few mature trees and limited wildlife. Although Tanzania is renowned for its extensive game reserves and diverse wildlife, the local area is predominantly devoid of large mammals. Environmental Impact Assessments (EIAs) have identified reptiles, birds, and small rodents as the most common fauna. All plant communities in the area have been somewhat impacted by human activity.

4.2.5 Climate

The Kabanga Site is situated within the moist sub-humid climate zone of east-central Africa, characterized by monsoonal weather patterns. Historical data indicate an average annual rainfall of 1,014.7 mm, with the majority occurring during the wet season from November to April. Rainfall exhibits a bimodal distribution, with long rains from March to May and short rains from October to December. April is the wettest month, receiving an average of 151.3 mm of rainfall, while June and July are typically the driest months, often experiencing minimal rainfall.

Evapotranspiration at the Kabanga Site is estimated at 1,580.3 mm per year, with potential evaporation peaking from June to October. The average annual air temperature is 20 °C, with a monthly variation of 2 °C and a daytime temperature variation of approximately 8 °C. Relative humidity averages 66% annually, with the lowest levels observed between June and October.

The climate will allow for year-round operation of the Kabanga Mine and Concentrator.

4.2.6 Seismicity

The Kabanga Site is in a complex geological region combining the East African Rift System, Tanzania Craton, and East African Plateau. The East African Rift System includes the West Rift (135 km west of Kabanga) and the East Rift (600 km east). The Kabanga Site is in the Kibaran Orogenic Belt, west of the Tanzania Craton, characterized by infrequent and widely dispersed earthquakes and an absence of Quaternary faults.

In 2008, Golder evaluated potential surface fault rupture hazards at the proposed TSF site, concluding that none of the faults were active or conditionally active, posing no significant fault rupture hazard.

A Seismic Hazard Analysis (SHA) conducted in 2024 found that the estimated ground motion from the maximum credible earthquake (at the 85th percentile) is significantly lower than the mean uniform hazard spectrum for a 1-in-10,000 annual exceedance probability (AEP) event. As a result, the design assessments are based on the outcomes of the probabilistic seismic assessment.

4.2.7 Catchments and Water Resources

Water for the exploration camp is currently sourced from a borehole located 900 m to the northwest of the camp. For the operation of the concentrator and mine, the primary source of water would be from mine dewatering, with supplementary water supply to be extracted from the Ruvubu River at a point within the SML. The Kabanga Site is projected to maintain a marginally positive water balance and as such treated water will be discharged back to the Ruvubu River. The Ruvubu River flows from south to north, approximately 14 km southwest of the Kabanga Site, along the border with Burundi.

4.3 Availability of Tanzanian Infrastructure

Tanzania has a well-established national network of electrical power generation and distribution, functioning ports, airports, and railway lines, while paved trunk roads connect the major centers in the interior of the country. Significant investment into Tanzania's infrastructure is currently underway and these projects serve to enable the Kabanga Nickel Project.

Dar es Salaam, Tanzania's largest city, hosts the country's primary seaport, handling approximately 95% of international trade. The port has an annual capacity of 14.1 Mt for dry cargo and 6.0 Mt for bulk liquids, and is a key export route for mineral concentrates. It also serves landlocked countries in the Great Lakes region, including Burundi, DRC, Malawi, Rwanda, Uganda, and Zambia.

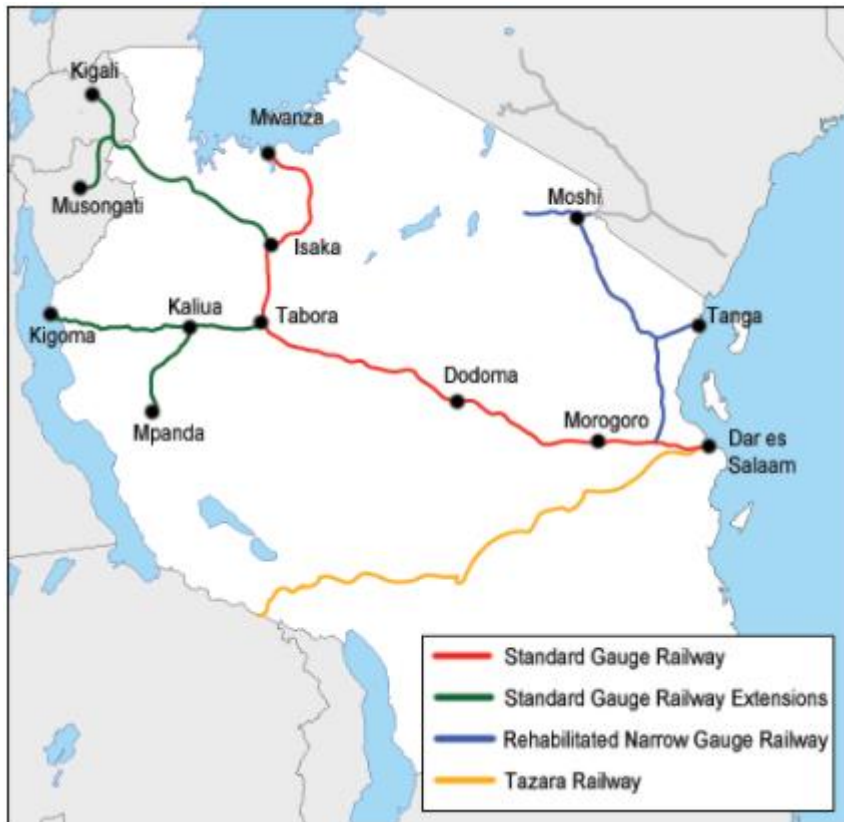
The port is connected to the interior by paved roads and rail infrastructure in good condition. Operations are overseen by the Tanzania Ports Authority (TPA). On 22 October 2023, the Government of Tanzania and TPA signed a 30-year agreement with Dubai Ports World (DP World) for the operation of berths 0 to 7, covering containerized, general, bulk, and vehicle cargo. Planned upgrades include converting berths 3 and 4 into dedicated bulk terminals with fixed conveyor systems rated up to 2,000 tph.

Tanzania has a road network of approximately 86,472 km. Major trunk and regional roads are managed by TANROADS, while district, urban, and feeder roads fall under the Tanzania Rural and Urban Roads Agency (TARURA). The Tanzania Railways Corporation (TRC) operates over 2,700 km of meter-gauge track, primarily serving the central and northern regions, including links to Kenya and Uganda. In the south, the Tanzania-Zambia Railway Authority (TAZARA) operates a 975 km Cape-gauge line between the Port of Dar es Salaam and Kapiri Mposhi in Zambia.

The existing road and rail infrastructure is being upgraded and expanded, and the Project's concentrate export logistics solution will rely on using road and the new Standard Gauge Railway (SGR) network and its associated infrastructure which is currently being built at the time of writing this report.

The government's SGR project to upgrade the rail infrastructure starting from the Port of Dar es Salaam to Isaka and onward to Mwanza will enhance the country's transportation infrastructure and regional connectivity. It aims to improve rail speed, capacity efficiency and reliability, and reduce transportation costs. It will also reduce road traffic congestion, improve safety and reduce carbon emissions. The project will also ultimately link the country with Rwanda, Uganda, Burundi, and the DRC.

The 2,000 km SGR project is being developed in six phases to connect the Port of Dar es Salaam with Mwanza on Lake Victoria and extend into Rwanda, Burundi, and the DRC. Construction is ongoing, with the line operational to Dodoma and works to Tabora largely complete. The Tabora–Isaka section, which finalizes the connection to Dar es Salaam, is expected to be completed by November 2026. The extent of the SGR project is indicated in Figure 4-2. The SGR is expected to support the transport of labour, construction equipment, and materials during the Project execution phase.



Source: Fitch Solutions

Figure 4-2: Existing and Planned Core Railway Infrastructure

TANESCO is responsible for the production and distribution of most (98%) of the country's electrical power. Tanzania's energy mix includes biomass, natural gas, hydro, coal, geothermal, solar, and wind generation.

The total installed power capacity of Tanzania, as of January 2025, is 3,400 MW. This includes various sources like hydro power, natural gas, and liquid fuels. The government aims to increase electricity connectivity and renewable energy generation to 75% by 2030 and 2034 respectively.

The GoT is increasing the national power generation capacity of 2,100 MW to 5,000 MW. A key component of this is the Julius Nyerere Hydropower Project, which has a total capacity of 2,100 MW. The project is 99.8% complete with eight of the nine power-generating units operational. The expansion of the generation capacity, especially the Julius Nyerere Hydropower Project, is another infrastructure project that will support the long-term needs of the Project.

Airports in Tanzania are managed by the TAA, which operates, manages, maintains, and develops airports in the Tanzanian mainland. The Julius Nyerere International Airport in Dar es Salaam is the biggest airport in Tanzania and the most common point of arrival for cargo and passengers from international destinations. The airport has three terminals and two paved runways of 3,000 m and 1,000 m in length.

The Project is supported by domestic aerodromes and airports, specifically the Ngara Airport and the Kahama Airport. The Kahama Airport will serve as the primary arrival point for personnel travelling to the Kabanga Site, with the final transport leg completed by bus. The Kahama Site also has proximity to the Isaka Dry Port (rail) and provides a staging and laydown area during construction of the Kabanga Mine, Concentrator, and surface infrastructure.

4.4 Country and Regional Setting

Tanzania has maintained relative political stability since its independence in 1961. The United Republic of Tanzania was formed in 1964 following the union of Tanganyika and Zanzibar. The country operates as a constitutional multi-party democracy with two governments: the Union Government for the mainland and the Zanzibar Government. Tanzania is a member of several international and regional organizations, including the United Nations, the Commonwealth, the African Union, and a number of other international organizations. It is also a member of several regional organizations, most notably the East African Community (EAC) which facilitates a customs union with neighboring countries. Political stability has enabled Tanzania to foster a conducive environment for economic growth and development.

Tanzania is the most populous country in East Africa, with an estimated population of 69.4 million in 2024, characterized by a youthful and predominantly rural demographic. Economic growth has been robust, with a reported GDP growth of 5.5% in 2024 and projections for 6% in 2025. This growth is fueled by expanding exports, a good agricultural season, and increased electricity supply. Swahili and English serve as the official languages, with Swahili widely spoken and English used in commerce and administration. The administrative structure of Tanzania is highly organized, with the Kabanga Nickel Project situated in the Kagera region, known for its proximity to the Rwanda and Burundi borders. Local governance and community relations are pivotal for Project progress, given the centralized system extending to the village level.

The mining sector is a significant contributor to Tanzania's economy, targeted to reach 10% of GDP by 2025. The country is rich in various minerals, including nickel, copper, cobalt, gold, rare earth minerals, uranium, graphite, coal, and diamonds. The government's focus on increasing mineral beneficiation aligns with the Project, which aims to process concentrate within Tanzania. This initiative is part of a broader strategy to attract foreign investment and expand the mining industry, following the privatization and liberalization reforms of the 1990s. Tanzania's stable political climate and strategic economic policies continue to position it as a key player in the regional and global mining sectors.

5 HISTORY

Exploration at the Project has been undertaken in several different phases for over 45 years, with more than 637 km of drilling having been completed up to the effective date of the Mineral Resource estimate, reported in December 2024.

5.1 UNDP Era (1976–79)

The first drilling on the deposit was undertaken between 1976 and 1979 by the United Nations Development Programme (UNDP), as part of a regional targeting for ultramafic bodies to identify nickel sulfide and nickel laterite mineralization within the East African Nickel Belt in western Tanzania and Burundi.

In the Project licence area, 61 UNDP drillholes were completed, with work focused on two areas of interest at that time, known as Block 1 and Block 2. These holes intersected five separate mafic-ultramafic bodies over a 7.5 km strike length and culminated in the delineation of an Indicated Mineral Resource for the area now known as Main Zone.

An outbreak of hostilities between Tanzania and Uganda in 1978–79 caused work at the Project to be halted.

5.2 Sutton Era (1990–99)

5.2.1 Sutton – BHP JV Era (1990–95)

Following a 10-year government moratorium on exploration, Sutton Resources Ltd (Sutton) negotiated the mineral rights to the Project and formed Kabanga Nickel Company Limited (KNCL) and Kagera Mining Company Limited in 1990. Initial work on Main Zone was expanded in 1992 to include the Kagera licence area to the northwest, through the formation of a JV with BHP.

Exploration of the Kagera licence was undertaken from the Mururama exploration camp, located approximately 30 km northwest of the current Kabanga camp. The Kabanga exploration camp was established in its current location in 1993. Work continued to focus on the two Blocks outlined by the UNDP.

During 1993, drilling was undertaken approximately 1 km north of Main Zone, targeting the down-dip extension of a gossan ridge associated with a geophysical anomaly. A small, pipe-like ultramafic body was identified, with more than 100 m of massive sulfide mineralization intersected (drilled along plunge). This area is now known as North Zone. Drilling at the Project continued until the end of 1995, at which time BHP exited the JV. By this time, Main Zone and North Zone Mineral Resources had been reported.

5.2.2 Sutton (1995–97)

After the withdrawal of BHP, Sutton approached the market to obtain funding for continuing work at Kabanga and Kagera. Several companies assessed the Project, and in July 1997, Anglo American Corporation (Anglo) entered into a JV agreement on both properties.

5.2.3 Sutton – Anglo JV Era (1997–99)

In July 1997, Sutton and Anglo entered into a JV on both properties. Drilling recommenced in October 1997 following refurbishment of the Kabanga camp. The initial focus of this drilling campaign was to extend the North Zone high-grade massive sulfide resource, which appeared to be open at depth to the north. The deepest intersection from this program was 9 m of massive sulfide mineralization at approximately 800 m below the surface.

In April 1998, after completion of a total of 53 drillholes, an updated North Zone Mineral Resource of 14.3 Mt at 2.56% Ni was reported.

Despite the lure of the open mineralization at North Zone, the recognition of the need for additional shallower mineralization to increase early throughput of the plant to an economic level led to a shift of exploration focus back to the Main Zone area. Drilling recommenced in May 1998 and continued until October 1998. Main Zone was remodeled, concentrating on the contact-associated massive sulfide

mineralization. Updated Mineral Resources were estimated for Main Zone and North Zone, but these were not published.

5.3 Barrick Era (1999–2004)

In 1999, Barrick, through its purchase of Sutton, gained control of Bulyanhulu and other gold properties, thereby becoming ground holders at Kabanga and JV partners with Anglo.

After Anglo withdrew from the project in 2000, Barrick recommenced exploration of the down-dip extension of the North Zone massive sulfide body. Drilling in January 2001 intersected mineralization at depth, which appeared to be separate from North Zone and similar in style to the Main Zone mineralization. This zone, located between Main Zone and North Zone, was named MNB.

Drilling through to 2002 refocused on North Zone, extending the massive sulfide body to the north. Deep drilling below North Zone (1,500–1,700 m below surface) intersected massive sulfide mineralization that was interpreted in 2007 to be part of the zone now known as Kima.

In 2003, Barrick completed a scoping study that was largely based on its work with Anglo. This scoping study relied on unpublished Mineral Resource estimates generated in 2002 using drilling completed up to the end of 2001.

In February 2004, Barrick began negotiations with Falconbridge Limited (Falconbridge) (which would later become part of Xstrata plc (Xstrata) and eventually Glencore plc (Glencore)) to form a JV partnership. No further exploration work was undertaken for the remainder of 2004.

5.4 Barrick - Glencore JV Era (2005–18)

In 2005, Barrick issued a press release announcing a JV partnership with Falconbridge (Falconbridge was acquired in 2006 by Xstrata, which then merged into Glencore in 2013). In the press release, Barrick also announced an Inferred Mineral Resource estimate for the Project of 26.4 Mt at 2.6% Ni, which represented the sum of the Main Zone and North Zone models from 2002.

A total of 64,957 m across 127 drillholes was completed between January 2005 and March 2006 for a scoping study (Phase I scoping study). Work focused on verifying and infilling the models at the Main, North, and MNB zones.

Other exploration work was completed during this time to support the Phase I scoping study. This included: geophysical surveys proximal to the North and Main zones, collection and shipping of metallurgical samples, and geotechnical drilling at proposed infrastructure sites.

Between April and November 2006, a total of 81,256 m across 148 drillholes was completed for Phase II of the scoping study. This drilling program was designed to continue to improve the confidence of the resource and to discover additional shallow, large-tonnage mineralization to improve the economics of the Project. This work focused on verifying and infilling the mineralization in the North and MNB zones. Additional metallurgical sample was also acquired for preliminary grinding/flotation testing at Xstrata Process Solutions (XPS) in Canada. Updated resource models were generated for the Main, MNB, and North zones, and a new model for the newly-defined Tembo Zone.

In mid-2006, Xstrata purchased Falconbridge and acquired 50% ownership of the Project.

A total of 242,347 m across 555 drillholes was completed between December 2006 and November 2008 for a PFS. This drilling program was designed to further improve confidence in the North Zone and Tembo Zone resources and to discover additional mineralization to improve the economics of the Project within a 15 km trucking distance of the planned mine infrastructure. Further metallurgical samples were also acquired for two pilot plant test runs. During 2007, the Kima zone massive sulfide was interpreted beneath North Zone.

Regional exploration drilling tested seven high-priority regional exploration targets at Bonde, Nyoka, Jabali, Balima, Kilimanjaro, Safari, and Nyundo (Keza-3). In November 2007, massive sulfide mineralization was intersected at the Safari target with the discovery hole grading 1.88% Ni over 10.1 m as-drilled width.

Mineral Resource estimates were reported for the 2008 models in the 2008 Xstrata annual report.

From December 2008 through August 2009, a total of 21,368 m of drilling was completed. This drilling program was successful in transferring a portion of the resources in the mid North Zone from Inferred to Indicated status. Independent quality assurance and quality control (QA/QC) and resource audits were completed during this time.

From 2010 through 2014, extensive geological/geophysical interpretation was carried out over the Kabanga licence area, coupled with assaying of unsampled historical BHP / Anglo holes in the Main Zone area, and led to the development of several high-tenor nickel targets in the southern part of the Project area. Regional exploration work in this period was confined to geological mapping over regional licences and establishing access routes for planned 2011 programs. Subsequent drilling in 2014 was limited to four holes, which were drilled to test two new target areas, and an additional two holes drilled into the Tembo North mineralization.

In 2015, the Project was widely reported to be on the market as Barrick and Glencore reconsidered their portfolios.

5.5 Tanzanian Mining Law Reform (2018–21)

The Kabanga licence held by the Barrick – Glencore JV was due to expire in 2019, however, Tanzanian mining law changed in 2018, and one result was that all Tanzanian Retention Licences were cancelled; hence, the Barrick – Glencore JV effectively lost its rights to the Project.

During this period of legislative reform, the Barrick – Glencore JV reported that it was engaged in constructive dialogue with the GoT with a view to reinstating its rights over the Project.

On January 19, 2021, LZ Nickel Limited (predecessor of KNL) announced that it had signed a binding Framework Agreement with the GoT for development of the Kabanga Nickel Project through the establishment of the TNCL and the granting of an SML – the first of its kind – and a Refining Licence (RFL).

In parallel, KNL entered into an agreement with the Barrick – Glencore JV to exclusively acquire all data and information relating to the previous mineral resource estimation, all metallurgical testwork and piloting data, analyses and studies, including a comprehensive draft FS report produced in 2014 and subsequent updates.

5.6 BHP Investment in KNL (2021–2025)

Kabanga Nickel Limited (KNL) entered into a loan agreement with BHP dated December 24, 2021 (the T1A Agreement), pursuant to which KNL received investment of USD 40 million from BHP by way of a convertible loan, which was subsequently converted into an 8.9% equity interest in KNL on July 1, 2022.

KNL entered into an equity subscription agreement with BHP dated October 14, 2022 (the T1B Agreement). All the conditions precedent of the T1B Agreement were satisfied or waived on, or before, February 8, 2023, and in accordance with the T1B Agreement, BHP subscribed USD 50 million for an additional 8.9% equity interest in KNL on February 15, 2023, giving BHP a total equity interest in KNL of 17.0%.

On July 18, 2025, Lifezone Limited entered into a definitive agreement with BHP to acquire BHP's existing 17% equity interest in KNL, the majority owner of the Project. As a result of entering into the transaction, Lifezone Limited owns 100% of KNL, which in turn holds an 84.0% interest in TNCL. The remaining 16.0% of TNCL is held by the GoT. In addition, all existing agreements with BHP have been terminated. Lifezone Limited has assumed full control of 100% of the offtake from the Project.

Key terms of the transaction are:

- 1) A fixed cash payment of USD 10 million, payable within 30 days after the earlier of: (i) 12 months after the Final Investment Decision for the Project; or (ii) once LZM has raised USD 250 million in aggregate funding (whether through equity, debt or alternative sources); and
- 2) A second deferred cash payment, payable within 30 days after the period of 12 months following the achievement of first commercial production. The amount is indexed to LZM's share price performance, with a reference share price of USD 4.16 per share and a reference amount of USD 28 million.

An index factor of 0.7x applies – meaning that a 10% increase in LZM's share price results in a USD 1.96 million increase in the payment (USD 28 million x 10% x 0.7). Based on LZM's share price as at July 18, 2025, the payment would total USD 32 million.

There is a total consideration cap of USD 83 million, reduced to USD 75 million if the "RAP Trigger Event" occurs. The RAP Trigger Event is defined as the independent verification that the Project's RAP has been developed and implemented in material alignment with International Finance Corporation (IFC) Performance Standard 5 (PS5). This includes: consistency with the disclosed RAP in all material respects; demonstrated alignment with the core objectives of IFC PS5; and effective implementation of food security and livelihood support measures, particularly regarding household vulnerability and gender-based violence risks. If confirmed within 12 months of signing, the total consideration payable to BHP will be reduced to a maximum of USD 75 million.

The acquisition by Lifezone Limited of BHP's 17% equity interest in KNL does not impact the SML or the Framework Agreement between KNL and the GoT.

5.7 Previous Technical Report Summaries

5.7.1 March 2023 Technical Report Summary

In March 2023, the Kabanga 2023 Mineral Resource TRS was prepared by Lifezone Holdings Ltd. (LHL), filed by LZM in April 2023 (LHL, 2023).

5.7.2 November 2023 Technical Report Summary

In December 2023, the Kabanga 2023 Mineral Resource Update TRS was filed by LZM (OreWin, 2023). The 2023 Mineral Resource estimates were based on the Project drillhole database available as at September 17, 2023, which totaled 622,484 m.

5.7.3 December 2024 Technical Report Summary

The December 2024 Mineral Resource Update TRS (2024MRU) was based on all Project drilling completed to December 4, 2024, which equated to 637,749 m. The 2024MRU was reported in the Kabanga 2024 Mineral Resource Update Technical Report Summary, dated December 4, 2024 (OreWin, 2024).

5.7.4 June 2025 Technical Report Summary

The June 2025 Initial Assessment TRS was based on the 2024MRU and filed by LZM on June 2, 2025 (DRA, 2025).

6 GEOLOGICAL SETTING, MINERALIZATION, AND DEPOSIT

6.1 Regional Geological Setting

Geologically, the Kabanga nickel deposit is located within the East African Nickel Belt, which extends approximately 1,500 km along a northeast trend that extends from Zambia in the southwest, through the Democratic Republic of the Congo (DRC), Burundi, Rwanda, Tanzania, and Uganda in the northeast, and straddles the western boundary of the Tanzania Craton to the east, and the eastern boundary of the Congo Kasai Craton to the west.

In the northern and central sections of the East African Nickel Belt, a thick package of Paleoproterozoic to Mesoproterozoic metasedimentary rocks, from the Karagwe-Ankole Belt (KAB), overlies this boundary, within which occurs a suite of broadly coeval, bimodal intrusions (Evans et al., 2016). These igneous rocks correspond to the Mesoproterozoic Kibaran tectonothermal event between 1,350–1,400 Ma (Kokonyangi et al., 2007; Tack et al., 2010).

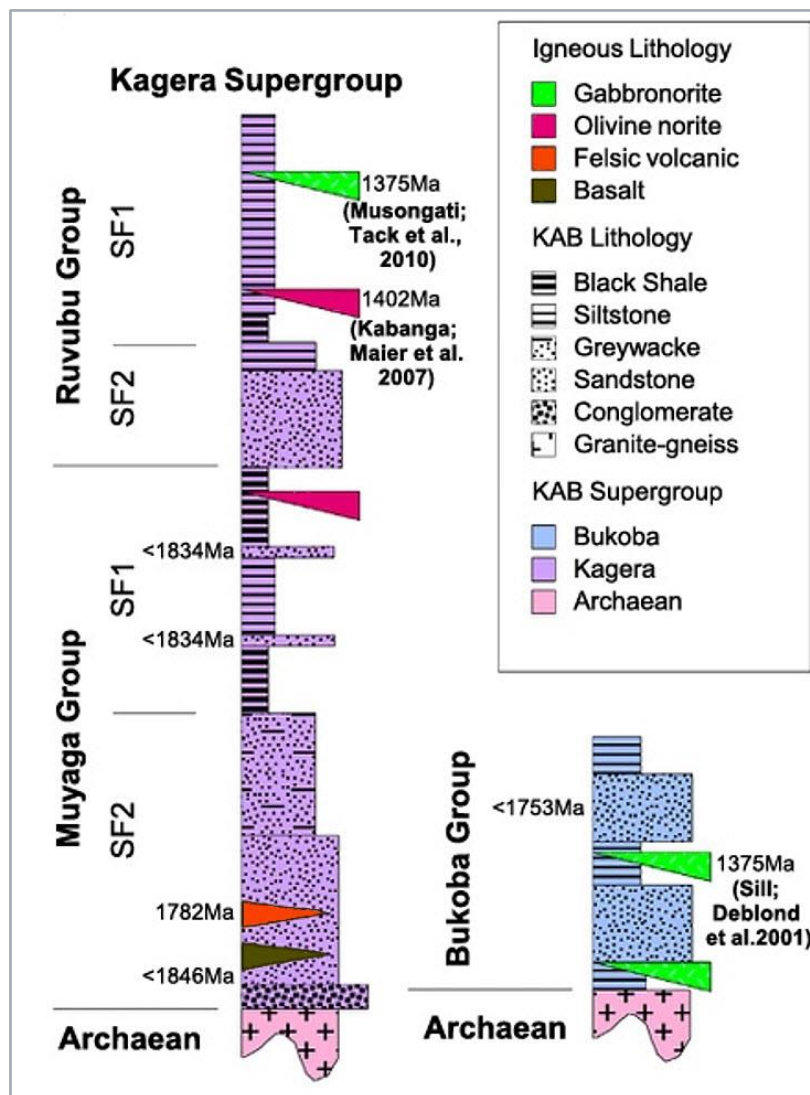
The KAB has been divided into several broad domains (Tack et al., 1994):

- An Eastern Domain (ED) that is characterized by lower degrees of metamorphism and tectonism, and the absence of Kibaran-aged granite magmatism,
- A Western Domain (WD) characterized by higher degrees of metamorphism and polyphase deformation, and the voluminous Kibaran granite intrusion, and
- A Transitional Domain (TD) between the other two domains, which is marked by a northeast-trending line of mafic-ultramafic intrusions known as the Kabanga-Musongati Alignment, (Tack et al., 1994).

The sedimentary rocks of the ED and WD form uncorrelated and distinct sub-basins, both comprising alternating arenaceous and pelitic rocks, including quartzites, schists, greywackes, and conglomerates developed in long-lived, shallow water intracratonic and pericontinental basins (Fernandez Alonso et al., 2012).

The Kibaran igneous rocks comprise mafic-ultramafic intrusions, including well-differentiated lopolithic layered intrusions and small, narrow, tube-like sills, often concentrically zoned, called chonoliths. The nickel mineralization zones discovered to date have exclusively been found associated with the mafic-ultramafic intrusions, in particular, along the Kabanga-Musongati Alignment (Deblond and Tack, 1999; Evans et al., 2000). Felsic intrusions occur coeval with the mafic ultramafic intrusions. Recent ages (zircon U Pb SHRIMP) from Kabanga date the marginal mafic rocks of the intrusion at $1,403 \pm 14$ Ma (Maier et al., 2007).

Figure 6-1 shows a stratigraphic column of the regional geology of the area.



Note: KNL, 2023 (modified from Fernandez Alonso et al. (2012), and Koegelenberg et al. (2016)).

Figure 6-1: Stratigraphic Column for the Kagera Supergroup

6.2 Property Geology

The intrusions that host the potentially economic nickel-bearing massive sulfide zones known to occur in the Project area, namely Main, MNB, Kima, North, Tembo, and Safari, are hosted within steeply-dipping overturned metasediments (dipping 70° to 80° to the west), with a north–northeast strike orientation (025°) from Main to North Zone, changing to a northeast strike orientation (055°) (dipping northwest) from North to Tembo. The zones are located within and at the bottom margin of the mafic-ultramafic chonoliths. The chonoliths are concentrically zoned with a gabbro-norite margin and an ultramafic cumulate core zone that ranges in composition from sulfidic dunite, plagioclase-peridotite, orthopyroxenite, to olivine melanorite (Evans et al., 2000).

The metasediments comprise approximately 90% metapelites and metasandstones, with the remainder comprising clean arenitic metasandstones or quartzites (Evans et al., 2016). Lenses and bands of iron sulfides (up to 5% modal of pyrrhotite) and graphite are common in the more-pelitic rocks, and it has been demonstrated that the sulfur within the different zones has similar isotopic signatures, indicating significant assimilation of external sulfur from the KAB sediments (Maier and Barnes, 2010).

A plan view of the geology of the Project area is shown in Figure 6-2.

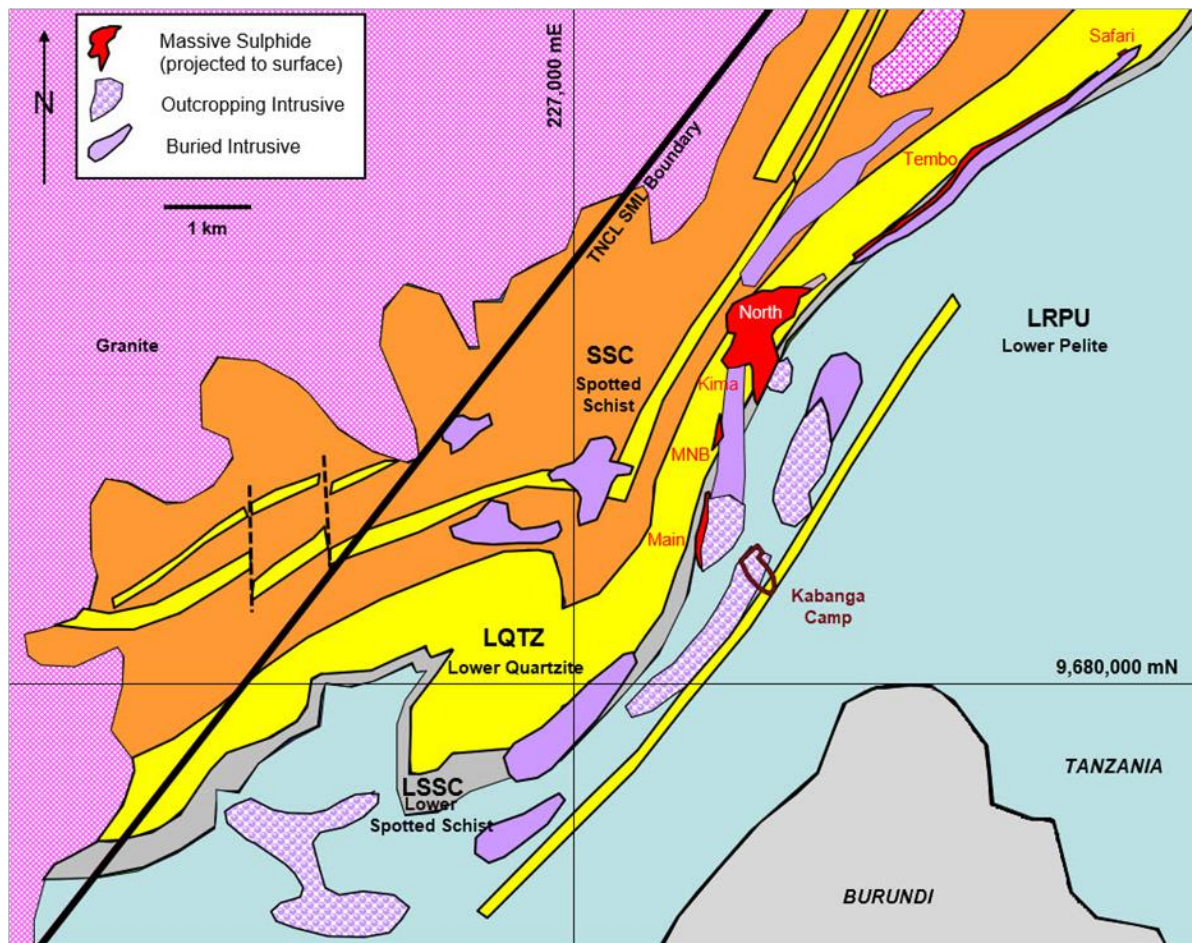


Figure 6-2: Plan View Schematic of Geology of the Kabanga Area (UTM)

6.3 Lithologies and Stratigraphy

Three lithological groups are present at Kabanga:

- Metasediments comprising a series of pelitic units, schists, and quartzites, forming the hanging wall and footwall of the mineralization.
- Mafic-ultramafic intrusive complex rocks, which display a wide range of metamorphism/metasomatism. These lithologies can carry significant sulfide mineralization, such as in the ultramafic unit logged as UMAF_1a ($\geq 30\%$ sulfides, located adjacent to the massive sulfide mineralization, present at Tembo and North).
- Remobilized massive sulfide mineralization ($> 80\%$ sulfides) (logged as MSSX), which carries 90% of the sulfide occurrence, and massive sulfide mineralization with xenoliths of metasedimentary or gabbro/ultramafic rock ($\geq 50\% < 80\%$ sulfides) (logged as MSXI).

The principal sulfide in the massive sulfide is pyrrhotite, with up to 15% pentlandite. The pentlandite shows distinct globular recrystallization textures, with crystals reaching up to 5 cm in size. Accessory sulfides include chalcopyrite and traces of pyrite, galena, arsenopyrite, cubanite, niccolite, cobaltite, and mackinawite.

Typical Main and Tembo zone cross-sections displaying the local stratigraphy are shown in Figure 6-3.

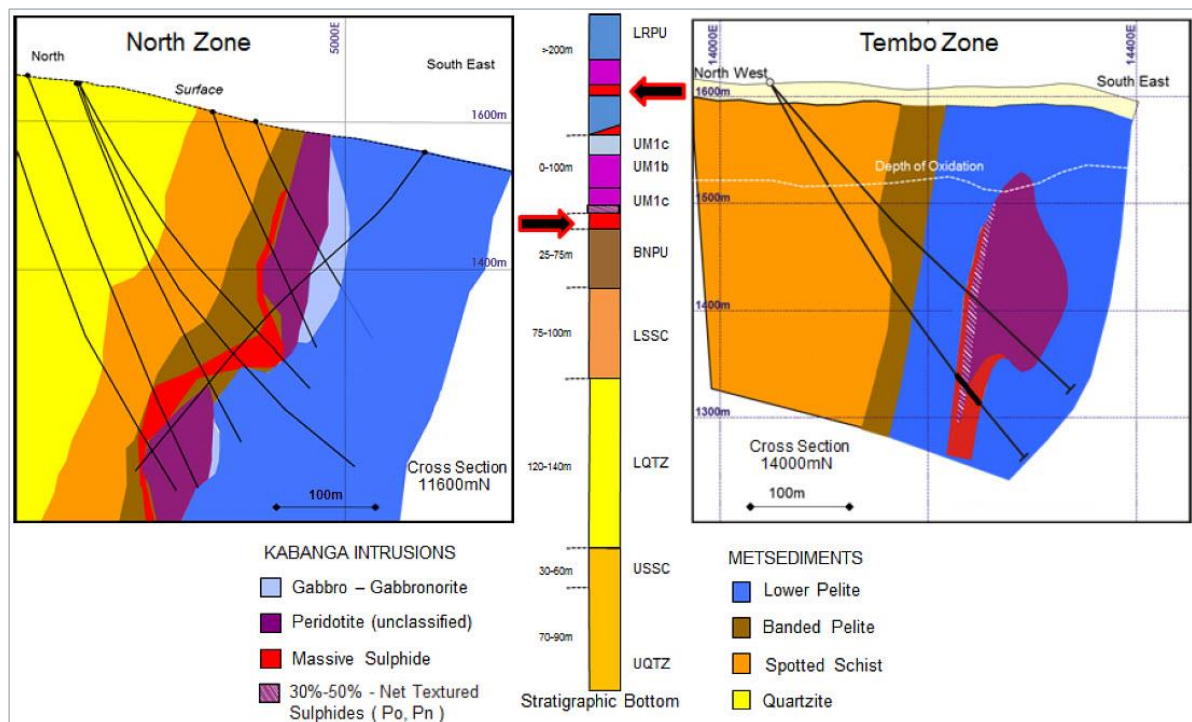


Figure 6-3: Typical Stratigraphy Cross-section Schematics for North and Tembo (local grid)

6.4 Structural Setting

The Kabanga sulfide lenses are thought to have been remobilized within a large shear zone, initially conforming to early-phase folding geometries, and subsequently modified and partitioned by low-angle thrusting and cross-faulting. The geology of the Project area has been found to be structurally complex, with five fault sets identified to date. The complexity of the structural setting is illustrated by the interpreted satellite imagery and a schematic three-dimensional (3D) interpretation.

Of note is the existence of a rock quality designation (RQD) model completed by an independent consultancy (2008–09) to support the current structural interpretation of the Project area.

6.5 Deposit Description

The Project comprises six distinct mineralized zones, namely (from southwest to northeast) Main, MNB, Kima, North, Tembo, and Safari, which occur over a strike length exceeding 7.5 km. The five mineralized zones that contribute to the Mineral Resource estimate (Main, MNB, Kima, North, and Tembo) extend over a total strike length of 6 km and for up to 1.7 km below the surface.

Figure 6-4 is a projected long-section schematic showing all the mineralized zones identified to date at Kabanga.

6.6 Mineralization Style

Kabanga sulfide mineralization occurs both as:

- Disseminated to net-textured interstitial sulfides located within the cumulate core of the Kabanga chonoliths, as well as externally, and
- Massive and semi-massive sulfide bodies along the lower and side margins of the chonolith, that being the contact with the stratigraphic host (Evans et al., 1999).

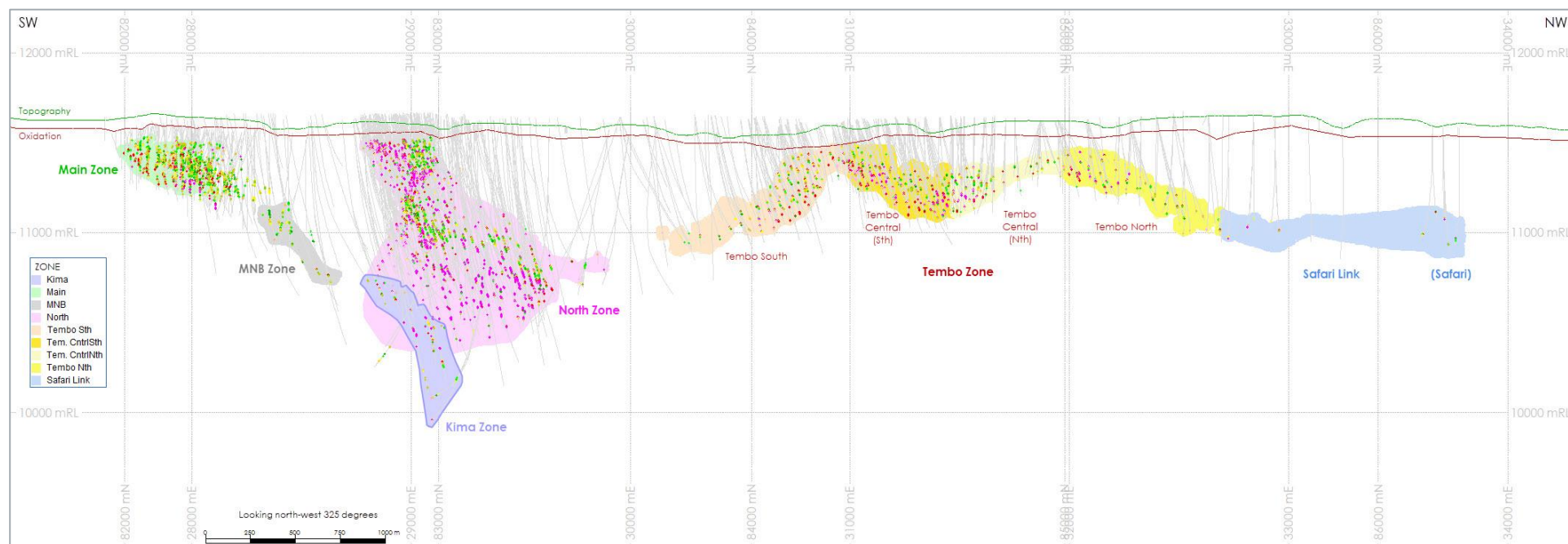
The massive sulfides, defined as having > 80% modal sulfide, comprise dominantly pyrrhotite, with trace to 15% pentlandite. These account for the majority of the Mineral Resource estimates reported for the Project. Pentlandite exhibits distinct recrystallization textures expressed as globules up to 5 cm in diameter. Accessory sulfides include chalcopyrite and trace pyrite, galena, arsenopyrite, cubanite, niccolite, cobaltite, and mackinawite. Remobilized, generally pyrrhotite-rich, massive sulfides also occur as cross-cutting and conformable veins within the ultramafic units.

The tenor composition of the sulfides (as represented by the percentage of nickel in 100% sulfide) ranges from 5% to 6% near the basal margins to 0.5% to 1% in the upper cumulates (Evans et al., 1999; Maier and Barnes, 2010). Tenor also varies between mineralized zones, generally the smaller intrusive bodies (by cross-sectional area) that occur lower in the stratigraphy, such as North and Tembo zones, are more richly endowed.

The mineralization geometry at each zone is shown on example cross-sections in Figure 6-5 through Figure 6-8.

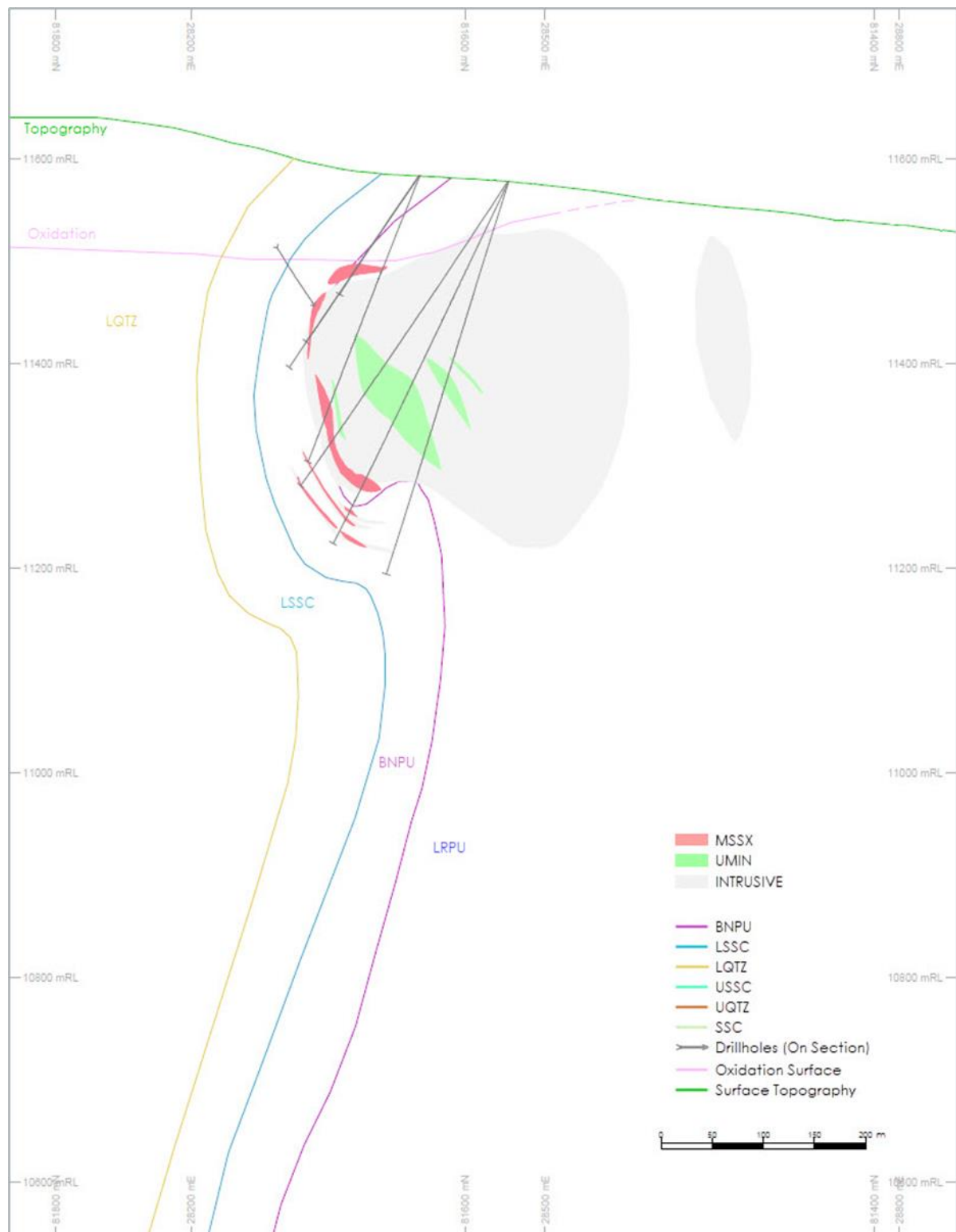
6.7 Alteration and Weathering

At the surface, the ultramafic bodies are completely weathered to saprolite. The depth of oxidation ranges from 40–100 m in the Project area. At North Zone, massive sulfides are weathered to depths of 80–100 m. The Tembo Zone massive sulfides horizon is located 98% in fresh, unoxidized material. In general, nickel laterite formation over the associated ultramafic is weakly developed with minor nickel-bearing serpentine and rare garnierite.



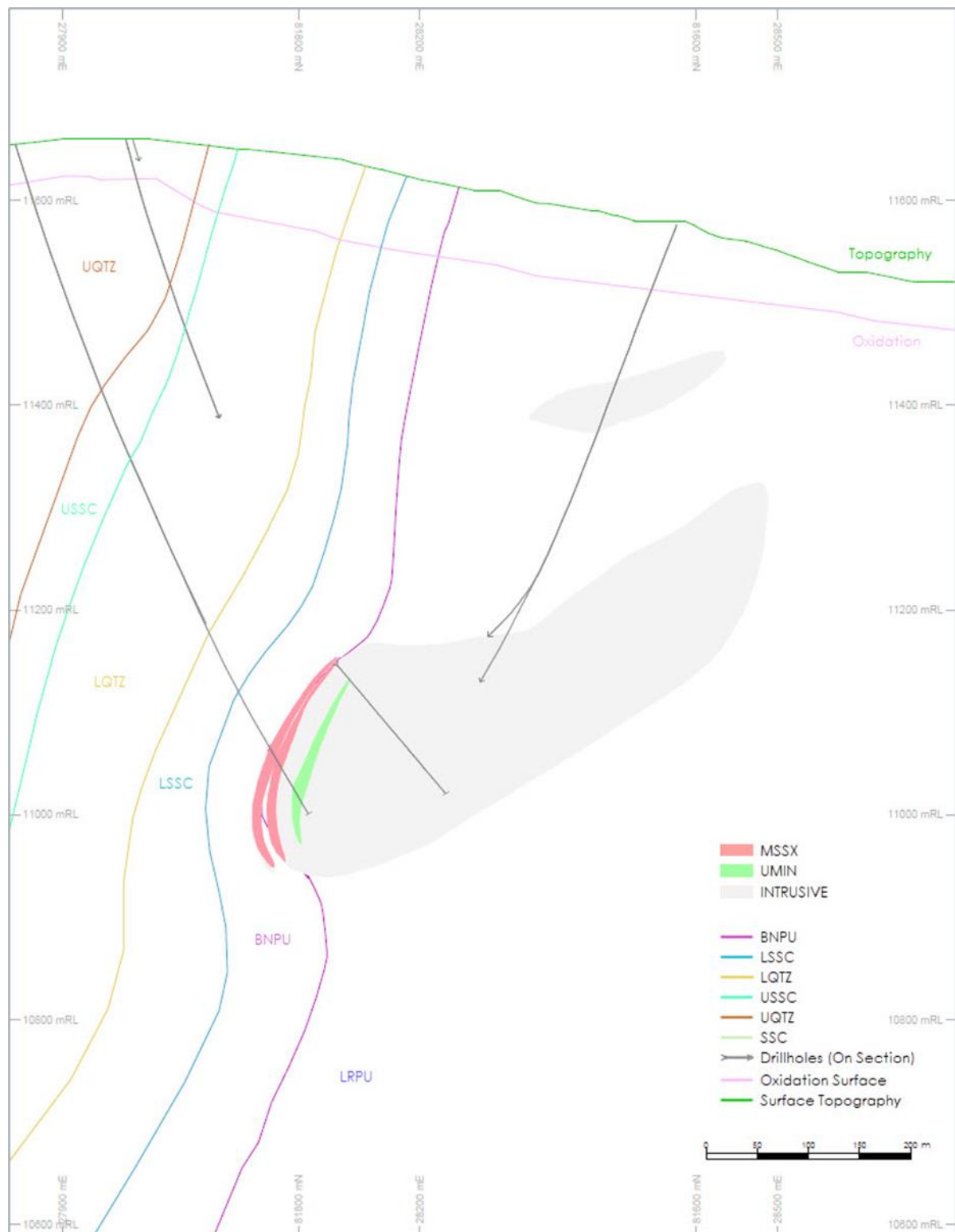
Note: Topography and oxidation wireframes are sliced on the long-section plane, whereas the drillholes and model are projected onto the plane (hence some drillholes appear to collar above topography).

Figure 6-4: Schematic Projected Long-section of the Kabanga Mineralized Zones (truncated UTM, looking northwest)



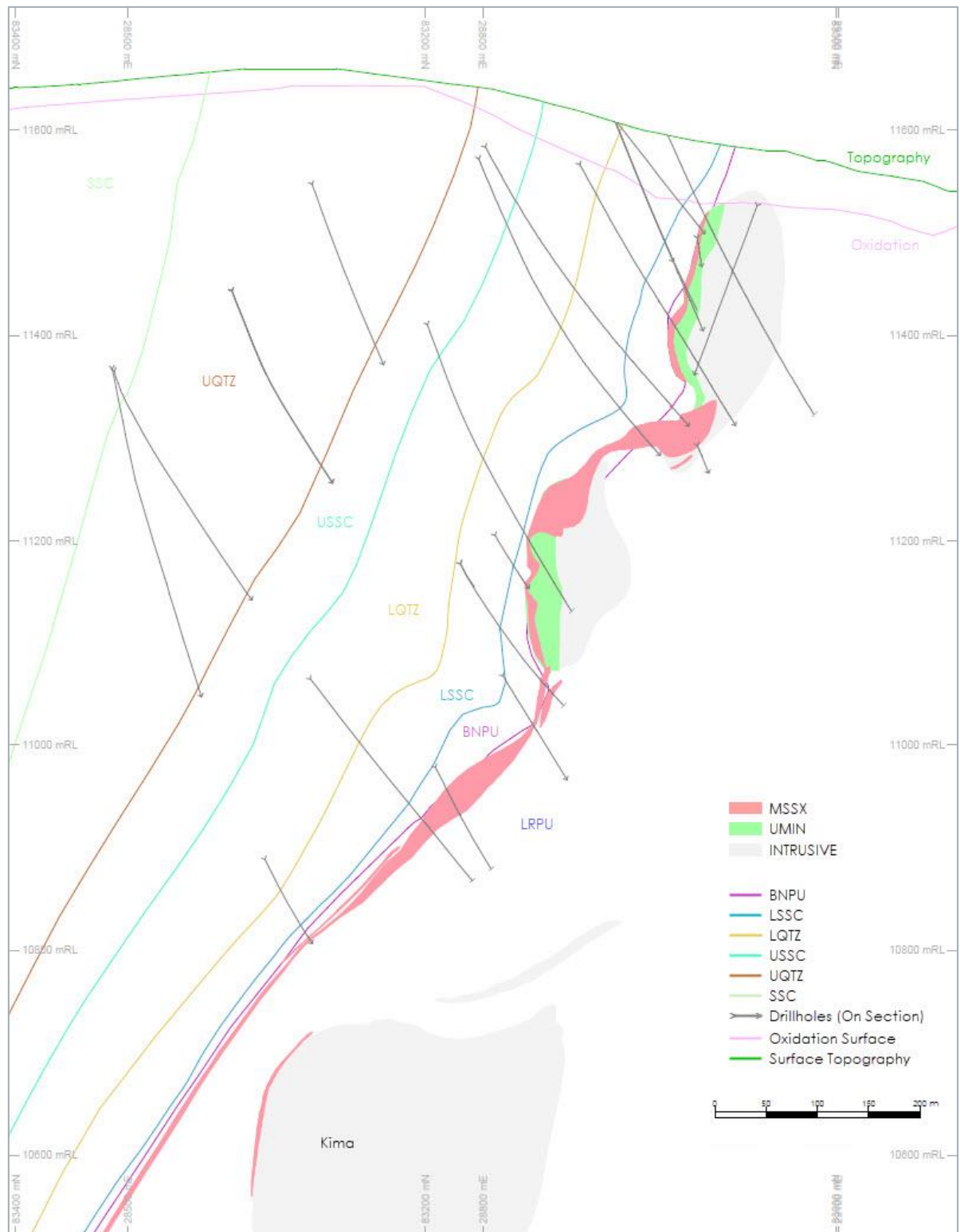
Note: * Oblique cross-section looking 030°, +/- 15 m projection.

Figure 6-5: Example Schematic Cross-section* of Mineralization Geometry at Main Zone (truncated UTM)



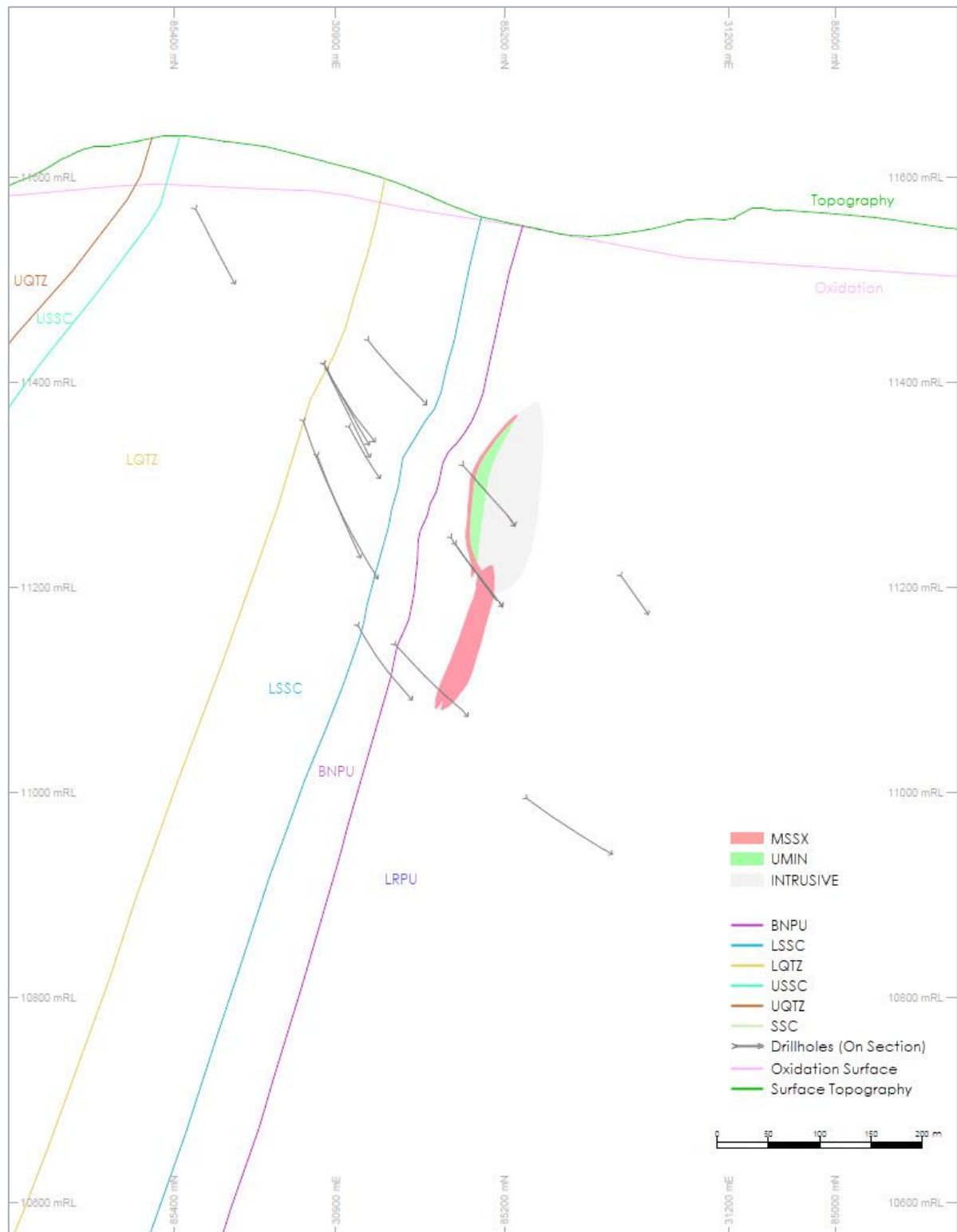
Note: * Oblique cross-section looking 030°, +/- 15 m projection.

Figure 6-6: Example Schematic Cross-section* of Mineralization Geometry at MNB Zone (truncated UTM)



Note: * Oblique cross-section looking 030°, +/- 15 m projection.

Figure 6-7: Example Schematic Cross-section* of Mineralization Geometry at North Zone (with Kima) (truncated UTM)



Note: * Oblique cross-section looking 038°, +/- 15 m projection.

Figure 6-8: Example Schematic Cross-section* of Mineralization Geometry at Tembo Zone (truncated UTM)

7 EXPLORATION

Exploration of the Project has been undertaken in several different phases for over 45 years, with more than 637 km of drilling having been completed up to the effective date of the current Mineral Resource estimate, reported in December 2024. This drilling is summarized in Table 7-1.

Table 7-1: Exploration Drilling Summary

Years	Companies	Meters Drilled	Discovery	Location / Purpose
1976–79	UNDP	20,068	Main	Exploration
1991–92	Sutton	12,974		Main / Resource Definition
1993–95	Sutton-BHP JV	37,947	North	Main and North / Resource Definition
1997–99	Sutton-Anglo JV	56,227		North / Resource Definition
2000–04	Barrick Gold Corp.	39,931	MNB	North / Resource Definition
2005–08	Barrick-Glencore JV	64,957 81,256 242,347	North Deep, Tembo, Safari, and Kima	Phase I Scoping Study Phase II Scoping Study North and Tembo/PFS.
2008–09 2011–12 2014	Barrick-Glencore JV	21,368 5,303 3,320		North, Main and Tembo / FS
2021–23	TNCL	23,913 8,192 10,173 4,163 4,540 1,071		Tembo (infill and extension) Safari North (infill) Tembo and North / (met.) Tembo and North / (geotech.) Tembo and North Boxcut / (geotech.)
Total		637,749		

7.1 Exploration Timeline

7.1.1 Early Regional Exploration 1976–79

The first drilling on the deposit was undertaken between 1976 and 1979 by the UNDP, as part of a regional targeting for ultramafic bodies to identify nickel sulfide and nickel laterite mineralization within the East African Nickel Belt in western Tanzania and Burundi.

In the Project licence area, 61 UNDP drillholes were completed, with work focused on two areas of interest at that time, known as Block 1 and Block 2. These holes intersected five separate mafic-ultramafic bodies over a 7.5 km strike length and culminated in the delineation of an Indicated Mineral Resource for the area now known as Main Zone.

The UNDP work delineated a further 48 geochemical stream anomalies (21 Ni anomalies and 27 Cu, Co, Cr, and Zn indicator anomalies) and 30 magnetic / radiometric anomalies. A second-phase follow-up program evaluated a number of these targets, of which 12 magnetic / Ni geochemical anomalies were highlighted and recommended for additional follow-up.

An outbreak of hostilities between Tanzania and Uganda in 1978–79 caused work at the Project to be halted.

7.1.2 Sutton Era Exploration

7.1.2.1 Sutton – BHP JV: 1990–95

Following a 10-year government moratorium on exploration, Sutton negotiated the mineral rights to the Project and formed KNCL and the Kagera Mining Company Limited in 1990.

Initial work on the Main Zone was expanded in 1992 to include the Kagera licence to the northwest, through the formation of a JV with BHP.

Exploration of the Kagera licence was undertaken from the Mururama exploration camp, located approximately 30 km northwest of the current Kabanga camp. The Kabanga exploration camp was established in its current location in 1993. Work continued to focus on the two Blocks outlined by the UNDP.

During 1993, drillhole KN93-36 was drilled approximately 1 km north of Main Zone, targeting the down-dip extension of a gossan ridge associated with a geophysical anomaly. This hole intersected a small, pipe-like ultramafic body with greater than 100 m of massive sulfide mineralization intersected (drilled along plunge). This area is now known as North Zone.

Nine holes were drilled in southern Main Zone, with the best result 1.2% Ni over 2.15 m in drillhole KN95-99 (Block 1 South). This drilling program also intersected numerous zones of low Ni-tenor massive sulfide to the east of Main Zone, with the best result being 0.4% Ni over 34.6 m in drillhole KN91-11. Two holes were drilled in the area now known as Tembo Zone, but no mineralization was intersected at this time.

Drilling at the Project continued until the end of 1995, at which time BHP exited the JV. By this time, Main Zone and North Zone Mineral Resources had been reported, which included a Main Zone Indicated Mineral Resource of 5.95 Mt at 1.16% Ni, and a North Zone Indicated Mineral Resource of 4.18 Mt at 2.21% Ni.

7.1.2.2 Sutton – Anglo JV 1997–99

In July 1997, Sutton and Anglo entered into a JV on both properties. Drilling recommenced in October 1997 following refurbishment of the Kabanga camp. The initial focus of this drilling campaign was to extend the North Zone high-grade massive sulfide resource, which appeared to be open at depth to the north.

An initial drilling program of 18,000 m was planned. This was subsequently extended to 26,000 m following the discovery of continuous mineralization extending to depth. Up to this time, little drilling had been completed at depths greater than approximately 400 m below the surface. The deepest mineralized intersection from the 1997 program was 9 m of massive sulfide mineralization at approximately 800 m below surface in drillhole KN98-45.

In April 1998, after completion of a total of 53 drillholes, a North Zone Mineral Resource of 14.3 Mt at 2.56% Ni was estimated.

Despite the open-ended nature of the mineralization at North Zone, the recognition of the need for additional shallower mineralization to increase yearly throughput of the plant to an economic level led to a shift of exploration focus back to the Main Zone area. Drilling recommenced in May 1998 and continued until October 1998. Main Zone was remodeled, concentrating on the contact-associated massive sulfide mineralization. Updated Mineral Resources were estimated for Main Zone and North Zone, but these were not published.

The Sutton and Anglo JV undertook additional drilling in the Block 1 South area (36 holes), and Nyanzali/Luhuma target areas, with low-grade (< 1% Ni) mineralization encountered.

7.1.3 Barrick Era Exploration

7.1.3.1 Barrick 1999–2004

In 1999, Barrick, through its purchase of Sutton, gained control of Bulyanhulu and other gold properties, thereby becoming ground holders at Kabanga and JV partners with Anglo.

After Anglo withdrew from the Project in 2000, Barrick recommenced exploration of the down-dip extension of the North Zone massive sulfide body. Drilling in January 2001 intersected mineralization at depth, which appeared to be separate from North Zone and similar in style to Main Zone mineralization. This zone, located between Main Zone and North Zone, was named MNB.

Initial interpretations suggested a 2 km long body at the base of an ultramafic conduit, which could be interpreted as an extension to Main Zone. Drilling through to 2002 focused on North Zone, extending the massive sulfide body to the north with an additional six holes. Deep drilling below North Zone (1,500–1,700 m below surface) intersected massive sulfide mineralization that was interpreted to be part of the zone now known as Kima. Four exploration holes were completed by Barrick in the area now known as Tembo Zone without encountering any nickel sulfide mineralization.

In 2003, Barrick completed a scoping study that was largely based on data obtained during its work with Anglo. This scoping study was based on unpublished Mineral Resource estimates generated in 2002 using drilling completed up to the end of 2001.

In late-2003, an updated resource model was generated by the exploration group to incorporate all holes up to and including the 2003 drilling program.

In addition to the primary Kabanga licence, Barrick also controlled eight Prospecting Licence (PL) areas at the Project. Reports to the end of 2003 indicate that little work was conducted on these licences other than litho-geochemical research studies (mafic ultramafic rocks and gossans) and geochemical surveys (soil and stream sediment). Exploration grids for soil surveys were implemented in 2000 on three PLs, where a total of 805 samples were taken. The results of the geochemical soil programs showed tight linear and coherent Ni, Cu, and Co anomalies coincident with known occurrences of mafic and ultramafic bodies. Stream sediment sampling (130 samples) was carried out on a regional PL in 2003 to coincide with a reconnaissance mapping program.

In February 2004, Barrick began negotiations with Falconbridge (which later became Xstrata and then Glencore), seeking a JV partnership. No further exploration work was undertaken for the remainder of 2004.

In January 2005, with JV negotiations still in progress, work resumed on an infill drilling program at Main Zone. A total of 10,557 m of drilling had been completed by the time the JV agreement was formalized on April 22, 2005.

7.1.3.2 Barrick – Glencore JV: 2005–18

In 2005, Barrick issued a press release announcing a JV partnership with Falconbridge (which later became Xstrata and then Glencore; all are referred to as Glencore from hereon). In the press release, Barrick also announced an Inferred Mineral Resource estimate of 26.4 Mt at 2.6% Ni, representing the sum of the Main Zone and North Zone models from 2003.

A total of 64,957 m across 127 drillholes was completed between January 2005 and March 2006 for a scoping study (known as the Phase I scoping study). Work focused on verifying and infilling the models at the Main, North, and MNB zones.

Other exploration work was completed during this time to support the Phase I scoping study. This included:

- Geophysical surveys:
 - 285 Crone borehole electromagnetic (BHEM) surveys with physical properties in 42 drillholes, 1,677 line-km of ground geophysical surveys (352 km UTEM Lamontagne, 1,325 km Crone fixed loop EM (FLEM)), and 4,878 line-km of Geotech airborne VTEM surveys. The VTEM airborne surveys, in conjunction with historical soil surveys and a BHP GEOTEM airborne magnetic survey, were used to target the ground FLEM and UTEM surveys.

- 17.6 km of superconducting quantum interference device (SQUID) and 12 km of fixed loop TEM surface electromagnetic surveys, as well as an airborne helicopter VTEM survey (2,615 km).
- These geophysical survey programs commenced with baseline surveys over the known mineralization zones to determine their geophysical signature. Most of the surveys were proximal to the North and Main zones, moving outwards to regional properties.
- Collection of metallurgical samples was undertaken between April and July 2005. A total of 2,908 kg of sample was shipped for metallurgical testing.
- Five holes were drilled for geotechnical purposes at proposed infrastructure sites.

Between April and November 2006, a total of 81,256 m across 148 drillholes was completed for Phase II of the scoping study. This program was designed to continue to improve the confidence of the resource and to discover additional shallow, large-tonnage mineralization to improve the economics of the Project. BHEM surveys with physical properties were completed in 95 drillholes. This work focused on verifying and infilling the resource models in the North and MNB zones. An additional metallurgical sample was also acquired for preliminary grinding/flotation testing at XPS in Canada. A further 2,600 kg of sample was shipped to the Falconbridge Technology Centre for metallurgical testing. Updated models were generated for the Main, MNB, North, and Tembo zones.

In mid-2006, Xstrata purchased Falconbridge and acquired 50% ownership of the Project.

7.1.3.3 *Barrick – Glencore JV: 2006–08*

A total of 242,347 m across 555 drillholes was completed for a PFS between December 2006 and November 2008. Of this total, 121,051 m was completed across 246 holes at North Zone and 105,735 m across 280 holes at Tembo Zone. This exploration program was designed to further improve confidence in the North and Tembo resources and to discover additional mineralization to improve the economics of the Project within a 15 km trucking distance of the planned mine infrastructure. Further metallurgical samples were also acquired for two pilot plant test runs. During 2007, the Kima massive sulfide zone was interpreted beneath North Zone.

BHEM surveys with physical properties were completed in 134 drillholes.

In 2007, an additional drilling program that totaled 6,836 m tested 10 target horizons outside the then-current modeled limits. Nickel sulfide mineralization was intersected in two of the drillholes, which increased the North mineralization by approximately 125 kt at 2.51% Ni and extended the Kima mineralization. BHEM surveys were completed in all 2007 holes.

Regional exploration drilling totaled 8,725 m across 19 holes, testing seven high-priority regional exploration targets at Bonde, Nyoka, Jabali, Balima, Kilimanjaro, Safari, and Nyundo (Keza-3), along with 16 BHEM surveys. In November 2007, massive sulfide mineralization was intersected at the Safari target with the discovery hole grading 1.88% Ni over 10.1 m (as-drilled width).

Mineral Resource estimates were reported for the 2008 models in the 2008 Xstrata annual report.

7.1.3.4 *Barrick – Glencore JV: 2008–10*

From December 2008 through August 2009, a total of 21,368 m of drilling was completed. This drilling program was successful in transferring an estimated 2.8 Mt in the mid-North area from Inferred to Indicated status.

From October 2009 through September 2010, work focused on: updating all resource models; completing a new North ultramafic resource model; adding estimates of deleterious component (Cr, As, Pb, and MgO) into the models; estimating density values by kriging methods; and conducting new variographic studies for the North and Tembo zones. Waste models were also produced for the North and Tembo zones.

An independent consultancy firm performed both a QA/QC audit and a Mineral Resource audit during this period, with final reports submitted in August 2009.

7.1.3.5 Barrick – Glencore JV: 2010–14

From 2010 through 2014, extensive geological/geophysical interpretation was carried out over the Kabanga licence area, coupled with assaying of unsampled historical BHP / Anglo holes in the Main Zone area, and led to the development of several high-tenor nickel targets in the southern part of the Project area.

Crone FLEM surveys were conducted from November 25, 2010 through December 17, 2010, a total of eight loops (40 line-km) were surveyed. Preliminary results indicated a > 500 m length 50 Siemen conductor associated with known high-tenor nickel drillhole intercepts in the BNPU footwall to the Main Zone; at 8.36% Ni over 4.6 m, which was the best drill result to that date (known as the Water Pump target).

Regional exploration work in this period was confined to geological mapping over regional licences and establishing access routes for planned 2011 programs.

Subsequent drilling in 2014 was limited to four holes at North (KN14-01 through KN14-04 (2,507 m)), which were drilled to test two new target areas, and an additional two holes were drilled into the Tembo North area (KL14-01 and KL14-01A (813 m)).

Figure 7-1 shows the collar locations of all of the drillholes completed on the Project licence to date, which are included within the current database, as well as the vertically projected outlines of the main mineralized zones.

7.1.3.6 Historical Regional Exploration

The regional exploration program tested six high-conductance FLEM target areas with a total of eight drillholes. All the surface geophysical S1 conductors targeted for drilling have been attributed to sulfidic metasediments considered to have masked any response from nickel-bearing massive sulfide.

FLEM surveys were conducted over 84.6 line-km. These surveys were targeted over conductors identified by the 2005 and 2008 VTEM airborne surveys, and also over magnetic highs from the 1992 GEOTEM airborne survey. The FLEM surveys conducted over regional licences were primarily Lamontagne UTEM surveys, with minor Crone FLEM follow-up surveys.

Detailed FLEM surveys were also conducted over the Panda / Mto target area to determine if lower frequencies were capable of better resolving massive sulfide targets. It was found that the lower frequency work was not capable of distinguishing known mineralization / BHEM plate from conductive metasediments. A discrete, 300 m-long, high conductance FLEM conductor coincident with the magnetic high was outlined at the Mto South target area in 2012 (untested by drilling).

Regional exploration work also included geological mapping over nine licence areas and a soil sampling survey over the southern part of the Kili FLEM conductor.

7.1.4 TNCL Exploration: 2021–Present

In December 2021, TNCL commenced activities after the granting of SML 651/2021. A total of 52,051 m of drilling across 112 holes has been completed since that time, including:

- Resource definition drilling – 42,278 m (including 10,173 m across 13 holes at North, 23,913 m across 52 holes at Tembo, and 8,192 m across 13 holes at Safari and Safari Link),
- Drilling to obtain metallurgical samples – 4,163 m (including 1,731 m across nine holes at North and 2,432 m across five holes at Tembo),
- Drilling for geotechnical purposes – 4,540 m (including 985 m across three holes at North and 3,555 m across eight holes at Tembo), and
- Portal drilling – 1,071 m (including 715 m across five holes at the proposed North boxcut location and 356 m across four holes at the proposed Tembo boxcut location).

7.2 Exploration and Drillhole Database

The Project drillhole database history spans from 1976 to present. The drilling database is currently maintained using Fusion software. Globally, including regional data outside the area now covered by the SML, the database totals over 658 km of diamond drilling.

7.3 Drilling, Core Logging, Downhole Survey, and Sampling

7.3.1 Drilling

Drilling has been completed exclusively by diamond drilling, with holes generally collared at PQ diameter (core approximately 85 mm) to drill through the highly weathered quartzite, then reducing to HQ diameter (core approximately 63.5 mm) down to 300–600 m downhole, and then typically finishing in NQ diameter (core approximately 47.6 mm) for drilling into the deeper parts of the North and Kima area. The PQ/HQ/NQ combination was considered essential to be able to successfully drill through the thick Rubona quartzite formation, which contains frequent narrow schist interbeds that can cause deflection issues. At Tembo, over 90% of the historical holes were collared using HQ diameter down to 50–100 m downhole and then continued with NQ coring to target depth due to the reduced amount of quartzite that will be encountered.

7.3.2 Core Recovery

Core recovery was assessed by trained geotechnical technicians at the Kabanga Site, based on the average 3 m core runs. All core was re-oriented by hand, and any intervals of missing core were noted in the logs. In the massive sulfide intervals, the most common reason for any missing core was grinding by the drill bit, since massive sulfide is less hard than the hanging wall metasediments. This issue was addressed by informing the drill crews of the expected depth of intercept and slowing down the drill rate when approaching this depth. All Kabanga drill logs have a separate database table for core recovery.

Core recovery throughout the drill programs has been excellent, with an average core recovery of 98%.

7.3.3 Core Logging

Kabanga geologists used a standardized geological unit classification comprising the following principal geological units:

- Massive sulfides (logged as MSSX (without country rock xenoliths) or MSXI (with xenoliths))
- Net-textured sulfides to semi-massive sulfides in ultramafic matrix (logged as UMAF_1a)
- Generally-unmineralized ultramafic (peridotite) (logged as UMAF_KAB)
- Generally-unmineralized gabbro/gabbro-norite (logged as GAB_KAB)
- Quartzites – Upper and Lower (logged as UQTZ and LQTZ respectively)
- Spotted Schist – Upper and Lower (logged as USSC and LSSC respectively)
- Banded Pelite (logged as BNPU)
- Lower Pelite (logged as LRPU)

Massive sulfide mineralization is broken into two logged units: remobilized massive sulfide (> 80% sulfide) (MSSX), which carries 90% of the sulfide occurrence, and massive sulfide with xenoliths of metasedimentary, or gabbro / ultramafic rock ($\geq 50\%$ to 80% sulfides) (MSXI). The ultramafic-hosted mineralization was logged primarily as unit UMAF_1a and varies from net textured to heavily disseminated to semi-massive sulfide.

The stratigraphic sequence at Kabanga is overturned, therefore, while it dips to the west–northwest, the younging direction is towards the east–southeast.

7.3.4 Core Sampling

Samples are taken for all mineralized zones, with a typical 2–3 m selvedge of samples into adjacent non-mineralized material either side (hanging wall and footwall).

Sampling procedures at Kabanga were essentially unchanged from 2001 through 2023:

- All geological contacts were respected when determining sample lengths.
- Mineralized intervals, including massive sulfide, were sampled with a typical maximum of 1 m sample length and a minimum of 0.25 m sample length.
- Weakly mineralized intervals (mainly within ultramafic) were sampled with a typical maximum of 2 m sample length.

7.3.5 Collar Survey

All drillhole collars from 2001 through 2009 were surveyed to decimeter-scale accuracy using either a TCR703 Leica, or Thales Promark 3 instrument.

Differential global positioning system (DGPS) was used following the demobilization of Direct Systems Australia from the site in late-2009.

7.3.6 Downhole Survey

Downhole survey was completed for all Tembo drillholes (100% by Gyro method), and all but 1% of the drillholes for North (82% by Gyro method, 17% by Maxibor method).

Table 7-2 summarizes all surveyed drillholes utilized for the 2024 resource modeling. In addition, repeat Gyro surveys were conducted in a minimum of 10% of all drillholes drilled at Kabanga from 2005 onwards, and progressive Gyro surveys were conducted in all deep drillholes at North Zone. Several historical holes at North were re-entered for Gyro surveys, and 15 drillholes at North (shallow and mid-depth holes) were excluded from the MSSX model due to either erroneous historical survey data or being replaced by 2005–09 KNCL holes.

In addition, drillholes drilled for metallurgical or geotechnical purposes were generally only used to shape the interpretation wireframe, as no samples were taken in the massive sulfide zone. As a verification measure, multi-shot surveys were conducted by the drilling companies in all 2001–09 drilling at a nominal 30 m interval and compared with the Gyro surveys. In addition, all holes surveyed by BHEM used a RAD orientation tool (234 holes at North and Tembo). These results were also compared to Gyro surveys.

Table 7-2: Downhole Survey Statistics for North and Tembo – Survey Method

Mineralized Zone	No. of Drillholes used in the 2024 Model	Downhole Survey Method	
		Gyro	Single/Multi-Shot
North – Massive Sulfide	380	90%	10%
North – Ultramafic	86	80%	20%
Tembo – Massive Sulfide	240	100%	0%
Tembo – Ultramafic	99	100%	0%

Table 7-3 provides the statistics in terms of downhole survey for the complete North and Tembo drillhole database.

Table 7-3: Downhole Survey Statistics for North and Tembo – Location

Survey Type	North	Tembo
Gyro + Multi-shot	82%	100%
Maxibor	17%	none
No Survey	1%	none

The drilling, core logging, downhole surveying, and sampling activities can be summarized as follows:

- Diamond drilling was used exclusively, collared in PQ diameter (core approximately 85 mm), then reducing to HQ diameter (core approximately 63.5 mm) down to 300–600 m, then typically finishing in NQ diameter (core approximately 47.6 mm) at North; and collared in HQ down to 50–100 m, and typically finishing in NQ diameter at Tembo.
- Geology and geotechnical core logging were performed by experienced geologists following standardized logging codes.
- Collar surveying was completed to within 30 cm accuracy.
- Downhole surveying was completed for all Tembo drillholes (100% by Gyro method), and all but 1% of the drillholes for North (82% by Gyro method, 17% by Maxibor method).
- The average core recovery is 98%.
- Sampling was routinely done on 1 m intervals, with a maximum of 2 m intervals in weakly mineralized zones. All samples respected geological contacts.

Drillhole collar locations are shown in Figure 7-1.

7.3.7 BHEM Data

During the various exploration campaigns, BHEM surveys have been completed on a significant number of drillholes: 42 drillholes in the Phase I scoping study, 95 in the Phase II scoping study, and 134 in the PFS. All BHEM surveys at Kabanga were completed by Crone Geophysics using Crone 3-component sensors and step response processing.

The data obtained is representative of the physical properties of the terrain, and it is likely that the data measured could be used as indicators/confirmation of mineralogical/physical ground properties such as:

- Temperature = reactive ground relative to sulfide abundance exposed to oxygen; potential mineralization marker.
- Conductivity = sulfides would be more conductive, abundance giving greater results; potential mineralization marker.
- Magnetic susceptibility = likely associated with Fe (magnetite) alteration, which probably follows the sulfides. Possibly some other minerals present too.
- Gamma tool (K, Th, U) = indicative of marker horizons such as shale (higher K, and possible Th). There may be some U alteration markers also that are potentially useful to help follow the stratigraphy.

7.3.8 Drillhole Database

Fusion data management software was used to facilitate the storage and movement of data between a central database and a local database. Distributed database upgrades were responsible for moving any changes made to the configuration of the central database down to the local database. DHLogger was the data capture tool used for logging and editing drillhole data. Database validations were undertaken routinely.

7.3.9 Geotechnical

The geotechnical data testing and analysis are discussed in Sections 13.2.1, 13.2.3, and 13.2.4.

7.3.10 Hydrogeological

The hydrogeological data acquisition and testing regime is discussed in Section 13.3.1.

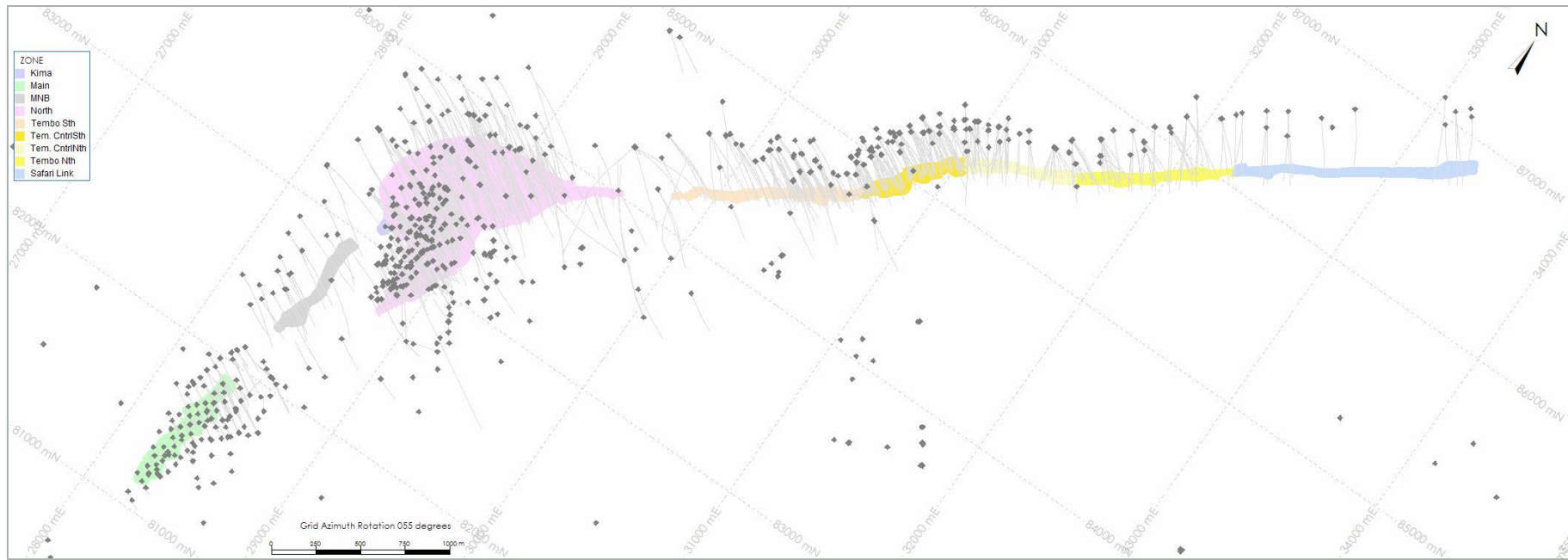


Figure 7-1: Plan View of Kabanga Drillhole Locations Proximal to Mineral Resources (truncated UTM)

7.4 Density Measurements

The massive sulfide and mineralized ultramafic, which together comprise the mineralization within the Mineral Resource estimates at all Kabanga zones lie below the level of oxidation (nominally 90–100 m below surface) and are competent, unaltered rock units that have no notable porosity.

The upper limit of the North mineralization wireframes was trimmed to exclude all weathered/oxidized massive sulfide (based on visual examination of drill core/drill core photos and sulfur content). The massive sulfide horizon at Tembo Zone is more than 98% within fresh material, with minor oxidation present in the upper southern and northern parts of the mineralization.

Almost all Tembo assayed drillhole samples and 80% of North assayed drillhole samples have specific gravity (SG) measurements, which were obtained by pycnometry (i.e., by gravimetric method on pulverized pulp) as part of the assay batch submissions.

Measurement of SG by pycnometry started in 2003. Prior to this, during the BHP / Anglo exploration period, 4,831 water immersion density measurements (Archimedes method) were completed. In 2005, it was decided to exclude the immersion measurement data from the resource database as the technique as practiced at Kabanga by BHP / Anglo resulted in a subset of erroneous data in the massive sulfide samples (Figure 7-2), possibly due to issues with repeatability by various technicians, calibration problems, and/or errors in manual data entry into the database.

An additional theoretical mineralogical density check calculation was made using the quantitative mineralogical data of samples from the pilot plant product. This was applied to the averaged resource estimate grades for North and Tembo mineralized material to derive quantitative mineralogy profiles. The theoretical mineralogical density check values obtained for each material type fall within the expected limits.

Densities for pre-2003 drillhole samples (North and Main zones) were calculated using a regression equation based on sulfur (see below). In the mineralized zones, density is highly correlated with sulfur content, as shown in the scatter plots in Figure 7-3 for massive sulfide drillhole samples (MSSX) and Figure 7-4 for mineralized ultramafic drillhole samples (UMAF_1a).

The following density-to-sulfur linear equations were used to assign density values to North and Main mineralization intervals that had no pycnometry measurements:

- $MSSX\ SG = 0.04 \times S\% + 2.93$ based on 4,889 measurements, with $R^2 = 0.82$
- $UMIN\ SG = 0.04 \times S\% + 2.85$ based on 1,325 measurements, with $R^2 = 0.80$

With the exception of the upper part of North (which is not incorporated into the Mineral Resource estimates), all Tembo and North mineralized material comprises unweathered rock. The massive sulfide material, as shown by core photos, is a competent massive lithology, and it is considered that the pycnometer method is suited to density determination at Kabanga.

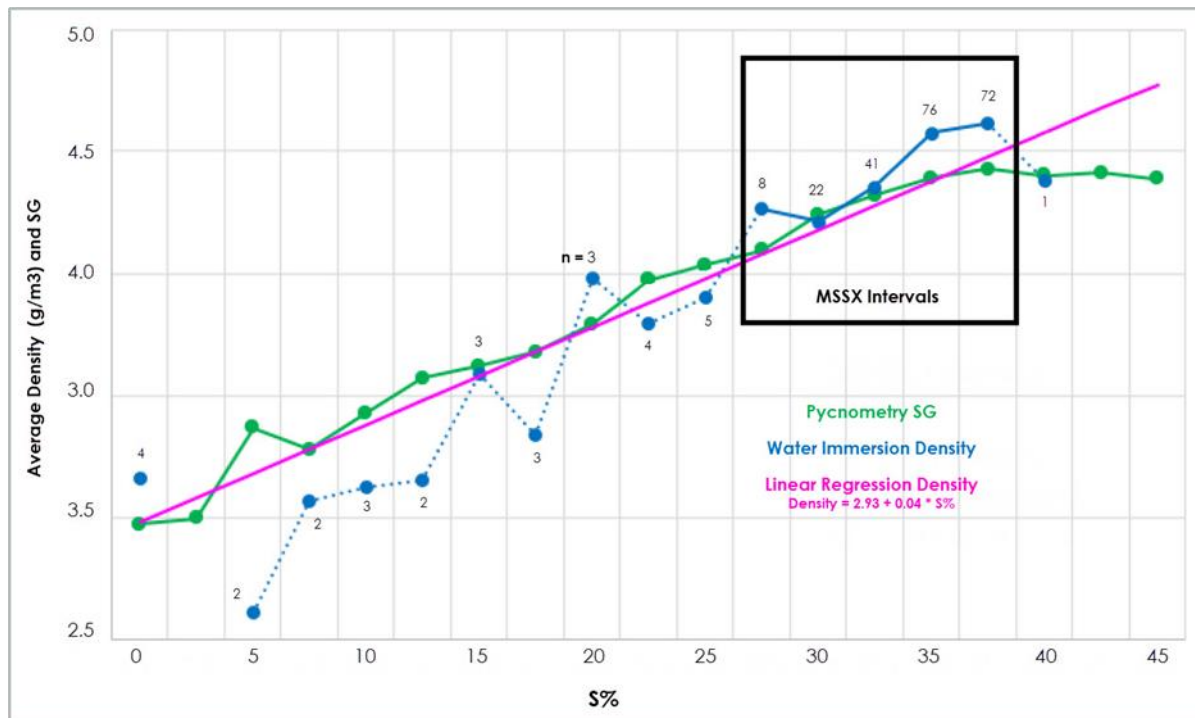


Figure 7-2: Comparison of Water Immersion Density vs. Pycnometry SG for Massive Sulfide

7.5 Planned Drilling Campaigns

In 2023, KNL planned a drilling program comprising 34 km of drilling across 62 holes in the Safari Link area, which is the 1.4 km along-strike area between the northeastern end of Tembo Zone to the northeastern extent of the Safari BHEM target. The purpose of this program was to demonstrate the presence and architecture (depth, width, orientation) of mineralization anticipated to occur between the known mineralization at Tembo and the show of similar mineralization in the three holes at Safari. The presence of mineralization at both along-strike ends of the Safari Link area provides a solid basis for the anticipated continuation of the mineralization in this area, further supported by surface geophysics.

The program commenced and halted in late-2023. There remains some 26 km of exploration drilling across 50 holes to complete this program.

Samples from the future Safari Link drilling will also be used for metallurgical testwork, as required.

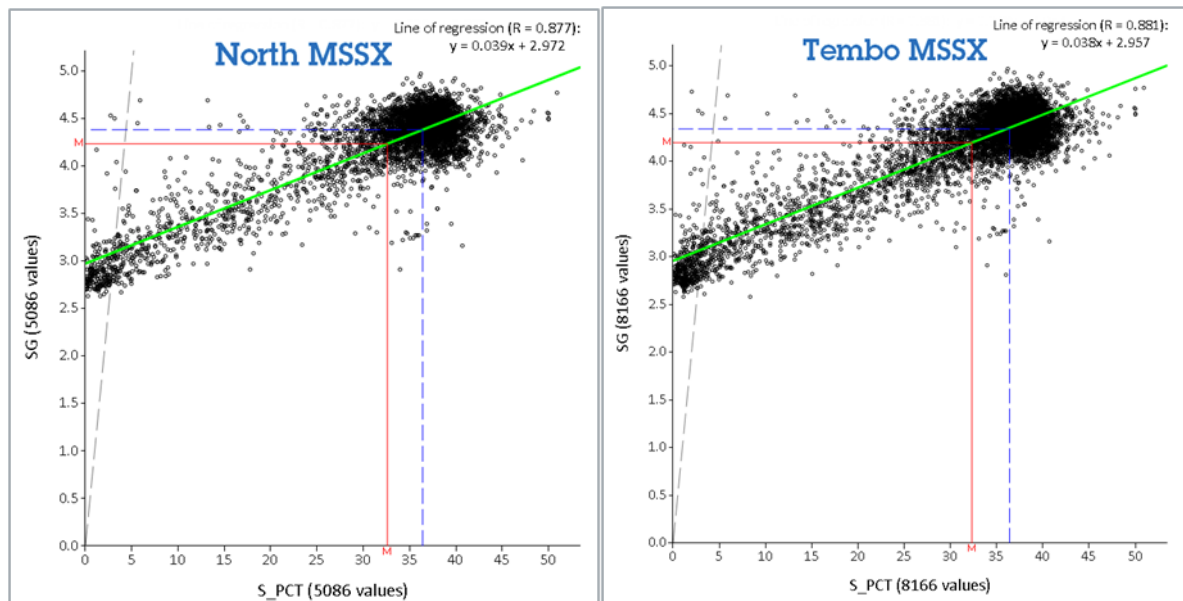


Figure 7-3: Pycnometer Specific Gravity Measurements for Massive Sulfide Mineralization in North and Tembo Drillhole Data

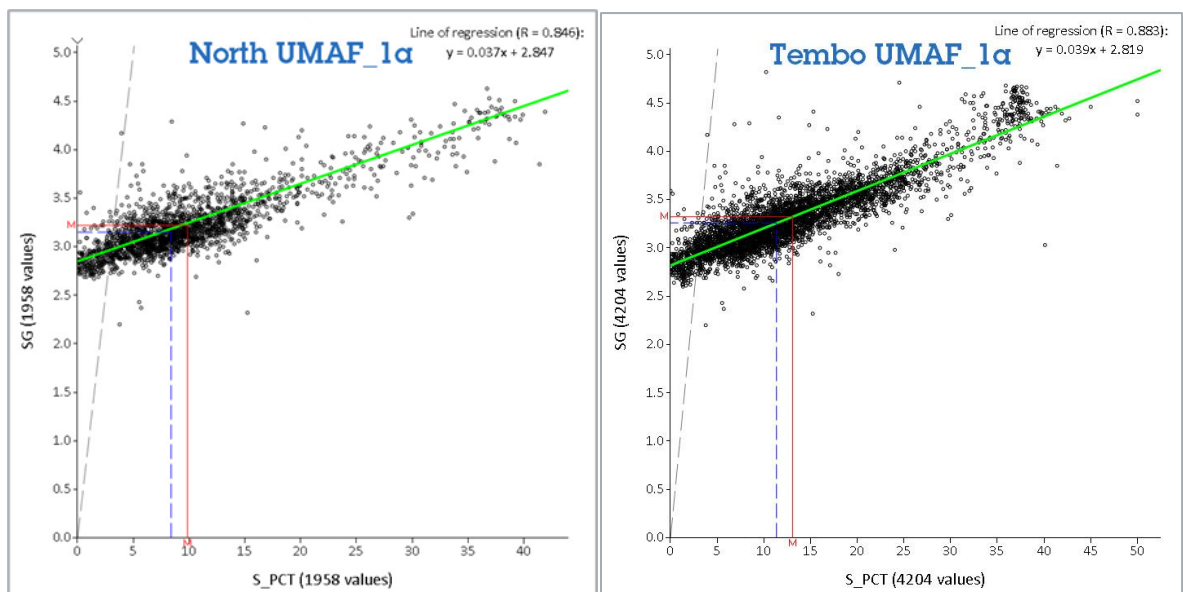


Figure 7-4: Pycnometer Specific Gravity Measurements for Ultramafic Mineralization in North and Tembo Drillhole Data

7.6 Exploration Targets

There are currently four zones of nickel mineralization at the Kabanga Nickel Project that, while having been shown through historical exploration work to be prospective, currently have insufficient data on which to base Mineral Resource estimates. These four zones – Sarari Link, Safari Extension, Rubona Hill, and Block 1 South – have been estimated as Exploration Targets, as discussed below.

7.6.1 Safari Link Exploration Target

A Tembo-style high-conductance electromagnetic (EM) geophysical anomaly exists to the northeast of Tembo. This EM response is generally of similar caliber to, and contiguous and in alignment with, that of Tembo and is therefore considered to be a possible strike extension (continuation) of the Tembo mineralization.

Drilling in November 2007 tested for the presence of mineralization at the Safari zone, which is located approximately 1.4 km northeast of Tembo North. Massive sulfide mineralization was intersected in the Safari discovery hole (KR0713) grading 1.83% Ni over 10.1 m (as drilled width). Ultramafic mineralization was also intersected in this hole (3.78 m at 0.91% Ni). Two other holes drilled at Safari in 2007 (KR07-11 and KR07-14D) intersected mineralization, confirming that the architecture (depth, width, orientation) of the mineralization encountered at Safari shares similar characteristics with the mineralization encountered at Tembo.

No further drilling was undertaken at Safari until 2022, at which time KNL commenced a drilling campaign intended to test the gap between the existing drilling at Tembo North and Safari – this target area is known as Safari Link.

KNL's Safari Link drilling campaign was designed to be completed in three phases:

- **Phase 1:** 22 holes for approximately 12,000 m – designed to confirm the presence and continuity of mineralization along the strike length between Tembo North and Safari and challenge the characteristics of that mineralization in the vertical plane.
- **Phase 2:** 24 holes for approximately 13,000 m – designed to infill Phase 1, with the aspiration of bringing interpreted mineralization up to Inferred status.
- **Phase 3:** 16 holes for approximately 9,000 m – designed to infill further, with the aspiration of bringing interpreted mineralization up to Indicated status.

Thirteen (13) Phase 1 holes were drilled in 2022–23, after which time drilling was put on hold to enable LZM to focus on studies related to the development of the existing Mineral Resources.

Ten (10) of these 13 holes were drilled between Tembo North and Safari, covering a strike length of approximately 675 m into the Safari Link area. The remaining three holes were drilled proximal to the 2007 Safari holes, covering a lateral extent of approximately 125 m. There is currently a strike length of approximately 850 m of the Safari Link geophysical anomaly that remains untested by drilling.

While geophysics data indicates that Tembo-style mineralization continues throughout Safari Link, constraining that mineralization in the vertical plane was considered to be an important goal in Phase 1 of the LZM drilling campaign, given the observed vertical undulation in the mineralization at Tembo (see Figure 6-4). Many of the Phase 1 drilled holes were designed to test and constrain the vertical extent of the mineralization to assist the targeting of the drillholes in the subsequent phases of infill drilling. As such, it was anticipated that some of the Phase 1 holes would overshoot (intersect above or below) the vertical extent of the mineralization, and this transpired to be the case. However, while mineralization was not intersected in all Phase 1 holes drilled to date, most of the holes that missed mineralization did intersect lithological markers that are indicative of the nearby presence of mineralization, such as sulfide banding and graphitic zones, thus supporting the likely presence of the mineralization above or below.

The Safari and Safari Link drilling was incorporated into the project-wide geological reinterpretation. Massive sulfide and ultramafic mineralization interpretations were developed, and these were used to extend the cell model from the northeastern extent of Tembo North through to the northeastern extent of Safari. This model of Safari Link was used to estimate an Exploration Target for this zone.

Grade estimation was conducted in the Safari Link model using the same methods as the Tembo Mineral Resource. Estimation parameters were similar to those applied to Tembo, however, the estimates in the Safari Link model were achieved using only the drillholes located in the Safari Link area; likewise, the estimates in the Tembo model were kept isolated from the Safari Link drillholes.

Because the Safari Link model is informed by fewer drillholes, the Safari Link estimates are at insufficient confidence level to define the estimates as a Mineral Resource and are therefore reported as an Exploration Target.

An Exploration Target of 4.5–5.5 Mt of mixed massive sulfide and ultramafic mineralization grading 2.1%–2.3% NiEq₂₄ has been estimated at Safari Link (see Table 7-4). The potential quantity and grade are conceptual in nature, and there has been insufficient exploration at Safari Link to define the mineralization as a Mineral Resource. It is uncertain if further exploration will result in the Safari Link Exploration Target being delineated as a Mineral Resource in the future.

Completion of the remaining drilling in Phase 1 through Phase 3, as well as additional geophysical surveys, are part of the future exploration program at the Project.

Table 7-4: Safari Link Exploration Target Range Estimates

Mineralization Type	Estimated Tonnage Range (Mt)		Estimated Grade Range (NiEq24%)	
	From	To	From	To
Ultramafic	1.5	2.0	1.2	1.4
Massive Sulfide	3.0	3.5	2.5	2.8
ALL COMBINED	4.5	5.5	2.1	2.3

7.6.2 Safari Extension Exploration Target

The Safari Extension area consists of a 1.0 km-long, fault-bound strike length that is located directly to the north of Safari Link and is interpreted as a possible offset extension of Safari mineralization. One shallow drillhole, completed in 2007 (KR07-12), indicated sinistral movement of stratigraphy within this fault-bound block relative to Safari. BHEM interpretation from KR07-12 also detected a strong, off-hole conductor 55 m past the end of the hole. The airborne VTEM magnetic anomaly at Safari Extension appears stronger than the magnetic response observed at Safari Link. Potential mineralization at Safari Extension is interpreted to lie at least 300 m below surface (vertically).

An Exploration Target of 3–4 Mt of mixed massive sulfide and ultramafic mineralization grading 1.8%–2.0% NiEq24 has been estimated at Safari Extension. The potential quantity and grade are conceptual in nature, and there has been insufficient exploration to define the mineralization at Safari Extension as a Mineral Resource. It is uncertain if further exploration will result in the Safari Extension Exploration Target being delineated as a Mineral Resource in the future.

An exploration work program has been proposed to further test Safari Extension, consisting of three drillholes (2,000 m) at a nominal 250 m spacing and associated BHEM surveys to evaluate the potential for nickel sulfide mineralization. Hole KR07-12 will also be re-entered and extended approximately 100 m to test the off-hole BHEM target.



The Rubona Hill area lies 2.5 km to the southwest of the current Main Zone Mineral Resource (see Figure 7-6) and consists of the only untested, probable near-surface, ultramafic intrusive on the SML (SML 651/2021). A total of five historical (UNDP, Anglo, and Barrick–Glencore) drillholes failed to intersect intrusives, due likely to inappropriate magnetic modeling. Definitive Magnetic Vector Inversion (MVI) modeling was conducted in late 2014 to outline the ultramafic (see Figure 7-7), following completion of a two-drillhole program. There were no modern EM surveys conducted in any of the drillholes.

The Rubona Hill ultramafic body is interpreted to intrude at or near the BNPU / LRPV contact in the same shear systems as the host of the Kabanga Mineral Resource. MVI modeling interprets the ultramafic body as having a principal strike length of approximately 400 m and plunging steeply to the southwest from 300 to 1,000 m vertical depth (see Figure 7-8). Surface fixed-loop EM surveying (1.5 km x 1.5 km) in 2012 outlined a strong conductor at 250 m vertical depth, interpreted from 2014 drilling to be related to sulfidic metasediments with enhanced conductivity in the hanging wall of the potential mineralized zone. No BHEM surveys were conducted in the 2014 drillholes.

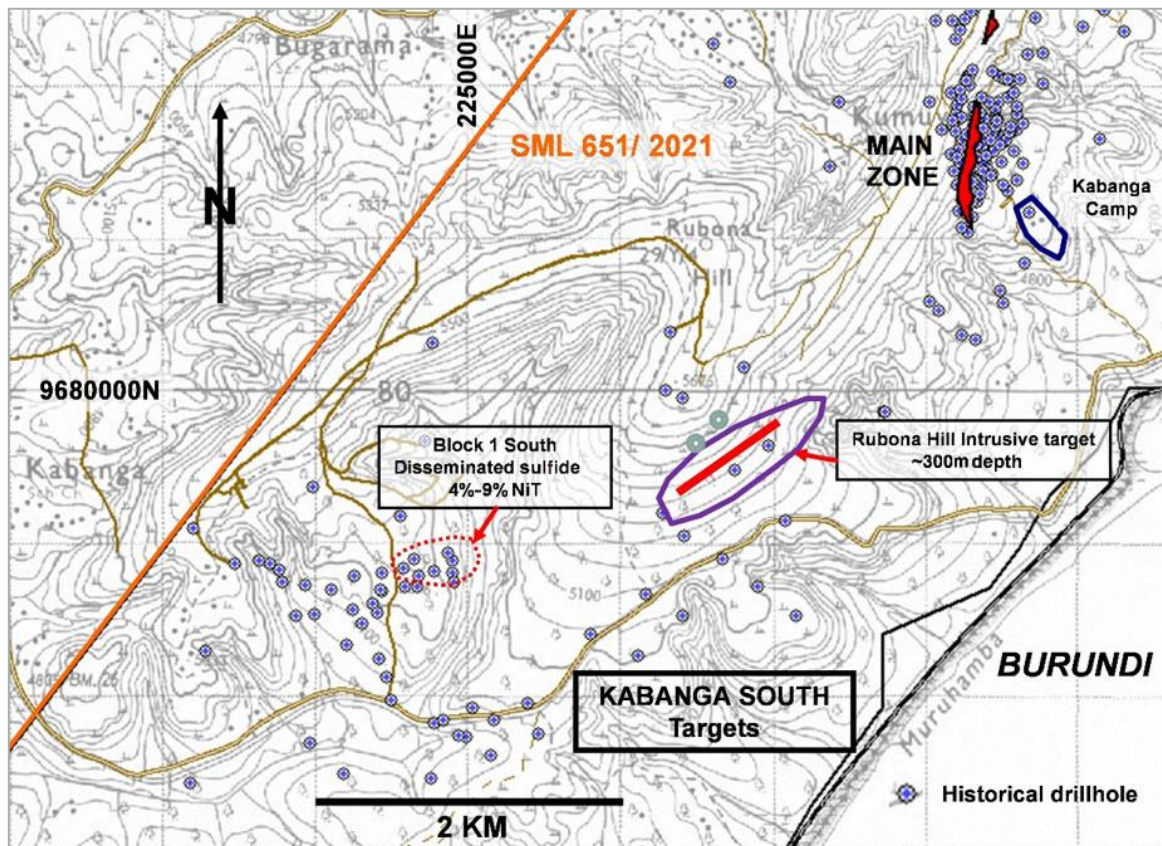


Figure 7-6: Location of Rubona Hill and Block 1 South Target Areas

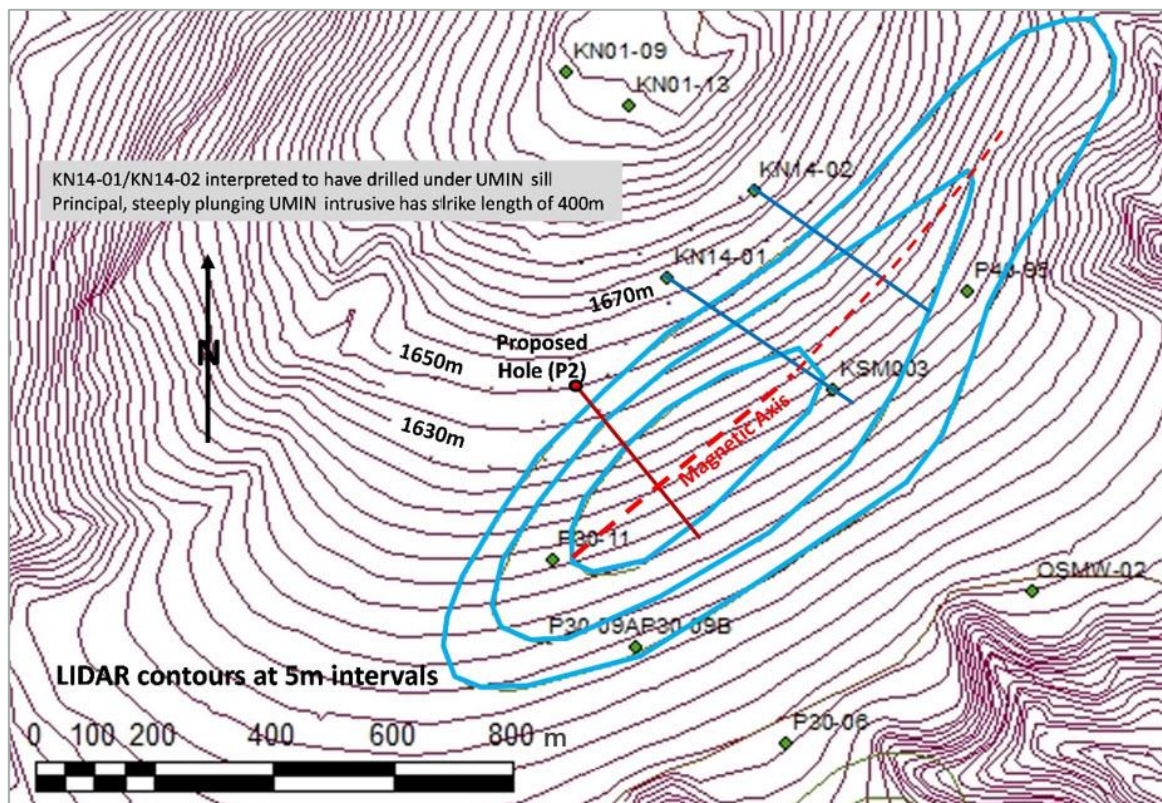


Figure 7-7: Rubona Hill MVI Magnetic Contours at 1,200 m Elevation with Historical Holes and Proposed Priority Hole

An Exploration Target of 8–10 Mt of ultramafic-style mineralization grading 1.8%–2.0% NiEq₂₄ has been estimated at Rubona Hill. The potential quantity and grade are conceptual in nature, and there has been insufficient exploration to define the mineralization at Rubona Hill as a Mineral Resource. It is uncertain if further exploration will result in the Rubona Hill Exploration Target being delineated as a Mineral Resource in the future.

Further drilling (22 holes – 20,000 m) has been proposed to evaluate the economic potential of the untested ultramafic intrusive at Rubona Hill. BHEM surveys are proposed in conjunction with the drilling, including re-entry and surveying of 2014 holes KN14-01 and KN14-02.

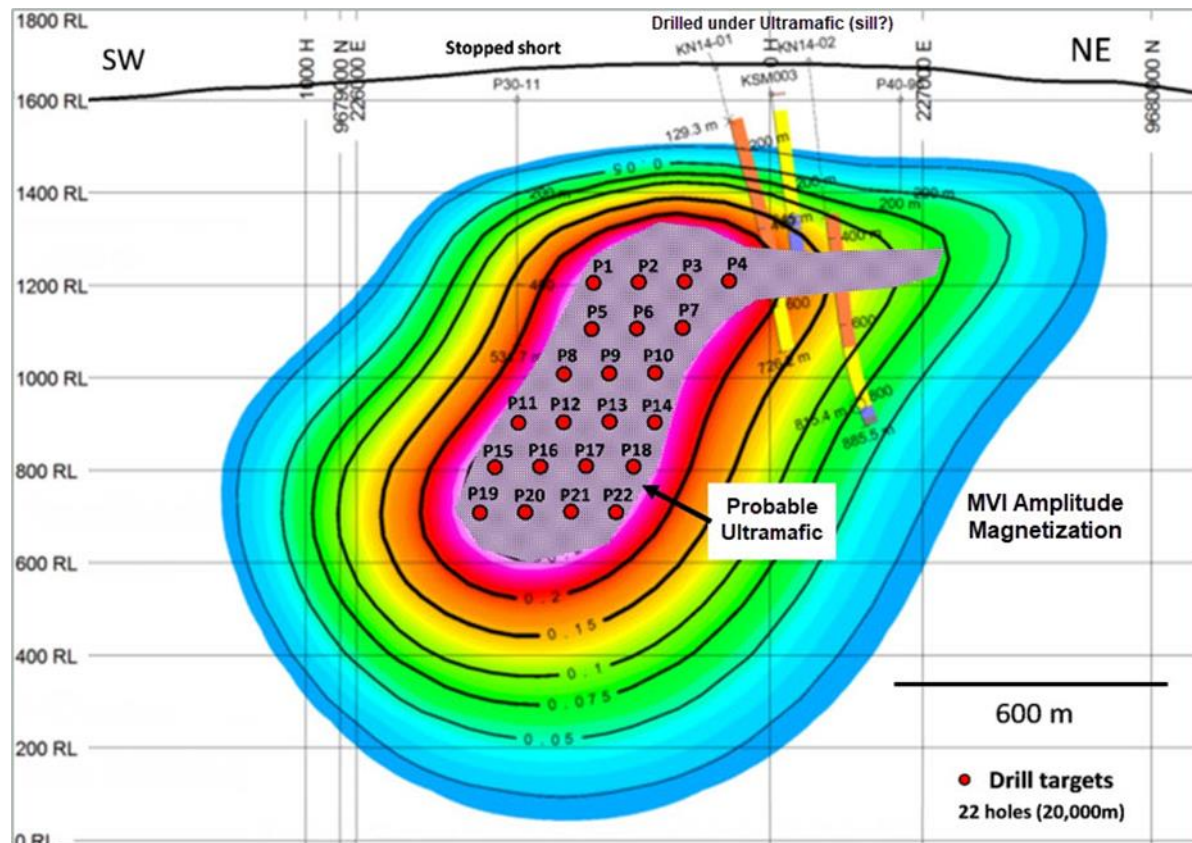


Figure 7-8: Magnetic Vector Inversion (MVI) Model of Rubona Hill Target with Proposed Drillhole Intercepts, (long-section looking 320°)

7.6.4 Block 1 South Exploration Target

The Block 1 South area lies 5 km to the southwest of Main Zone (see Figure 7-9). A total of 45 drillholes were completed in the Block 1 South area by the UNDP, BHP, and Anglo up until the late 1990s. This drilling targeted two separate ultramafic intrusives. Disseminated nickel sulfide mineralization was intersected within the eastern part of the northernmost ultramafic sill with the best intercept being 0.35% Ni over 47.6 m in hole KB1015 (see Figure 7-9). The Ni tenor in all intercepts in this area ranges from 4% to 9%. No near-surface indication of massive sulfide mineralization was detected by modern surface fixed-loop EM surveys.

An Exploration Target of 2–4 Mt of ultramafic style mineralization grading 1.8%–2.0% NiEq₂₄ has been estimated at Block 1 South. The potential quantity and grade are conceptual in nature, and there has been insufficient exploration to define the mineralization at Block 1 South as a Mineral Resource. It is uncertain if further exploration will result in the Block 1 South Exploration Target being delineated as a Mineral Resource in the future.

An exploration work program has been proposed for Block 1 South, consisting of re-entry of several historical BHP / Anglo holes to conduct modern BHEM surveys with step response processing to detect potential zones of nickel sulfide mineralization, followed by drilling to test the target conductive plates and drilling of two holes to the east of all historical drilling.

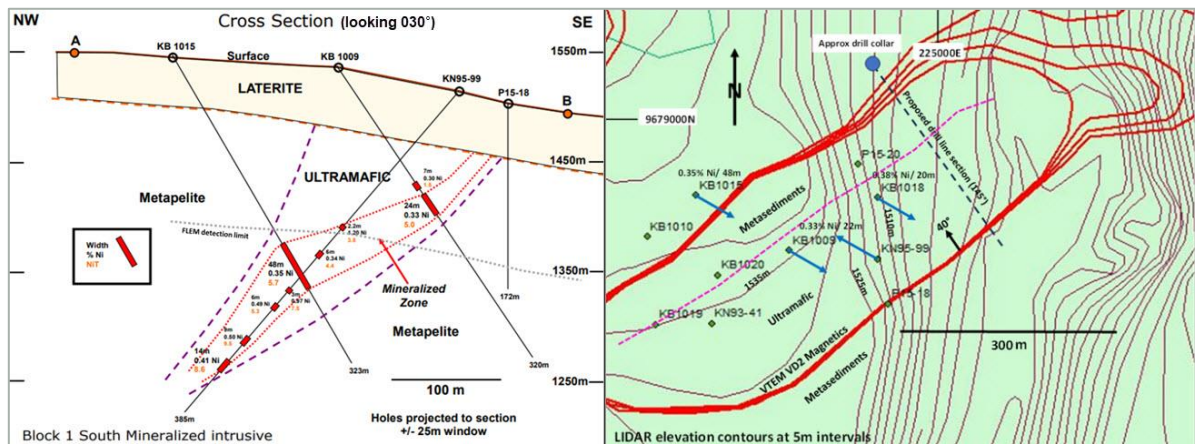


Figure 7-9: Block 1 South Target Potential

7.6.5 Exploration Target Summary

The Exploration Targets at Kabanga Nickel Project are summarized in Table 7-5.

Table 7-5: Summary of Kabanga Nickel Project Exploration Target Estimates

Location	Mineralization Type	Estimated Tonnage Range (Mt)		Estimated Grade Range (NiEq24%)	
		From	To	From	To
Safari Link	Ultramafic	1.5	2.0	1.2	1.4
	Massive Sulfide	3.0	3.5	2.5	2.8
	Total	4.5	5.5	2.1	2.3
Safari Extension	Massive Sulfide plus Ultramafic	3.0	4.0	1.8	2.0
Rubona Hill	Ultramafic	8.0	10.0	1.8	2.0
Block 1 South	Ultramafic	2.0	4.0	1.8	2.0
TOTAL ALL		17.5	23.5	1.9	2.1

8 SAMPLE PREPARATION, ANALYSES, AND SECURITY

8.1 Introduction

Kabanga sample preparation, assaying, QA/QC activities, and protocols can be summarized as follows:

- Sample preparation was completed in Tanzania at ALS-Chemex laboratory in Mwanza.
- All material was crushed to –2 mm and 2 x 250 g pulp bags were sent to ALS-Chemex Perth laboratory for analysis.
- Perth samples were pulverized to –75 µm and analyzed as follows:
 - 4-acid digest / ICP for Ni, Cu, Co, Ag, Fe, Cr, Mg, Mn, As, Pb, Bi, Cd, and Sb.
 - Fire assay / ICP-MS for Au, Pd, and Pt.
 - Ni and Cu samples exceeding 10,000 ppm, and Au, Pd, and Pt samples exceeding 1.0 g/t were re-analyzed with a more accurate technique.
 - LECO method for the determination of S.
 - Gravimetric method for SG determination (pycnometry) on all samples.
- Not all samples have been assayed for the complete suite: only 66% for North (10,053 of 15,200 samples), and 95% for Tembo (6,422 of 6,717 samples).
- An industry standard QA/QC protocol was followed at Kabanga with the use of certified reference material (CRM) standards, blanks, check assays, and duplicates.
- ALS is an independent laboratory accredited by the NATA and complies with international standards such as ISO/IEC 17025 for testing and calibration in laboratories.
- SGS laboratory in Mwanza is an independent laboratory that is ISO/IEC 10725 accredited by the South African National Accreditation System (SANAS).

8.2 Sample Preparation

From 2003 onwards, sample preparation was completed in Tanzania at ALS-Chemex laboratory in Mwanza. Drill core was crushed to –2 mm and 2 x 250 g pulps were nitrogen purged and vacuum sealed in plastic bags and sent to the ALS-Chemex Perth laboratory (with duplicate insertion at a rate of 1 in every 40 samples), where samples were pulverized to –75 µm prior to analysis.

Prior to February 2007, quarter core samples (NQ core) were sent for assaying (only North Zone), thereafter, half core samples (NQ core) were used for assaying.

All coarse rejects (–2 mm crusher rejects) were preserved in vacuum-sealed, nitrogen-purged bags, stored at the Kabanga site.

All unused pulverized pulp material was hermetically sealed in a cryovac bag for long-term storage in Perth.

8.3 Assaying

The ALS-Chemex Perth laboratory was the primary analytical laboratory for the majority of the Tembo assay results available in the database. For North, all 1994–95, and 2001–09 assay results are from ALS-Chemex, but for the 42 holes drilled in this zone by Anglo in 1997–98, most of the results are from the Anglo American Research Laboratories (AARL) in Johannesburg using the ICP technique. The Anglo drillholes used for the North 2021 model update account for 11% of the total meters used to estimate the Mineral Resources.

A detailed list of the analytical laboratories and assaying techniques used by drilling campaign is given below, with details in Table 8-1:

- 1991–92 Sutton – Cominco AA – Main Zone only
- 1992–95 BHP – ALS-Chemex acid digest / ICP primarily – Main and North zones

- 1997–99 Anglo – AARL acid digest / ICP primarily – Main and North zones
- 2001–04 Barrick – ALS-Chemex acid digest / ICP – Main, MNB, and North zones
- 2005–14 KNCL JV – ALS-Chemex acid digest / ICP – Main, MNB, North and Tembo zones.
At the ALS-Chemex Perth laboratory, pulps were analyzed as follows:
 - 4-acid digest / ICP for Ni, Cu, Co, Ag, Fe, Cr, Mg, Mn, As, Pb, Bi, Cd, and Sb
 - Fire assay / ICP-MS for Au, Pd, and Pt
 - Ni and Cu samples exceeding 10,000 ppm, and Au, Pd, and Pt samples exceeding 1.0 g/t, were re-analyzed by a 3-acid digest / ICP finish with a high degree of accuracy and precision.
 - All Au, Pd, and Pt analyses exceeding 1.0 g/t also were assayed by a more accurate fire assay / ICP-MS technique (see note below).
 - LECO method for S
 - Gravimetric method for SG (pycnometry) on all samples
- 2021–24 KNL – primary assaying at SGS laboratory in Mwanza:
 - Ni, Cu, Co, As, Pb, Bi, Sb, Cd, Sn, Mn, Zn, Cr, Fe, Si, Mg, Al, Ca by Na peroxide fusion / ICP-MS / ICP-OES
 - Ag by 2-acid digest / Atomic Absorption Spectroscopy (AAS)
 - Au, Pt, Pd by Fire Assay / ICP-OES
 - S by ICP and/ or combustion/ infrared detection
 - Specific gravity (SG) determination by Pycnometer on pulps
- 2021–24 Check assaying undertaken at the Nesch Mintech laboratory in Mwanza:
 - Ni, Cu, Co by 4-acid digest ICP / MP-AES (2022 metallurgical drilling)
 - Ni, Cu, Co by microwave digestion with AAS / MP-AES finish (exploration drilling 2023 onwards)
 - S by Combustion/ Infrared detection

Notes:

- Not all samples were assayed for the complete suite, for example, only 66% for North (10,053 of 15,200 samples), and 95% for Tembo (6,422 of 6,717 samples).
- The acid digest / ICP method has very limited incorporation of Ni originating from silicate minerals. However, as demonstrated by the results obtained from umpire assays on Kabanga MSSX samples by SGS using the X-ray Fluorescence (XRF) technique, there are essentially no significant nickel-bearing silicates in Kabanga MSSX, and all nickel mineralization is present as sulfides. In the UMIN material, however, the SGS XRF results report clearly higher total Ni in comparison to the acid digest / ICP results due to the presence of nickel silicates in this material.

Table 8-1: Summary of Analytical Techniques for Mineral Resource Drilling

Years	Campaign	Number of:		Analytical Techniques
		Drillholes	Analyses	
1976–79	UNDP Regional Exploration	17	3,435	<unknown>
1991–92	Sutton Resources	34	3,897	Cominco low-level Ni assay (AA)
1993–95	Sutton–BHP JV	58	3,898	Acid digest / ICP, Na peroxide fusion / ICP
1997–98	Sutton–Anglo JV	81	3,903	Acid digest / AAS
1999	Sutton–Anglo JV	25	1,170	Acid digest / ICP Na peroxide fusion / ICP

Years	Campaign	Number of:		Analytical Techniques
		Drillholes	Analyses	
2001–04	Barrick Gold Corporation	56	2,419	Acid digest / ICP
2005–06	Barrick–Glencore JV Phase I Scoping Study	78	6,046	Acid digest / ICP
2006	Barrick–Glencore JV Phase II Scoping Study	114	2,769	Acid digest / ICP
2006–08	Barrick–Glencore JV PFS	436	12,441	Acid digest / ICP
2008–13	Barrick–Glencore JV FS	74	2,277	Acid digest / ICP
2014	Barrick–Glencore JV Regional	6	73	Acid digest / ICP
2021–23	KNL infill and extension	75	1,556	Na peroxide fusion / ICP-OES
Total		1,054	43,884	

8.4 Quality Assurance and Quality Control

8.4.1 QA/QC Sample Frequency

An industry-standard QA/QC protocol was used at Kabanga with screen tests and the use of duplicates (coarse rejects, core), pulp check assays, certified CRMs, and blanks to monitor sample preparation and assaying quality.

Table 8-2 detailed QA/QC information and overall frequencies at which QA/QC samples were inserted in the sample batch stream from 2005 through 2009.

Notes:

- 100% of the assays in the Project database from 2001–09 are from ALS-Chemex Perth. There are no Genalysis or SGS Lakefield results in the database used for the Mineral Resource estimation.
- Since routine QA/QC procedures started in 2005, 73% of the North data and 100% of the Tembo data has been subjected to standard QA/QC protocols.

Table 8-2: Frequency of QA/QC Samples 2005–09

QA/QC	Laboratory	Number of Samples	Frequency (1 per ...)
Screen Tests	ALS-Chemex Mwanza	1,075	20
Coarse Reject Duplicates	ALS-Chemex Perth	510	40
Quarter Core Replicate (2005–07 only)	ALS-Chemex Mwanza Perth	353	50
Pulp Check Analysis	Genalysis SGS Lakefield	1,006 52	20
CRMs			
– KNCL	ALS-Chemex Perth	872	30
– ALS	ALS-Chemex Perth	1,593	15
Blanks	ALS-Chemex Perth	378	60

8.4.2 Sample Preparation QA/QC – Screen Test

From January through May 2005, Barrick requested that the ALS-Chemex sample preparation laboratory in Mwanza meet a p75 passing –2 mm criterion. Starting in May 2005, this was re-specified to p95 passing. This criterion was met by 99.9% of all crushed reject pulps from 2005 through 2009. The Barrick p75 screen criteria only affect samples prepared for Main Zone, not North or Tembo.

A total of 1,075 screen tests were performed on coarse pulp rejects (–2 mm crushed rejects) at ALS preparation laboratory in Mwanza from 2005 through 2009. Figure 8-1 shows the results of these screen tests.

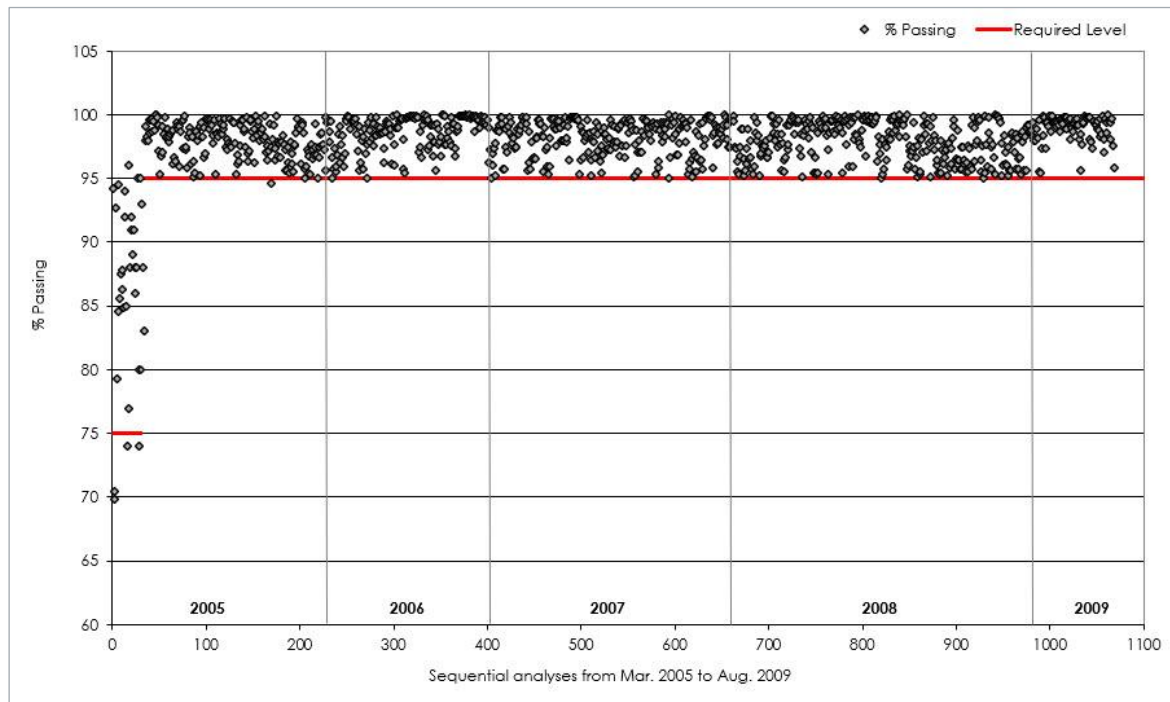


Figure 8-1: Percent Reject Passing –2 mm Screen – 2005–09

8.4.3 Duplicates and Check Assays – ALS-Chemex Coarse Reject Duplicates

KNCL routinely submitted coarse reject duplicate samples produced by splitting the –2 mm crusher product (crusher duplicates) from the Mwanza sample preparation laboratory at a rate of one duplicate in every 20 samples. The duplicates, destined to be analyzed by the primary laboratory ALS-Chemex Perth, were sent in the same batch as the original sample. The comparison between original samples and duplicates is charted as percent relative difference according to grade in Figure 8.2 through Figure 8.4 for Ni, Cu, and Co from 2005 through 2009. These results indicate adequate precision and an absence of bias within grade ranges.

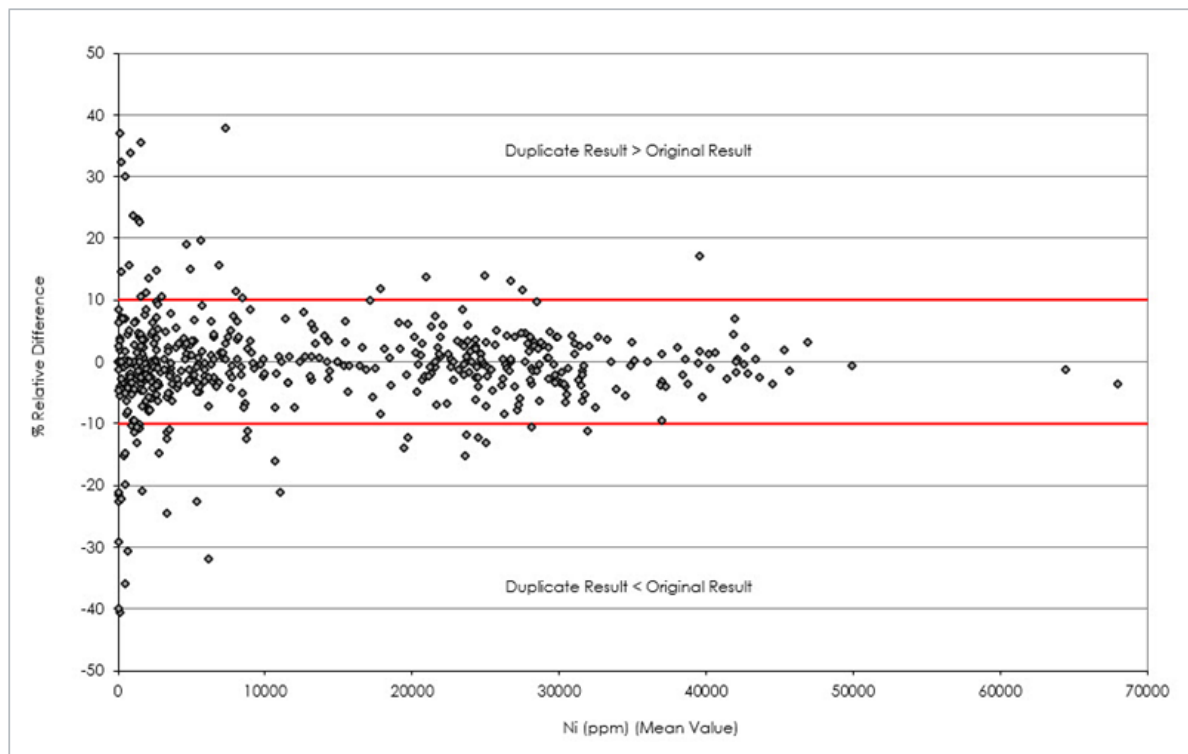


Figure 8-2: ALS-Chemex – Percent Relative Difference for Ni Duplicates – 2005–09

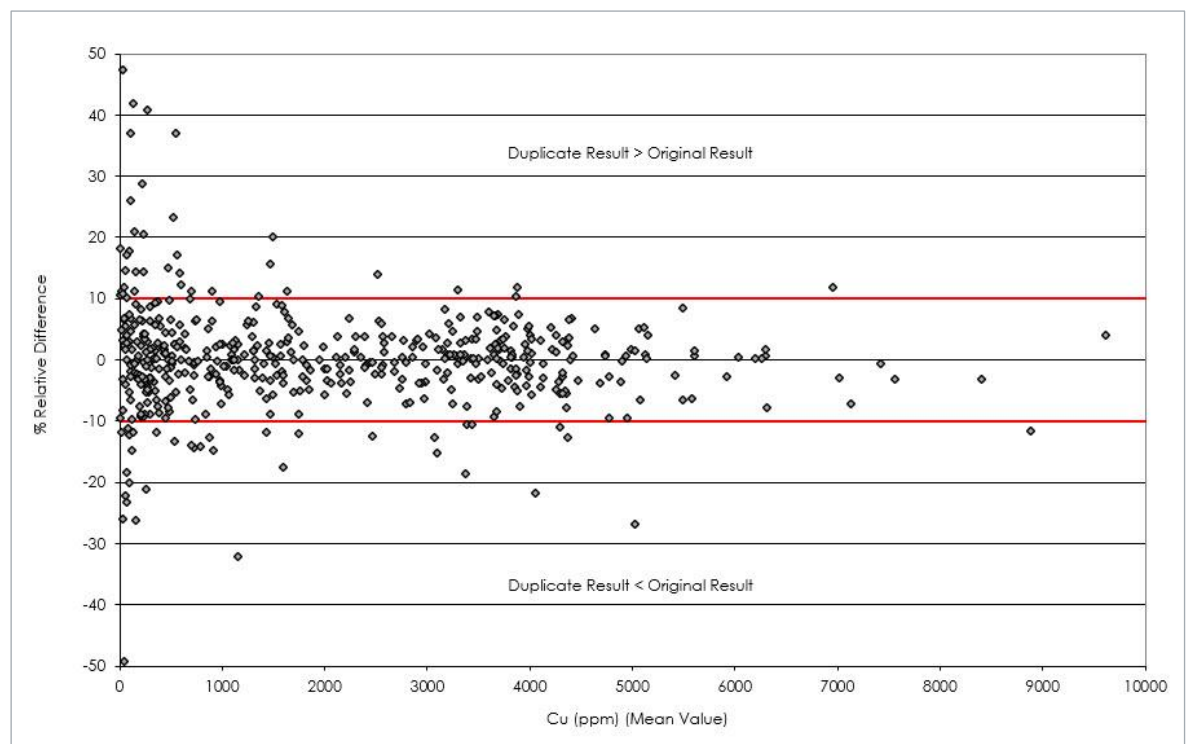


Figure 8-3: ALS-Chemex – Percent Relative Difference for Cu Duplicates – 2005–09

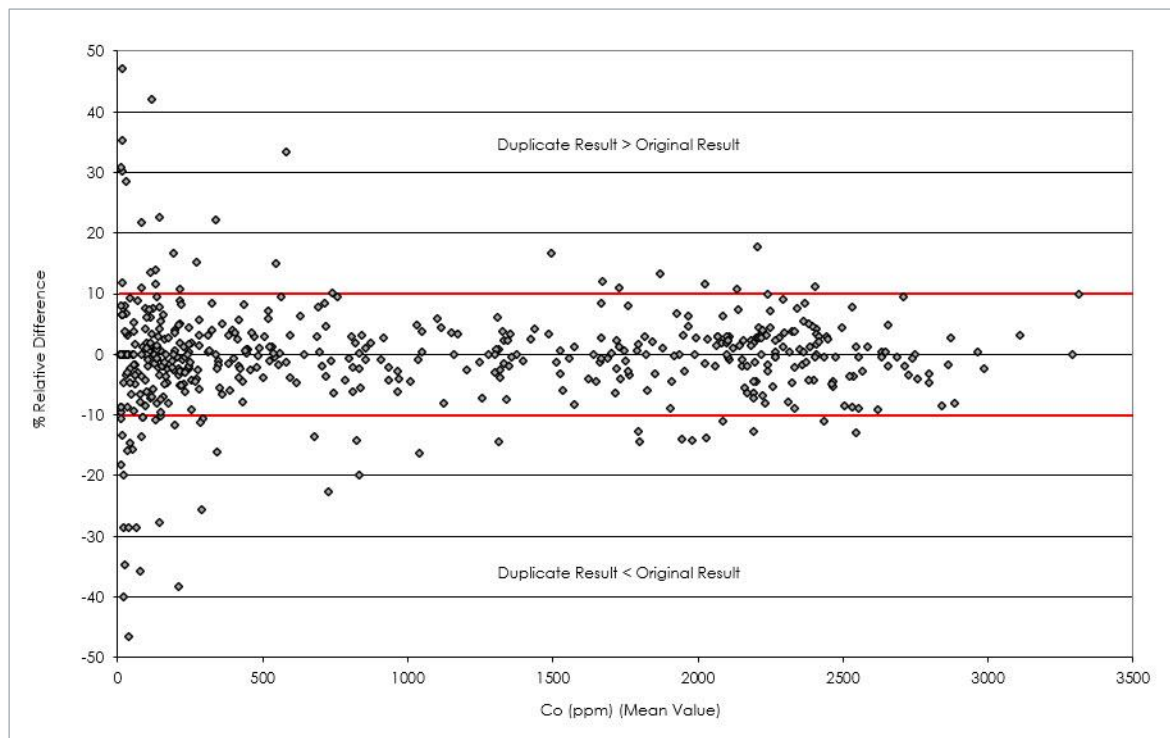


Figure 8-4: ALS-Chemex – Percent Relative Difference for Co Duplicates – 2005–09

8.4.4 Genalysis Pulp Check Assays

In addition to the primary laboratory coarse rejects duplicates, since May 2005, duplicate pulverized sample pulps (every 20th sample) were prepared by ALS-Chemex Perth and forwarded to Genalysis, Perth for analysis by the same method as ALS (4-acid digest / ICP). ALS-Chemex nitrogen-purged and sealed all check assay pulps at the same time as samples were prepared for analyses at their laboratory. Genalysis conducted analyses for the same suite of elements as ALS-Chemex, using the same techniques.

Figure 8-5 through Figure 8-8 compare the Genalysis and ALS-Chemex pulp results for Ni, Cu, and Co by charting percent relative difference (Figure 8.5 is Ni% charted as sequential over time, while the remaining three figures are Ni%, Cu ppm and Co ppm charted according to increasing grade).

In early-2008, 97 check analysis results indicated that for samples grading above 2.0% Ni (Figure 8-5), 74% displayed < 10% relative difference in Ni grade (over 60 comparative values). However, as highlighted on the chart, a reduction in Ni grade (increase in the negative difference between grades) was noted in the early-2008 Genalysis values in comparison to the ALS-Chemex results. This difference was subsequently explained by the effect of oxidation over time of the sample pulps on the liberation of Ni during assaying, as demonstrated in a small study in 2005 at the ALS-Chemex laboratory. In this study, 47 pulp samples were re-analyzed sequentially over time, with the results demonstrating that the oxidation of pulverized sample pulps causes the Ni assay result to decrease in a linear way over from the day of pulverization to the time of analysis. In the case of the Genalysis pulp checks, in early 2008, 27 pulps were prepared at ALS-Chemex but not immediately vacuum sealed, and therefore oxidized prior to their shipment to Genalysis, resulting in the low bias for Ni% highlighted on Figure 8-5.

When considering check analyses above 1% Ni, 94.7% of values displayed < 10% relative difference (34 comparative values) and for samples grading above 2% Ni (generally massive sulfide), 100% of values showed < 10% difference. For samples grading above 1% Ni, results from Genalysis averaged 2.2% (relative) higher overall than those from ALS-Chemex. A limited number (eight) of MSSX CRMs (average of 2.89% Ni) indicated that Genalysis was also high-biased for nickel by approximately 3.2% relative to ALS-Chemex during the FS phase; Correcting for the shifted CRM value indicates very close comparative values for massive sulfide during this time. This divergence between the ALS-

Chemex and Genalysis results prompted KNCL to conduct additional assay tests using a different analysis method – a pyrosulfate fusion followed by XRF at SGS Lakefield.

The Genalysis check assays show that the Genalysis results presented a fairly consistent low bias of 0.02% Cu grade in comparison to ALS results (as shown in Figure 8-7), which corroborates the comparison Genalysis vs. ALS-Chemex for the CRM results.

For Co, both laboratories returned comparable results over the 2005 through 2009 period (Figure 8-8).

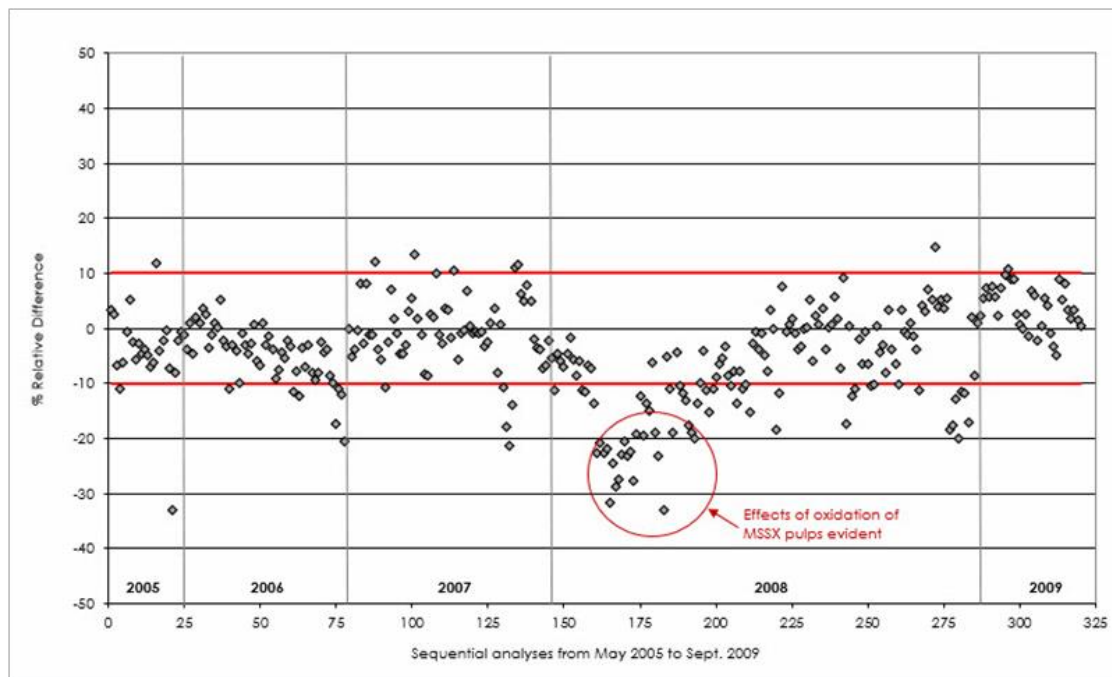


Figure 8-5: Genalysis vs. ALS-Chemex Pulp Check Assays Percent Relative Difference for Ni Grades 2005–09 – Sequential Analysis for MSSX Ni > 2%

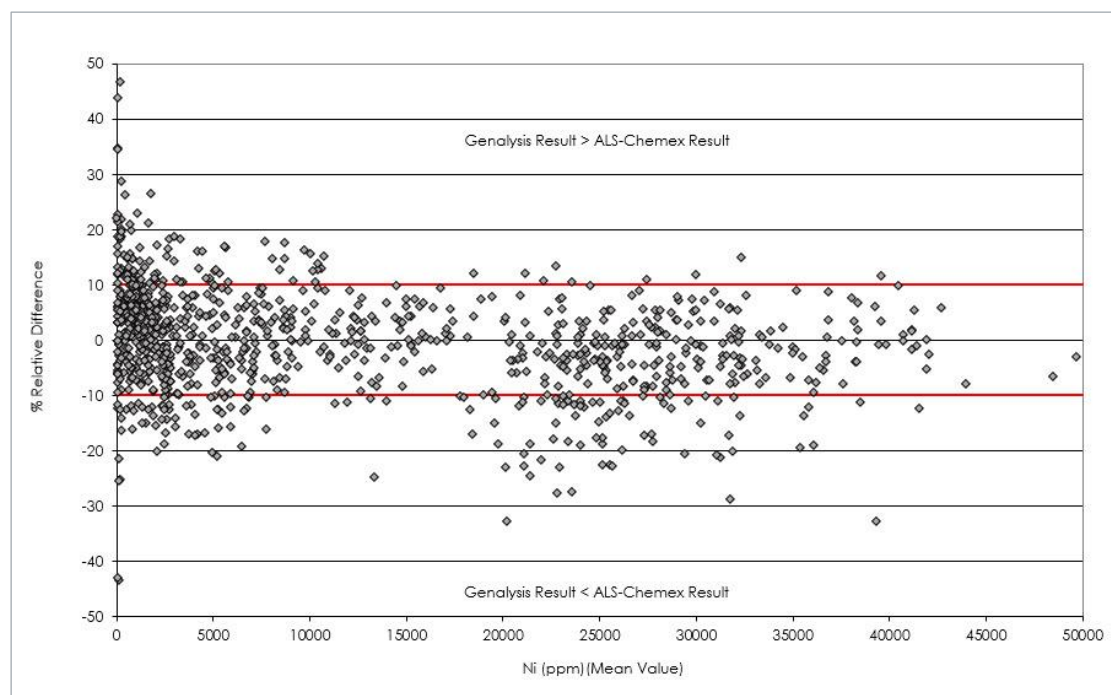


Figure 8-6: Genalysis vs. ALS-Chemex Pulp Check Assays Percent Relative Difference for Ni Grades 2005–09

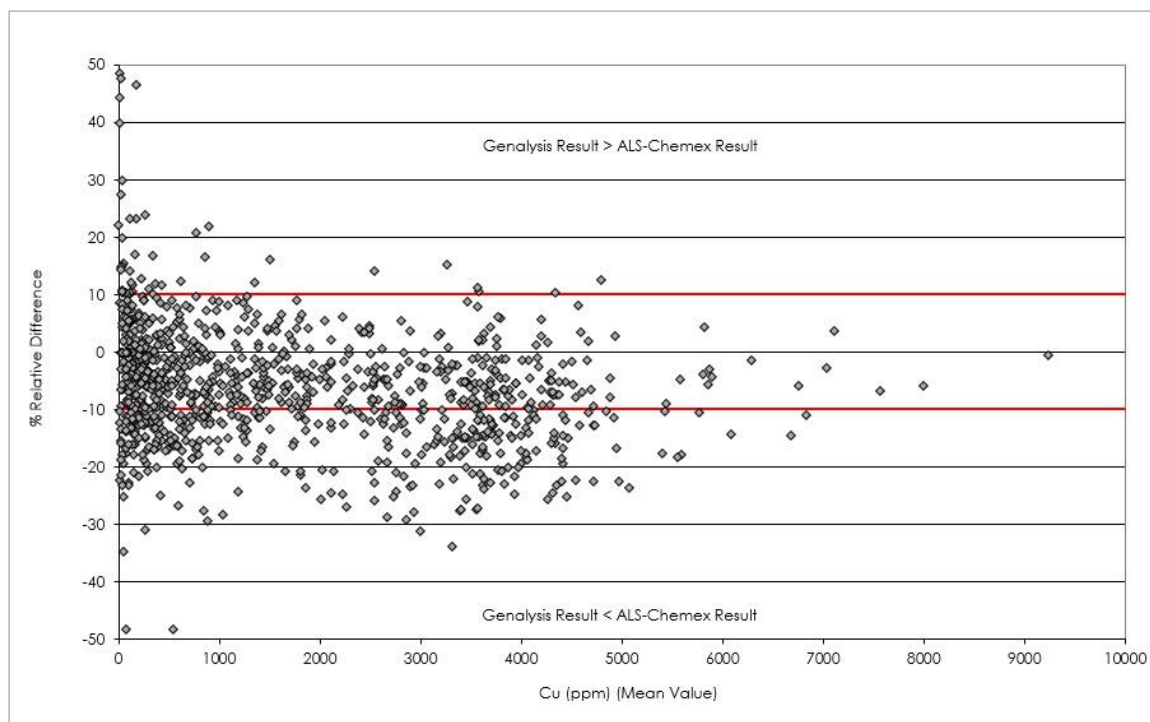


Figure 8-7: Genalysis vs. ALS-Chemex Pulp Check Assays Percent Relative Difference for Cu Grades 2005–09

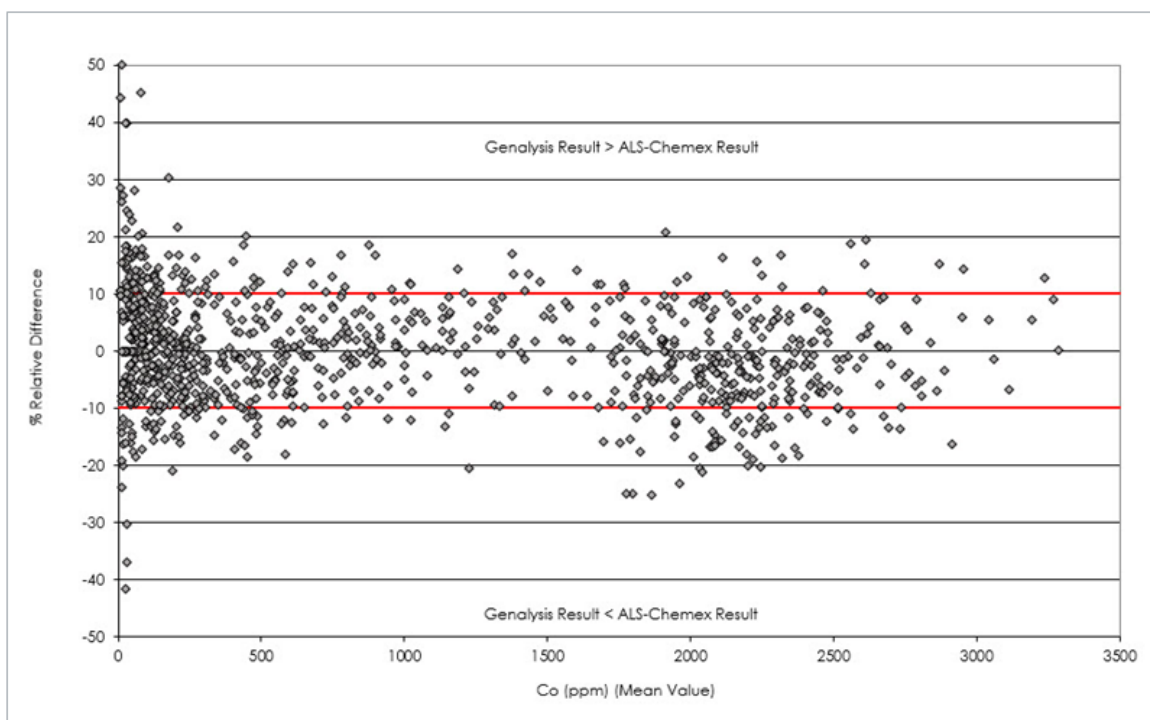


Figure 8-8: Genalysis vs. ALS-Chemex Pulp Check Assays Percent Relative Difference for Co Grades 2005–09

8.4.5 SGS Lakefield Pulp Check Assays

For umpire checks on the primary ALS laboratory 4-acid digest / ICP analyses, a total of 52 pulp samples (in nitrogen-purged and vacuum-sealed bags) were sent to SGS Lakefield. Relative difference percentages are shown in Figure 8-9. Results for 25 MSSX samples grading > 2% Ni indicate that ALS

was high-biased by 0.04% Ni relative to the SGS XRF technique. Note that the XRF technique results for Ni for UMIN are higher than ICP results because XRF assays total Ni, (i.e., contained in sulfides and silicates).

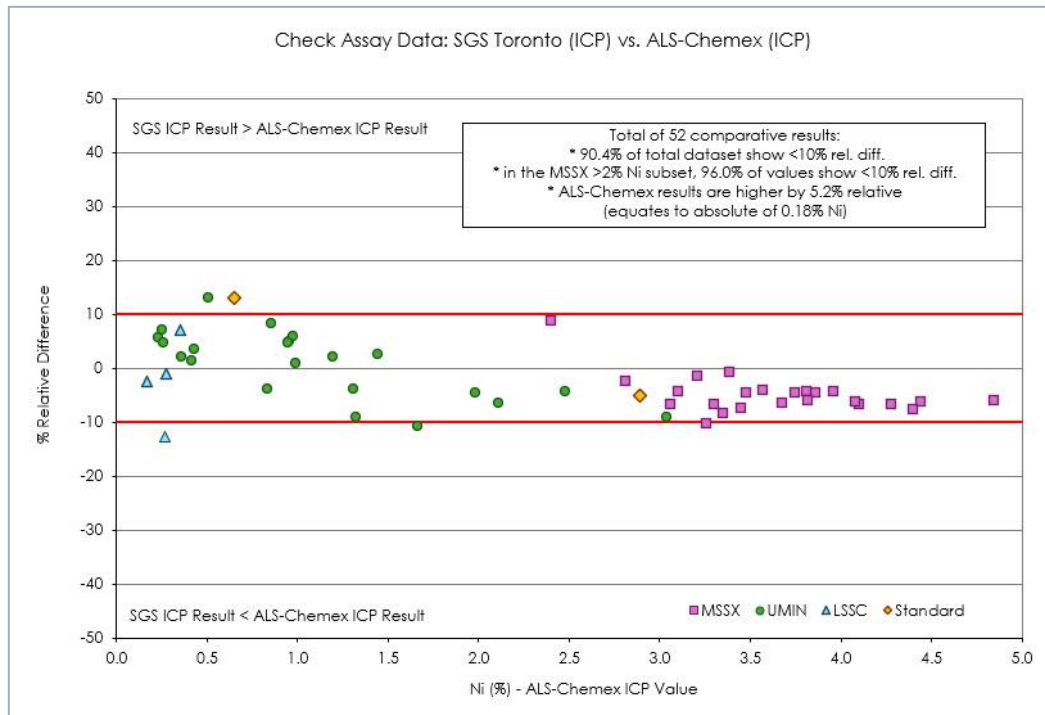


Figure 8-9: SGS Lakefield vs. ALS-Chemex Pulp Check Assays Percent Relative Difference for Ni Grades

8.4.6 Quarter Core Replicates

Quarter core replicates were prepared from April 2005 through February 2007 for a total of 353 samples. The charted percent relative differences vs. grades are shown in Figure 8-10 through Figure 8-12 for Ni, Cu, and Co, respectively.

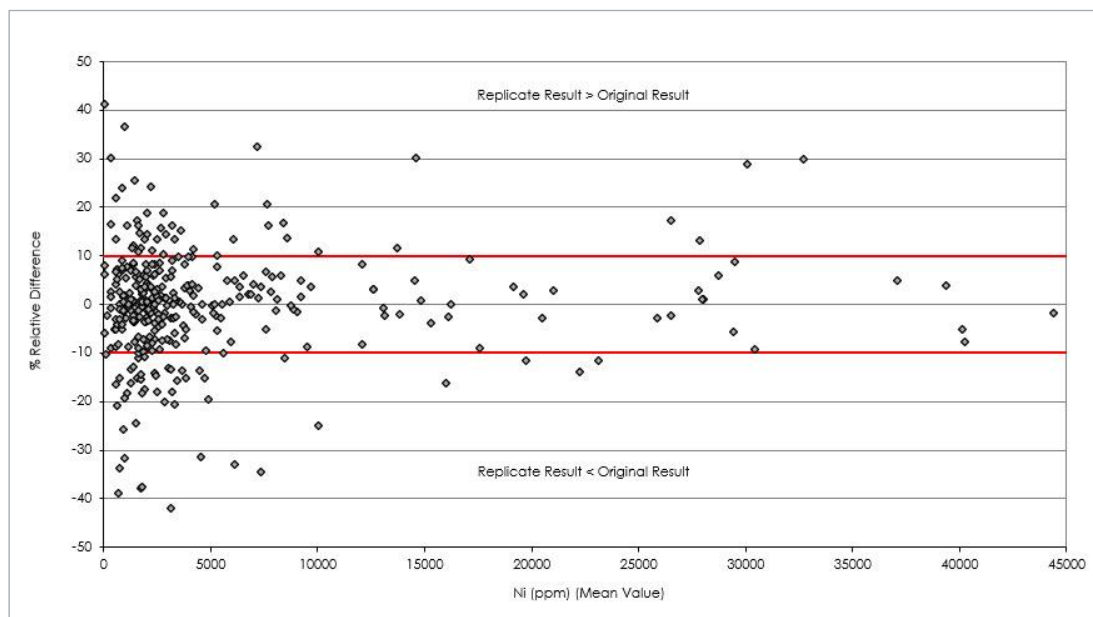


Figure 8-10: ALS-Chemex – Percent Relative Difference for Ni Grades for Quarter Core Replicates – 2005–07

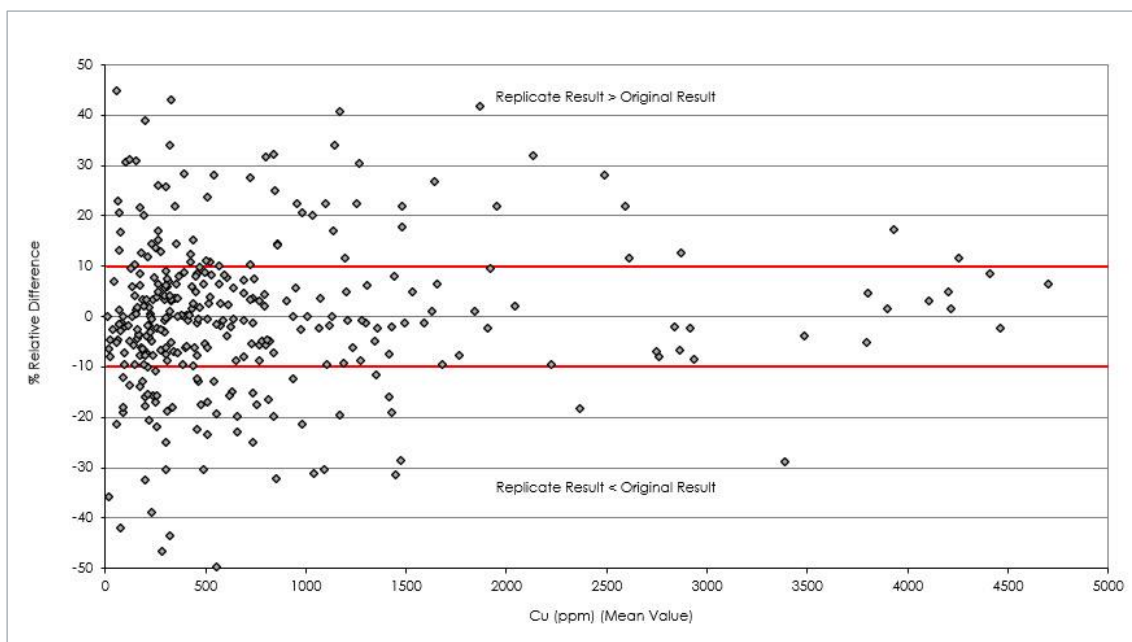


Figure 8-11: ALS-Chemex – Percent Relative Difference for Cu Grades for Quarter Core Replicates – 2005–07

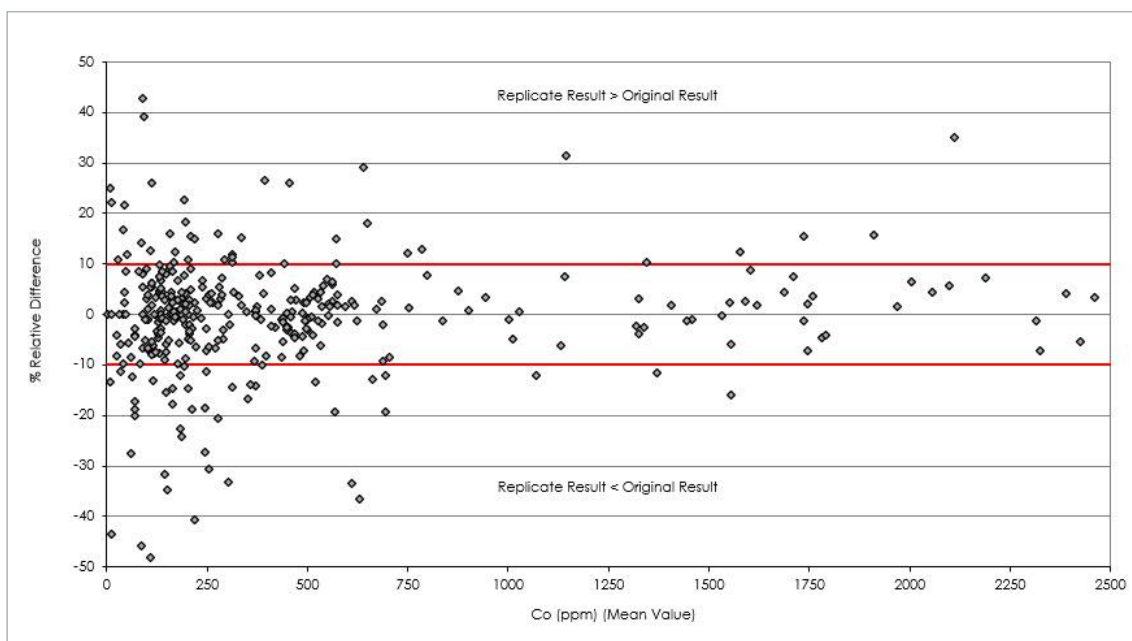


Figure 8-12: ALS-Chemex – Percent Relative Difference for Co Grades for Quarter Core Replicates – 2005–07

8.4.7 Certified Reference Material Standards

CRMs for the Project were collected in 2004 by Barrick from North Zone. These were then shipped to the OREAS laboratory in Australia for certification using industry-accepted practice. A 'round robin' analytical exercise was conducted at seven laboratories worldwide using 4-acid digest / ICP finish for base metals, and fire assay / ICP for Au, Pd, and Pt. Two standards were certified: a massive sulfide standard and a disseminated (ultramafic-hosted) sulfide standard.

The massive sulfide and ultramafic material used to prepare the Kabanga CRMs was collected from North Zone at depths of 150 m and 400 m below the surface. The Ni, Cu, and Co accepted grades for the Kabanga CRMs are as shown in Table 8-3.

Table 8-3: Kabanga CRMs – Accepted Grades

CRM	Ni%	Cu%	Co%
Kabanga MSSX	2.68	0.38	0.23
Kabanga UMIN	0.678	0.096	0.061

The two Kabanga CRMs were stored as nitrogen-purged aliquots at the ALS-Chemex laboratory in Perth and inserted into the sample sequence according to the overall frequency presented in Table 8-2, using the appropriate CRM to match the submitted samples, either MSSX material or UMIN material.

Following an audit of QA/QC procedures in May 2009, the Ni% value for the massive sulfide CRM was modified from 2.68% Ni to 2.71% Ni, with all scoping study and PFS CRM charts updated. There was no change to the UMIN accepted grade of 0.659% Ni. Results from the MSSX CRM analyses indicate 74% of all values lie within acceptable limits. Throughout the FS, however, there had been a consistent average elevated mean value for this CRM of 2.80% Ni (27 samples) vs. the (2009 revised) accepted mean value of 2.71% Ni. Figure 8-13 and Figure 8-14 show the Ni% analytical results for both Kabanga CRMs since the start of the scoping study in early 2005. Table 8-4 and Table 8-5 show the Kabanga CRMs Ni% average values from 2005 through 2009.

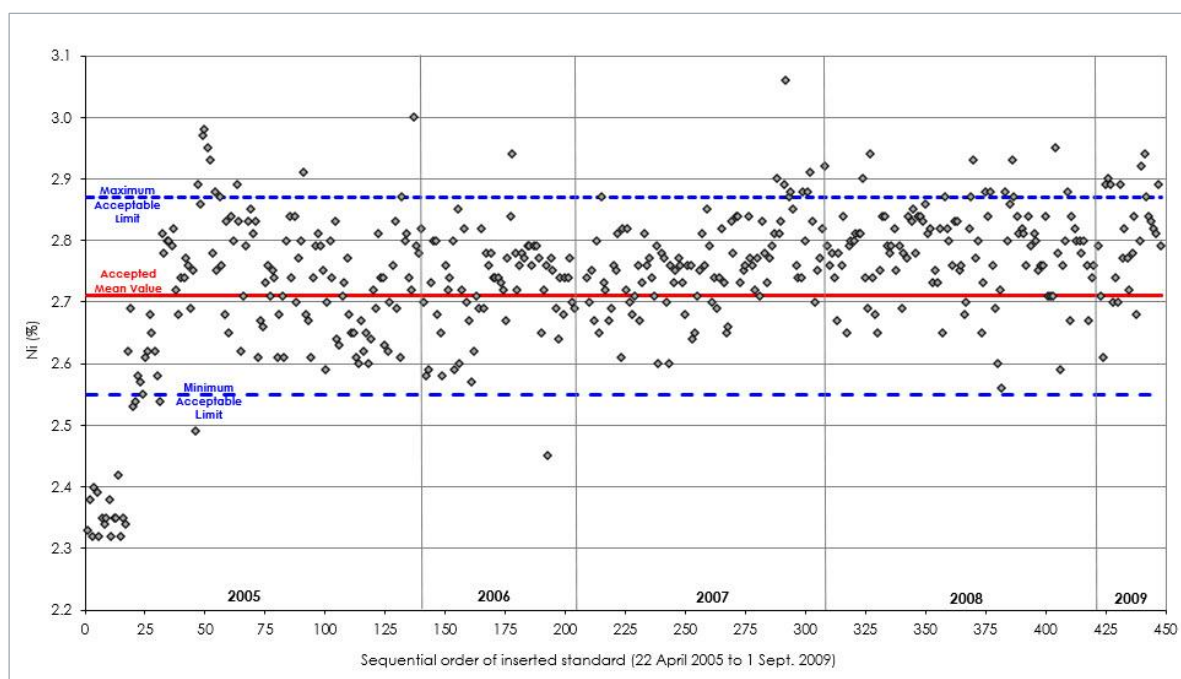


Figure 8-13: Kabanga MSSX CRM Ni Values 2005–09

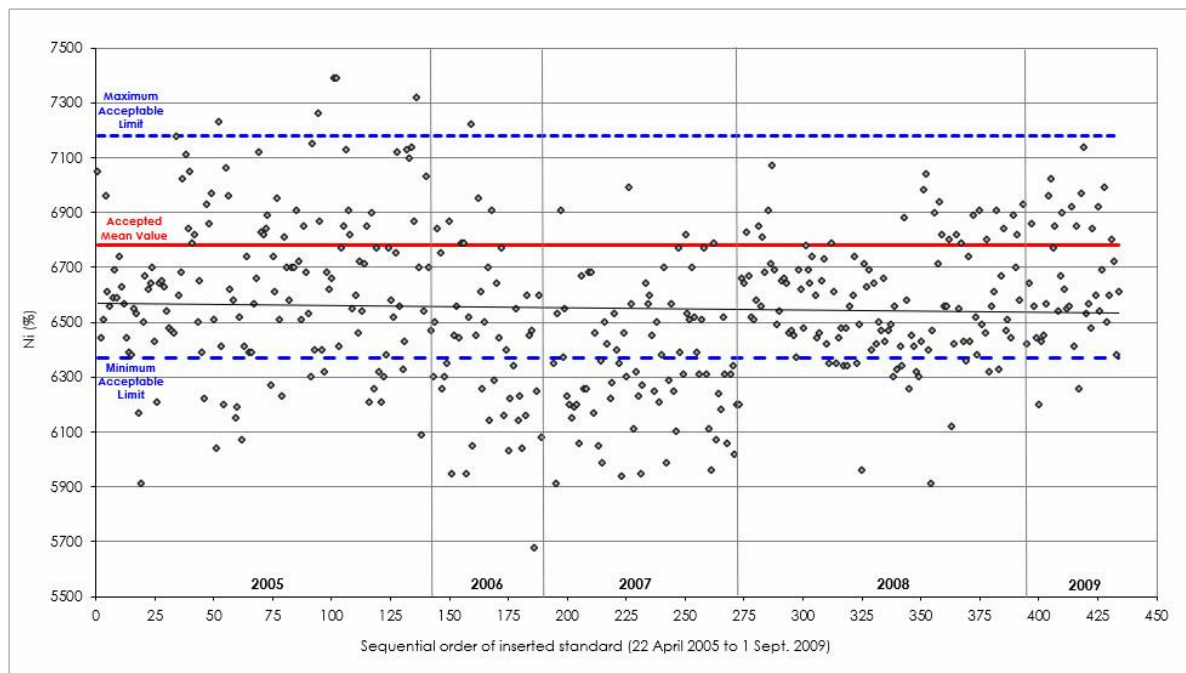


Figure 8-14: Kabanga UMIN CRM Ni Values 2005–09

Table 8-4: Kabanga CRMs – Tracking of Ni% Results 2005–09

CRM	Accepted Ni% Value	Average Ni%					No. of Samples
		2005	2006	2007	2008	2009	
MSSX	2.71	2.75	2.72	2.77	2.78	2.80	412
UMIN	0.68	0.66	0.64	0.64	0.66	0.67	429

Table 8-5: Kabanga MSSX CRM – Tracking of Ni% Results by Phase

Accepted Value 2.71% Ni			
Phase	Years	Number of Analyses	Average Ni% Values
Scoping Study	2005–06	173	2.74
Pre-feasibility Study	2006–08	212	2.77
Feasibility Study	2008–09	27	2.80
Total	2005–09	412	2.76

The observed elevated MSSX CRM values during the FS period were further investigated. Because the two Kabanga CRMs were inserted in all sample batches submitted to both the primary laboratory, ALS-Chemex, and the check laboratory, Genalysis, it is possible to follow over time the evolution of the reported CRM results from both laboratories. The overall rising trend in Ni% values for the MSSX CRM from 2005 is noted at both laboratories, as shown in Figure 8-15 for the sequential Genalysis chart.

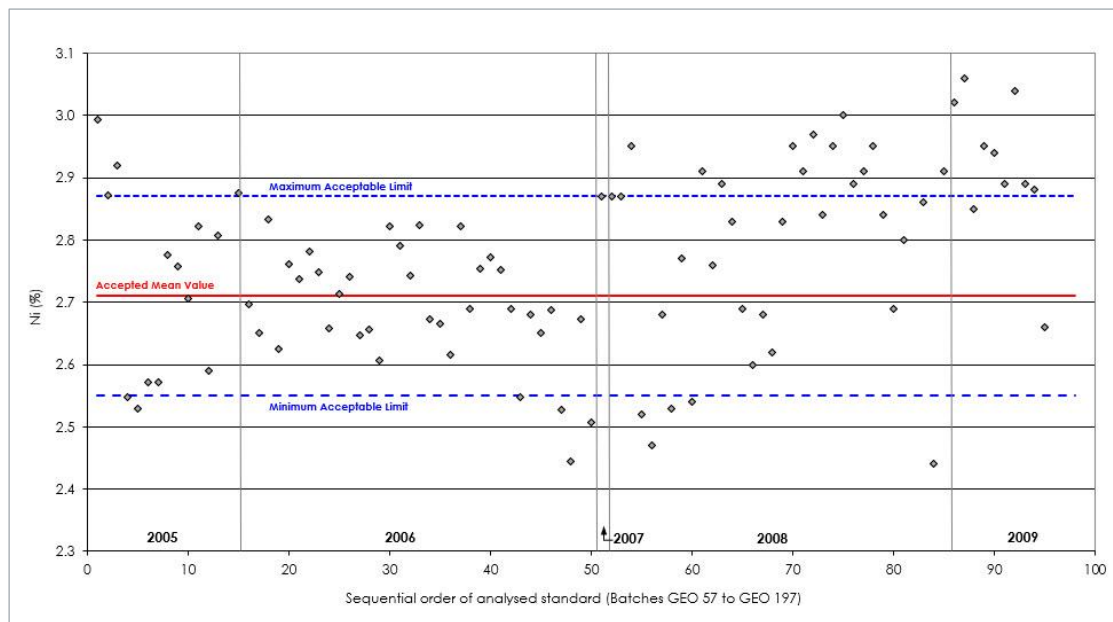


Figure 8-15: Kabanga MSSX CRM Ni% Values by Genalysis 2005–09

The cause of the overall rising trend of Ni% grade for the Kabanga MSSX CRM has not been definitively proven, but it is suspected that the Kabanga MSSX CRM may have lost its homogeneity during transport and handling of the pails of bulk material with the separation and settling of the denser nickel minerals (pentlandite has a density of 4.6–5.0 t/m³) from the pyrrhotite (which is the main nickel-bearing mineral in the Kabanga MSSX and has a density of 4.6 t/m³).

It was noted that the Kabanga UMIN CRM did not suffer the same issue over the period, and there was no appreciable variance during the FS for the UMIN CRM (0.01% Ni), as shown in Table 8-4. This further supports the theory that density separation is a potential cause of the overall rising trend of Ni% grade for the Kabanga MSSX CRM.

The statistical results, including accuracy and precision, for the Kabanga CRMs over the 2005–09 period are detailed in Table 8-6.

Table 8-6: Kabanga CRMs – Summary Statistics 2005–09

CRM	MSSX			UMIN		
	Ni (%)	Cu (ppm)	Co (ppm)	Ni (%)	Cu (ppm)	Co (ppm)
Number of Samples	443	443	443	429	429	429
Accepted Value	2.71	3,820	2,310	0.68	962	605
Mean	2.74	3,757	2,161	0.66	944	564
Median	2.76	3,770	2,160	0.65	939	563
Minimum	2.32	2,310	1,645	0.57	827	487
Maximum	3.06	4,960	2,590	0.74	1,080	647
Standard Deviation	0.12	274	134	0.03	41	29
Accuracy	1.03	–1.93	–6.87	–3.53	–2.04	–7.15
Precision (at 95%)	2.90	5.54	5.27	3.14	2.73	4.40

Notes: (1) Accuracy is calculated as the mean of the percent relative differences.

(2) Precision (at 95%) is calculated as 1.96 x standard deviation of the absolute percent relative differences / 2.

Results for the ALS-Chemex internal reference material standard ('Forrest B') are summarized in Table 8-7 and shown in Figure 8-16 with details for Forrest B in Table 8-8.

These results corroborate the fact that the high Ni bias issue observed on the Kabanga MSSX CRM for both ALS-Chemex and Genalysis is inherent to the Kabanga CRM itself rather than a drift of the ALS-Chemex laboratory results. Note that in 2005, ALS-Chemex results for the Forrest B standard show several occurrences outside of the acceptable limits. The quality of the results improves from 2006 onwards, likely due to a better calibration of ALS-Chemex's analytical equipment to these grade ranges.

Table 8-7: ALS-Chemex Internal Reference Material Standards – Tracking of Ni% Results 2005–09

ALS-Chemex Internal Standard	Accepted Ni% Value	Average Ni%					No. of Samples
		2005	2006	2007	2008	2009	
Forrest B	4.52	4.61	4.51	4.53	4.58	4.54	452
BM-44	1.27	1.29	1.27	1.28	1.29	–	354
GBM306-12	0.95	–	–	–	0.96	0.94	150
BM-64	0.60	0.63	0.61	0.60	0.62	–	475
GBM398-4c	0.41	–	–	–	0.40	0.40	162

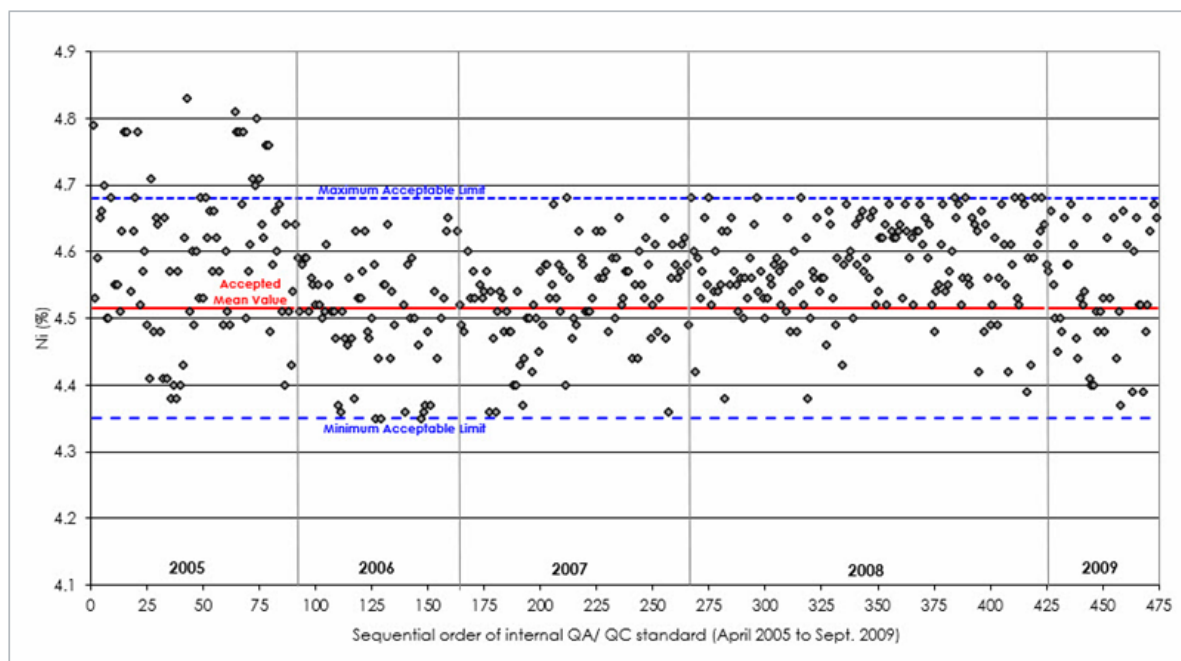


Figure 8-16: ALS-Chemex Internal Forrest B Standard – Results from 2005–09

Table 8-8: ALS-Chemex Internal Forrest B Standard – Summary Statistics 2005–09

Measure	Ni%
Number of Samples	452
Accepted Value	4.515
Mean	4.56
Median	4.56
Minimum	4.35
Maximum	5.01
Standard Deviation	0.09
Accuracy	0.95
Precision (at 95%)	1.40

Note: Accuracy is calculated as the mean of the percent relative differences.

Precision (at 95%) is calculated as $1.96 \times \text{standard deviation of the absolute percent relative differences} / 2$.

A comparison between the ALS-Chemex MSSX CRM results and those obtained by Genalysis showed that the Genalysis results were consistently higher than the ALS-Chemex results.

The phenomenon observed on Ni grades on the MSSX CRM results did not occur for Cu results, as shown in Figure 8-17 and Figure 8-18 (MSSX and UMIN, respectively), which display the ALS-Chemex sequential results for the Kabanga CRMs for Cu from 2005 through 2009.

Co grades for the MSSX and UMIN CRMs are shown in Figure 8-19 and Figure 8-20, respectively. These show that approximately half of the Co grade results are below the minimum acceptable value.

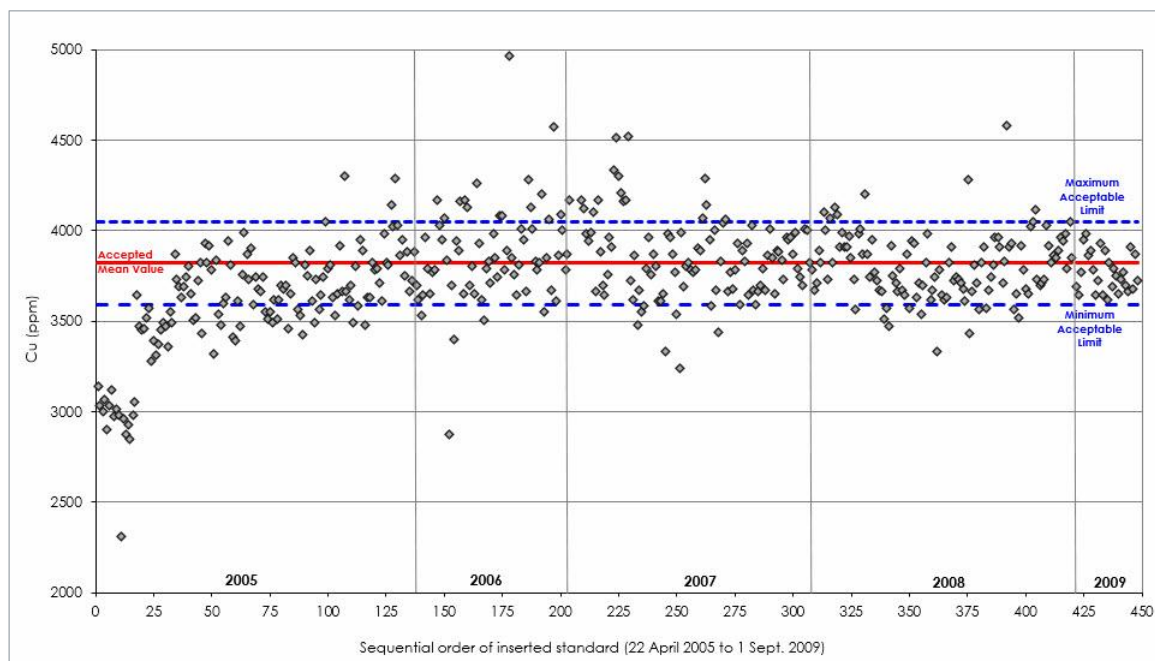


Figure 8-17: Kabanga MSSX CRM Cu Values 2005–09

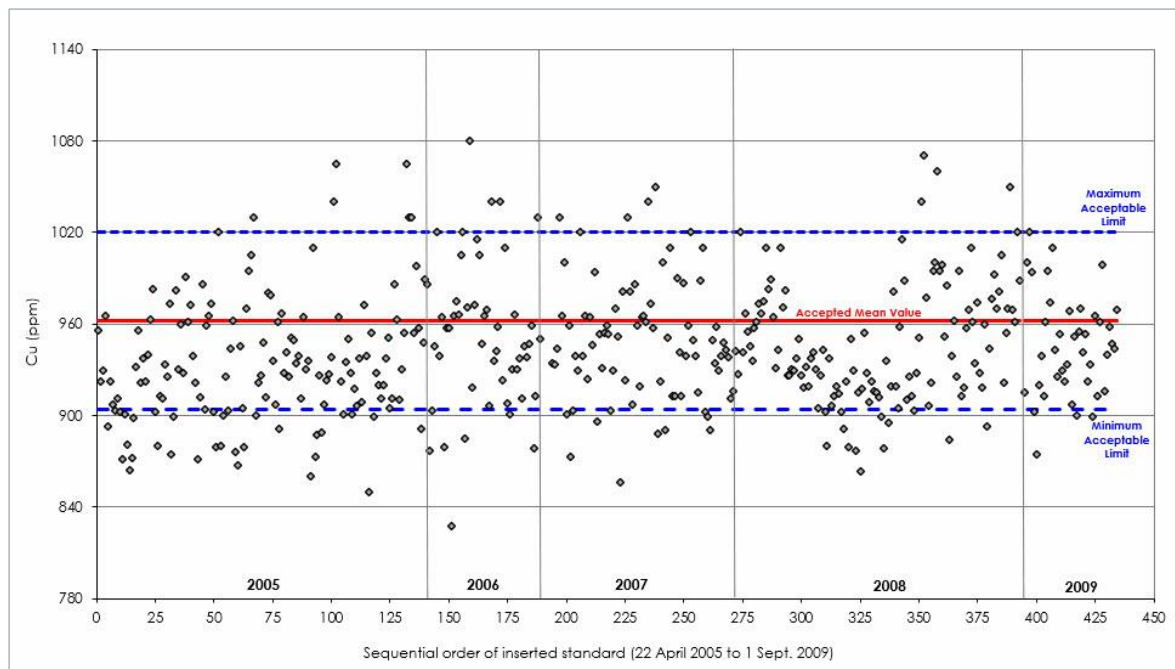


Figure 8-18: Kabanga UMIN CRM Cu Values 2005–09

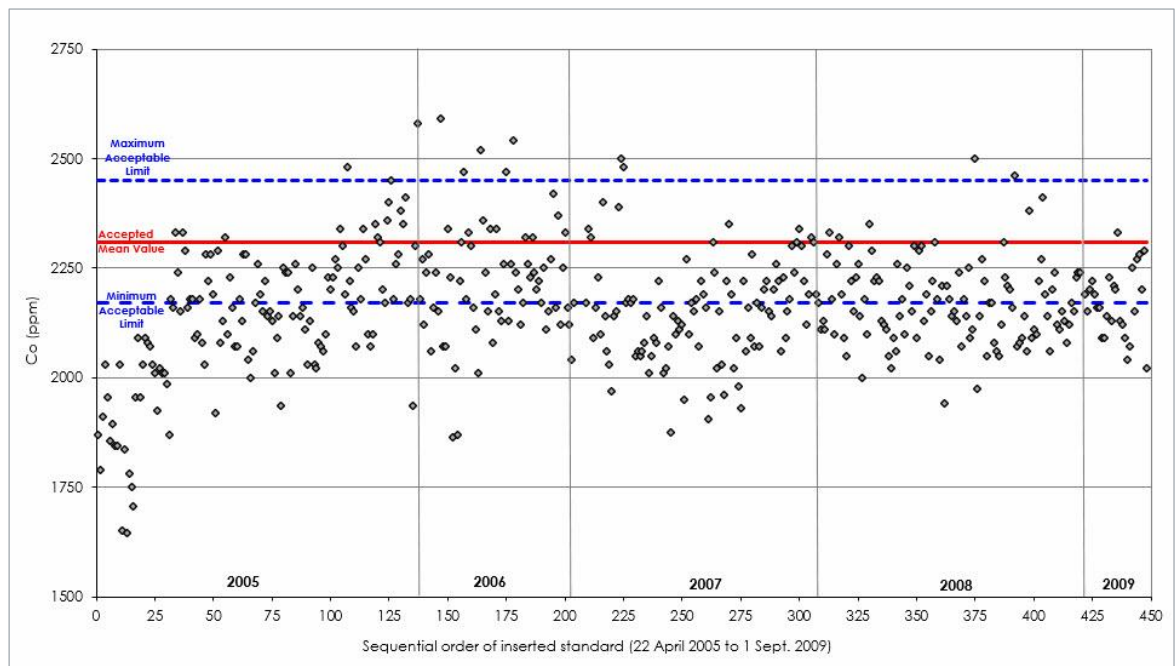


Figure 8-19: Kabanga MSSX CRM Co Values 2005–09

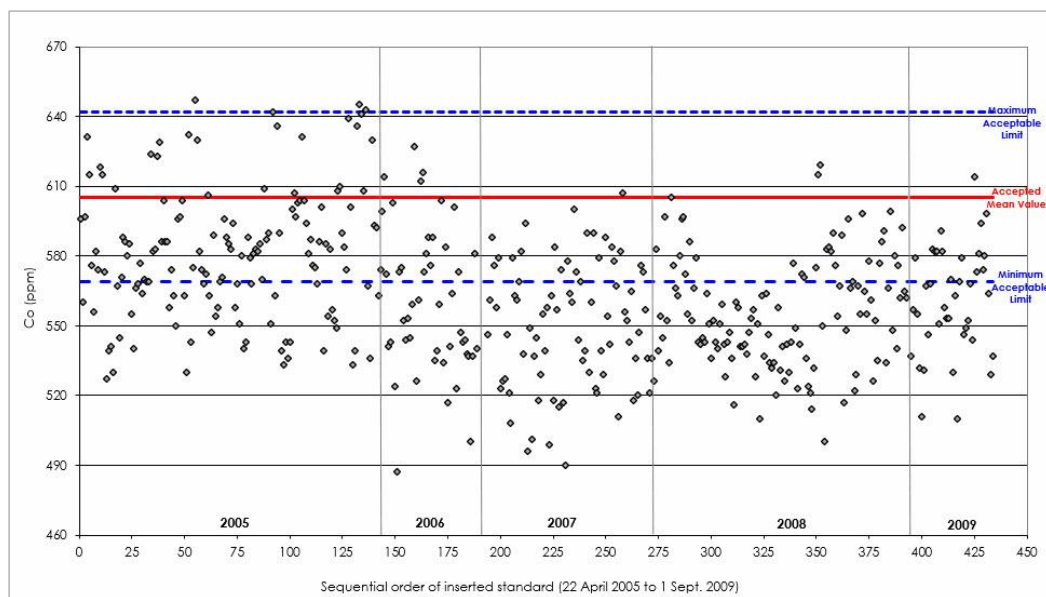


Figure 8-20: Kabanga UMIN CRM Co Values 2005–09

8.4.8 Blanks

Pure quartzite blanks were prepared and pulverized on site, then inserted into the sample series to monitor possible contamination at the sample preparation stages in Tanzania and in Perth. A total of 378 blanks were analyzed from 2005 through 2009. Figure 8-21 shows the results for potential Ni contamination.

An increase (mainly to Warning Level) in contamination for Ni, Cu, and Co was noted in January and February 2009. This was addressed at the ALS laboratory in Perth through more thorough cleaning of the pulverizing machines between samples. The 2009 QA/QC audit report recommended a decrease of the acceptable level for Ni contamination to 25 ppm (approximately) from 300 ppm, which was based on the official Ni protocol of 1/20th of the cut-off grade. This discussion was deemed at the time to be largely academic, as there is no significant effect on the Kabanga samples due to nickel contamination.

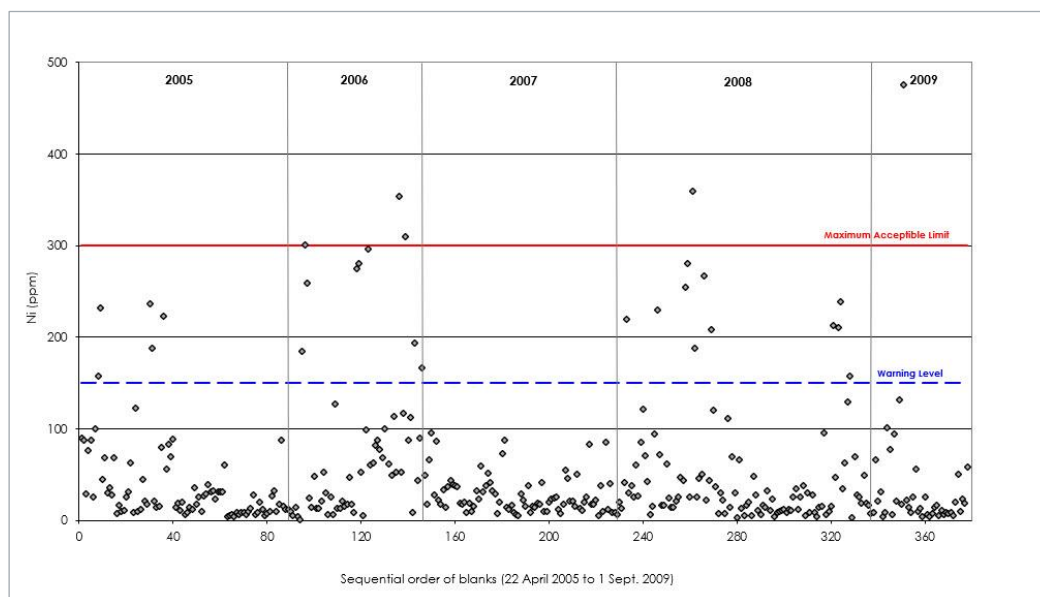


Figure 8-21: Blanks – Ni Results 2005–09

8.5 Security

Standard operating procedures (SOPs) exist and are followed to ensure the appropriate collection, transportation and security of samples.

Sample collection from the drill core is undertaken on site by geotechnicians following mark-ups on the core that are made by the logging geologist. A senior geologist oversees these activities.

Assay registers are used to allocate sample numbers while keeping track of the origins of each sample. A sampling logbook ensures the consistent insertion of QA/QC samples.

Samples are packed into labeled plastic bags, nitrogen-purged, sealed, weighed, then placed into plastic pails on a hole-by-hole basis. The pails are transported to the laboratory in a Project-owned and operated light vehicle.

On arriving at the laboratory, the SOPs associated with sample receipt, sample preparation, and assaying are followed.

Data received from the laboratory is reviewed for acceptance by a senior geologist and uploaded into the on-site database.

The database is backed up on the company server. There are password limits on editorial access to the database, and all of the personnel permitted to edit data are experienced geologists and know the importance of data security.

8.6 QP Opinion

In the opinion of the QP, the sample preparation, security, and analytical procedures meet industry standards for data quality and integrity. There are no factors related to sampling or sample preparation that would materially impact the accuracy or reliability of the samples or the assay results. Recent infill drilling results have corroborated historical results. The outcomes of the QA/QC procedures indicate that the assay results are within acceptable levels of accuracy and precision and the resulting database is sufficient to support the estimation of Mineral Resources.

9 DATA VERIFICATION

9.1 Independent Verifications

9.1.1 Site Visit

OreWin personnel visited the Project on October 20–21, 2022, March 21–30, 2023, and October 27–30, 2023. The site visits included briefings from the Project's exploration and corporate personnel, and site inspections of the drill rigs, proposed mine, and plant and infrastructure locations.

The 2021-onwards primary laboratory, SGS Laboratories in Mwanza, Tanzania, was visited to inspect the facilities and discussions were held with SGS management.

9.1.2 Verifications of Analytical Quality Control Data

All aspects of the data that could materially impact the integrity of the Mineral Resource estimates (core logging, sampling, analytical results, and database management) were reviewed with the Project's staff. OreWin personnel met with staff to ascertain exploration and production procedures and protocols. Drill rigs were visited, and core was observed being obtained from diamond drillholes and logged at the exploration camp to confirm that the logging information accurately reflects actual core. The lithology contacts checked matched the information reported in the core logs.

Analytical quality control data typically comprises analyses from reference material standards, blank samples, and a variety of duplicate data. Analyses of data from reference material standards and blank samples typically involve time series plots to identify extreme values (outliers), or trends, which may indicate issues with the overall data quality. To assess the repeatability of assay data, several tests can be performed, most of which rely on statistical tools. The following charts for duplicate data are routinely assessed:

- Bias charts
- Quantile-quantile (Q-Q) charts
- Mean vs. relative difference charts
- Mean vs. absolute relative difference charts
- Ranked absolute relative difference charts
- From 2021-onwards, check assaying undertaken at the Nesch Mintech laboratory in Mwanza.

9.2 QP Opinion

The QP's review of results from recent drilling undertaken by the Project has corroborated the location of the mineralized zones and the tenor of the mineralization. The data is adequate and sufficient to support the estimation of Mineral Resources.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

10.1 Background

The Project has a history of concentrator metallurgical testwork undertaken by various parties since the mid-1990s, with more extensive testing programs undertaken after 2005. The key metallurgical testwork programs included:

- Metallurgical flotation testwork undertaken by AARL as part of an appraisal study PFS in 1999.
- Metallurgical testwork for the February 2006 Scoping Study undertaken by the Falconbridge Technology Centre and included mineralogical, comminution testwork, bench-scale open-circuit and locked-cycle flotation testwork, concentrate dewatering testwork, and concentrate self-heating tests.
- Metallurgical testwork for the September 2008 PFS and October 2009 Kabanga 2.2 Mtpa Engineering Study undertaken by SNC Lavalin, and for the July 2011 FS and December 2013 Draft FS update (unpublished) both completed by Lycopodium Limited (Lycopodium). A series of testwork campaigns were undertaken for these studies, which included comminution testwork, bench-scale open-circuit flotation testwork, mini pilot plant (MPP) flotation testwork, settling, filtration and rheology testwork, feed oxidation tests, and concentrate self-heating tests. The majority of the test program was conducted at XPS with supporting testwork by SGS Lakefield, Larox Inc., Sudbury, Ontario and Outotec, Burlington, Ontario.
- Metallurgical testwork over the period 2022–25 as part of the current study program, under the management of technical teams from KNL, DRA, and LZM. The testwork program included both concentrator and hydrometallurgical testwork. The majority of the concentrator testwork program was undertaken at Bureau Veritas Minerals Pty Ltd (BV) in Perth, with support from ALS Global (ALS) in Perth for a small portion of the comminution testwork scope. Additionally, concentrate regrind testwork was conducted by Swiss Tower Mills Minerals AG (STM) at the ALS test facility, settling and filtration testwork was conducted by Metso in Perth, and tailings pumping, and rheological characterization tests were conducted by Paterson & Cooke Consulting Engineers (Pty) Ltd (P&C) in Cape Town. The concentrate characterization testwork was undertaken by Microanalysis Australia in Perth.

The current 2022–25 concentrator metallurgical testwork was performed on core samples originating from the Kabanga deposit. Samples were selected to represent the major lithology types and blends expected to be processed over the LoM. The aim of the testwork was to further characterize the flotation response, optimize the flowsheet, generate bulk concentrate samples for vendor and downstream testwork, and to evaluate the degree of variability that could be expected across the deposit. The historical concentrator metallurgical testwork has also been referenced and used in combination with the current FS testwork.

10.2 Historical Concentrator Testwork

Extensive historical metallurgical testwork has been undertaken for the Kabanga Concentrator. This testwork included mineralogical, comminution, flotation, and dewatering testwork. The original testing was primarily focused on blends with a high proportion of massive sulfides (~81% to 84%) and minor amounts of mineralized ultramafic material (~2% to 5%) containing pentlandite, pyrrhotite and chalcopyrite (sulfides) with varying amounts of sedimentary and ultramafic gangue (~12% to 15%). The historical testwork was aimed at producing a flotation concentrate that was to be transported to the Port of Dar es Salaam for shipment to Glencore's Sudbury smelter and to other concentrate customers.

Various metallurgical testwork campaigns were conducted at the Falconbridge Technology Centre, SGS Lakefield, XPS, and at vendor laboratories such as Larox and Metso, predominantly over the period 2005–10 but with initial appraisal testing dating back to the mid-1990s. The key findings from the historical testwork can be summarized as follows:

- The samples were reported to reflect a massive sulfide (MSSX) feed type, containing pentlandite, pyrrhotite and chalcopyrite with varying amounts of sedimentary and ultramafic gangue. The pentlandite grain sizes were reported to be coarse, averaging from 200 µm to 300 µm. The ratio of

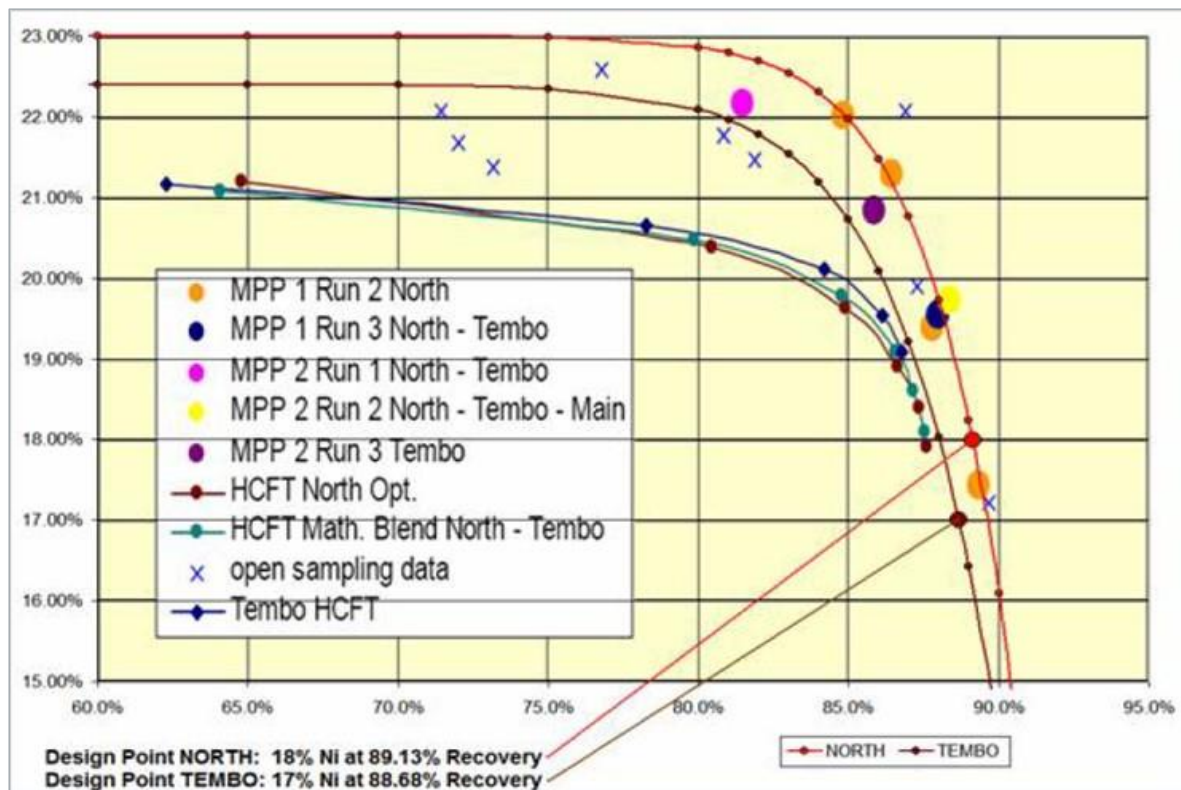
pyrrhotite to pentlandite ranged from 7 to 12. Pentlandite was identified as the predominant nickel and cobalt-bearing mineral. The nickel grade in solid solution in pyrrhotite was reported to average 0.2%. The dominant copper mineral was identified as chalcopyrite.

- Bond ball mill work index (BWi) tests were performed at a 100 µm closing size with a reported BWi value of 9.1 kWh/t to 10.2 kWh/t for the MSSX samples and 15.5 kWh/t to 21.3 kWh/t for the sedimentary and ultramafic waste samples. The MSSX material was classified as being relatively soft compared to the harder mineralized ultramafic samples (UMAF_1a) and even harder waste samples.
- Soft SMC Test® 'A × b' values of between 169 to 330 were reported for the MSSX samples compared to hard values of 18 to 21 for the waste and UMAF_1a samples. Similarly, the MSSX sample's 'ta' values ranged from 1.5 to 2.8 compared to 0.2 to 0.3 for the waste samples. This further supported the highly competent nature of the UMAF_1a and waste lithology types, and the comparatively soft nature of the MSSX feed types.
- The crushed MSSX samples were found to be reactive when left exposed under warm, humid conditions, resulting in oxidation which reduced flotation recovery within a period of one to four weeks.
- The optimum flotation feed grind size was found to be 80% passing 100 µm.
- The metallurgical performance of the North and Tembo blend composites containing > 80% MSSX was found to be similar. Differences in the flotation grade and recovery response were attributed to feed grade variances.
- The MPP results achieved nickel recoveries ranging from 83% to 90% at a concentrate nickel grade of 17% to 22%, as summarized in Table 10-1.

Table 10-1: Summary of Historical Mini Pilot Plant (MPP) Mass Balance Results

MPP Campaign	Composite ID	Blend (%)			Nickel (%)			Copper (%)		
		MSSX	UMAF_1a	Dilution	Feed Grade	Conc. Grade	Recovery	Feed Grade	Conc. Grade	Recovery
MPP1	North	81	4	15	2.59	21.2	88.5	0.36	3.07	91.6
MPP1	North	81	4	15	2.51	21.3	86.6	0.36	3.20	90.7
MPP1	LoM	83	5	12	2.41	19.6	89.3	0.34	2.86	89.3
MPP2	Y1 to Y4	83	2	15	2.38	22.0	83.3	0.34	3.33	78.4
MPP2	LoM #2	84	2	14	2.39	17.4	90.5	0.35	2.47	90.5
MPP2	Tembo	83	3	14	2.16	19.6	88.6	0.31	3.02	93.6

As illustrated by the comparative grade-recovery curves in Figure 10-1, the historical MPP results showed improved grade and recovery responses relative to the bench-scale testing (High Confidence Flotation Test (HCFT)) results.



Source: Kabanga Nickel Project Draft Feasibility Study, Lycopodium (December 2013)

Figure 10-1: Summary of Historical MPP Testwork Grade Recovery Curves

- The historical flotation testwork demonstrated that a relatively simple, conventional flotation flowsheet, using a typical flotation reagent regime, could be used for the effective separation of pentlandite and chalcopyrite from the pyrrhotite and non-sulfide gangue, generating high nickel grade concentrates with payable cobalt and copper grades at high metal recoveries.
- The measurement of the dissolved oxygen levels and lime consumption to maintain the pH indicated the level of completeness of oxidation in the aeration stage.
- The recycling of flotation process water did not have a detrimental impact on flotation performance.
- The flotation testwork and Quantitative Evaluation of Minerals by Scanning Electron Microscopy (QEMSCAN) analysis conducted on the MPP products demonstrated that a high-grade concentrate with low levels of deleterious elements could be produced.
- The historical testwork procedure included heating the flotation feed slurry to 38 °C to reflect the expected ambient flotation feed conditions after milling. This was reportedly based on benchmarked flotation feed slurry temperature measurements for a nearby Tanzanian flotation operation. It was reported that the higher process water temperature improved the concentrate grade for the same recovery; however, the flotation kinetics were slower, requiring a longer rougher flotation residence time with increased xanthate collector addition.
- The results of the thickening testwork recommended an optimal thickening flux of 0.26 t/m²h for the concentrate duty and 1.12 t/m²h for the tailings duty. A thickener underflow solids concentration of > 75% (w/w) was achieved for both applications.
- The pressure filtration testwork on the concentrate achieved a lower product moisture of 8% (w/w) to 11% (w/w) with filtration fluxes ranging from 382 kg/m²h to 687 kg/m²h. The moisture values in testwork resulted in the selection of pressure filtration for concentrate dewatering.
- The tailings rheology testwork indicated that the tails samples exhibited similar slurry rheology and that the pumping of solids at densities of up to 60% (w/w) solids using centrifugal pumps was not expected to be problematic.

- The concentrate was found to exhibit a degree of self-heating due to its high pyrrhotite content but was reported to be amenable to shipment to international smelters.

This historical testwork provided a basis for the metallurgical testwork and development undertaken as part of the current feasibility study program of work.

10.3 Current Feasibility Study Concentrator Testwork

In support of the current Kabanga studies, additional metallurgical testwork was undertaken over the period March 2022 to July 2024 under the management of technical teams from DRA and KNL. The main program was completed in two phases and included flowsheet development and optimization testing as well as variability testing. Additionally, concentrate materials handling characterization testwork on concentrate product samples from the 2022–24 campaign was also completed in April 2025.

These testwork programs included comprehensive head grade analysis, mineralogy, comminution (physical crushing and grinding) tests, open-circuit and locked-cycle bench-scale flotation tests, open-circuit bulk flotation tests, feed oxidation assessments, concentrate regrind tests, concentrate thickening and filtration tests, tailings thickening and rheology testwork, and concentrate materials handling characterization testing. Tailings samples were also generated for tailings and paste geochemistry testwork by others.

The current metallurgical testwork program used the historical testwork as a basis with the aim of further characterizing the comminution and flotation response, optimizing the flowsheet, generating bulk concentrate samples for downstream testwork and evaluating the degree of variability that could be expected across the deposit.

10.3.1 Analytical and Test Laboratories

The key laboratories involved in current concentrator FS testwork and sample analysis are described below.

10.3.1.1 Bureau Veritas Minerals Pty Ltd (BV) in Perth

- Relationship to Registrant: Independent laboratory.
- Description: BV conducted the majority of the comminution and flotation testwork program.
- Certification: BV is certified to ISO 9001 by TÜV Nord.
- Scope of Work: Analysis, mineralogy, comminution tests, open-circuit and locked-cycle bench-scale flotation tests, open-circuit bulk flotation tests and feed oxidation assessments.
- Date of Work: March 2022 – August 2024.

10.3.1.2 ALS Limited (ALS) in Perth

- Relationship to Registrant: Independent laboratory.
- Description: ALS conducted a small portion of the comminution testwork scope.
- Certification: ALS is certified to ISO9001, ISO45001, ISO14001 by Sustainable Certification Pty Ltd in Australia.
- Scope of Work: Grindmill and Bond ball mill work index (BWi) comminution tests.
- Date of Work: February – March 2023 and March – July 2024.

10.3.1.3 Swiss Tower Mills Minerals AG (STM) – ALS Iron Ore technical test facility, Perth

- Relationship to Registrant: Independent laboratory.
- Description: STM conducted the flotation concentrate regrind testwork at the ALS Iron Ore technical test facility in Perth.
- Certification: ALS is certified to ISO9001, ISO45001, ISO14001 by Sustainable Certification Pty Ltd in Australia.

- Scope of Work: Flotation concentrate regrind testwork using a vertical regrind mill (VRM 5) laboratory-scale test unit.
- Date of Work: October 2023 – January 2024.

10.3.1.4 Metso Australia Pty Ltd (Metso) in Perth

- Relationship to Registrant: Independent laboratory.
- Description: Metso conducted settling and filtration testwork on flotation concentrate and tailings samples.
- Certification: Metso is certified to ISO9001, ISO45001, ISO14001.
- Scope of Work: Settling testwork included static flocculant screening tests, followed by dynamic tests in a 99 mm diameter high-rate thickener test rig. Filtration testwork included pressure filtration testwork on the final concentrate samples and an evaluation of pressure filtration, horizontal vacuum belt filtration and disk filtration technology for the non-pyrrhotite tailings samples.
- Date of Work: November 2023.

10.3.1.5 Paterson & Cooke Consulting Engineers (Pty) Ltd (P&C) in Cape Town

- Relationship to Registrant: Independent laboratory.
- Description: P&C conducted tailings pumping, and rheological characterization tests.
- Certification: P&C is certified to ISO/ICE17025 by the South African National Accreditation System (SANAS).
- Scope of Work: Material characterization, flow behavior tests, vertical tube viscometer tests and pipe loop pumping tests.
- Date of Work: September 2023 – October 2023.

10.3.1.6 Microanalysis Australia Pty Ltd (Microanalysis) in Perth

- Relationship to Registrant: Independent laboratory.
- Description: Microanalysis conducted flotation concentrate product characterization testwork
- Certification: Macroanalysis is certified to ISO/IEC 17025 by NATA (National Association of Testing Authorities, Australia).
- Scope of Work: Determination of the flow moisture point (FMP) and the associated transportable moisture limit (TML), angle of repose (AoR), compacted bulk density and self-heating characterization.
- Date of Work: March 2025 – April 2025.

10.3.1.7 Simulus Group Pty Limited (Simulus) in Perth

- Relationship to Registrant: Non-independent laboratory (a wholly owned subsidiary of LZM).
- Description: Simulus conducted flotation concentrate product analysis on select samples which were allocated for downstream hydrometallurgical testwork.
- Certification: Simulus has no relevant certifications.
- Scope of Work: Concentrate analysis.
- Date of Work: January 2023 – March 2025.

10.3.1.8 SGS Australia Pty Ltd (SGS) in Perth

- Relationship to Registrant: Independent laboratory.
- Description: SGS conducted comparative flotation concentrate product analysis on select samples which were allocated for downstream hydrometallurgical testwork.
- Certification: SGS is certified to ISO/IEC 17025 by NATA (National Association of Testing Authorities, Australia).
- Scope of Work: Concentrate analysis.
- Date of Work: July 2023 – October 2023.

10.3.2 Current Testwork Samples and Scope

The concentrator metallurgical testwork was conducted on 4,616 kg of quarter, half and full N-size (NQ) drill core sample intervals delivered to BV for testing. The drilled samples were nitrogen purged and sealed, before being delivered in six shipments over the period March 2022 to January 2024. Upon delivery to BV, the core sample intervals were placed in cold freezer storage to minimize the potential for oxidation.

The sample intervals included material from the North and Tembo zones representing the primary massive sulfide (MSSX), massive sulfide with xenoliths intrusions (MSXI), and mineralized ultramafic (UMAF_1a) comprising semi-massive to net- and reverse net-textured sulfides hosted within ultramafic bodies. Intervals of mining waste dilution reflecting lower pelite unit (LRPU), banded pelite unit (BNPU), hornblende (HORN), and unmineralized ultramafic (UMAF_KAB) above, below, and within the MSSX, MSXI, and UMAF_1a end member sample intervals were also provided. The MSSX, MSXI, and UMAF_1a samples comprised pentlandite, pyrrhotite, and chalcopyrite as the primary sulfide minerals.

An example of some of the drill core intervals used in the current testwork programs is presented in Figure 10-2.



Figure 10-2: Example of Concentrator Metallurgical Testwork Drill Core Intervals

The Tembo and North drill core sample intervals used in the FS testwork over the period 2022–25 are listed in Table 10-2 and Table 10-3, respectively.

Table 10-2: Concentrator Tembo Testwork Sample Intervals

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KL21-01	1	LRPU	367	370	3	11
KL21-01	1	MSSX	370	390	20	102
KL21-01	1	UMAF_1a	390	393	3	12
KL21-01	1	MSSX	393	394	1	4

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KL21-01	1	LRPU	394	397	3	10
KL21-02	1	LRPU	573	576	3	10
KL21-02	1	MSSX	576	594	18	93
KL21-02	1	LRPU	594	596	2	7
KL22-01	1	LRPU	369	372	3	11
KL22-01	1	MSSX	372	392	21	108
KL22-01	1	LRPU	392	395	3	9
KL22-02	1	LRPU	313	316	3	10
KL22-02	1	MSSX	316	336	19	100
KL22-02	1	LRPU	336	338	2	7
KL22-03	1	LRPU	579	581	2	10
KL22-03	1	MSSX	581	585	5	37
KL22-03	1	UMAF_1a	585	591	6	39
KL22-03	1	MSSX/MSXI	592	593	1	8
KL22-03	1	UMAF_KAB	631	637	6	30
KL22-04	1	UMAF_1a	495	507	12	27
KL22-04	1	UMAF_KAB	507	510	3	3
KL22-05	1	UMAF_1a	435	442	7	16
KL22-05	1	UMAF_KAB	442	444	2	2
KL22-06	1	UMAF_1a	386	392	6	14
KL22-06	1	UMAF_KAB	392	394	2	2
KL22-08	1	UMAF_1a	228	237	9	22
KL22-08	1	UMAF_KAB	237	239	2	2
KL22-09	1	UMAF_1a	232	236	4	8
KL21-01A	1	LRPU	369	371	2	12
KL21-01A	1	MSSX	371	396	24	187
KL21-01A	1	LRPU	396	399	3	15
KL07-06A	1	LRPU	327	331	4	18
KL07-06A	1	MSSX	331	337	6	46
KL07-06A	1	UMAF_1a	337	349	12	74
KL07-06A	1	UMAF_KAB	349	352	3	16
KL23-10	2	LRPU	634	637	3	6
KL23-10	2	MSSX	637	646	9	28
KL23-10	2	UMAF_1a	646	650	4	10
KL23-10	2	UMAF_KAB	650	653	2	5
KL23-23	2	LRPU	645	647	2	5
KL23-23	2	MSSX	647	650	3	11
KL23-23	2	UMAF_1a	650	658	8	23
KL23-23	2	UMAF_KAB	658	660	2	5
KL23-17A	2	LRPU	571	576	5	25

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KL23-17A	2	MSSX	576	581	4	31
KL23-17A	2	UMAF_1a	581	589	8	49
KL23-17A	2	UMAF_KAB	589	594	5	28
KL23-21A	2	LRPU	673	678	5	24
KL23-21A	2	MSSX	678	680	2	13
KL23-21A	2	UMAF_1a	680	689	9	56
KL23-21A	2	UMAF_KAB	689	694	5	27
GT23-05	2	LRPU	216	217	1	5
GT23-05	2	UMAF_1a	231	237	6	35
GT23-05	2	UMAF_KAB	237	238	1	5
GT23-08	2	LRPU	282	284	2	2
GT23-08	2	MSSX	284	310	26	41
GT23-08	2	LRPU	310	312	2	2
GT23-06	2	LRPU	242	247	5	25
GT23-06	2	MSSX	247	255	8	60
GT23-06	2	UMAF_1a	255	269	14	95
GT23-06	2	UMAF_KAB	269	274	5	26
GT23-07	2	LRPU	302	307	5	24
GT23-07	2	MSSX	307	330	23	181
GT23-07	2	LRPU	330	335	5	24

Table 10-3: Concentrator North Testwork Sample Intervals

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KN22-01	1	BNPU	361	363	2	6
KN22-01	1	BNPU	368	369	1	4
KN22-01	1	MSSX	369	397	28	142
KN22-01	1	GAB	397	400	3	10
KN22-02	1	BNPU	435	437	2	6
KN22-02	1	MSSX	437	452	15	77
KN22-02	1	UMAF_KAB	452	458	6	24
KN22-03	1	BNPU	238	244	6	25
KN22-03	1	MSSX	244	284	40	198
KN22-03	1	LRPU	284	290	6	25
KN22-01A	1	MSSX	369	380	11	87
KN22-01A	1	MSSX	380	397	17	133
KN08-21A	1	BNPU	1,008	1,012	4	17
KN08-21A	1	MSSX	1,012	1,037	25	199
KN08-21A	1	LRPU	1,037	1,040	3	12
KN08-21B	1	BNPU	1,008	1,012	3	17

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KN08-21B	1	MSSX	1,012	1,036	25	197
KN08-21B	1	LRPU	1,036	1,039	2	12
KN08-61A	1	BNPU	911	916	4	16
KN08-61A	1	MSSX	916	958	42	312
KN08-61A	1	LRPU	958	961	3	12
KN08-61B	1	BNPU	911	914	3	16
KN08-61B	1	MSSX	929	954	25	192
KN08-61B	1	UMAF_1a	954	957	4	23
KN08-61B	1	MSSX	914	929	14	97
KN08-04A	1	BNPU	1,071	1,075	4	22
KN08-04A	1	MSSX	1,075	1,097	22	175
KN08-04A	1	LRPU	1,097	1,100	3	12
KN22-02	1	UMAF_KAB	458	466	9	44
KN23-02	2	BNPU	1,046	1,048	2	5
KN23-02	2	MSXI	1,048	1,056	8	23
KN23-02	2	BNPU	1,056	1,058	2	5
KN23-02	2	BNPU	1,067	1,068	1	3
KN23-02	2	MSSX	1,068	1,073	5	16
KN23-02	2	LRPU	1,073	1,077	4	4
KN23-04	2	BNPU	767	769	2	2
KN23-04	2	MSSX	769	783	13	21
KN23-04	2	UMAF_1a	783	790	7	10
KN23-04	2	UMAF_KAB	790	792	2	2
KN23-05	2	BNPU	798	800	2	2
KN23-05	2	MSSX	800	805	5	8
KN23-05	2	UMAF_1a	805	815	11	15
KN23-05	2	UMAF_KAB	815	817	2	3
KN23-06	2	BNPU	1,227	1,229	2	2
KN23-06	2	MSSX	1,229	1,245	16	24
KN23-06	2	LRPU	1,245	1,247	2	2
GT23-09	2	BNPU	311	313	2	5
GT23-09	2	MSSX	313	322	9	29
GT23-09	2	LRPU	322	324	2	5
GT23-10	2	BNPU	174	176	2	2
GT23-10	2	MSSX	176	186	9	15
GT23-10	2	UMAF_1a	186	196	10	13
GT23-10	2	UMAF_KAB	196	198	2	3
KN23-09	2	LSSC	1,224	1,226	2	2
KN23-09	2	MSSX	1,226	1,249	23	37
KN23-09	2	LRPU	1,249	1,251	2	2

Hole Number	Phase	Rock Unit	From (m)	To (m)	Width (m)	Weight (kg)
KN23-04A	2	BNPU	765	770	5	24
KN23-04A	2	MSSX	770	782	11	86
KN23-04A	2	UMAF_1a	782	790	8	55
KN23-04A	2	UMAF_KAB	790	794	5	26
GT23-11	2	BNPU	167	170	3	14
GT23-11	2	MSSX	170	172	2	16
GT23-11	2	UMAF_1a	172	181	9	57
GT23-11	2	UMAF_KAB	181	184	3	17

Note: LSSC/GAB reflects sediment dilution.

The sample selection was based on the zones and grade profiles indicated in the North and Tembo resource model. The locations of the MSSX and UMAF_1a FS sample intervals are shown in Figure 10-3 and Figure 10-4, respectively.

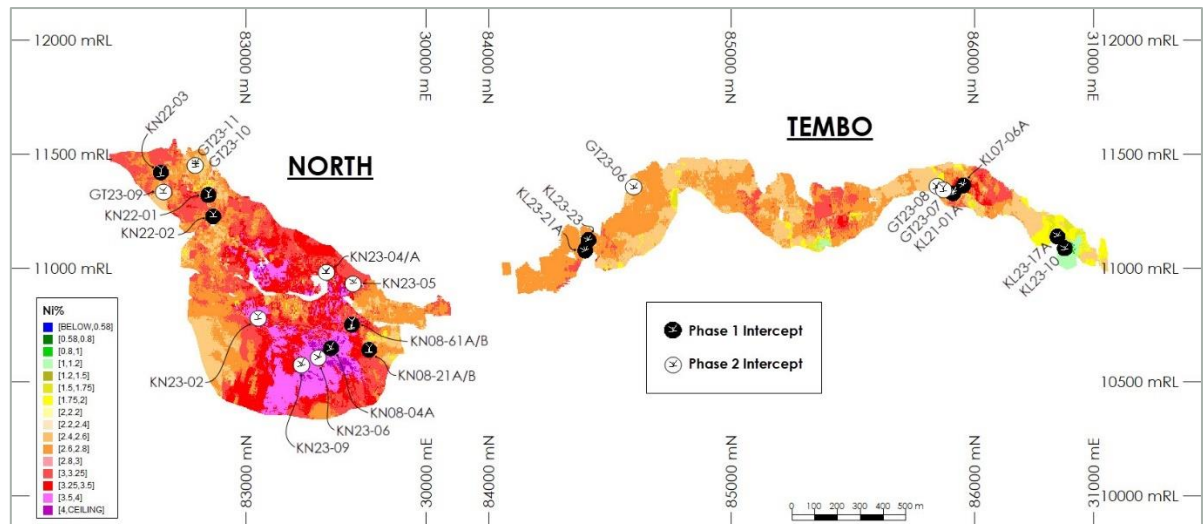


Figure 10-3: MSSX FS Metallurgical Testwork Sample Locations

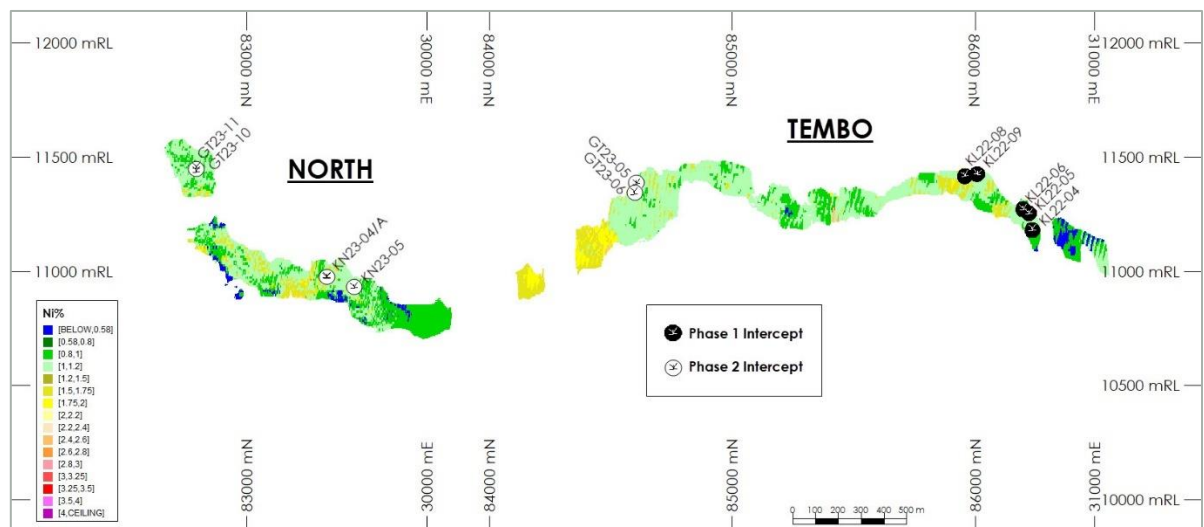


Figure 10-4: UMAF_1a FS Metallurgical Testwork Sample Locations

The drill core intervals as presented in Table 10-2 and Table 10-3 were used to prepare various composites and point samples for the current study concentrator metallurgical testwork program as follows:

- Blend composites representing blends of end members from various drill core samples (for example, a blend of 73% MSSX, 12% UMAF_1a, and 15% dilution using sample intervals selected from a selection of drill core holes).
- Domain composites representing blends of individual end members from various drill core samples (for example, a blend of Tembo MSSX from the Tembo drill core holes).
- Domain point samples representing the individual end members from individual drill core samples (for example, a North MSSX interval from drill core hole KN22-01).
- Point sample blend composites representing the individual end members from individual drill core samples and inclusive of dilution (for example, a blend of 89% UMAF_1a and 11% UMAF_KAB dilution from drill core hole KN23-04).

The testwork samples were selected and prepared in consultation with the project team's geology, metallurgy, and mining representatives and included suitable intervals of dilution (LRPU, BNPU, HORN, and UMAF_KAB) above, below and within the MSSX, MSXI, and UMAF_1a end member sample intervals.

Sample selection and composite preparation also considered grade ranges and expected LoM grades, spatial coverage including depth and along strike, appropriate levels of planned and unplanned mining dilution as advised by the relevant mining disciplines, the proportion of MSSX and UMAF_1a tonnage in the overall mine life at the time the samples were selected, and other factors.

The testwork samples covered a nickel feed grade ranging from 1.5% to 3.7% for the MSSX material, 0.7% to 1.7% for UMAF_1a, and 1.6% to 2.4% for blends of MSSX and UMAF_1a.

The comminution and flotation testwork samples and testwork scope are summarized in Table 10-4 and Table 10-5, respectively while the flotation concentrate and tailings samples submitted for further testwork are summarized in Table 10-6.

Table 10-4: Comminution Testwork Samples and Scope

Sample ID	Type	Zone	Hole ID	Nickel Grade (%)	End Member Composition (%)				Testwork Scope			
					MSSX/MSXI	UMAF_1a	LRPU/BNPU	UMAF_KA_B	BWi	CWi	Ai	Grindmill
TC2	Domain Point	Tembo	KL23-17A	1.48	100				X		X	
TC14	Domain Point	Tembo	GT23-07	2.78	100				X		X	
TC10	Domain Point	Tembo	GT23-06	2.12	100				X		X	
NC2	Domain Point	North	KN23-04A	3.93	100				X		X	
NC6	Domain Point	North	GT23-11 COM	3.03	100				X		X	
NF2	Domain Point	North	KN23-02	2.63	100				X		X	
NF4	Domain Point	North	KN23-06	3.01	100				X		X	
TC17	Domain Point	Tembo	KL23-17A / GT23-07 / GT23-06 / KL23-21A	2.19	100					X		X
NC11	Domain Point	North	GT23-11 COM / KN23-04A	3.12	100					X		X
TC3	Domain Point	Tembo	KL23-17A	0.70		100			X		X	
TC7	Domain Point	Tembo	KL23-21A	1.21		100			X		X	
TC11	Domain Point	Tembo	GT23-06	1.44		100			X		X	
NC3	Domain Point	North	KN23-04A	1.92		100			X		X	
NC7	Domain Point	North	GT23-11 COM	1.27		100			X		X	
NF13	Domain Point	North	KN24-04A COM	1.34		100			X		X	
TC18	Domain Point	Tembo	KL23-21A / GT23-06 / KL23-17A	1.11		100				X		X
NC12	Domain Point	North	GT23-11 COM / KN23-04A	1.40		100				X		X
KL21-01A	Point Blend	Tembo	KL21-01A	1.92	88		12					
KL07-06A	Point Blend	Tembo	KL07-06A	1.25		88		12				
TC16	Domain Composite	North	KL23-21A / GT23-06 / KL23-17A	0.30				100	X		X	
NC10	Domain Composite	North	GT23-11 COM / KB23-04A	0.70				100	X		X	
TC15	Domain Composite	Tembo	KL23-21A / GT23-06 / GT23-07	0.11			100		X		X	
NC9	Domain Composite	North	GT23-11 COM / KN23-04A	0.17			100		X		X	
TC19	Blend Composite	Tembo	TC1 / 4 / 5 / 9 / 13 / 8 / 12	-			50	50				

Sample ID	Type	Zone	Hole ID	Nickel Grade (%)	End Member Composition (%)				Testwork Scope			
					MSSX/MSXI	UMAF_1a	LRPU/BNPU	UMAF_KA B	BWi	CWi	Ai	Grindmill
NC13	Blend Composite	North	NC 1 / 4 / 5 / 8	-			50	50				
TNC1	Blend Composite	Tembo/North	TC 1 / 4 / 5 / 9 / 13 / 8 / 12, NC 1 / 4 / 5 / 8	-			55	45		X		
Design Blend	Blend Composite	Tembo/North	TC 17 / 18 / 19, NC 11 / 12 / 13	2.00	60	22	13	5	X			X

Notes: CWi = Bond crusher work index; Ai = Bond abrasion index; 'X' indicates that testwork was conducted on this sample for the relevant testwork scope as indicated.

Table 10-5: Flotation Testwork Samples and Scope

Sample ID	Type	Zone	End Member Composition (%)				Head Assay (%)						Testwork Scope				
			MSSX	MSXI	UMAF_1a	Dilution	Ni	Cu	Co	Fe	S	Mg	Mineralogy	Open-Circuit Bench	Open-Circuit Bulk	Locked-cycle	Feed Oxidation
Comp1	Blend Composite	Tembo	75		8	16	1.96	0.28	0.18	46.7	28.8	1.04	X	X	X		
Comp2	Blend Composite	North	84			16	1.98	0.30	0.17	45.3	28.4	1.00	X	X	X		
Comp3	Blend Composite	North	81		3	16	2.26	0.34	0.17	47.1	27.1	0.49	X	X	X		
Comp4	Blend Composite	North/Tembo	81		3	16	2.10	0.30	0.18	49.1	30.1	0.83	X	X	X	X	
V10	Domain Composite	North/Tembo	100				3.63	0.42	0.27	57.6	35.7	0.05		X		X	
V14	Blend Composite	North/Tembo	57		32	11	1.78	0.28	0.16	41.7	25.6	1.82		X		X	
FC1	Blend Composite	North	68		13	18	2.30	0.33	0.16	43.6	24.8	1.30	X	X			
FC2	Blend Composite	Tembo	37	20	34	10	1.67	0.21	0.13	39.7	21.3	3.70	X	X			
FC4	Blend Composite	North/Tembo	58	7	17	18	2.04	0.27	0.15	39.7	22.8	2.03	X	X	X		
V13	Domain Composite	Tembo			100		1.29	0.19	0.10	31.1	16.1	7.27		X		X	
FC3	Blend Composite	North			93	7	1.15	0.16	0.08	33.0	12.0	7.32	X	X			
V1	Domain Composite	North	100				3.02	0.39	0.24	57.7	35.0	0.03	X	X			
V2	Blend Composite	North	24	31		45	1.91	0.25	0.14	36.2	20.0	0.25	X	X			
V3	Domain Composite	North	100				4.13	0.47	0.28	58.6	35.8	0.06	X	X			
V4	Domain Composite	North	100				4.11	0.50	0.26	57.7	36.2	0.00	X	X			
V5	Domain Composite	Tembo	100				3.52	0.36	0.26	56.1	36.0	0.03	X	X			
V6	Domain Composite	Tembo	100				3.16	0.33	0.23	55.1	34.6	0.03	X	X			
TF1	Point Blend	Tembo		93		7	1.88	0.26	0.15	43.2	22.5	0.23	X	X			
TF2	Point Blend	Tembo	89			11	1.45	0.16	0.16	43.6	25.2	0.20	X	X			
TF5	Point Blend	Tembo	52	26	12	10	1.97	0.26	0.15	43.5	25.0	0.87		X			
NF1	Blend Composite	North		84		16	2.06	0.24	0.14	37.3	17.5	0.25	X	X			
TF7	Blend Composite	Tembo			89	11	1.39	0.15	0.10	30.1	15.4	8.38		X			
V7	Domain Composite	Tembo			100		0.84	0.11	0.08	24.6	12.1	9.07	X	X			
V8	Domain Composite	Tembo			100		1.67	0.20	0.13	35.2	20.4	5.42	X	X			
V9	Domain Composite	Tembo			100		1.35	0.26	0.10	33.5	15.9	7.24	X	X			

Sample ID	Type	Zone	End Member Composition (%)				Head Assay (%)						Testwork Scope				
			MSSX	MSXI	UMAF_1a	Dilution	Ni	Cu	Co	Fe	S	Mg	Mineralogy	Open-Circuit Bench	Open-Circuit Bulk	Locked-cycle	Feed Oxidation
TF8	Point Blend	Tembo			87	13	0.91	0.13	0.09	28.7	15.1	8.96		X			
NF12	Point Blend	North			89	11	1.59	0.22	0.11	36.0	13.9	4.46		X			
NF13	Domain Point	North			100		1.34	0.17	0.09	35.9	12.3	3.97	X	X			
NF14	Point Blend	North			91	9	0.95	0.14	0.09	34.9	12.8	9.25	X	X			
OXA	Blend Composite	Tembo	75		25		2.40	0.30	0.19	48.9	28.1	-					X
NOX1	Domain Composite	North	100				3.57	0.47	0.23	57.6	33.7	-					X
NOX2	Domain Composite	North			100		1.00	0.13	0.09	33.8	12.8	-					X
TOX1	Domain Composite	Tembo			100		1.13	0.14	0.11	33.8	17.5	-					X

Note: An 'X' indicates that testwork was conducted on this sample for the relevant testwork scope as indicated.

Table 10-6: Flotation Concentrate and Tailings Product Testwork Samples and Scope

Sample ID	Zone	Sample Source	Testwork Scope							
			Tails	Geo-chemistry	Backfill	Settling and Filtration	Concentrate Regrind	Tails Pumping	Rheology	Concentrate Characterization
Non-Sulfide Tails	North/Tembo	Comp 1, 2,3 and Phase 1 Variability Products	X	X	X	X				
Sulfide Tails/Pyrrhotite Concentrate	North/Tembo	Comp 1, 2,3 and Phase 1 Variability Products	X	X	X	X				
Concentrate – Comp 3	North	Comp 3 Final Concentrate				X				
Concentrate – Comp 4/Early Years Blend (EYB)	North/Tembo	Comp 4 Final Concentrate				X				
BT74 Concentrate	North	Comp 3 Rougher Concentrate					X			
Sulfide Tails/Pyrrhotite Concentrate	North/Tembo	Comp 1, 3, 3 and 4 Products						X	X	
Non-Sulfide Tails	North/Tembo	Comp 3, 4 and Phase 1 Variability Products							X	
Blend Tails	North/Tembo	Comp 3 BT 79							X	
Final Concentrate	North/Tembo	EYB, FC4 and Hydrometallurgical Pilot Plant Concentrate Blend Composite								X

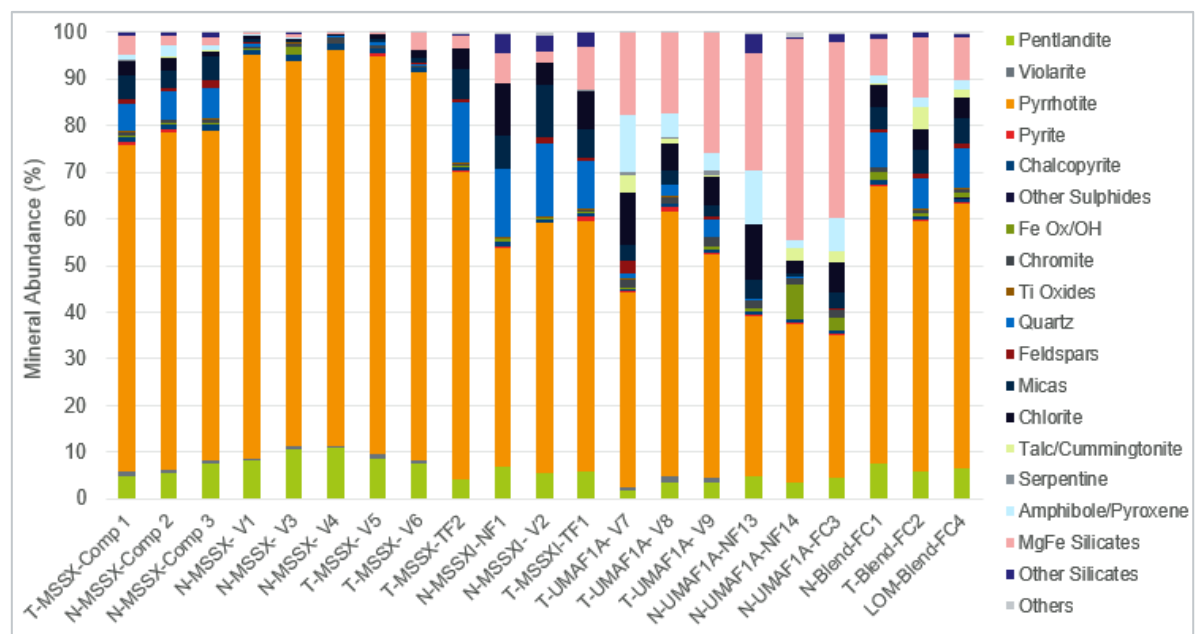
Note: An 'X' indicates that testwork was conducted on this sample for the relevant testwork scope as indicated.

10.3.3 Feed Characterization and Mineralogy

In total, 21 feed samples, representing the end member units MSSX, MSXI, and UMAF_1a with varying amounts of dilution (0% to 18%), were sent for mineralogical analyses and characterization. The objective of the mineralogical investigation was to identify the minerals present, characterize the base metal sulfides with respect to grain sizes, liberation characteristics and mineral associations, and describe their mode of occurrence.

The feed samples were crushed and milled to 80% passing 100 µm, screened and de-slimed to produce separate +106 µm, -106 µm/+53 µm, -53 µm/+20 µm, and -20 µm/+5 µm size fractions for the QEMSCAN analysis.

A summary of the feed mineral abundance in these samples is presented in Figure 10-5 and the chemical analysis for the MSSX, UMAF_1a and Tembo, North and the LoM blend composites is presented in Table 10-7.



Notes: T = Tembo, N = North, LoM = Life of Mine.

Figure 10-5: Feed Sample Mineral Abundance

Table 10-7: Feed Sample Chemical Analysis

Sample Description	Feed Analysis (%)								Feed Analysis (ppm)						
	Ni	Fe	S	Si	Al	Mg	Cr	Ca	Hg	As	Bi	Pb	Cd	Zn	3E + Au ⁴
Tembo															
MSSX	1.8	47	27	7.3	2.1	1.0	0.2	0.2	0.02	46	1.7	51	2.0	184	0.17
UMAF_1a	1.3	31	16	13	2.0	7.4	0.5	0.8	< 0.01	63	2.3	52	3.0	233	0.24
Blend ¹	1.7	40	21	10	2.2	3.7	0.2	0.4	0.01	61	1.9	49	1.5	136	–
North															
MSSX	2.5	49	29	6.0	1.8	0.6	0.2	0.3	0.02	78	2.8	77	2.4	158	0.19
UMAF_1a	1.2	33	12	12	1.9	7.3	0.3	0.7	< 0.01	175	9.9	251	2.5	286	–
Blend ²	2.3	44	25	7.7	2.0	1.3	0.1	0.3	0.01	95	4.0	106	3.0	242	–
LoM Blend ³	2.0	40	23	9.4	2.3	2.0	0.1	0.3	0.01	78	3.3	87	2.0	210	–

Notes:

¹The Tembo blend comprised 57% MSSX/MSXI, 34% UMAF_1a and 10% dilution aligned to requirements at the time of testing.

²The North blend comprised 68% MSSX/MSXI, 13% UMAF_1a and 18% dilution aligned to requirements at the time of testing.

³The LoM blend comprised 65% MSSX/MSXI, 17% UMAF_1a and 18% dilution aligned to requirements at the time of testing.

⁴3E+Au refers to the combined Pt, Pd, Rh and Au.

Overall, the mineralogy and feed characterization assessments were aligned to historical testwork findings, indicating the following:

- The primary lithologies reflect massive sulfides (MSSX containing 71% to 98% sulfides), massive sulfide with xenoliths of metasedimentary or gabbro/ultramafic rock (MSXI containing 55% to 61% sulfides), and semi-massive to net and reverse net-textured sulfides hosted within ultramafic bodies (UMAF_1a containing 36% to 63% sulfides).
- Samples were comprised of pentlandite, pyrrhotite, and chalcopyrite as the primary sulfide minerals in combination with varying amounts of sedimentary and ultramafic gangue.
- Nickel is predominantly present as pentlandite with some violarite.
- Copper is contained in the chalcopyrite.
- Cobalt deportment in the feed was not indicated; however, the mineralogical analysis of the flotation tailings and concentrate product streams determined that cobalt was deported within the pentlandite. This is aligned with the historical mineralogical findings, where pentlandite was reported to contain approximately 2.4% cobalt.
- Pyrrhotite is the predominant gangue mineral, particularly in the MSSX and MSXI lithologies.
- Nickel was well liberated at the feed grind size of 80% passing 100 µm, with the > 90% liberation class ranging from 92% to 95% for the MSSX samples, 83% to 93% for the MSXI samples, and 73% to 92% for the UMAF_1a samples. Poorly liberated nickel predominantly occurred as binary particles associated with pyrrhotite and silicates. Copper was also found to be well liberated. The samples also contained approximately 0.2 g/t of platinum-group elements (PGEs).
- The magnesium in the feed was low in the MSSX (< 1%) samples but elevated in the UMAF_1a samples (~7.5%) and increased relative to the proportion of UMAF_1a in the blend samples.
- These samples contained low levels of mercury (< 0.02 ppm), arsenic (46–175 ppm), bismuth (1.7–9.9 ppm), lead (49–251 ppm), zinc (136–286 ppm). These trace elements at the low levels detected are not expected to cause any issues in third party smelters and/or refineries.
- The mineralogical and chemical analysis data show that the massive and semi-massive sulfides (MSSX and MSXI) from both North and Tembo have a similar mineral abundance, nickel and iron deportment, and liberation characteristics. Similarly, the UMAF_1a samples from both North and Tembo also had similar mineralogical characteristics.
- Comparatively, the primary MSSX end member samples, the MSXI samples had a similar nickel mineralization; however, the MSXI samples were less liberated (~4% lower), had a marginally finer grain size and were of a lower grade, containing higher levels of impurities. The UMAF_1a samples also had a similar nickel mineralization to that of the MSSX samples; however, the UMAF_1a samples were less liberated (~8% lower), exhibited a finer grain size, and were of a lower grade, with higher levels of impurities.

Mineralogy has demonstrated the material characteristics of the Kabanga samples are amenable to processing using conventional comminution and flotation techniques.

10.3.4 Comminution Testwork

Comminution testwork was undertaken on MSSX, MSXI, UMAF_1a, and waste dilution samples to characterize the competency of each material type. The comminution testwork included the Bond crusher work index (CWi), BWi, and Bond abrasion index (Ai) tests in combination with Grindmill batch milling tests. Additionally, concentrate regrind testwork was also conducted on a rougher concentrate sample to confirm the grinding energy requirements for the concentrate regrind duty.

The comminution testwork confirmed the previous testwork findings, demonstrating that:

- The MSSX samples can be classified as soft with respect to crushing, with an average CWi of 5.7 kWh/t to 6.5 kWh/t. In comparison, the UMAF_1a samples exhibited a significant variance in hardness, with the North sample classified as soft with a CWi of 11.6 kWh/t, while the Tembo UMAF_1a composite was classified as hard, with a CWi of 20.3 kWh/t. The waste composite was classified as medium hard, with a CWi of 17.7 kWh/t.

- The MSSX samples were classified as soft to medium hard with respect to ball milling, with a BWi ranging from 8.4 kWh/t to 10.9 kWh/t. In comparison, the BWi ranged from 13.2 kWh/t to 16.9 kWh/t for the UMAF_1a samples, classifying them as medium to hard. The LRP / BNPU waste composite had an average BWi of 14.3 kWh/t, which was similar to the BWi of the UMAF_1a samples, while an average BWi of 17.7 kWh/t was reported for the UMAF_KAB waste sample, classifying it as hard.
- All the samples had a low abrasion tendency, with an Ai ranging from 0.05 to 0.16 and averaging 0.061. For reference, an Ai of 0.2 to 0.5 is considered to reflect a medium abrasion tendency, while an Ai greater than 0.5 is considered abrasive.
- Concentrate regrind testwork by STM, using a vertical regrind mill (VRM) 5 test unit highlighted the relatively soft nature of the sulfide rougher concentrate, requiring a specific grinding energy of 3.9 kWh/t to reduce the 80% passing particle size from 55 µm to 35 µm.

The current comminution testwork, in combination with the historical testwork, provided sufficient data to derive comminution circuit design parameters for a flowsheet trade-off assessment, which resulted in the selection of a two-stage crushing circuit, and two identical 1.7 Mtpa ball milling trains for a combined capacity of 3.4 Mtpa.

10.3.5 Ni-Cu-Co Flotation Testwork

In addition to the historical flotation testing, BV conducted extensive flotation testwork for the current program, which included 163 open-circuit bench-scale tests, 8 bench-scale locked-cycle tests, 124 open-circuit bulk flotation tests and 96 rougher kinetic feed oxidation tests.

The aim of the testwork was to further characterize the flotation response, optimize the flowsheet, evaluate the degree of variability and generate bulk concentrate and tailings samples for the downstream, dewatering, and other characterization testwork.

The flotation program included initial flowsheet development and optimization assessments, followed by open-circuit variability testing to quantify the expected metallurgical performance and highlight the degree of variability to be expected when processing blends of MSSX, MSXI, UMAF_1a, and waste dilution. Additionally, open-circuit bulk flotation testwork was conducted to generate bulk concentrate and tailings samples for the downstream, dewatering, and other characterization testwork.

The key results and findings from the current flotation testwork program are summarized in the following subsections.

10.3.5.1 Flowsheet Development Testwork

The open-circuit bench-scale flotation flowsheet development testwork aimed to confirm the optimal grind size, reagent regime, operating conditions, and flowsheet configuration.

Primary Grind Size Optimization

During the flowsheet development testing, the primary grind size was varied for select samples as part of the optimization process. A summary of the rougher flotation nickel recovery grade as a function of grind size for these tests is shown in Figure 10-6.

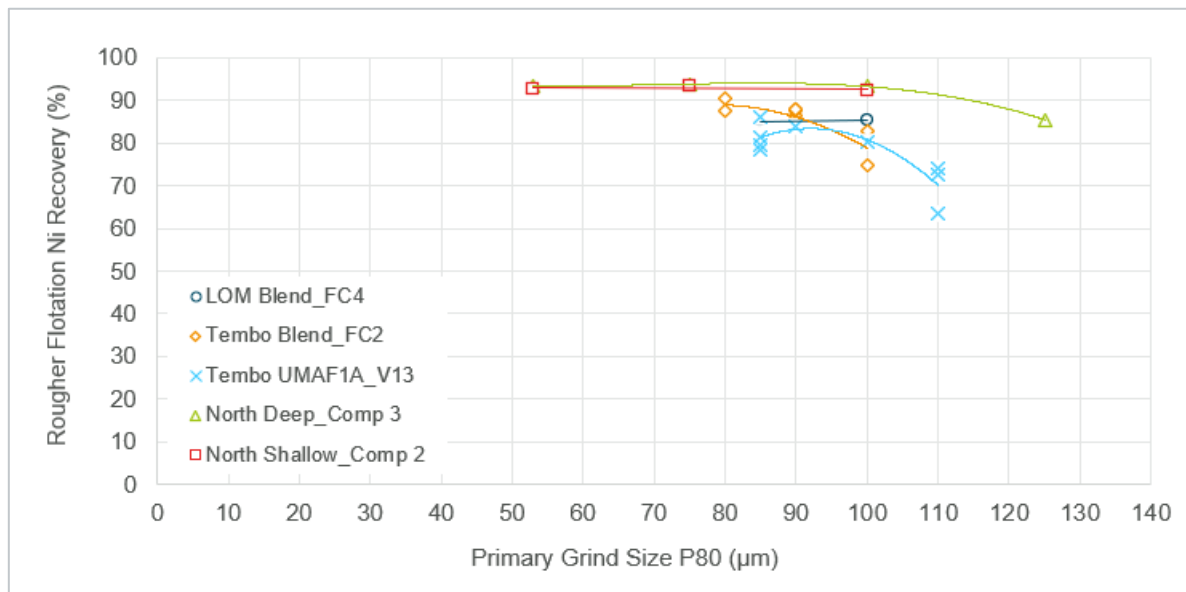


Figure 10-6: Bench-Scale Open-Circuit Grind Optimization Test Results

The key findings of the grind optimization testwork can be summarized as follows:

- The historical primary grind size of 80% passing 100 µm was confirmed as optimal for the FC4 LoM Blend Composite and the MSSX-rich North Deep and North Shallow composites.
- The tests however also showed the potential for an improved recovery when targeting a finer primary grind of 80 µm to 85 µm for the Tembo Blend (~34% UMAF_1a) and Tembo UMAF_1a composites.

Reagent Regime and Flowsheet Configuration

The historical nickel flotation feed solids concentration of 35% (w/w) and reagent regime comprising lime as a pH modifier, Potassium ethyl xanthate (PEX) collector, Aero 3477 promoter, sodium sulfite (Na_2SO_3) as a pyrrhotite depressant, Methyl isobutyl carbinol (MIBC) frother, and Carboxymethyl cellulose (CMC) as a silicate depressant was also confirmed with the following observations:

- The additional inclusion of Aerophine 3418A promoter in the rougher and cleaner circuit showed potential for improved nickel/iron selectivity and increased copper recovery.
- The addition of 500 g/t to 650 g/t of carboxymethyl cellulose (CMC) to depress magnesium silicate gangue minerals was found to be beneficial for the UMAF_1a and blend samples, which contained > 2% magnesium in the feed.
- The addition of 100 g/t to 300 g/t of sodium sulfite to depress iron in the cleaner circuit was found to be beneficial for the MSSX and MSXI samples. Sodium sulfite addition showed no benefit for the UMAF_1a samples.

Flowsheet development and optimization testing also showed that:

- Inclusion of rougher concentrate regrinding ($P_{80} \sim 35\text{--}45 \mu\text{m}$) improved the final concentrate nickel grade by approximately 1.0% to 2.0% when compared to tests with no regrind.
- A split cleaner configuration including a Jameson Cell in the final high-grade (HG) cleaner and medium-grade (MG) re-cleaner duties improved the nickel upgrade profile, also increasing the nickel grade by approximately 2% to 3%.

10.3.5.2 Open-circuit Bulk Flotation Testwork

A total of 124 open-circuit bulk flotation tests (13 kg each) were conducted. To meet the downstream, dewatering, characterizations and other testwork timelines, the bulk flotation testwork program was conducted early in the program, using the preliminary bench-scale flotation conditions derived from the historical testwork findings to produce approximately:

- 173 kg of bulk concentrate with an average nickel grade typically ranging from 14% to 17% at an open-circuit nickel recovery of 82% to 88%.
- 750 kg of pyrrhotite tailings with an iron grade of approximately 59% and a non-pyrrhotite rougher tailings stream with a sulfur content typically ranging from 5% to 10%.

10.3.5.3 Open-circuit Flotation Variability Testwork

The flotation testwork program included a series of open-circuit cleaner variability tests on 26 MSSX, MSXI, UMAF_1a, and blend samples. A variable performance was observed as shown in Figure 10-7, where the MSSX samples (> 80% sulfides) achieved a superior upgrade profile in comparison to the MSXI samples, which in turn showed a superior upgrade profile relative to the UMAF_1a samples. For all the end member types, the final concentrate open-circuit test nickel recovery and grade increased as the head grade increased.

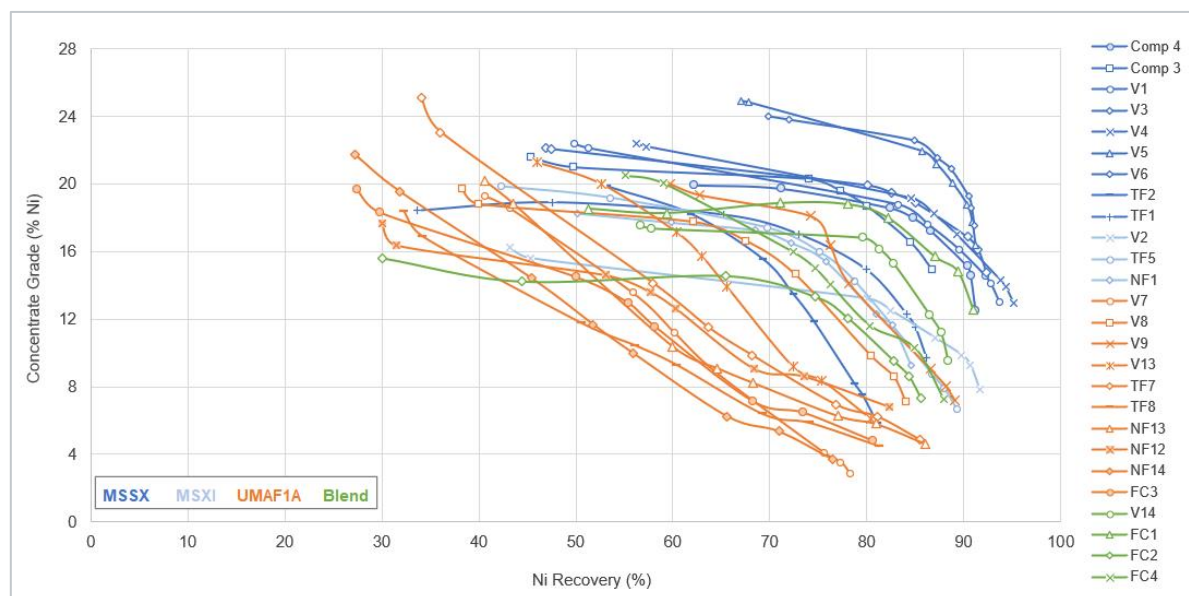


Figure 10-7: Optimized Bench-Scale Open-Circuit Cleaner Variability Test Nickel Grade-Recovery Curves

Examples of final cleaner concentrate from the open-circuit cleaner variability testwork are shown in Figure 10-8.



Figure 10-8: Open-Circuit Cleaner Flotation Concentrate

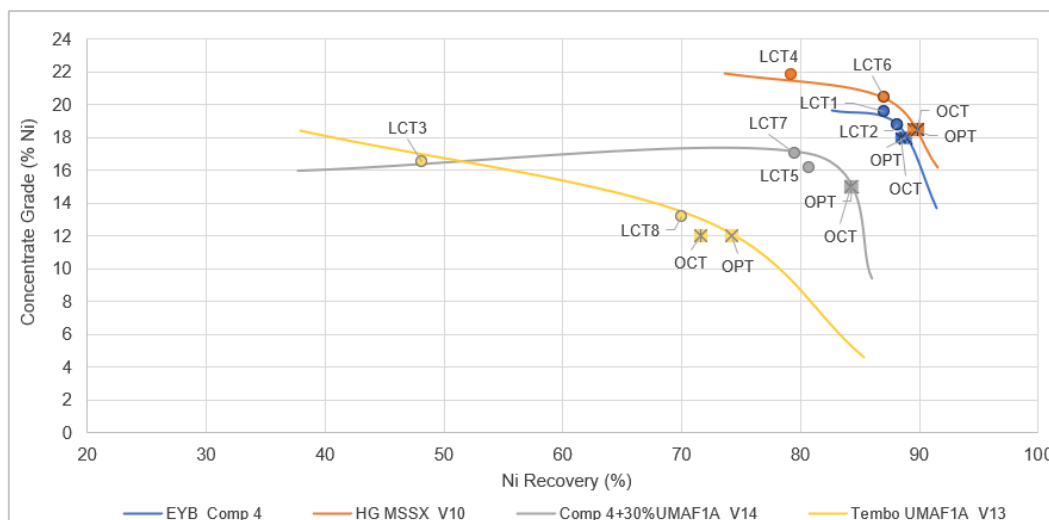
The open-circuit flotation testwork also highlighted a difference in flotation performance between the bench-scale tests and the larger bulk-scale tests as summarized in Table 10-8. The bulk-scale tests typically achieved a higher nickel grade at a similar recovery. A similar observation was made in the historical testwork, where the MPP runs were able to achieve higher concentrate grades than the bench-scale flotation tests.

Table 10-8: Bulk-Scale versus Bench-Scale Performance

Sample ID	Description	Rougher Mass Pull (%)		Rougher Nickel Recovery (%)		Rougher Cobalt Recovery (%)		Rougher Copper Recovery (%)	
		Bench	Bulk	Bench	Bulk	Bench	Bulk	Bench	Bulk
Comp 4	Early Years Blend	19.2	17.6	89.3	90.5	92.7	94.1	96.5	98.4
Comp 3	North Deep	17.1	26.6	88.2	91.0	91.0	91.0	97.6	98.8
FC4	LoM Blend	24.4	31.0	87.9	90.4	90.9	91.9	96.7	96.8

10.3.5.4 Locked-cycle Flotation Testwork

The flotation testwork program included eight bench-scale locked-cycle tests on four composite samples. The locked-cycle tests each included six cycles and incorporated the filtration and recycle of process water to the flotation circuit for cycles 2 to 6. The results of the locked-cycle tests are summarized in Figure 10-9.



Notes: LCT = locked-cycle test, OCT = open-circuit testwork, OPT = optimum operating point.

Figure 10-9: Locked-Cycle Testwork Nickel Grade-Recovery Curves

The locked-cycle test balance accountability for nickel ranged from 91% to 103% with fast flotation kinetics and low circulating loads (approximately 5% to 15%) for all the samples. The tests typically achieved stability within three to four cycles with the key findings summarized as follows:

- Two tests were conducted on each sample with each test falling on the same overall grade recovery curve; however, performance was strongly dependent on the mass pull.
- Aligned with the open-circuit variability test results, the MSSX samples containing > 80% sulfides achieved a superior upgrade profile in comparison to the UMAF_1a sample.
- A blend sample containing ~30% UMAF_1a achieved a result aligned with the expected performance based on the mathematical blend ratio of MSSX to UMAF_1a in the feed.
- The final concentrate nickel recovery and grade were found to increase as the head grade increased.
- Careful mass pull targeting was required during the test to achieve both high recovery and grade. The testwork indicated that the overall mass pull target and operating point could be adjusted by modifying air addition and scrape rates to increase/reduce the mass pull.
- There was no evidence of reduced rougher or cleaner flotation performance due to the recycle of process water (filtrate) during Cycles 2 to 6.
- Overall performance projections derived from the locked-cycle tests indicated the potential to achieve:
 - A nickel recovery of 88.8% to 89.5% at a final concentrate nickel grade of 18% for the MSSX-rich samples. A nickel recovery of 74.2% at a final concentrate nickel grade of 12% for a UMAF_1a composite sample.
 - A nickel recovery of 74.2% at a final concentrate nickel grade of 12% for a UMAF_1a composite sample.
 - A nickel recovery of 84.4% at a final concentrate nickel grade of 15% for a blend sample (containing 57% MSSX, 32% UMAF_1a and 11% dilution). Based on the mine plan data at the time, this sample was expected to represent the upper extremity of UMAF_1a in the mill feed.
- Mineralogy was conducted on the concentrate and tailings test products from the locked-cycle test on variability sample V14 representing at the time the upper extremity of UMAF_1a in the mill feed blend. The key findings were as follows:
 - The concentrate mineral and elemental deportment assessments confirmed that nickel in the concentrate was present as pentlandite and that it was well liberated (~97%). This is aligned with the historical testwork findings.
 - Copper in concentrate was present as chalcopryite, and cobalt was present in the pentlandite. The deportment of cobalt in the pentlandite is aligned with the historical mineralogical analysis and mineralogical interpretation provided by the site geologist.
 - The liberation data analysis indicates that 97% of all the pentlandite in the concentrate is liberated, which reflects a high degree of liberation.
 - Approximately 34% of the iron in the concentrate was present as pyrrhotite, with approximately 60% in the combined pentlandite and chalcopryite minerals, while the remainder deported to the chlorite, silicate, pyroxene, and amphibole phases. The mineralogical data confirmed high pyrrhotite rejection in both the rougher and cleaner circuit, with ~2% recovery of pyrrhotite to the final concentrate.
 - Tailings grain size data indicated that approximately 20% of the nickel (pentlandite) losses in the rougher tailings stream are coarse particles (+100 µm/~300 µm), 46% are in the +20 µm/~100 µm size fraction, and a further 35% were finer than 20 µm.
 - Nickel (pentlandite) losses to the cleaner tailings stream were predominantly in the -10 µm size fraction (~66%), which is typically difficult to recover by flotation. The high pentlandite losses to the -10 µm fraction in the cleaner scavenger tails stream would also suggest that the design of the regrind circuit should aim to limit overgrinding and the generation of -10 µm fines with the inclusion of a pre-classification cyclone.

- The locked-cycle test results were used in combination with the historical MPP and optimal FS bulk flotation tests to derive a correlation between the nickel upgrade ratio in the final cleaner concentrate relative to the rougher concentrate grade and the cleaner stage recovery (described as the ratio of the final cleaner concentrate recovery relative to the nickel recovery to the rougher concentrate). These correlations were used to derive a comparative closed-circuit performance projection for each sample based on the open-circuit test results with the following observations:
 - Locked-cycle performance projections derived from open-circuit cleaner data were found to be in good agreement with the actual locked-cycle test results as summarized in Table 10-9.
 - Similarly, it was found that the closed-circuit cobalt recovery could be modeled from the open-circuit data using the same stage recoveries as applied for nickel, while for copper, a fixed cleaner stage recovery of 98.9% for MSSX and 95% for UMAF_1a could be applied to the rougher recovery data.

Table 10-9: Comparative Locked-Cycle versus Open-Circuit Testwork Performance Projection

Sample ID	Locked-Cycle Test Projection			Open-Circuit Testwork Modeled		
	Mass Pull (%)	Ni Grade (%)	Ni Recovery (%)	Mass Pull (%)	Ni Grade (%)	Ni Recovery (%)
Comp 4	10.0	18.0	88.8	10.0	18.0	88.4
V10	16.8	18.5	89.5	16.9	18.5	89.9
V13	7.3	12.0	74.2	7.1	12.0	71.6
V14	9.8	15.0	84.4	9.8	15.0	84.4

It was also noted that the testwork on blend samples showed good agreement between the actual blend results and the modeled math blend results using the respective MSSX and UMAF_1a recovery and grade modeling correlations for blends containing up to 20% UMAF_1a with potential for a reduced concentrate grade and recovery for blends containing approximately 35% to 40% UMAF_1a and above. This finding is aligned with the historical testwork findings.

10.3.5.5 Feed Oxidation Assessments

The feed oxidation tests reflecting simulated warm, humid conditions for the relatively finely crushed material (< 30 mm) with a high degree of surface exposure showed a reduction in rougher recovery after the first week for the MSSX samples and after two to six weeks for the UMAF_1a samples. It was, however, not possible to test the oxidation potential of the coarser material more reflective of the expected RoM material (< 800 mm) using the core samples.

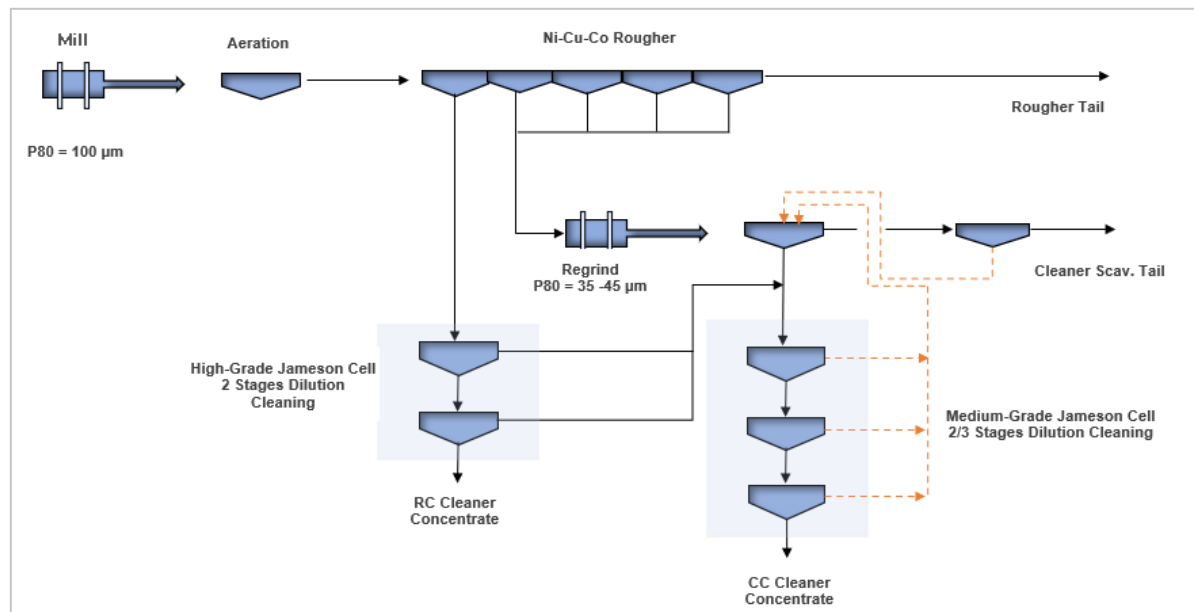
10.3.5.6 Ni-Cu-Co Flotation Testwork: Summary of Key Design Outcomes

Based on the flotation testwork findings, the Ni-Cu-Co flotation circuit flowsheet will incorporate a pre-aeration stage in a controlled alkaline environment to depress pyrrhotite ahead of the alkaline rougher and cleaner flotation circuits for the recovery of nickel, copper and cobalt sulfide minerals to the final concentrate. The cleaner flowsheet includes Jameson Cell dilution cleaning of the HG rougher concentrate in combination with regrind, cleaning, and Jameson Cell dilution re-cleaning of the medium-grade rougher concentrate. A cleaner scavenger circuit will treat the cleaner tailings to ensure optimal nickel recovery.

To ensure optimal flotation performance, the mine production will be managed to maintain the proportion of UMAF_1a in the concentrator feed nominally below 20% UMAF_1a and limited to a maximum of 30%, with a design allowance for stockpiling and blending of the UMAF_1a material ahead of the Concentrator to ensure a consistent blend ratio of $\leq 20\%$ UMAF_1a in the concentrator feed.

The potential for feed oxidation will also be mitigated by adopting a coarse blast fragmentation particle size distribution (PSD), limit the time between blasting and processing, limit the storage time of the crushed RoM material ahead of the milling circuit and the use covered concrete silos for crusher circuit product storage ahead of the mills.

The optimized flotation circuit testwork flowsheet, inclusive of Jameson Cell dilution cleaning for the final cleaner duties is presented in Figure 10-10. This flowsheet has been used as the basis of design for the current FS.



Note: In the flows depicted above, the flotation cell underflow streams refer to the flotation products in all cases.

Figure 10-10: Flowsheet Development Testwork – Optimal Nickel-Copper-Cobalt Flotation Circuit Flowsheet (Locked-cycle Variation)

10.3.6 Pyrrhotite Flotation Testwork

The testwork program also included pyrrhotite flotation testwork, which aimed to evaluate the potential for the recovery of pyrrhotite from the nickel-copper-cobalt flotation tailings. The testwork was conducted on nickel-copper-cobalt rougher tailings samples generated from the main Ni-Cu-Co flotation program.

The pyrrhotite rougher flotation variability tests achieved an iron stage recovery of 67% to 94%, averaging 83%. Testing on blend samples achieved a pyrrhotite rougher flotation stage recovery of 89% to 90% at an average concentrate iron grade of 60%, producing a non-pyrrhotite tails stream with an iron grade ranging from 16% to 20% and a sulfur grade of 3% to 5%. The pyrrhotite recovery potential was also confirmed in the bulk flotation testwork, which produced approximately 750 kg of pyrrhotite flotation tailings containing approximately 59% iron (theoretical ~62%) and a non-pyrrhotite rougher tailings stream with a sulfur content typically ranging from 5% to 10%.

10.3.7 Concentrate and Tailings Settling and Filtration Testwork

Settling and filtration testwork on concentration and tailings was conducted by Metso in Perth.

10.3.7.1 Settling Testwork

The concentrate and tailings settling testwork was in good agreement with historical testing by equipment vendors, showing the concentrate and tailings to readily thicken to high density (> 65% solids (w/w)) with a summary of the optimal test results and operating conditions presented in Table 10-10.

Table 10-10: Concentrate and Tailings Settling Testwork Results

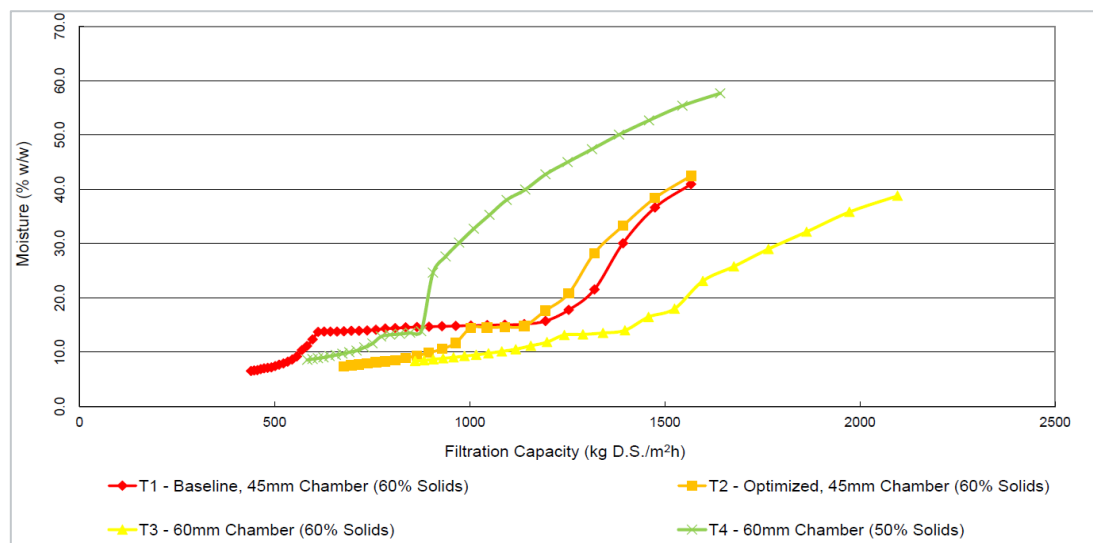
Parameter	Unit	Final Concentrate	Pyrrhotite Tailings	Non-Pyrrhotite Tailings
Flocculant Type		Magnafloc M155	Magnafloc M155	Magnafloc M155
Flocculant Dosage Rate	g/t	2 to 4	6	15
Feed Solids Concentration	% w/w	10	10	10
Settling Flux	t/m ² h	0.25	0.25 to 2.0	0.5 to 1.5
Solution Rise Rate	m/h	2.6	1.2 to 9.6	2.4 to 7.3
Overflow Clarity	mg/L	< 100	< 100	< 100
Underflow Solids Concentration	% w/w	75 to 77	80 to 85	67 to 74
Underflow Yield Stress	Pa	70 to 105	> 600	48 to 114

10.3.7.2 Filtration Testwork

Filtration testwork on the non-pyrrhotite tailings sample included an evaluation of pressure filtration, horizontal vacuum belt filtration and disk filtration technology. The results can be summarized as follows:

- The horizontal vacuum belt filtration tests achieved an instantaneous filtration rate of 1,649–1,758 kg D.S./m²h (kilograms dry solids per square meter per hour) to produce a filter cake with 10.4% w/w to 13.8% w/w moisture. A flocculant addition rate of < 3 g/t was required. This result gives an indication of the mass range of dry solids (kg D.S.) processed per unit area of filter medium (per m²) per hour of filtration time.
- The pressure filtration tests achieved an instantaneous filtration rate of 555 kg D.S./m²h, producing a filtrate cake with 10.8% w/w moisture.
- The preliminary vacuum disk filtration scouting tests were able to generate a filter cake with a moisture content of 17.5% w/w.

Pressure filtration testwork on the North Deep concentrate sample achieved a final concentrate moisture of < 10% w/w at a filtration rate of approximately 700–860 kg D.S./m²h for a filter feed solids concentration of 60% w/w as summarized in Figure 10-11. Based on this testwork, a filter feed solids concentration of 60% w/w to 65% w/w, a target filter cake product moisture of 9% w/w and a filtration flux of 500 kg D.S./m²h have been recommended as the basis of design.



Source: Metso 2023; Note: kg D.S./m²h =kilogram (dry solids) per square meter per hour.

Figure 10-11: Concentrate Moisture as a Function of Filtration Capacity

10.3.8 Tailings Rheological Characterization Testwork

P&C conducted flow behavior tests on three tailings samples which included a pyrrhotite tailings (sulfide tailings), non-pyrrhotite tailings (reduced sulfide tailings) and tailings blend composite, comprising 72% pyrrhotite tailings and 28% non-pyrrhotite tailings. Material characterization and vertical tube viscometer tests were conducted on all three samples. In addition, 100 nominal bore (NB) pipe loop tests were conducted on the pyrrhotite tailings sample.

The vertical tube viscometer testwork indicated that rheology plays an insignificant role at the tailings disposal design solids concentration of 40% w/w to 55% w/w and that rheology only becomes significant at a solids concentration of > 65% w/w.

The pipe loop tests confirmed that the tailings material is settling in nature. The pipe loop test data was used to model the pipeline pressure gradients and deposition velocity for the full-scale tailings transfer design.

10.3.9 Concentrate Characterization Testwork

Concentrate characterization testwork was undertaken at Microanalysis in April 2025. The tests included determination of the Flow Moisture Point (FMP) and the associated Transportable Moisture Limit (TML), Angle of Repose (AoR), compacted bulk density, and self-heating characterization.

The testwork was conducted on four different Ni-Cu-Co final flotation concentrate product samples namely, a Pilot Plant (PP) concentrate feed sample from downstream hydrometallurgical testing, two concentrate samples from flotation testwork on the Early Years Blend (EYB) composite, and a concentrate sample from flotation testing on the LoM blend composite sample (FC4).

The concentrate TML was reported to range from 9.0% to 9.7%. The range reported is similar to historical testwork by SGS Lakefield which reported a TML of 8.9%.

The angle of repose ranged from 41° to 46° and the compacted bulk density ranged from 2.2–2.4 t/m³. It is possible that the bulk density may be marginally understated as the tests were done on small < 1 kg samples and the laboratory procedure did not incorporate tapping for compaction.

The current self-heating tests were undertaken to augment the work done historically. The historical work at both batch and bulk scale did not use the standard classification test method as used in these tests and was focused on characterizing the self-heating properties of bagged bulk samples. This testwork reported that the concentrate exhibited a degree of self-heating due to its high pyrrhotite content.

The current 2025 self-heating tests were limited by the sample available, resulting in the requirement to use a modified version of the standard self-heating test method which utilizes a smaller 25 mm sample cube rather than 100 mm sample cube. For all four samples, the results indicated that the concentrate sample material can be classified as packing group III (low danger) or “exempted”.

The Kabanga concentrate will be bagged in Flexible Bulk Containers (FBC). The current FS testwork and historical testwork indicated that the bagged concentrate can be transported by road and rail and shipped using conventional shipping management practices used for concentrates, including those such as the Kabanga concentrate that exhibits a level of self-heating. Further characterization testwork on larger samples is recommended to confirm this finding.

In addition to the characterization work completed, additional concentrate characterization testing is needed to prepare and support the required concentrate shipping documentation. This will include Transformation/Dissolution (TD), Dust Extinction Moisture (DEM), corrosion testing and toxicology testing required for an SDS (Safety Data Sheet) in combination with further confirmatory self-heating tests. This supports the hazard assessment and subsequent classification of concentrate for handling, packing, and transport, and will be conducted as part of the next phase of the Project.

10.3.10 Testwork Quality Assurance and Quality Control

During Phase 1 of the current FS metallurgical test campaign, the geological core log interval assay data was compared to the BV assay data to assess whether any major bias or analytical deviation existed. No discernible bias was noted between the nickel, copper, cobalt, and sulfur assay values in comparison to the core log data. In addition, the feed sample comparisons fell within a 10% variance

between the assay data and the core log data. The geological core log interval assay data did not report the iron assay values.

For the duration of the BV flotation testwork program, the assayed and calculated grade for nickel, copper, cobalt, sulfur, and iron was monitored. The optimized test result data set reflects a nickel balance accountability of $\pm 10\%$ for 23 tests, $\pm 14\%$ for three tests, and $\pm 20\%$ for the remaining two tests. Similar trends were observed for copper, cobalt, iron, and sulfur. The balance accountability was deemed acceptable given over 80% of the tests fell within a $\pm 10\%$ accountability range and 90% of the test data set was within 15%. All the recovery data has been derived based on the calculated head grades derived from the test balances.

Comparative repeat assays were performed at BV on two of the bulk flotation tests and the final concentrate products from Locked-Cycle Test 2. The variance in nickel grade ranged from -1.9% to $+5.0\%$ (absolute), averaging $+1.2\%$ for the final concentrate product (12% to 20% nickel). A variance of $+0.01\%$ to $+0.12\%$ (absolute), averaging $+0.05\%$ was observed for the tails samples containing $< 0.4\%$ nickel.

The QA/QC assaying of select concentrate samples from the Phase 1 and Phase 2 testwork programs was conducted at three Perth-based laboratories (BV, SGS, and ALS) plus Stimulus for a total of four laboratories. The standard deviation in nickel grade averaged 1.1% for the Stimulus Laboratories/BV assay data set and 0.9% for the four-laboratory data set.

10.4 Concentrator Metallurgical Performance Projection

10.4.1 Summary of Testwork Data Used

Closed-circuit performance projections derived from the open-circuit bench and bulk flotation testwork data were used in combination with the locked-cycle test results and historical MPP test results to derive a metallurgical performance projection for the Kabanga Concentrator.

A summary of all the test data used for Concentrator metallurgical performance modeling is presented in Table 10-11.

Table 10-11: Summary of Test Data Used for Concentrator Recovery Modeling

Sample ID	Test Type ¹	Feed Blend Ratio				Feed (%)	Concentrate (%)				
		MSSX	MSXI	UMAF_1a	DiIn.		Mass Pull	Ni Grade	Ni Rec.	Co Rec.	Cu Rec.
V6	OCP	100	–	–	–	2.78	11.9	20.9	89.5	94.1	97.0
V5	OCP	100	–	–	–	3.08	13.8	20.1	90.0	94.8	97.2
V1	OCP	100	–	–	–	3.05	15.7	17.6	90.4	91.2	97.5
V3	OCP	100	–	–	–	3.74	17.5	19.5	91.2	92.1	97.2
V4	OCP	100	–	–	–	3.73	18.9	18.2	92.4	93.1	97.6
V10	LCT	100	–	–	–	3.47	16.8	18.5	89.5	91.7	99.3
TF2	OCP	89	–	–	11	1.46	10.7	11.0	80.1	87.7	92.0
NF4	OCP	92	–	–	8	2.89	16.0	16.0	88.8	91.9	96.9
Comp 3	OCP	81	–	3	16	2.66	13.3	17.5	87.3	87.4	97.6
Comp 4	LCT	81	–	3	16	2.03	10.0	18.0	88.8	91.8	98.5
TF1	OCP	–	93	–	7	1.70	10.1	14.0	83.6	87.7	97.1
NF1	OCP	–	84	–	16	2.08	11.3	15.4	84.2	90.1	93.3
V7	OCP	–	–	100	–	0.66	3.2	11.2	55.1	57.7	82.5
V8	OCP	–	–	100	–	1.45	7.4	14.7	75.0	78.7	83.2

Sample ID	Test Type ¹	Feed Blend Ratio				Feed (%)	Concentrate (%)				
		MSSX	MSXI	UMAF_1a	Diln.		Mass Pull	Ni Grade	Ni Rec.	Co Rec.	Cu Rec.
V9	OCP	–	–	100	–	1.36	7.2	14.1	74.6	76.1	83.8
V13	LCT	–	–	100	–	1.18	6.4	13.1	71.3	73.8	80.5
NF13	OCP	–	–	100	–	1.30	7.2	13.0	72.4	69.6	87.0
NF14	OCP	–	–	91	9	0.91	4.8	11.7	62.1	61.4	85.3
FC3	OCP	–	–	93	7	1.11	5.8	12.9	68.0	65.7	86.1
TF7	OCP	–	–	89	11	1.40	9.2	11.5	75.2	76.7	78.6
TF8	OCP	–	–	87	13	0.86	4.7	11.8	63.7	65.6	78.9
NF12	OCP	–	–	89	11	1.56	8.4	13.6	73.1	72.5	87.9
V14	LCT	57	–	32	11	1.75	9.8	15.0	84.4	88.2	94.4
FC1	OCP	68	–	13	18	2.35	12.0	17.2	87.8	89.8	96.6
FC2	OCP	37	20	34	10	1.62	9.6	13.0	76.7	81.3	92.3
FC4	OCP	58	7	17	18	2.04	10.4	16.8	85.8	88.9	94.2
V2	OCP	24	31	–	45	1.65	10.7	13.2	85.5	85.3	96.7
TF5	OCP	52	26	12	10	1.83	11.3	13.7	84.8	88.9	96.6
North Comp	MPP	81	–	4	15	2.55	10.5	21.3	87.6	–	90.2
Tembo Blend	MPP	83	–	3	14	2.16	9.8	19.6	88.6	–	93.6
LoM Blend	MPP	83	–	5	12	2.41	11.0	19.6	89.3	–	91.6
Year 1-4 Blend	MPP	83	–	2	15	2.38	9.0	22.0	83.3	–	78.4
LoM Comp 2	MPP	84	–	2	14	2.39	11.3	18.8	88.9	–	88.2

Note: OCP = open-circuit projection, LCT = locked-cycle test, MPP = mini pilot plant projection; Diln. = Dilution.

10.4.2 Nickel Recovery Model Development

The testwork showed a strong relationship between the nickel feed grade, the concentrate mass pull, the concentrate nickel upgrade ratio (concentrate grade to feed grade), and recovery for all the samples. The nickel upgrade ratio (the percentage of nickel in the concentrate to the percentage of nickel in the feed) decreased with an increase in feed grade, while the concentrate mass pull increased as the upgrade ratio decreased.

Correlations were developed to describe the relationship between mass pull, upgrade ratio, and nickel recovery. The combination of these mass pull, grade, and recovery correlations result in a nickel recovery projection as a function of the nickel feed grade and concentrate upgrade ratio for the respective MSSX and UMAF_1a feed types as shown in Figure 10-12 and Figure 10-13 respectively.

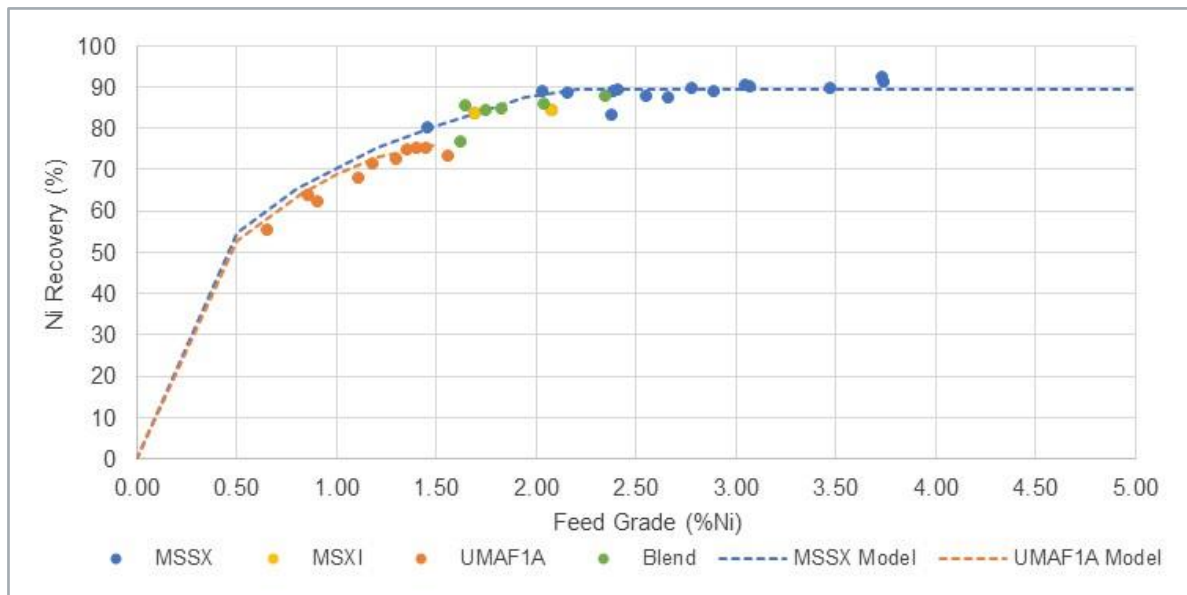


Figure 10-12: Nickel Recovery as a Function of Feed Grade: Modeling Output versus Testwork Performance

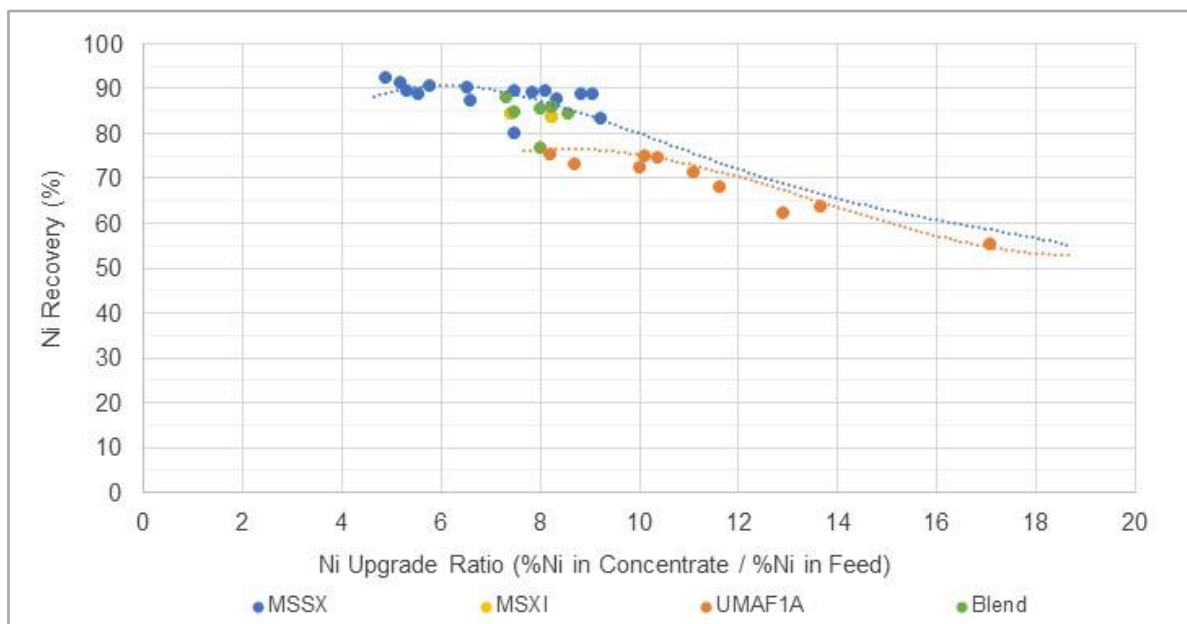


Figure 10-13: Nickel Recovery as a Function of Concentrate Upgrade Ratio: Modeling Output versus Testwork Performance

The modeling outcomes highlighted a difference in nickel recovery and concentrate grade performance between the MSSX and UMAF_1a material. The MSXI results were aligned with the MSSX performance curves, while the blend sample results were dependent on the proportion of UMAF_1a in the feed.

Further analysis was undertaken to confirm the accuracy of the blend performance projections of the weighted mathematical average math blend when applying the respective MSSX and UMAF_1a correlations to the individual end members in the composite.

A comparison of the actual versus modeled math blend nickel recovery relative to the percentage of UMAF_1a in the blend is shown in Figure 10-14, while the concentrate upgrade ratio comparison is shown in Figure 10-15.

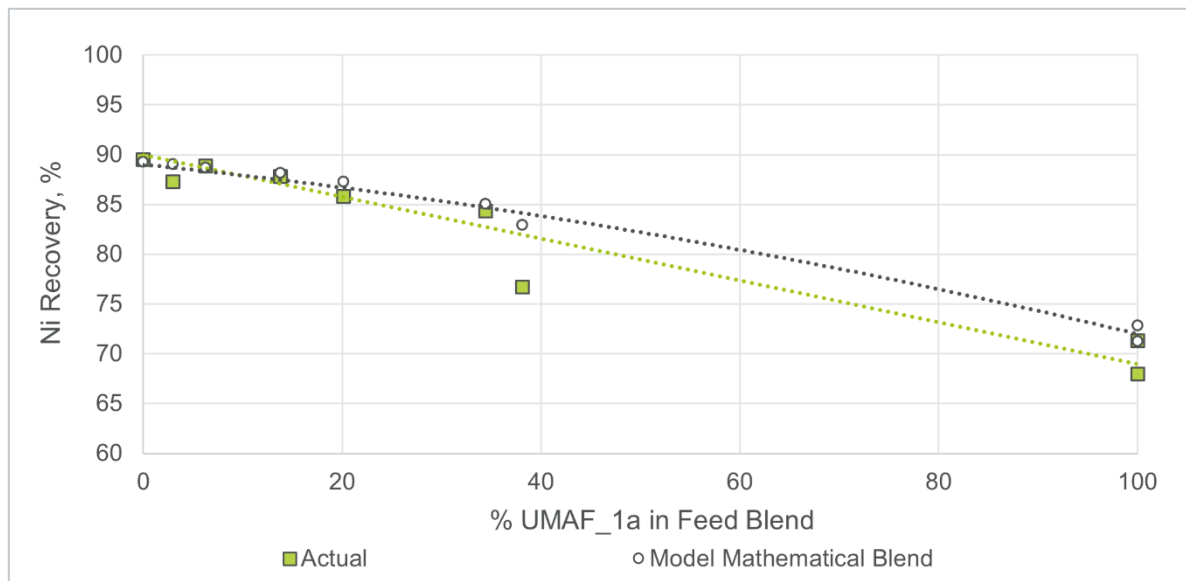


Figure 10-14: Nickel Flotation Recovery as a Function of the Percentage of UMAF_1a in the Feed Blend

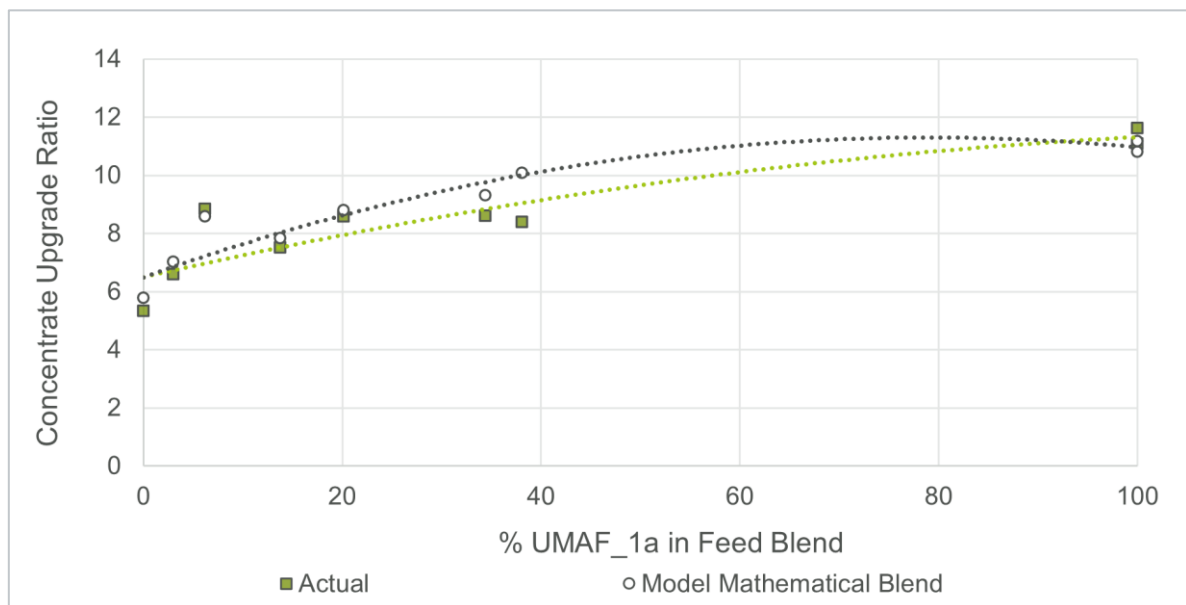


Figure 10-15: Concentrate Nickel Upgrade Ratio as a Function of the Percentage of UMAF_1a in the Feed Blend

These curves illustrate that there is good agreement between the actual blend results and the modeled math blend using the respective MSSX and UMAF_1a recovery and grade modeling correlations for blends containing up to 20% UMAF_1a.

There was evidence of a divergence in performance with the actual test results, showing the potential for a reduced concentrate grade and recovery for blends containing approximately 35% to 40% UMAF_1a. This finding is aligned with the historical XPS flotation testwork findings, which indicated that blend processing achieved a result aligned with the expected math blend for a blend containing 10% UMAF_1a; however, a reduced performance was achieved for a blend containing 30% UMAF_1a.

To ensure optimal flotation performance, the mine production will be managed to maintain the proportion of UMAF_1a in the concentrator feed nominally below 20% UMAF_1a and limited to a maximum of 30%.

The final flotation concentrates produced for a range of feed blends are shown in Figure 10-16. The images show that there is no visually discernible difference in the concentrates for the feed blends comprising 3% to 100% UMAF_1a.

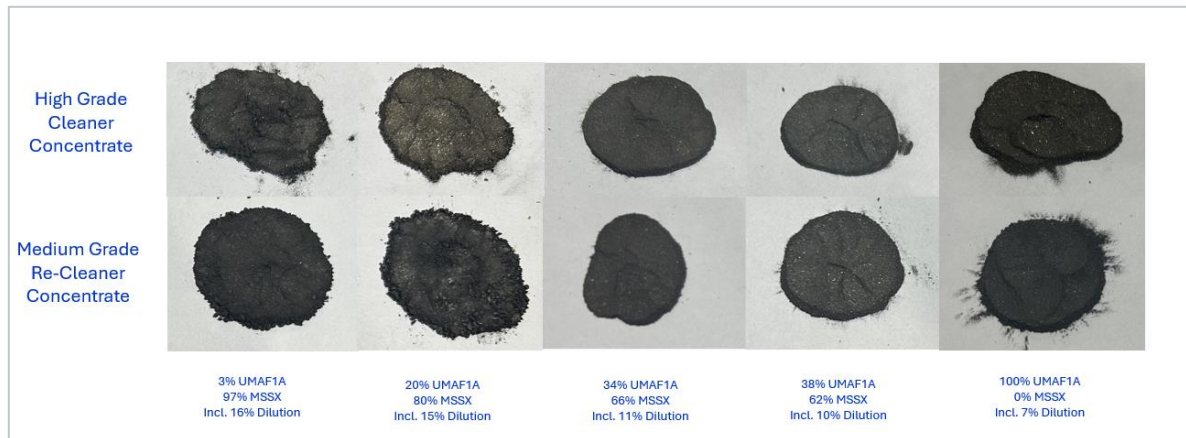


Figure 10-16: Final Concentrates Produced from Blend Processing Tests

The nickel recovery and concentrate grade predicted by the FS recovery correlations were compared to actual test results to verify the model. The modeled recovery compared to the actual test recoveries is shown in Figure 10-17, while the concentrate grade comparisons are shown in Figure 10-18.

The modeled nickel recovery and grade were found to fit the actual test data well, with a variance of $\pm 2.0\%$ (absolute) in the majority of instances.

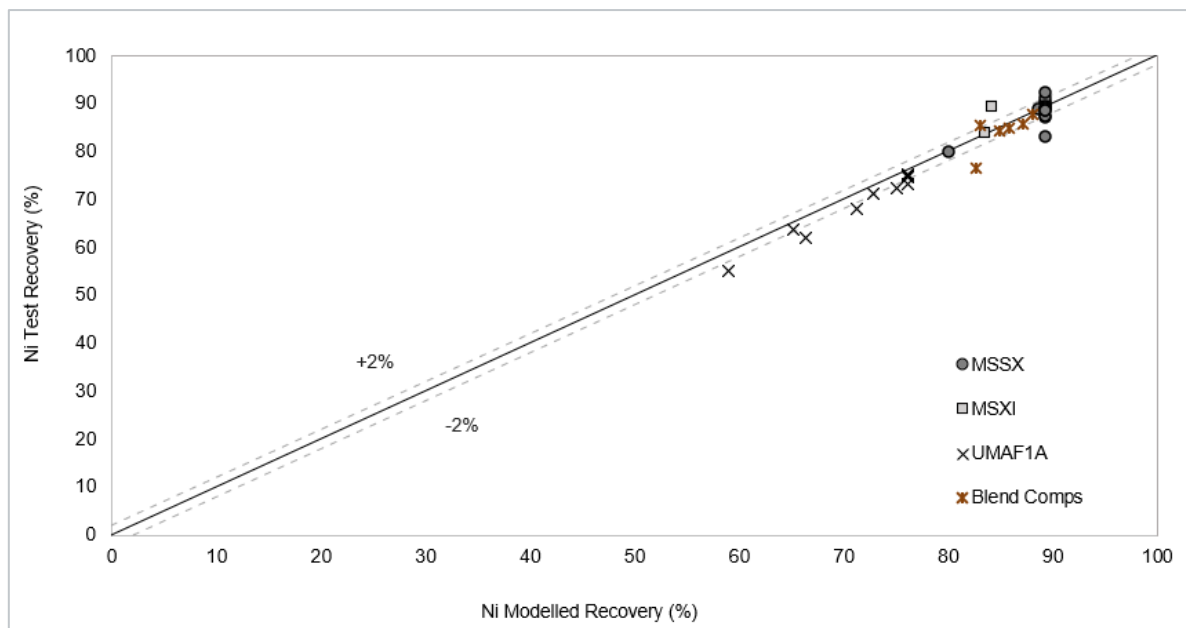


Figure 10-17: Nickel Recovery Model Verification

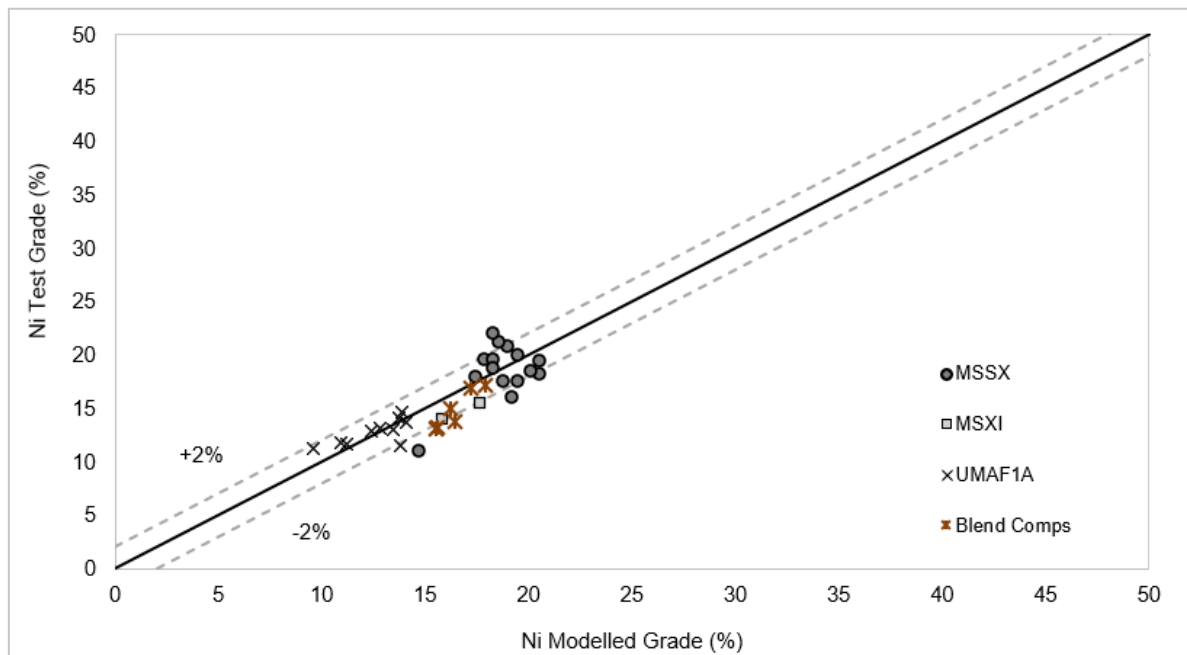


Figure 10-18: Nickel Concentrate Grade Model Verification

10.4.3 Copper and Cobalt Recovery Model Development

The flotation testwork showed a strong relationship between cobalt recovery and nickel recovery, as shown in Figure 10-19. This is aligned with the expectations based on the mineralogy, which showed the cobalt in the concentrate to be deported within the pentlandite.

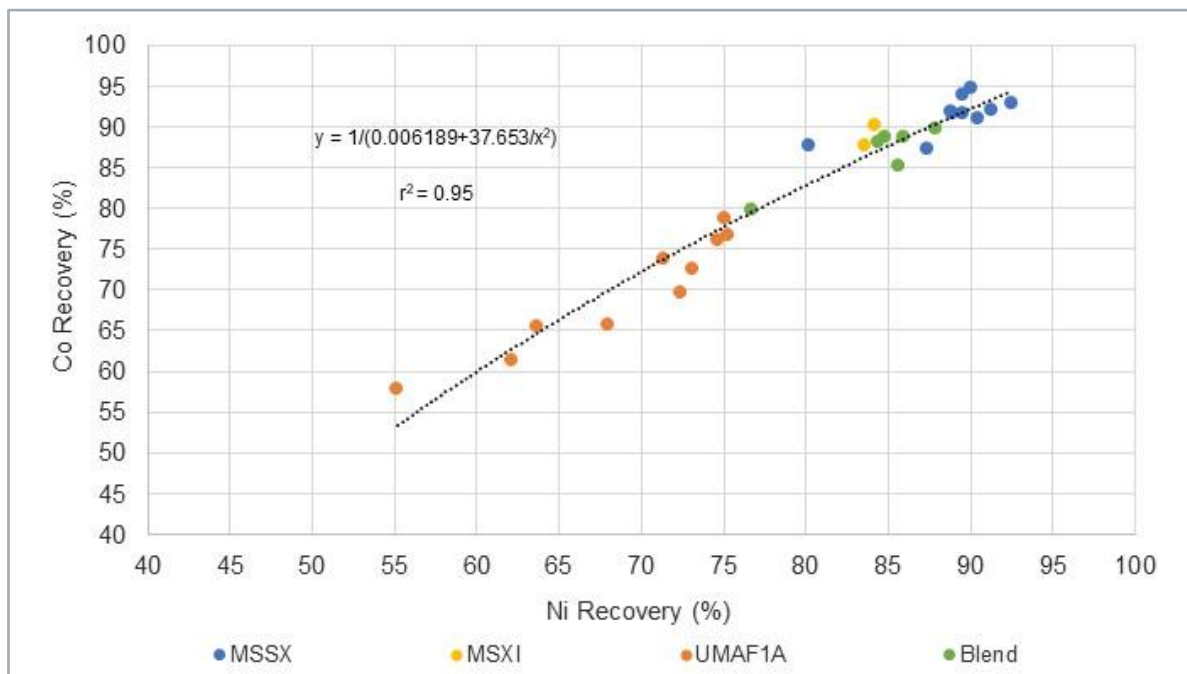


Figure 10-19: Cobalt Flotation Recovery as a Function of Nickel Recovery

The copper recovery was dependent on the copper feed grade, as shown in Figure 10-20.

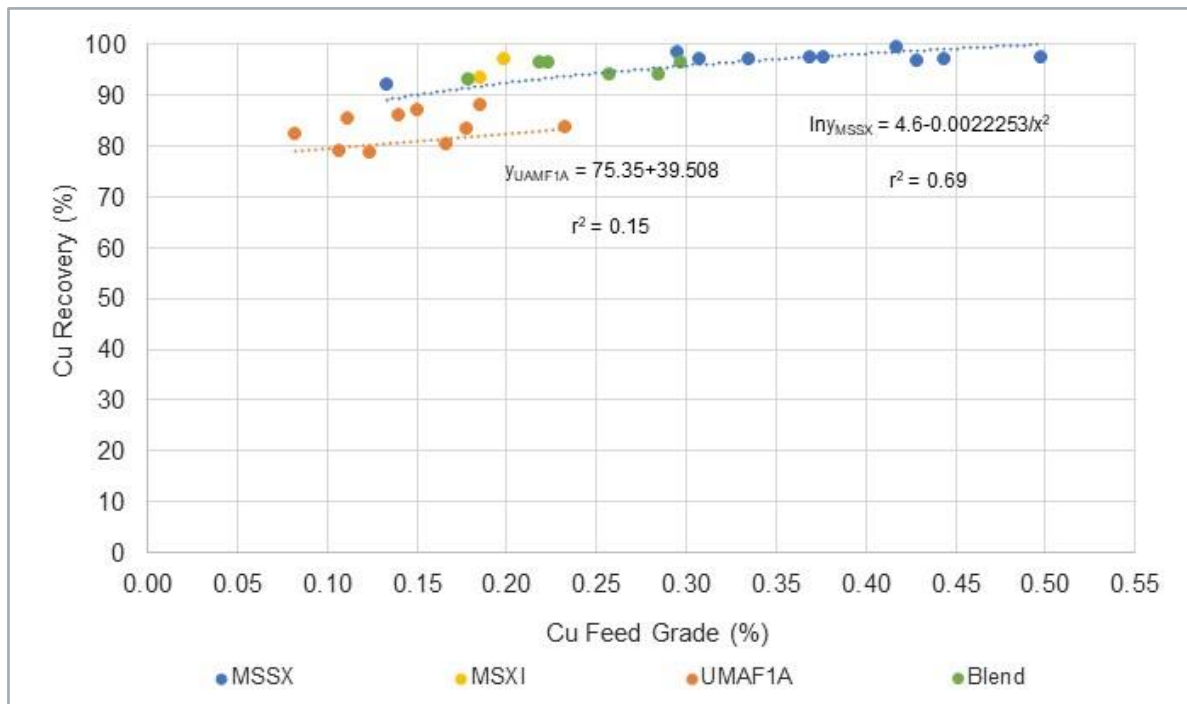


Figure 10-20: Copper Flotation Recovery as a Function of Copper Feed Grade

There is some uncertainty with respect to the UMAF_1a copper recovery, where the testwork showed the potential for a higher copper recovery than the modeled values for 50% of the samples tested. A conservative approach was adopted by modeling the lower recovery band. Note that there is the potential for a copper recovery upside for the UMAF_1a material during operations. This will not have a material impact on the economic modeling, as copper is not the key value driver and the UMAF_1a ore type accounts for only 8.6% of the total copper in the feed.

The cobalt and copper recovery correlations were also compared to the actual test results to verify the models, as shown in Figure 10-21 and Figure 10-22, respectively.

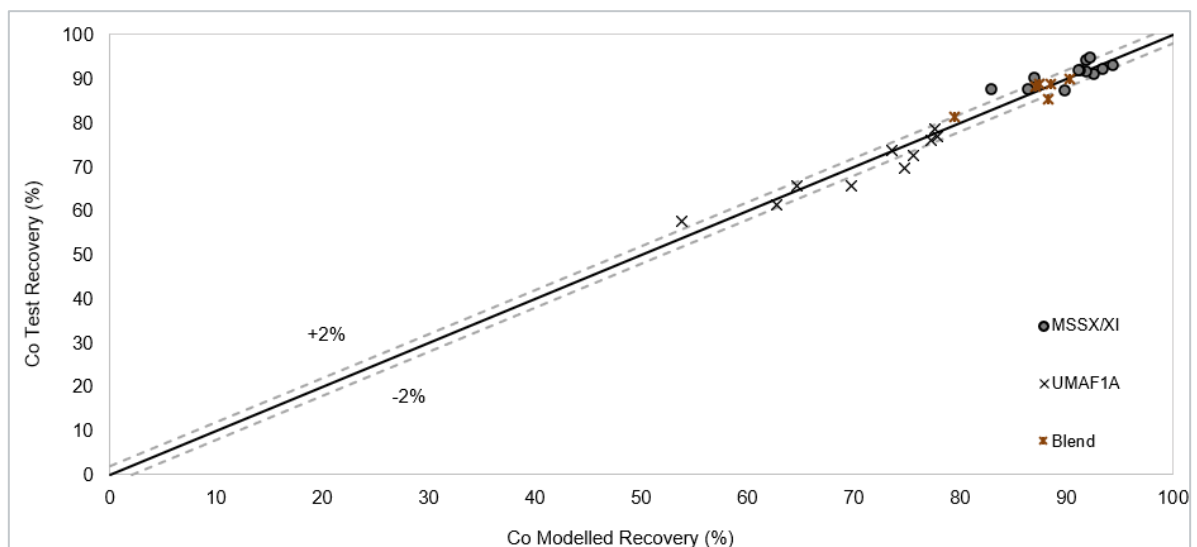


Figure 10-21: Cobalt Recovery Model Verification

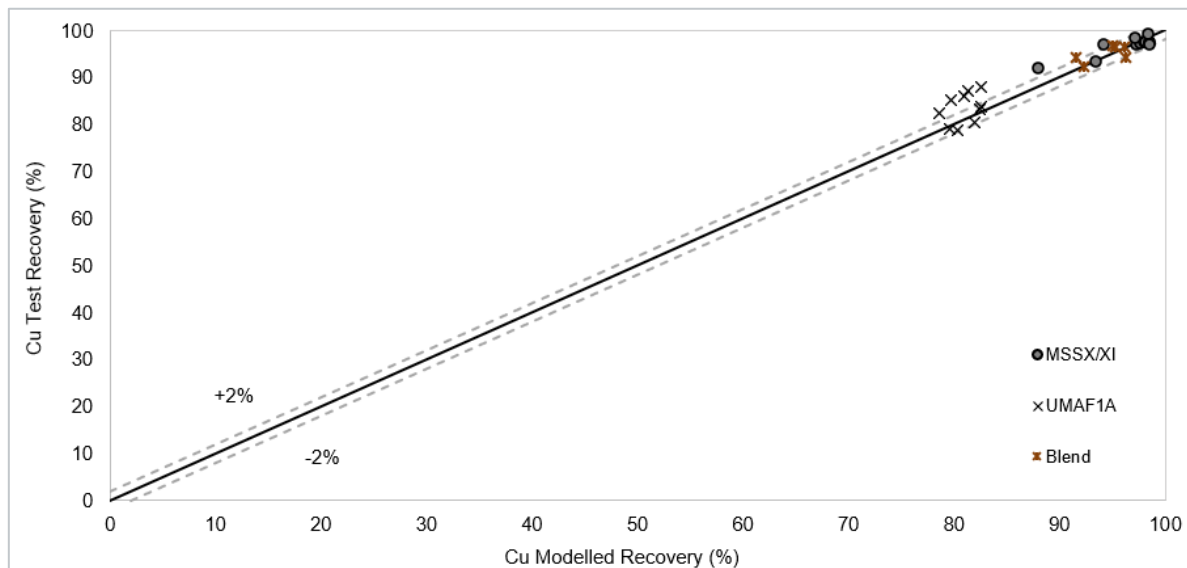


Figure 10-22: Copper Recovery Model Verification

The modeled cobalt and copper recovery was found to fit the actual test data well, with a variance of $\pm 2.0\%$ (absolute) in the majority of instances. As previously noted, a higher variance was evidenced for the UMAF_1a copper recovery, with the modeled recovery being noted as conservative.

10.4.4 Ni-Cu-Co Concentrate Product

For the duration of the BV flotation testwork program, detailed chemical analysis was conducted on select concentrate product samples at BV and Simulus. This concentrate analysis is summarized in Table 10-12 below which also provides a summary of the concentrate analysis for concentrate produced during the historical MPP campaign.

The concentrate analysis reflects a range of different concentrates produced from the flotation testwork on a range of feed samples. The concentrate samples contained 14.5%–19.3% Ni, 1.2%–1.6% Co, 2.2%–4.0% Cu, 34%–42% Fe, and 29%–34% S. An indicative concentrate benchmarking comparison by CRU International Ltd (CRU) indicated that the concentrate can be regarded as a “clean” product with low penalty elements such as magnesium, chloride, lead and arsenic as detailed in Section 16.

Table 10-12: Ni-Cu-Co Concentrate Chemical Analysis Summary

Feed Sample for Concentrate Production	Value																					
	Ni	Co	Cu	Fe	S	MgO	SiO ₂	Al	Ca	Mn	Cr	As	Bi	Sb	Pb	Zn	Cd	Cl + F	Pt	Pd	Au	Ag
	%											ppm										
Comp 1: Tembo	14.5	1.38	2.74	37.1	29.3	1.19	7.22	0.85	0.30	0.03	0.10	71.2	5.10	6.70	242	180	17.4	-	0.06	0.31	0.08	6.60
Comp 1: Tembo	17.9	1.60	2.82	39.5	31.3	1.16	7.10	0.55	0.21	0.03	0.10	61.6	4.10	< LOD	143	72.0	12.8	-	-	-	-	-
Comp 2: North Shallow	16.6	1.49	2.69	36.8	30.1	1.37	6.83	0.64	0.30	0.03	0.10	41.2	4.00	5.80	182	155	11.9	-	0.45	0.32	0.18	6.60
Comp 2: North Shallow	18.6	1.59	2.59	38.2	30.7	1.45	7.71	0.48	0.24	0.03	0.09	40.1	3.20	< LOD	137	73.6	10.9	-	-	-	-	-
Comp 3: North Deep	19.2	1.51	3.96	40.0	32.4	0.39	4.06	0.31	0.12	0.02	0.05	38.6	6.00	< LOD	358	69.3	16.6	-	-	-	-	-
Comp 4: EYB	15.5	1.49	2.47	37.9	30.7	1.11	6.78	0.69	0.21	0.00	-	-	-	-	-	-	-	< 200	0.23	0.36	1.67	-
Comp 4: EYB	17.5	1.50	2.17	42.2	29.6	1.55	4.06	0.40	0.25	0.03	0.10	42.7	4.70	< LOD	138	95.0	8.80	-	-	-	-	-
FC4: Mine Blend	17.4	1.39	2.23	33.6	33.6	2.35	14.0	0.50	0.10	0.03	0.05	132	11.4	13.5	302	104	5.85	-	-	-	-	-
V13: UMAF_1a	15.4	1.23	2.23	38.4	33.6	5.58	14.0	0.5	0.10	0.03	0.05	50.9	5.19	< LOD	143	77.9	5.85	-	-	-	-	-
Refinery PP Comp	17.1	1.34	3.01	41.9	32.9	1.78	6.02	0.53	0.18	0.03	0.11	39.0	1.20	< LOD	340	72.5	11.7	-	-	-	-	-
Historical MPP	19.3	-	2.81	40.1	33.0	0.57	2.31	-	-	-	-	14.0	6.00	6.00	340	-	-		0.25	0.4	0.13	8.00

Note: LOD = Level of detection.

10.4.5 Mill Scats

The comminution circuit modeling indicated an increase in scats production for the harder, lower-grade feed material (UMAF_1a and waste dilution) compared to the higher-grade MSSX material, which is comparatively less competent. The Concentrator recovery modeling thus incorporates provision for mill scats aligned with the comminution circuit design and modeling outcomes.

The modeled mill scats proportion relative to the nickel feed grade is shown in Figure 10-23.

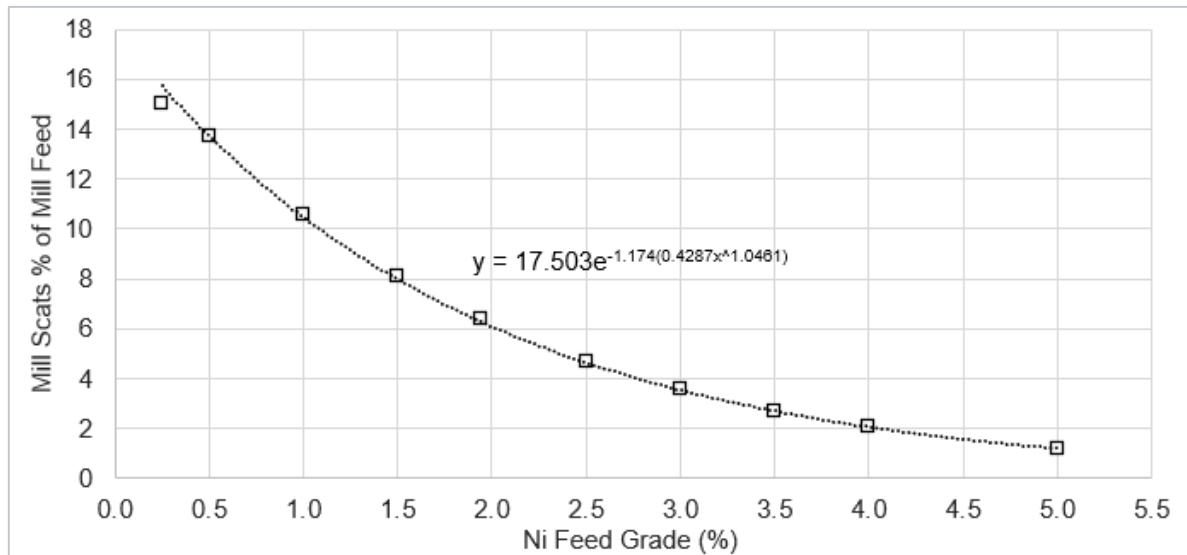


Figure 10-23: Mill Scats as a Function of Nickel Feed Grade

Based on the comminution circuit modeling, the mill scats are expected to comprise low-grade silicate (non-sulfide) material, which is more competent than the massive and semi-massive sulfides. It has thus been assumed that the mill scats nickel grade will be similar to the residue grade of the non-sulfide pyrrhotite rougher tailings stream, as evidenced in the testwork. The resulting estimate for the mill scats nickel grade relative to the nickel feed grade is shown in Figure 10-24.

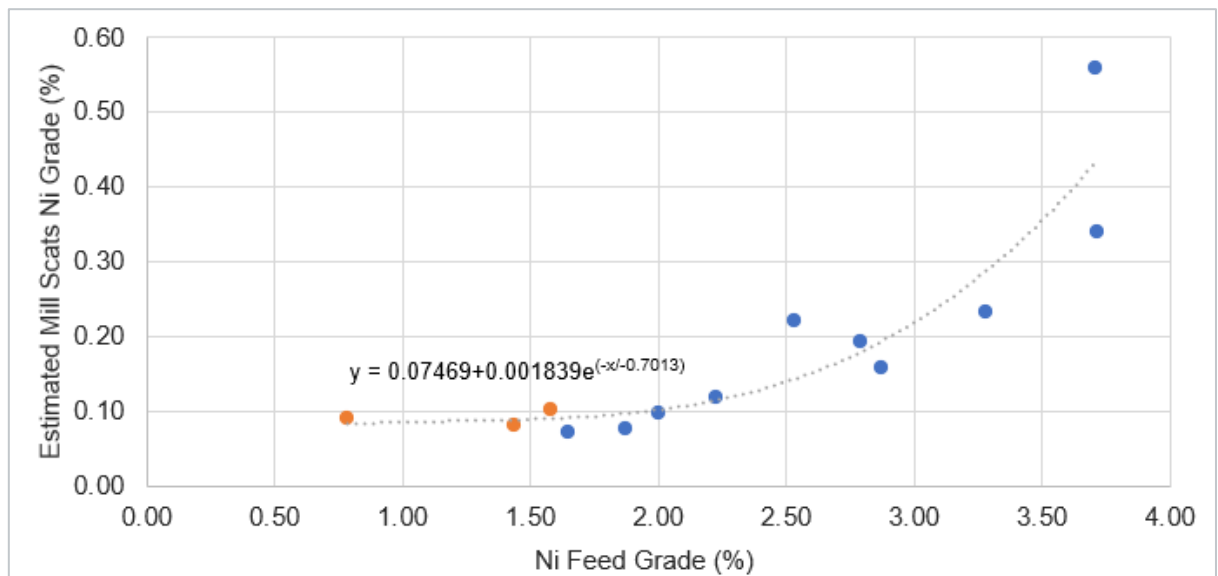


Figure 10-24: Estimated Nickel Grade in the Mill Scats

Similarly, the copper, cobalt, iron and sulfur grades in the mill scats have also been estimated based on the grade correlations evidenced in the testwork for the pyrrhotite rougher tailings, as follows:

- Scats cobalt grade = $0.0708 \times \text{scats Ni grade}$
- Scats copper grade (MSSX) = $0.0227 \times \text{Cu feed grade}$
- Scats copper grade (UMAF_1a) = $0.1317 \times \text{Cu feed grade}$
- Scats iron grade (MSSX) = $0.899e^{0.0609 \times \text{Fe feed grade}}$
- Scats iron grade (UMAF_1a) = $7.3451e^{0.0253 \times \text{Fe feed grade}}$
- Scats sulfur grade (MSSX) = $0.6272 \times (\text{Ni} + \text{Co} + \text{Cu} + \text{Fe}) \text{ grade in scats} - 5.275$
- Scats sulfur grade (UMAF_1a) = $0.1582 \times (\text{Ni} + \text{Co} + \text{Cu} + \text{Fe}) \text{ grade in scats}$

10.4.6 Pyrrhotite Concentrate Grade and Recovery

The Concentrator flowsheet includes a pyrrhotite rougher flotation circuit, which will aim to recover and upgrade pyrrhotite to the pyrrhotite concentrate stream. The separation of pyrrhotite allows it to be stored separately from the non-pyrrhotite tailings, which will be used for mine pastefill. It also allows for the pyrrhotite concentrate to be potentially repurposed in the future.

The pyrrhotite flotation testwork results were used to derive pyrrhotite rougher flotation concentrate iron grade and mass pull correlations for the MSSX and UMAF_1a samples as shown in Figure 10-25 and Figure 10-26.

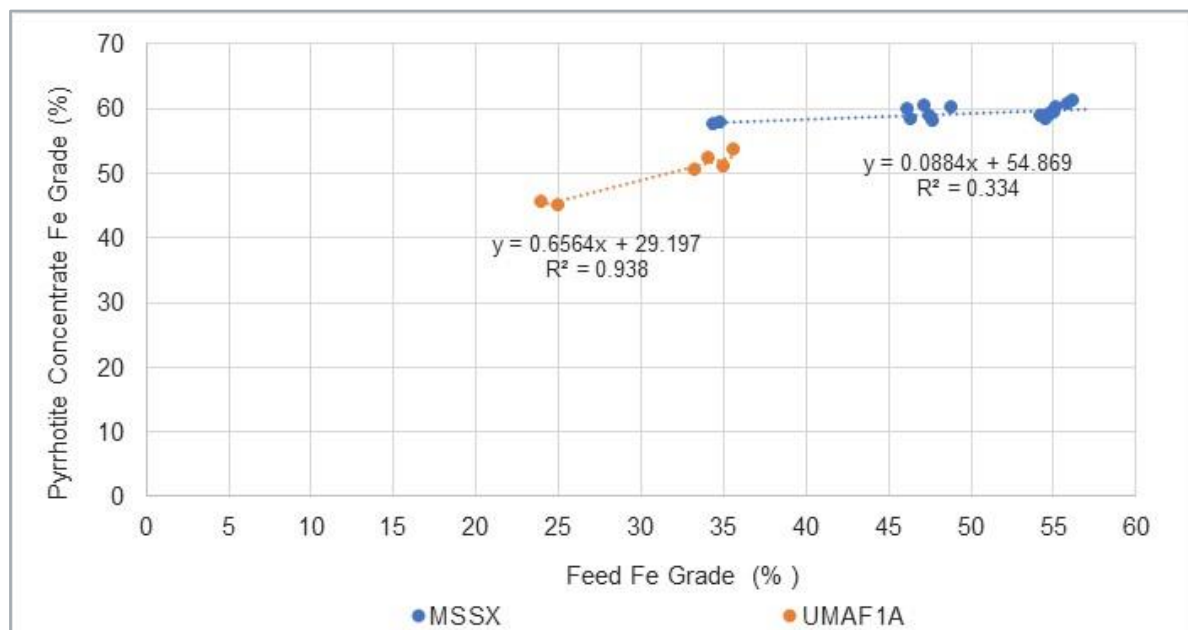


Figure 10-25: Pyrrhotite Concentrate Iron Grade as a Function of Iron in Feed

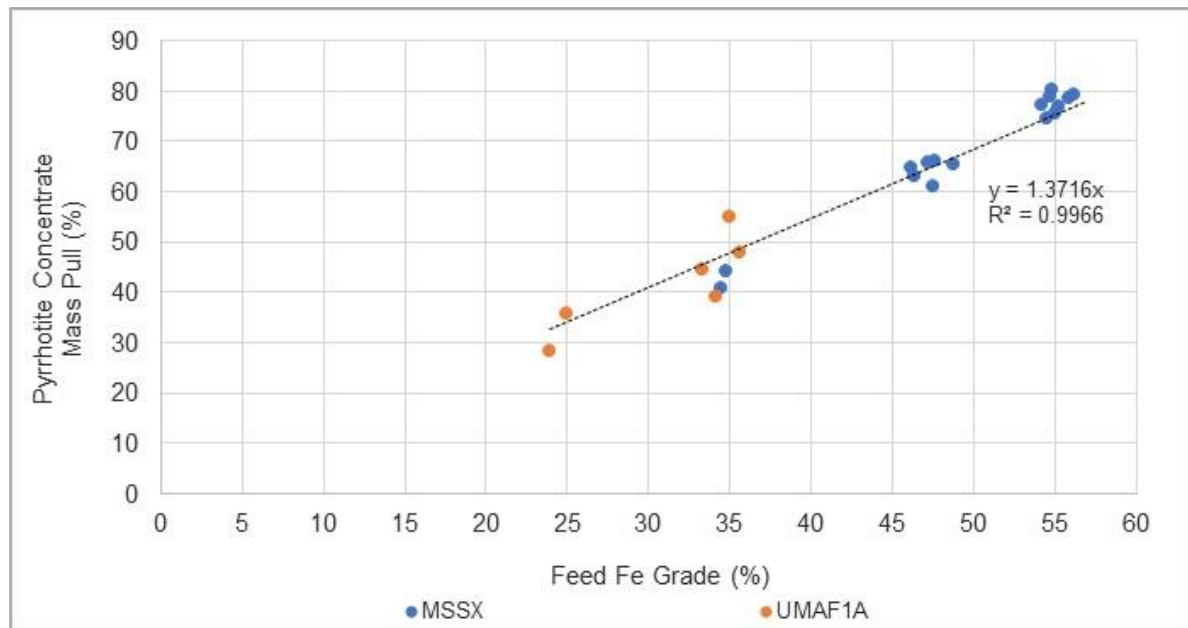


Figure 10-26: Pyrrhotite Concentrate Mass Pull as a Function of Iron in Feed

10.4.7 Main Zone Metallurgical Behavior and Recovery Estimation

The historical testwork included limited mineralogical and flotation testwork on the MSSX samples from Main Zone, completed at the Falconbridge Technology Centre as part of the 2006 Scoping Study. No additional testwork was conducted on material from Main Zone as part of the FS.

A review of the historical mineralogical and flotation testwork resulted in a preliminary estimate of the potential recovery upside for the Main material at a finer primary grind (P_{80} of $\sim 75 \mu\text{m}$) and including concentrate regrinding. This review indicated that after optimization, the metallurgical response of the Main material could potentially be similar to that of the North and Tembo zones' massive sulfides.

Considering that Main Zone is anticipated to be included in the mill feed blend from production in the later stages of the mine schedule (from Year 10) and constitutes 10% of the concentrator feed, it has been assumed that the North and Tembo MSSX and UMAF_1a recovery assumptions can be applied to Main Zone. Future testwork during implementation is required to validate this assumption.

10.4.8 Summary of Recovery Algorithms

The recovery and grade algorithms for MSSX and UAMF_1a feed material are summarized in Table 10-13 and Table 10-14 respectively. The algorithms include simplified modeling parameters to account for the mill scats.

Table 10-13: MSSX Recovery Algorithms Based on Mill Feed

Parameter	Unit	MSSX Algorithm Based on Mill Feed	Cap	Feed Grade Range
Nickel-Copper-Cobalt Concentrate				
Concentrate Mass Pull	%	$(-1.67933 + 117.056(12.31 \times \text{Ni Grade in Mill Feed}^{-0.603})^{-1.093}) \times (0.0009 \ln(\text{Ni Grade in Mill Feed}) + 0.982)$	—	—
Nickel Recovery	%	$(-1.77 + 36.658(\text{Mass Pull})^{0.3864}) \times (-0.022 \ln(\text{Ni Grade in Mill Feed}) + 1.0277) + 0.63$	89.3	> 0.2
Copper Recovery	%	$\left(e^{(4.601495 + \frac{-0.0022253}{\text{Cu Grade in Mill Feed}^2})} \right) \times 1.0025$	98.5	> 0.027
Cobalt Recovery	%	$\frac{1}{(0.006189 + \frac{37.653}{\text{Ni Recovery}^2})}$	—	> 0.017

Parameter	Unit	MSSX Algorithm Based on Mill Feed	Cap	Feed Grade Range
Magnesium Recovery	%	$-1.722 \times \ln(\text{Mg Grade in Mill Feed}) + 5.1791$	–	0 to 10
Iron Grade	%	$116.35 \times \text{Ni Grade in Concentrate}^{-0.384}$	42	–
Sulfur Grade	%	$0.391 \times (\text{Ni} + \text{Cu} + \text{Co} + \text{Fe})\text{Grade in Concentrate} + 8.527$	32	–
Pyrrhotite Concentrate				
Mass Pull	%	$1.3716 \times (\text{Fe Grade in Mill Feed})$	–	< 60
Iron Grade	%	$\text{Fe in Feed} > 15\%: 0.0884 \times (\text{Fe Grade in Mill Feed}) + 54.869$ $\text{Fe in Feed} < 15\%: 50$	–	< 60

ln = natural logarithm

Table 10-14: UMAF_1a Recovery Algorithms Based on Mill Feed

Parameter	Unit	UMAF_1a Algorithm Based on Mill Feed	Cap	Feed Grade Range
Nickel-Copper-Cobalt Concentrate				
Concentrate Mass Pull	%	$(-1.67933 + 117.056(12.31 \times \text{Ni Grade in Mill Feed}^{-0.603})^{-1.093}) \times (0.0009 \ln(\text{Ni Grade in Mill Feed}) + 0.982)$	–	–
Nickel Recovery	%	$(-3.77 + 36.658 \times (\text{Mass Pull})^{0.3864}) \times (-0.021 \ln(\text{Ni Grade in Mill Feed}) + 1.0215) - 0.68$	76.1	> 0.2
Copper Recovery	%	$(75.35 + 39.50827 \times \text{Cu Grade in Mill Feed}) \times 0.991$	82.6	> 0.027
Cobalt Recovery	%	$\frac{1}{(0.006189 + \frac{37.653}{\text{Ni Recovery}^2})}$	–	> 0.017
Magnesium Recovery	%	$-1.722 \times \ln(\text{Mg Grade in Mill Feed}) + 5.1791$	–	0 to 10
Iron Grade	%	$446.14 \times \text{Ni Grade in Concentrate}^{-0.9}$	42	–
Sulfur Grade	%	$0.391 \times (\text{Ni} + \text{Cu} + \text{Co} + \text{Fe})\text{Grade in Concentrate} + 8.527$	32	–
Pyrrhotite Concentrate				
Mass Pull	%	$1.3716 \times (\text{Fe Grade in Mill Feed})$	–	< 60
Iron Grade	%	$0.6564 \times (\text{Fe Grade in Mill Feed}) + 29.197$	–	< 60

ln = natural logarithm

10.4.9 Production Ramp-Up, Commissioning, and Optimization

The modeled production profile used in the economic modeling includes a throughput ramp-up and recovery discount to cater for start-up, commissioning, and ramp-up as summarized in Table 10-15.

Table 10-15: Concentrator Throughput and Recovery Ramp-up

Production Month	Throughput, % of Design Capacity	Recovery Ramp-up Reduction (%, absolute)		
		Ni	Co	Cu
1	75	6.0	Calculated from Ni	6.0
2	85	5.0	Calculated from Ni	5.0
3	100	5.0	Calculated from Ni	5.0

Production Month	Throughput, % of Design Capacity	Recovery Ramp-up Reduction (%, absolute)		
		Ni	Co	Cu
4	100	2.5	Calculated from Ni	2.5
5	100	2.5	Calculated from Ni	2.5
6	100	2.0	Calculated from Ni	2.0
7	100	2.0	Calculated from Ni	2.0
8	100	1.0	Calculated from Ni	1.0
9	100	1.0	Calculated from Ni	1.0
10	100	–	–	–

The throughput ramp-up and recovery discount factors were based on benchmarked, actual data for a large copper concentrator in the Central African Copperbelt, which DRA implemented. The first phase of the benchmark concentrator plant was commissioned in 2021, and the second phase was commissioned in 2022. This project was deemed to reflect an appropriate benchmark due to its location, flowsheet, and recent commissioning and corresponds with the broader benchmarking of ramp-ups for simple, conventional flotation style concentrators.

With a single-phase execution strategy, the construction of both Concentrator 1.7 Mtpa trains will occur simultaneously, with the commissioning of these trains undertaken sequentially. This approach allows for best use of the commissioning team, and flexibility in ramping up the concentrator operations' throughput. The first train will be commissioned initially, with the ability to turn down (reduce) its capacity by approximately 30% as per typical experience. This adjustment provides the plant with a wide continuous throughput window during commissioning and the initial years of operation, nominally from 1.2 Mtpa with one train operating at 70% design throughput, to 3.4 Mtpa with both trains operational.

The flexibility in capacity and dual train design will help accommodate any variances in ore quality or other operational factors particularly during the early stages. Given that the mine will experience a natural ramp-up in the initial months, in the short term, the Concentrator also has the ability to operate on a campaign basis for the first months of operation if required. The campaign approach can be tailored to best meet the production rate of the underground mine and manage any potential for sulfide oxidation of the feed.

Overall, the ability to adjust the operating schedule and capacity of the Concentrator during the commissioning phase and early production is designed to align with the mining ramp-up, and at the same time, help smooth the transition to full-scale operations. This strategy will be beneficial for the process plant and also allow the mine to ramp-up naturally without being a constraint on mining.

10.4.10 Concentrator Performance Estimate

The Concentrator metallurgical performance projection was derived based on the FS mine plan in combination with the recovery algorithms as presented in Table 10-12 and Table 10-13 accounting for scats. The resulting weighted average mass balance for the Concentrator is summarized in Table 10-16.

Table 10-16: LoM Concentrator Summary Mass Balance

Description	Mass		Grade (%)					Recovery (%)				
	Mt	%	Ni	Co	Cu	Fe	S	Ni	Co	Cu	Fe	S
Concentrator Balance:												
RoM Feed	52.2	100	1.98	0.15	0.27	35.0	24.0	100	100	100	100	100
Mill Scats	3.34	6.4	0.11	0.01	0.01	11.5	2.2	0.34	0.33	0.22	2.10	0.58
Ni-Cu-Co Concentrate	5.17	9.9	17.5	1.33	2.59	38.9	32.1	87.3	89.6	95.6	11.0	13.2

Description	Mass		Grade (%)					Recovery (%)				
	Mt	%	Ni	Co	Cu	Fe	S	Ni	Co	Cu	Fe	S
Pyrrhotite Tailings	25.1	48.0	0.43	0.02	0.02	57.0	30.7	10.3	7.6	3.1	78.2	61.3
Non-Pyrrhotite Tailings	18.7	35.7	0.11	0.01	0.01	8.51	16.7	2.00	1.80	1.00	8.7	24.9

Note: Values have been rounded.

The scheduled Concentrator throughput and nickel recovery profile over the LoM are summarized in Figure 10-27. The concentrate tonnage and contained nickel profile is presented in Figure 10-28.

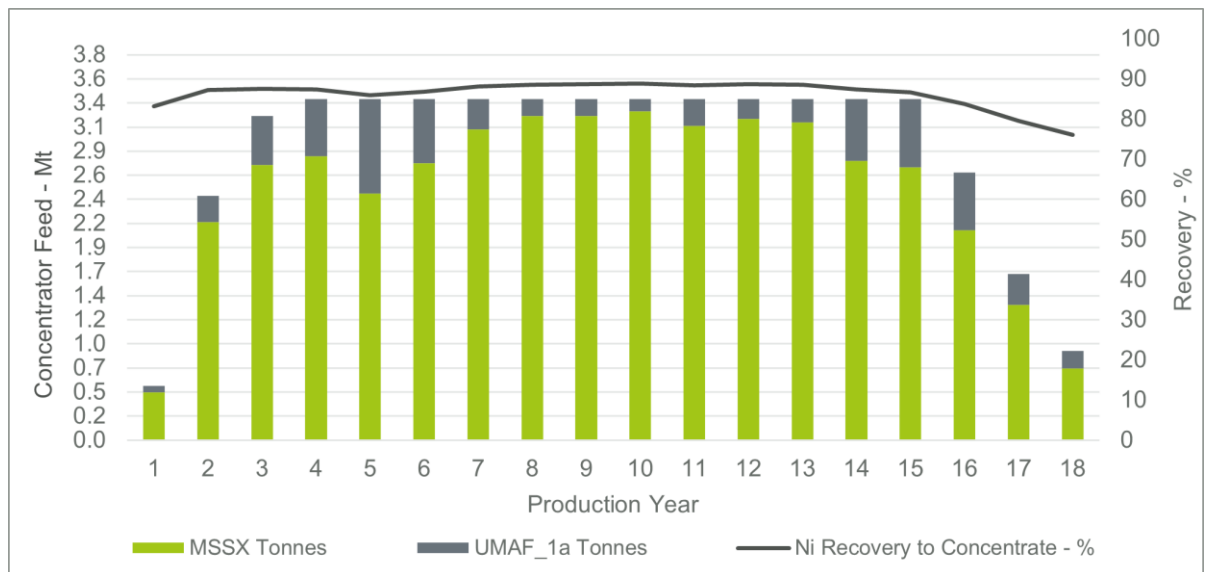


Figure 10-27: LoM Concentrator Production Profile

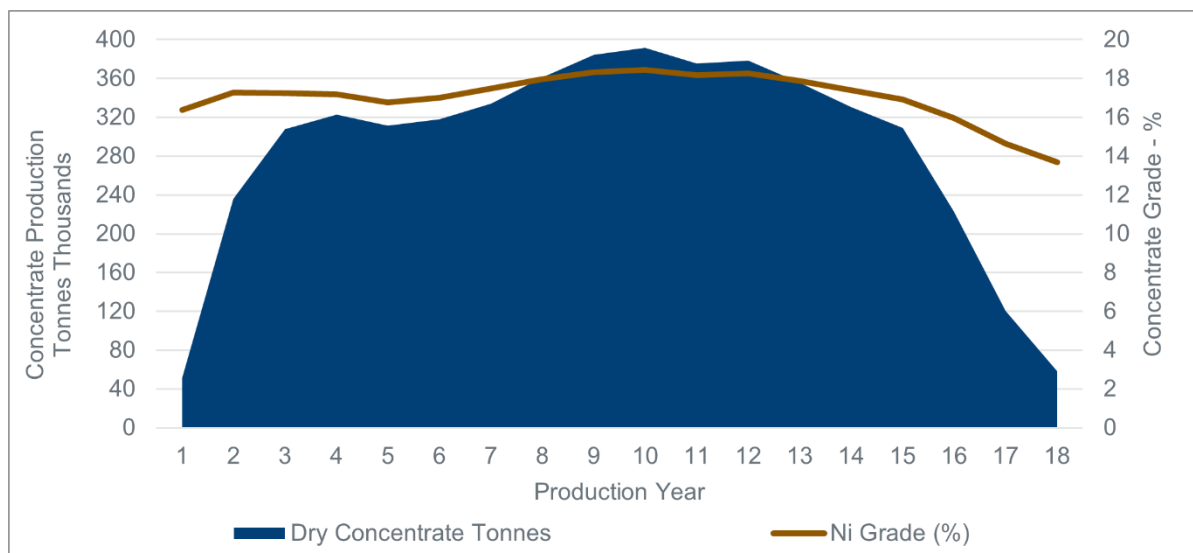


Figure 10-28: LoM Concentrator Nickel Concentrate Production Profile

The modeled recovery and concentrate tonnage and grade profiles were based on the concentrator feed type and feed grade profiles in the FS mine schedule and include provision for ramp-up, commissioning, and optimization. They reflect the steady-state performance and do not consider any transient operations.

The Concentrator production profile ramps up to 3.4 Mtpa at steady state over a two-and-a-half-year period and will process a feed blend comprising predominantly MSSX, with UMAF_1a ranging from 4% to 28% and averaging 13% over the LoM.

The Concentrator will produce approximately 350 ktpa (dry) nickel-copper-cobalt flotation concentrate, containing 17.7% nickel at the steady-state 3.4 Mtpa production rate. The concentrate will contain approximately 2.6% copper, 1.3% cobalt, 32% sulfur, and an average of 0.6% magnesium oxide (MgO) over the LoM.

10.5 QP Opinion – Concentrator

The metallurgical testwork has again demonstrated that a relatively simple, conventional crushing, grinding and flotation flowsheet, using a typical flotation reagent regime, could be used for the effective separation of pentlandite and chalcopyrite from the pyrrhotite and non-sulfide gangue.

Overall, the testwork provided sufficient data for process design, cost estimation, recovery modelling, and production forecasting. A conventional crushing, grinding, and flotation circuit is suitable for the proposed ore types to produce a concentrate product which is considered by CRU to be marketable with no expectation of incurring adverse pricing penalties due to excess impurities.

It is the opinion of DRA, responsible and acting as the QP for the Kabanga Concentrator, that the mineral processing and metallurgical testing undertaken in support of the Concentrator design is at a level that meets that required for an FS and represents good industry practice.

11 MINERAL RESOURCE ESTIMATE

The December 2024 Mineral Resource estimates for the Project are based on industry best practices, conform to the requirements of S-K 1300, and are suitable for reporting as current estimates of Mineral Resources. The Mineral Resource estimates discussed in this section are those prepared for the Project by the QP in December 2024.

11.1 Mineral Resource Modeling

Mineral Resources for the Project have been estimated using industry best practices and conform to the requirements of S-K 1300 for reporting as Mineral Resource estimates.

The 2024 Mineral Resource estimate was completed by OreWin using Datamine software, with macros developed to estimate the full suite of component elements and density for each zone. All zones were estimated using the ordinary kriging method, with domain specific search and estimation parameters determined by variography and statistical analyses.

The estimate was completed on a truncated UTM grid (MG09 grid), with the following conversions:

- Subtract 200,000 from the easting
- Subtract 9,600,000 from the northing
- Add 10,000 to the elevation

Model cell size of 5 m x 15 m x 10 m (X x Y x Z), with sub-celling permitted, is the same as in previous models. The analysis used to determine the cell sizes was reviewed and is still considered valid.

11.2 2024 Mineral Resource Drillhole Database

The cut-off date for geological and analytical data for the 2024 Mineral Resource estimates was June 4, 2024.

Holes that had been drilled up to this date, but for which there remained outstanding assays or downhole survey information, were excluded. Prior to importing and desurveying drillhole data, the raw data was checked for any notable inconsistencies or errors.

Once imported into Datamine, drillholes were viewed in conjunction with surface topography to visually inspect and validate collar locations, hole traces, lithology, and mineralization.

11.3 Mineral Resource Domain Interpretations

The Project host stratigraphy comprises an alternating sequence of three schists and two interbedded quartzites, which is chronologically overlain by two distinct pelite units, (the stratigraphic sequence at Kabanga is overturned, therefore, while it dips to the west–northwest, the younging direction is towards the east–southeast; hence the younger units are overlain by the older units).

Several mafic-ultramafic intrusion events have subsequently occurred within this sedimentary environment, sometimes along contacts between the pelite units, and at other times discordant with these contacts, bringing sulfide mineralization into the sequence.

Lithology and mineralization contacts were interpreted interactively on-screen using strings that were 'snapped' (attached) to drillhole intercepts. This interpretation was undertaken on cross-sections that were spaced 5–10 m apart and were aligned perpendicular to the strike of mineralization. Owing to the gradual change in strike from south to north (i.e., Main Zone strikes approximately 005° while Tembo Zone strikes approximately 045°), the cross-section plane was adjusted along strike to remain perpendicular to mineralization, therefore, the cross-section plane is not always exactly parallel to the adjacent cross-section plane/s.

11.3.1 Sedimentary Stratigraphic Interpretations

A robust model of the sequence of units within the sedimentary stratigraphy was achievable as a result of the plentiful drillhole intercepts available in the logging database.

Logged contacts between the schists, quartzites, and pelites were used to develop a Project-wide stratigraphy interpretation that is represented by detailed 3D surface wireframes for each stratigraphic unit.

11.3.2 Intrusive Interpretations

Three distinct intrusive units were interpreted separately for the Main, MNB, Kima, North, and Tembo zones:

- Undifferentiated mafic-ultramafic intrusives, which are predominantly represented by the drillhole intervals logged as Kabanga Ultramafic (UMAF_KAB) lithology, but also serve as an 'umbrella' categorization for drillhole intervals logged as undifferentiated mafic (MAF) and Kabanga Gabbro (GAB_KAB),
- Mineralised ultramafic with > 30% sulfide component, which is represented by drillhole intervals logged as UMAF_1a, and
- Massive sulfide mineralization, which is a combination of drillhole intervals logged as massive sulfide (MSSX = > 80% sulfides), and massive sulfide with xenoliths (MSXI = $\geq 50\%$ and < 80% sulfides).

Within these three intrusive units, separate mineralization interpretations were developed to represent discrete domains based on spatial continuity, intersecting geological structures, and geochemical characteristics and variability.

Solid wireframes were constructed to represent the various intrusive domains at each zone.

The logged stratigraphic contacts between the Banded Pelite (BNPU) and the Lower Pelite (LRPU) were used to interpret folding structures and unconformities to help orient and guide the mineralization interpretations.

Interpretation of discrete higher grade massive sulfide mineralization was undertaken, targeting logged MSSX and MSXI in combination for each zone. Lower grade mineralization (disseminated sulfides) in the adjacent ultramafic rocks was interpreted separately for the semi-massive nickel mineralization hosted in the logged UMAF_1a unit for each zone.

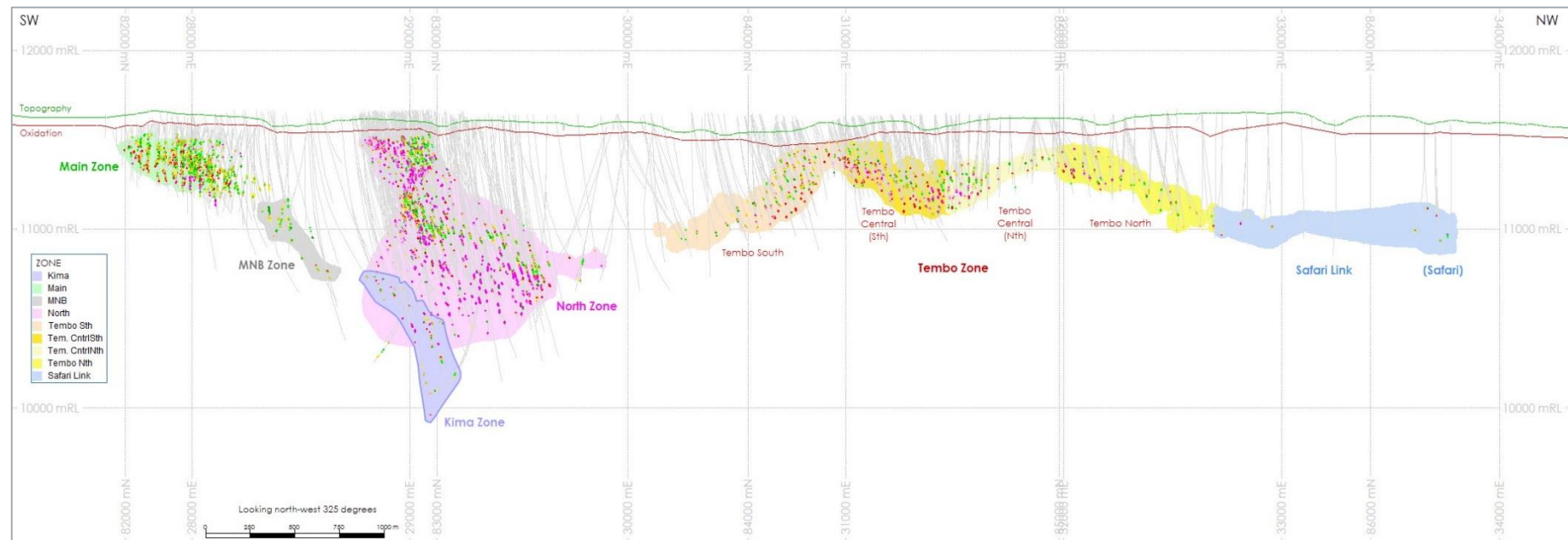
No nominal grade cut-off was used in the interpretation phase. Interpretations were initially based on logged lithology. These first-pass interpretations were then refined to exclude, where possible, drillhole intervals with disparate nickel tenor or absent assays. MSSX interpretations were at times permitted to capture logged BNPU or LRPU intervals of notable nickel grade (> 0.6% Ni) where these were in direct contact with MSSX or MSXI. For the ultramafic-hosted mineralization, intervals logged as any intrusive lithology with greater than 0.6% Ni were also considered for inclusion within the mineralization boundary.

At the peripheries of the drillhole dataset, end plate interpretation strings were created by projecting the last cross-section interpretation string past the extent of the drilling to distances of half the nominal drillhole spacing in the local area, with consideration for the vertical behavior of the mineralized zone by locating the end plate up-dip or down-dip (as appropriate) from the last drilled cross-section.

Because of the vertical undulation evident along strike in the Tembo mineralization, this domain was split into four domains to isolate southwesterly plunging and northeasterly plunging sub-zones (identified from southwest to northeast as Tembo South (TS), Tembo Central South (TCS), Tembo Central North (TCN), and Tembo North (TN) (see Figure 11-1)). Samples in each of these sub-zones were kept separate from the other sub-zones during all the resource estimation work.

The basal contact of the oxidized weathering zone was interpreted from the drillhole data and used to trim the top of the mineralized domains at Main Zone and the southern end of North Zone. Almost the entirety (98%) of the mineralization at Tembo is below the level of oxidation. Figure 11-1 is a 3D schematic long-section of the modeled mineralized zones.

A multivariate statistical analysis was completed for all domains within each zone. Some individual domains were combined where they were found to be statistically similar and could be plausibly related in a geological and spatial sense.



Note: Topography and oxidation wireframes are sliced on the long-section plane, whereas the drillholes and model are projected onto the plane (hence some drillholes appear to collar above topography).

Figure 11-1: Schematic Projected Long-section of the Kabanga Mineralized Zones (truncated UTM; looking northwest)

11.3.3 Grade and Lithology

The primary mineralized lithologies encountered in the Kabanga drilling logs are:

- Massive sulfide (MSSX) and a massive sulfide with xenoliths (MSXI).
- Ultramafic with disseminated sulfides (UMAF_1a).
- Contact pelites: sedimentary country rock at the contact with the massive sulfides or ultramafics. There are two types of pelite: the Banded Pelite (BNPU), and the Lower Pelite (LRPU).

Other lithologies, (gabbro, quartzite, etc.), for which samples have been assayed, are not significant in terms of mineralization tenor and frequency.

The Ni% box plot in Figure 11-2 shows all the represented lithologies across the Project.

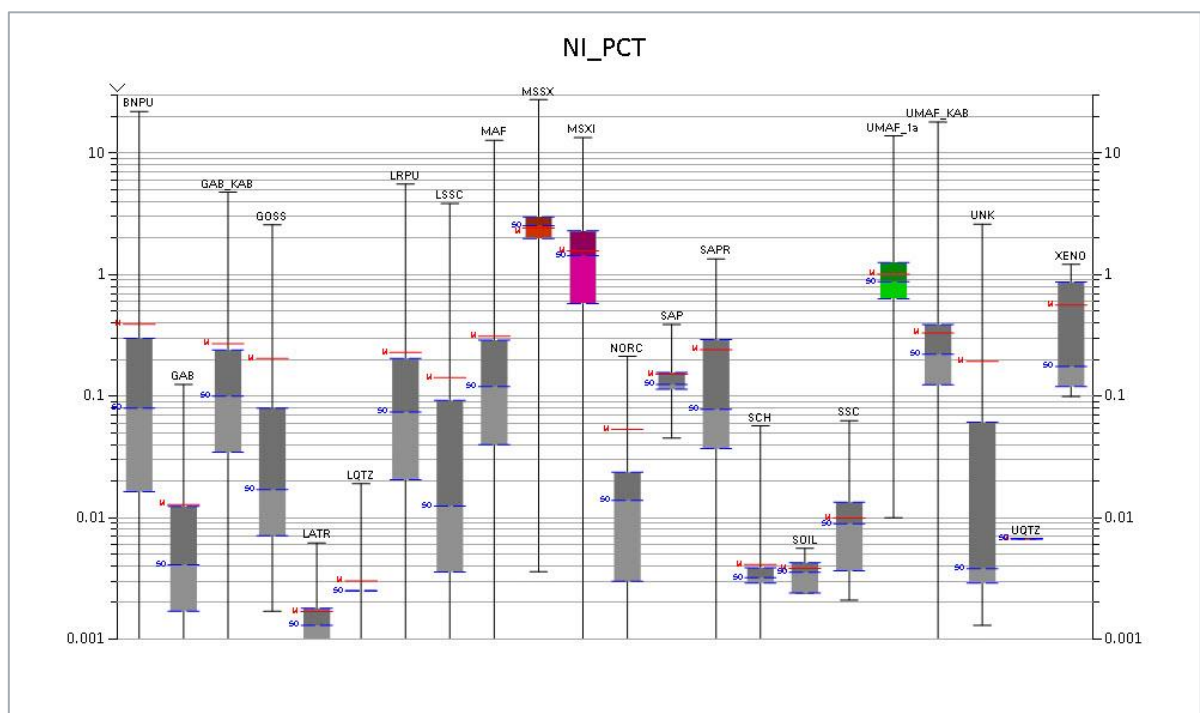


Figure 11-2: Ni Box Plot for all Assayed Lithologies – All Zones

Subsequent discussion in this section will generally focus on the specifics of the North and Tembo zones, which collectively provide the most significant contribution to the overall Mineral Resource inventory.

11.3.3.1 North Zone

The pie chart in Figure 11-3 shows that the main lithology of interest, in terms of number of assayed samples, is MSSX.

The grade characteristics of the mineralization types at North are shown in the box plots in Figure 11-4.

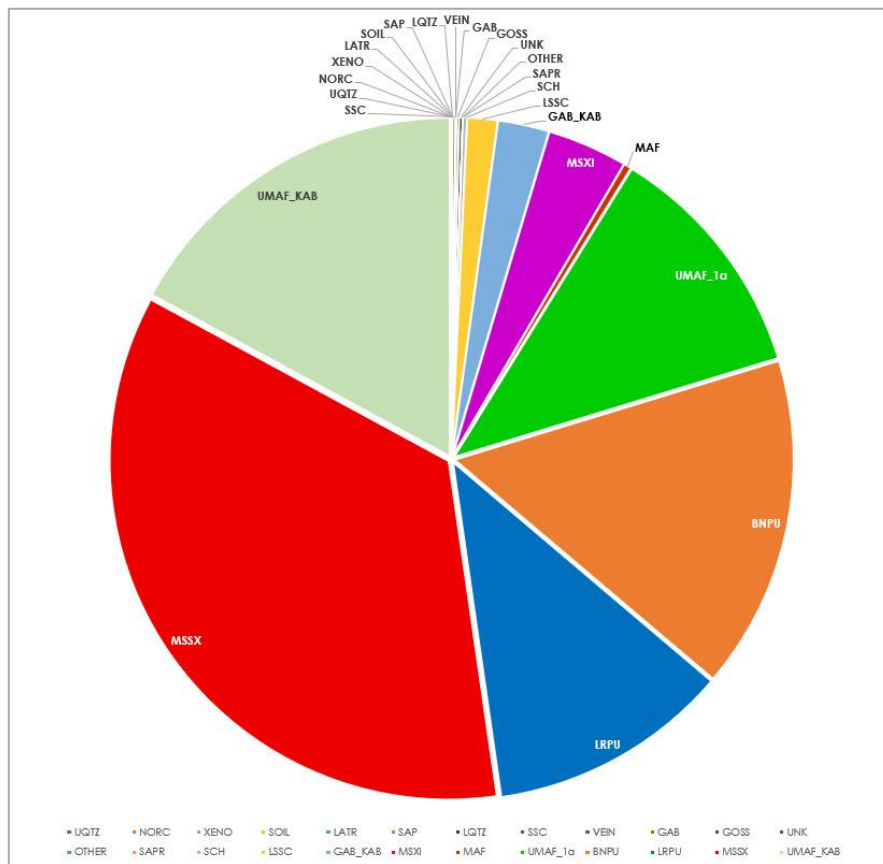


Figure 11-3: Pie Chart of Assayed Lithologies – North Zone

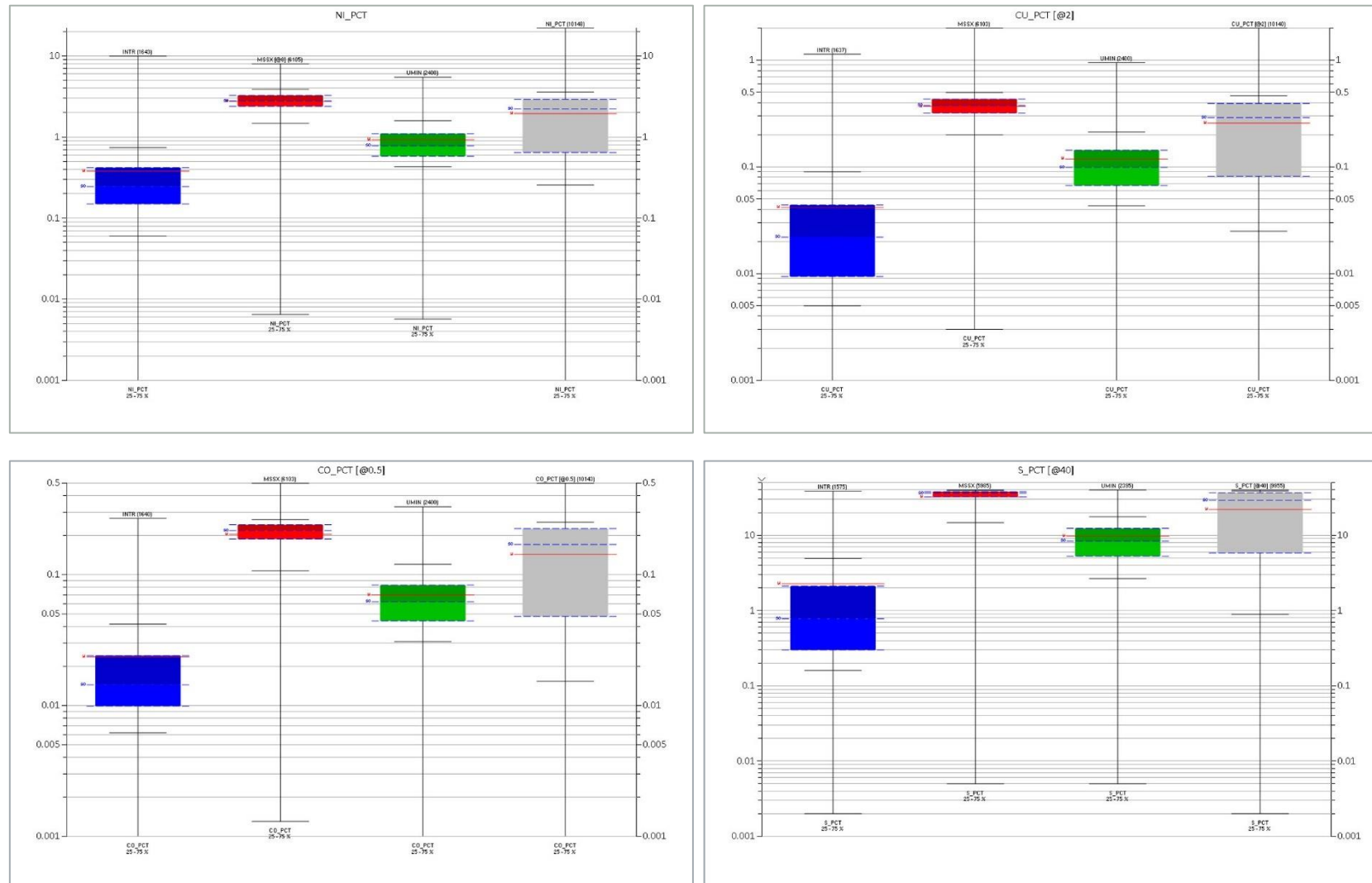


Figure 11-4: Box Plots for a Suite of Elements for the Three Predominant Mineralization Types – North Zone

11.3.3.2 Tembo Zone

For Tembo, a pie chart and box plots are shown in Figure 11-5 and Figure 11-6 respectively. Again, the main lithology of interest, in terms of number of assayed samples, is MSSX.

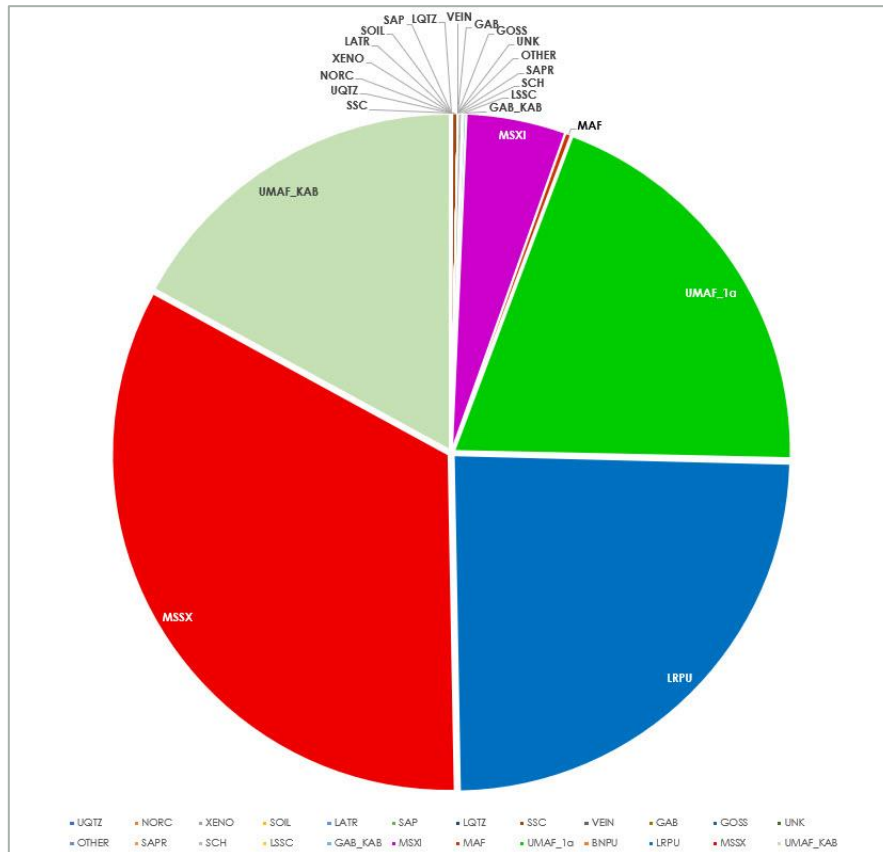


Figure 11-5: Pie Chart of Assayed Lithologies – Tembo Zone

The box and whisker plots in Figure 11-7 and Figure 11-8 summarize the grades for the main elements of interest in all mineralization types combined for North and Tembo respectively. A comparison of these plots shows clearly that North has higher tenor mineralization than Tembo.

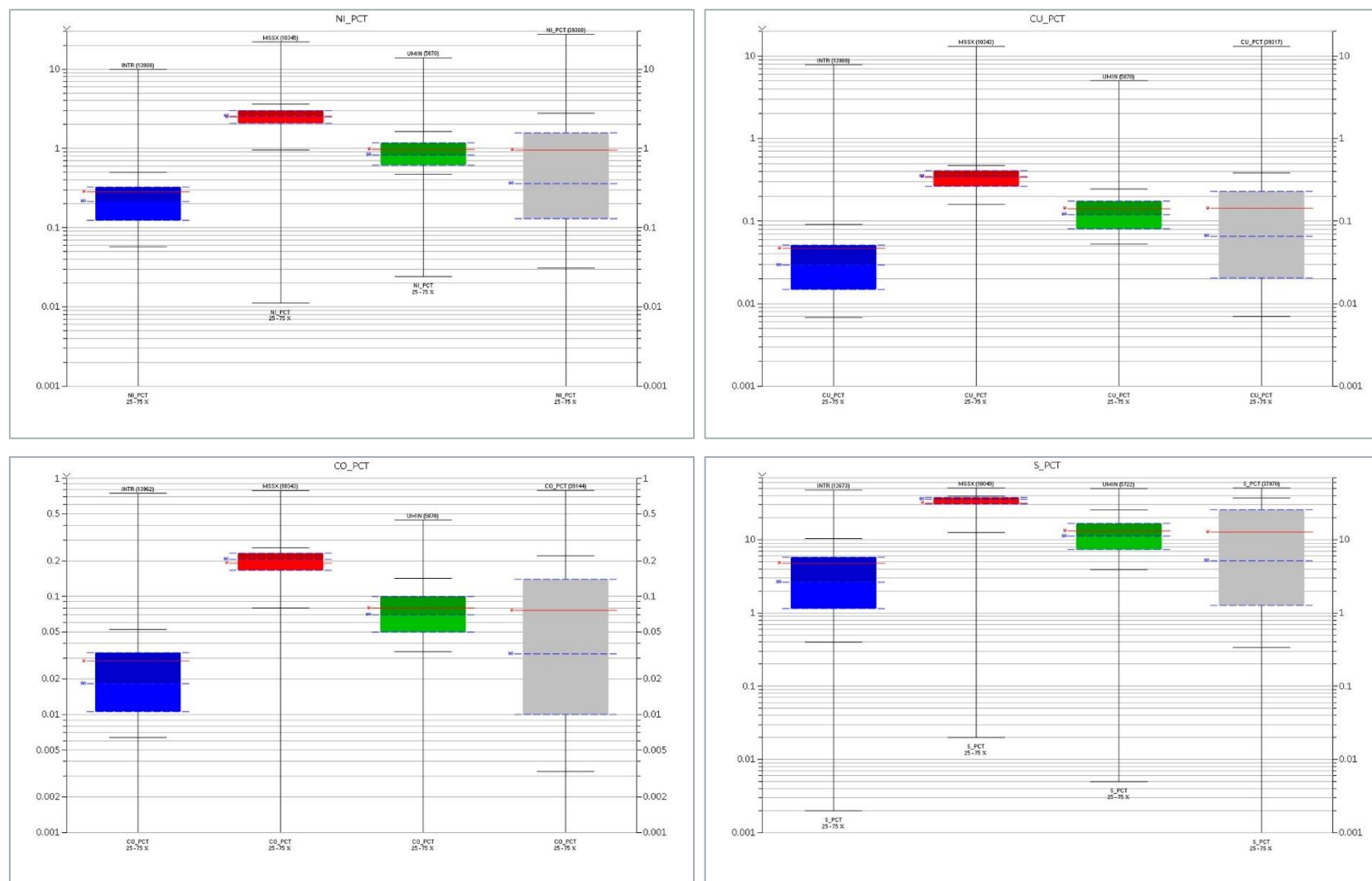


Figure 11-6: Box Plots for a Suite of Elements for the Three Predominant Mineralization Types – Tembo Zone

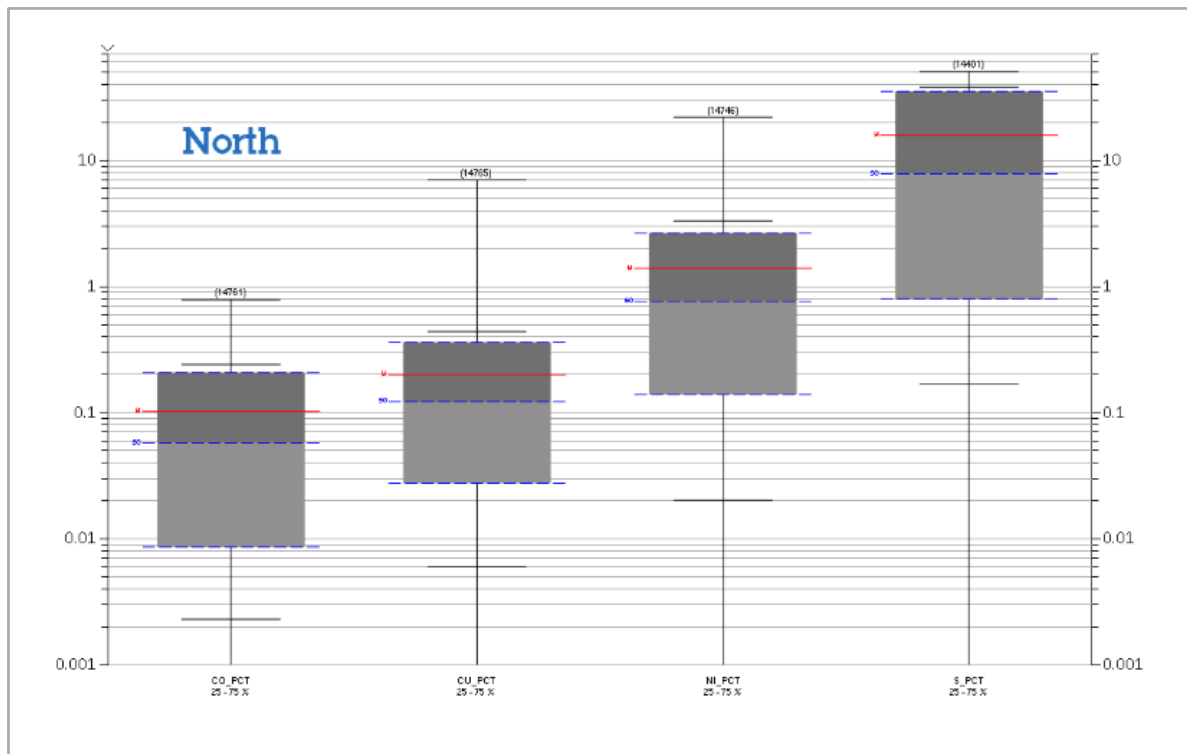


Figure 11-7: Box Plot of Grades (Co, Cu, Ni, and S) for North Zone

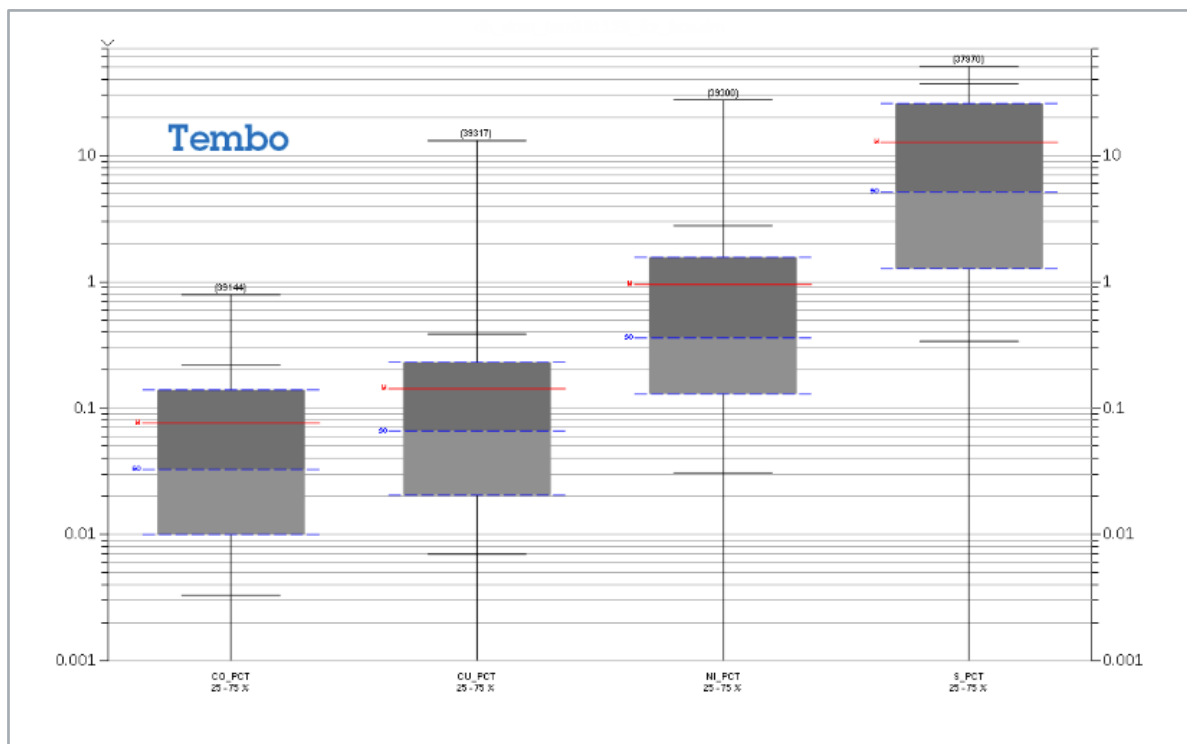


Figure 11-8: Box Plot of Grades (Co, Cu, Ni, and S) for Tembo Zone

11.3.4 Drillhole Compositing

The purpose of compositing drillhole samples is to ensure that all samples have the same sample support. The term ‘sample support’ is a geostatistical concept that relates to the space on which an observation is defined (i.e., length of a sample interval, volume of sampled material, percentage recovery, etc.).

While an analysis of drillhole sample lengths should always be undertaken, the act of compositing is not necessarily an essential step in the resource modeling and estimation process; it is only warranted in cases where sample support is disrupted by high variability of raw sample lengths in the dataset. The decision to composite or not, and what composite length to use if proceeding, (i.e., in the case where compositing is considered necessary), should therefore be based on statistical analysis of the particular dataset in question.

A review was undertaken of the raw sample lengths of the samples in the data from each zone. Sample length statistics examined for the 2024 work for North are shown in Figure 11-9 and for Tembo in Figure 11-10. The histograms show that the most prevalent sample length is 1 m. There is a second population of samples less than 1 m in length at all zones, and a population of samples of 2 m length at North.

Because of the large number of 1 m samples relative to any other length of sample, it was felt that compositing the 1 m samples to a coarser sample length would result in a statistically significant reduction in variance of the overall assay data, which is undesirable. Furthermore, the splitting of larger samples into smaller (1 m) samples would also result in an artificial reduction in variance by creating exact duplicate intervals from the larger original sample interval.

It was therefore decided to not composite the dataset to a common length on the basis that sample support was already reasonable, and the negative ramifications of compositing may, in this instance, outweigh any potential benefit from making the dataset more consistent in length.

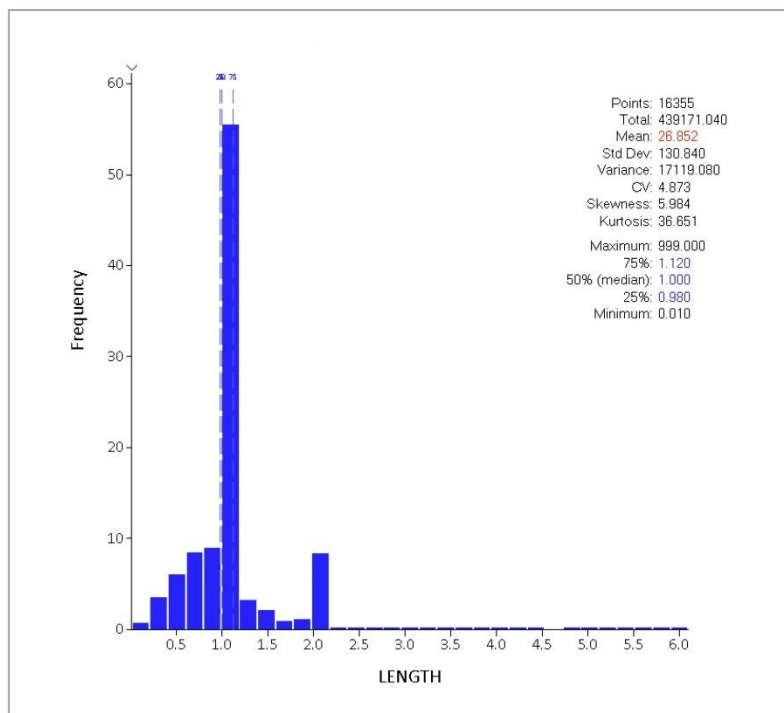


Figure 11-9: Histograms of Sample Lengths –North Zone (where assayed)

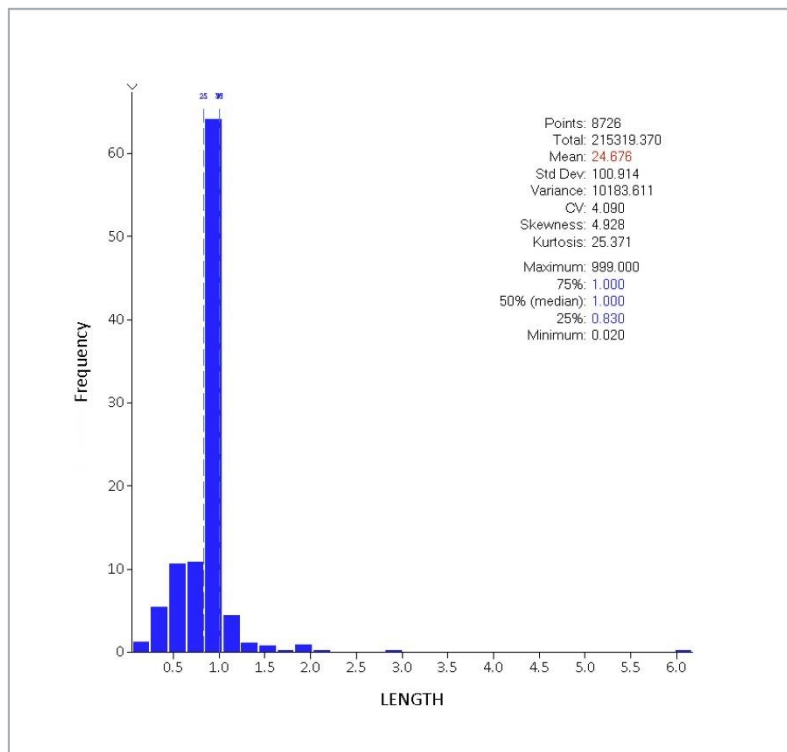


Figure 11-10: Histograms of Sample Lengths – Tembo Zone (where assayed)

11.3.5 Top Cutting

Top cutting is a strategy used in grade estimation to limit the influence of anomalously high values, which may otherwise cause the overestimation of grades, by cutting their value back to a ceiling value determined using statistics or eliminating the data completely if the result is considered invalid.

Anomalously high values are generally readily observable on a log probability plot as being ‘off-trend’ of the lower grade values in the same domain (an inflection in the probability plot).

While an analysis of population statistics to determine the presence of anomalous values should always be undertaken, the act of top cutting is not necessarily an essential step in the resource modeling and estimation process; it is only warranted in cases where (a) influential anomalous populations exist, and (b) these occur in a spatial configuration that renders them unsuitable for segregation into separate domains (i.e. scattered pervasively, rather than co-located). The decision to top cut or not, and which data to cut (i.e., in the case where cutting is considered necessary), should therefore be based on statistical analysis of the dataset in question.

A statistical analysis was undertaken of the Ni, Cu, Co, and S grades within each mineralization type at each zone. While several high grades were identified, these were able to be constrained throughout the grade estimation process, therefore, no top cutting was applied.

One drillhole (P60-12) was removed from the dataset on the basis that it appears to be incongruent with the surrounding information. This hole has no survey data and is therefore assumed to be vertical – this could be the cause of the disparity in grade characteristics down the hole. This hole also has no lithological log, rendering it unable to be compared lithologically to surrounding holes.

11.3.6 Boundary Treatment

Contact analysis was undertaken on all major component elements in each zone to determine the optimal treatment of samples at the boundaries of different zones of mineralization. Some examples of the contact plots are shown for Ni% across the INTR:UMIN boundary at North and Tembo (Figure 11-11) and across the UMIN:MSSX boundary (Figure 11-12).

This analysis showed that the contrast between samples on either side of a mineralization boundary was definitive. This is not an unexpected finding given the differential in tenor of grade that was clearly evident at the time of interpreting the boundaries between the different mineralization types.

As a result, the decision was taken to treat all boundaries between different mineralization types as 'hard' boundaries that do not allow the intermingling of samples from adjacent domains.

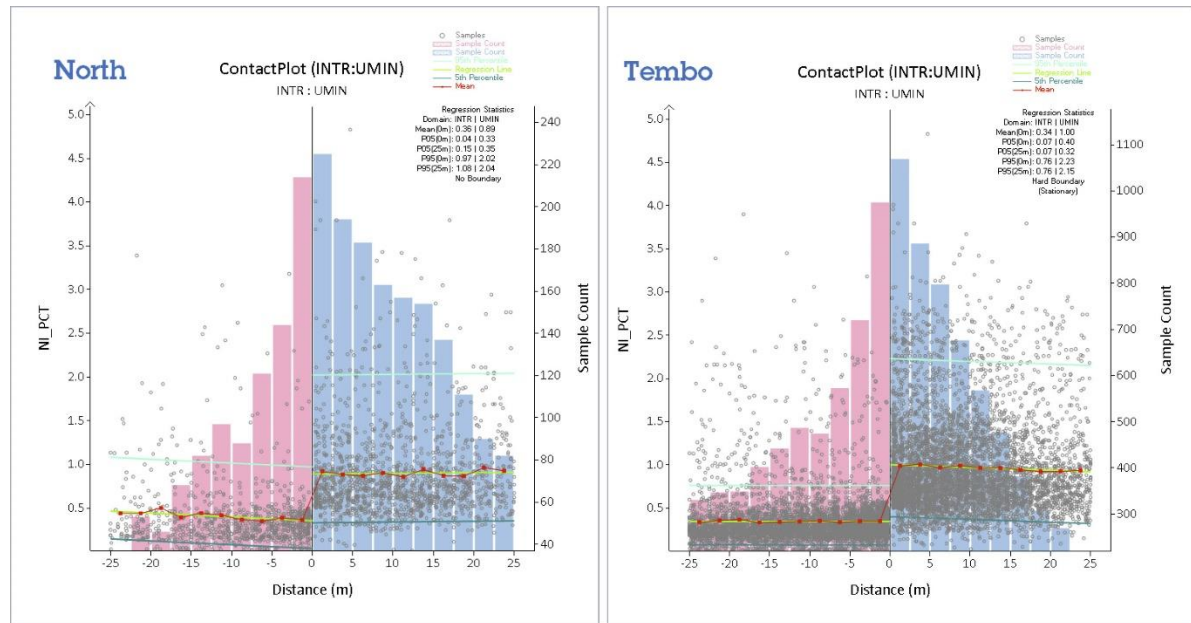


Figure 11-11: Contact Plots for Ni% Across INTRUSIV:UMIN Boundary

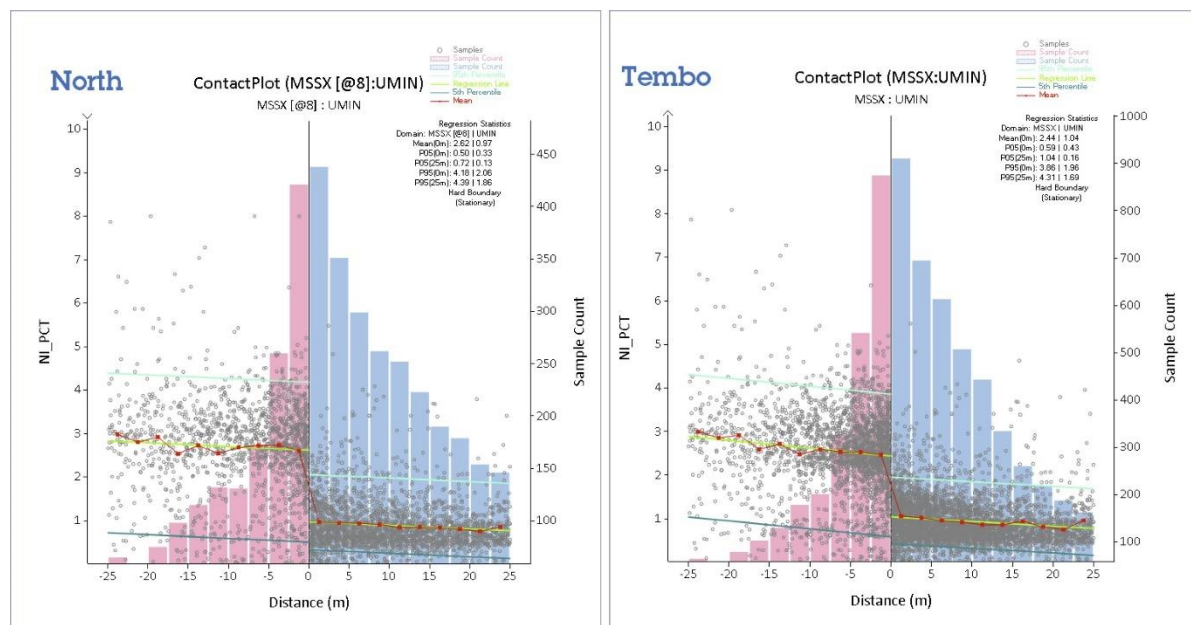


Figure 11-12: Contact Plots for Ni% Across UMIN:MSSX Boundary

11.3.7 Variography

Where sufficient samples existed, variograms were generated for all estimated constituents, including density, for all mineralization domains (MSSX, UMIN, and INTRUSIV), in all zones.

For the MSSX, it was often the case that the variograms were erratic from one lag to the next. It is considered that this reflects the narrow nature of the MSSX domains, resulting in small pair counts at any given lag, which can magnify the variability. Despite this, continuity was invariably able to be

modeled where sufficient samples occur to form the variogram. Downhole variograms were generally robust.

Estimation of grades for all elements was undertaken by ordinary kriging using the variogram parameters that had been obtained for each component. Where a component / domain had insufficient samples to develop standalone variogram parameters, alternative parameters were assigned from a comparable domain that was selected following review of the statistical and geometrical characteristics of the domains in question.

11.3.8 Search Parameters

Each mineralization type and zone combination had its own search strategy based on the learnings from the preceding statistical analyses and from visual observation or the characteristics of each.

The search strategy used is based on a four-pass approach to maximize the number of cells receiving estimates, while maintaining reasonably tight search ellipses in the first three passes.

The first search volume is an ellipse generally of the order of 120 x 120 x 40 m. Cells that fail to receive an estimate in the first search pass are then processed through a second search volume, which has a dimension multiplier generally (but not always) 2.5-times the initial volume. Likewise, cells that remain un-estimated are processed through a third search pass, with a search volume multiplier set to 5 times the initial volume. The fourth search volume is set to 20-times the initial volume in an effort to populate as many cells as possible.

Each search pass has its own minimum and maximum numbers of samples parameters. While the maximum rarely changed, the minimum number reduced slightly in each subsequent pass to permit estimation to succeed with slightly fewer samples thereby moderating the search distances within the larger search volumes of the second and third passes.

The maximum number of samples per drillhole criterion was utilized to help assure that estimates were based on more than one drillhole.

For some domains (not all), octant restrictions were imposed to force selection of samples from a variety of directions. For select domains, the process of 'Dynamic Anisotropy' was used to orient the search ellipse used to estimate each cell based on local variations in the interpreted mineralization boundaries. This process enables better capture of relevant samples for estimation, resulting in estimates that are locally appropriate.

Search parameters used for grade estimation are shown in Table 11-1.

Table 11-1: Grade Estimation Search Parameters

Zone	Domain Description (and Domain No. where required)	Search Pass No.	Search Distances			Search Angles			Octant Searching				Min. No. Samp's	Search Vol. 2		Search Vol. 3		Max. No. Samp's per Hole	Dynamic Aniso- tropy Used (Y/-)
			1	2	3	1	2	3	Used (Y/-)	Min. No. Octants	Min. Samp's per Octant	Max. Samp's per Octant		Vol. Factor	Min. No. Samp's	Vol. Factor	Min. No. Samp's		
MAIN	MSSX	1/2/3	60	60	10	095	65	15	Y	2	2	6	8	2.5	7	5	6	5	Y
MAIN	MSSX #3	1/2/3	60	60	20	095	-25	0	Y	2	2	6	6	5.0	5	10	4	5	Y
MAIN	UMIN	1/2/3	60	40	20	095	60	15	Y	2	1	6	8	2.5	7	5	6	5	-
MAIN	UMIN 16/17/18	1/2/3	60	40	20	095	60	15	-	-	-	-	2	2.5	2	5	2	5	-
MAIN	INTR	1/2/3	100	80	20	095	60	15	Y	2	1	6	8	2.5	7	5	6	5	-
MAIN	MSSX	4	1,200	1,200	400	095	65	15	-	2	-	-	6	-	-	-	-	8	Y
MAIN	MSSX #3	4	2,400	2,400	800	095	-25	0	-	2	-	-	6	-	-	-	-	8	Y
MAIN	UMIN	4	1,200	1,200	400	095	60	15	-	2	-	-	6	-	-	-	-	8	-
MAIN	UMIN 16/17/18	4	1,200	1,200	400	095	60	15	-	0	-	-	2	-	-	-	-	8	-
MAIN	INTR	4	1,200	1,200	400	095	60	15	-	2	-	-	6	-	-	-	-	8	-
MNB	MSSX	1/2/3	60	40	20	105	-75	-35	-	-	-	-	6	2.5	5	5	4	5	Y
MNB	UMIN	1/2/3	60	40	20	105	-75	-35	-	-	-	-	6	2.5	5	5	4	5	-
MNB	INTR	1/2/3	40	60	10	115	-45	45	-	-	-	-	8	5.0	8	10	6	5	-
MNB	MSSX	4	1,200	1,200	400	105	-75	-35	-	-	-	-	6	-	-	-	-	8	Y
MNB	UMIN	4	2,400	2,400	800	105	-75	-35	-	-	-	-	6	-	-	-	-	8	-
MNB	INTR	4	1,200	1,200	400	115	-45	45	-	-	-	-	4	-	-	-	-	8	-
NORTH	MSSX	1/2/3	60	60	10	130	-65	-15	-	-	-	-	8	2.5	8	5	6	5	Y
NORTH	UMIN	1/2/3	60	60	10	130	-65	-15	-	-	-	-	8	2.5	8	5	6	5	-
NORTH	INTR	1/2/3	60	60	10	130	-85	-15	-	-	-	-	8	2.5	8	5	6	5	-
NORTH	MSSX	4	1,200	1,200	400	130	-65	-15	-	-	-	-	6	-	-	-	-	8	Y
NORTH	UMIN	4	2,400	2,400	800	130	-65	-15	-	-	-	-	6	-	-	-	-	8	-
NORTH	INTR	4	1,200	1,200	400	130	-85	-15	-	-	-	-	6	-	-	-	-	8	-
KIMA	MSSX	1/2/3	60	60	10	130	-65	-15	-	-	-	-	8	2.5	8	5	6	5	Y

Zone	Domain Description (and Domain No. where required)	Search Pass No.	Search Distances			Search Angles			Octant Searching				Min. No. Samp's	Search Vol. 2		Search Vol. 3		Max. No. Samp's per Hole	Dynamic Aniso- tropy Used (Y/-)
			1	2	3	1	2	3	Used (Y/-)	Min. No. Octants	Min. Samp's per Octant	Max. Samp's per Octant		Vol. Factor	Min. No. Samp's	Vol. Factor	Min. No. Samp's		
KIMA	UMIN/INTR	1/2/3	60	60	10	130	-65	-15	-	-	-	-	8	2.5	8	5	6	5	-
KIMA	MSSX	4	1,200	1,200	400	130	-65	-15	-	-	-	-	4	-	-	-	-	8	Y
KIMA	UMIN/INTR	4	1,200	1,200	400	130	-65	-15	-	-	-	-	4	-	-	-	-	8	-
TEMBO	TS & TCN UMIN/INTR	1/2/3	60	60	20	145	-80	20	-	-	-	-	8	2.5	8	5	6	5	-
TEMBO	TCS & TN UMIN/INTR	1/2/3	60	60	20	145	-75	-30	-	-	-	-	6	2.5	8	5	6	5	-
TEMBO	TS & TCN MSSX	1/2/3	60	60	20	145	-80	20	-	-	-	-	8	2.5	8	5	6	5	Y
TEMBO	TCS & TN MSSX	1/2/3	60	60	20	145	-75	-30	-	-	-	-	6	2.5	8	5	6	5	Y
TEMBO	TS & TCN UMIN/INTR	4	1,200	1,200	400	145	-80	20	-	-	-	-	4	-	-	-	-	8	-
TEMBO	TCS & TN UMIN/INTR	4	1,200	1,200	400	145	-75	-30	-	-	-	-	6	-	-	-	-	8	-
TEMBO	TS & TCN MSSX	4	1,200	1,200	400	145	-80	20	-	-	-	-	4	-	-	-	-	8	Y
TEMBO	TCS & TN MSSX	4	1,200	1,200	400	145	-75	-30	-	-	-	-	6	-	-	-	-	8	Y

Notes:

1. The maximum number of samples permitted in each Search Volume = 14.
2. The rotation of the Search Angles occurs around axes 3 : 1 : 3.
3. UMIN' is the domain field name incorporated into the cell model and drillhole files used to denote the presence (Code 1) or absence (Code 0) of ultramafic mineralization (corresponds to 'UMAF_1a' logging code in drillhole samples).
4. 'INTR' in this table is a shortening of 'INTRUSIV', which is the domain field name in the cell model and drillhole files to denote the presence or absence of intrusive lithology.

11.3.9 Grade Estimation

Estimation was completed separately for each of the mineralized domains at each of the zones, and these zone models were then combined into one model representing the mineralization of the entire Project.

Grade (and density) estimation was undertaken using ordinary kriging for each domain.

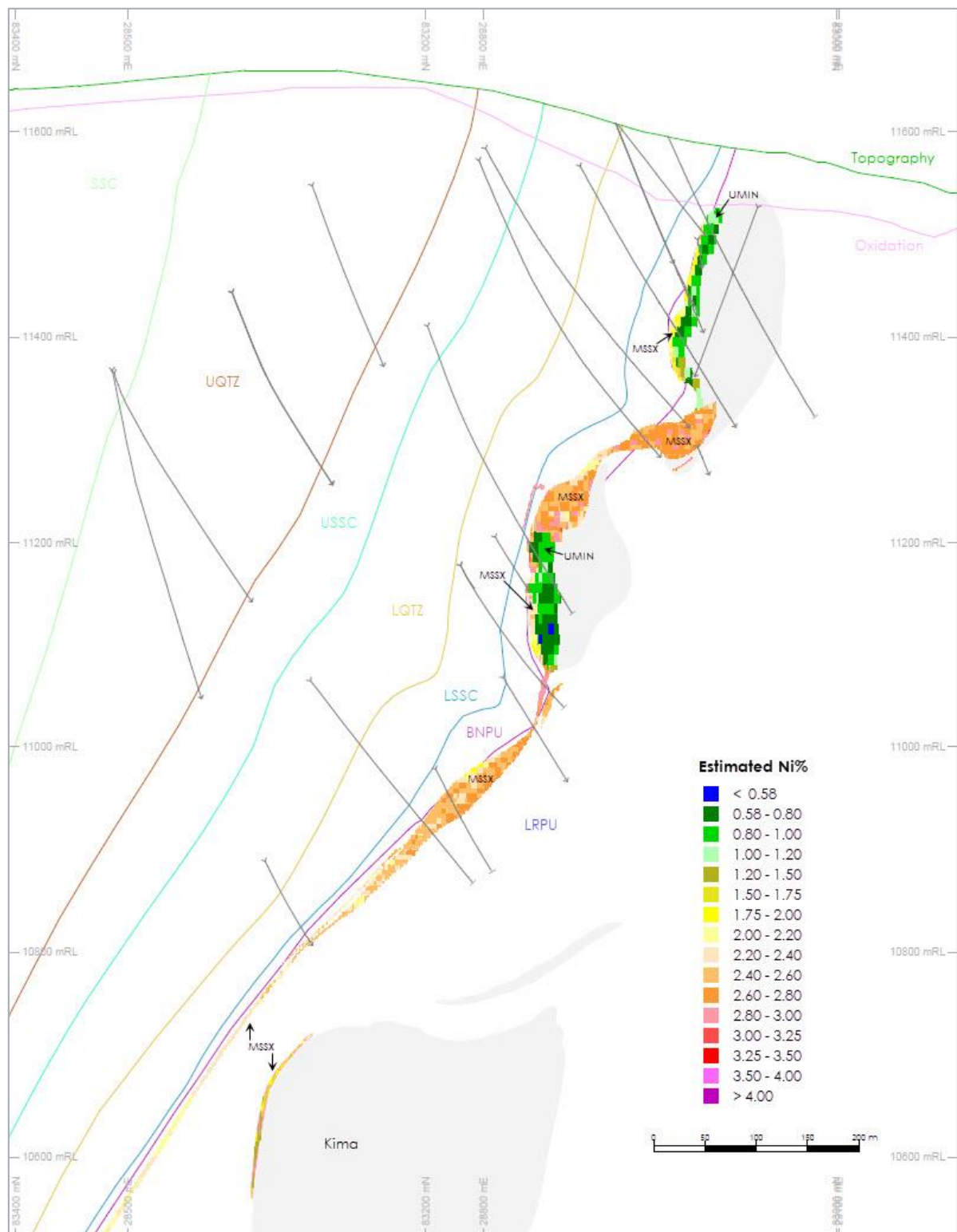
Inverse distance weighting to the power of 2 (ID2) was used to estimate a select group of components in each domain for validation purposes. The global tonnes and grades were compared for each estimation method, as a check for gross errors in the kriging parameters.

An example cross-section showing Ni% grade estimates at North Zone is shown in Figure 11-13 and at Tembo Zone in Figure 11-14.

11.3.10 Model Validation

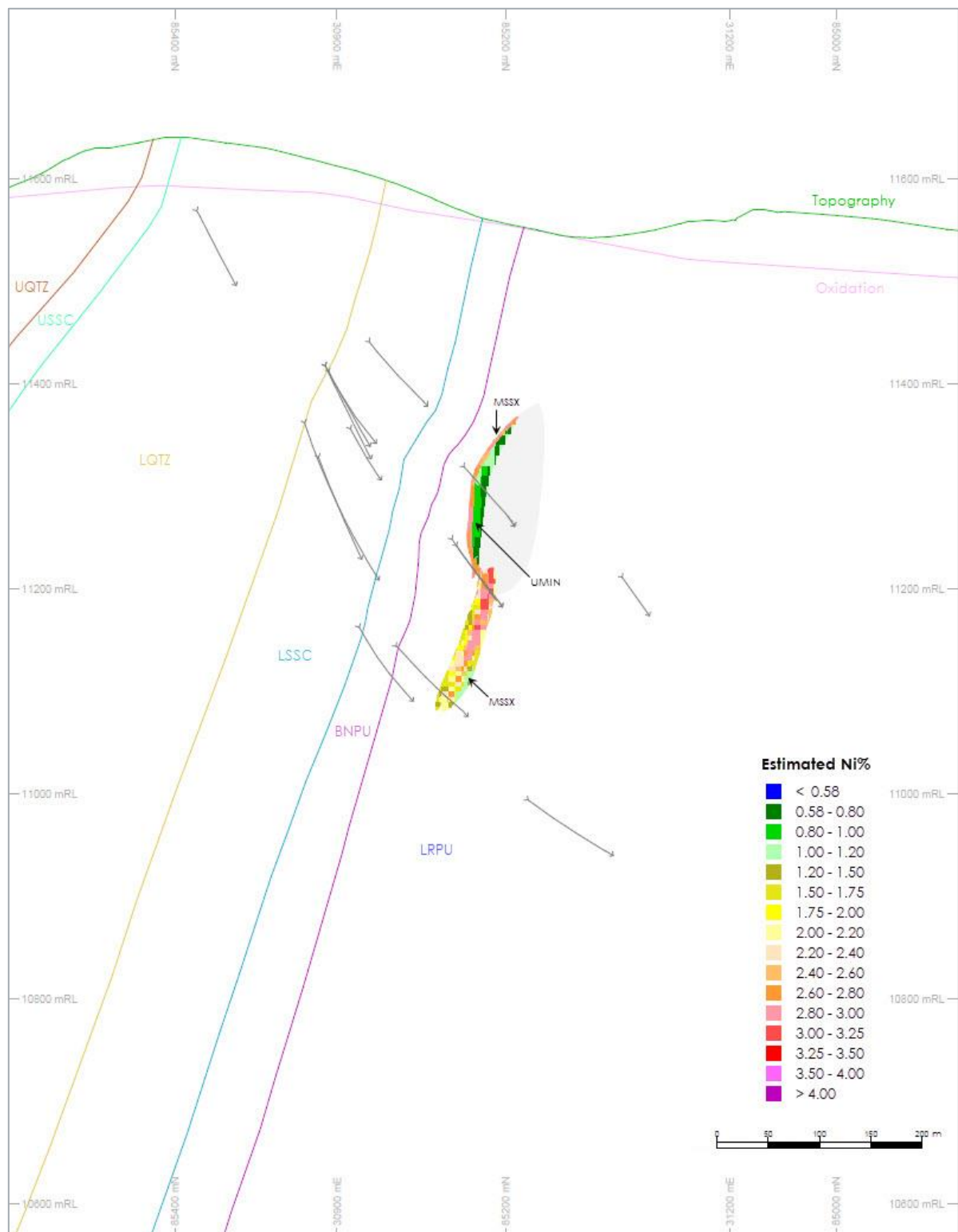
The models were validated visually and statistically for all grade elements estimated and the density. Visually, the models were reviewed on cross-sections against the input drilling data to ensure that the models honor the grade profiles and continuity. The following specific verification steps were taken:

- Cross-sections of the estimated grades were reviewed to ensure the estimates honor drillhole data and the geological interpretation.
- Histograms of the drillhole data were overlain with the estimated model Ni grades to assess grade distribution.
- Cumulative frequency plots for each of the estimation methods and the drillhole grades illustrate a modest grade distribution distortion.
- Swath plots were generated for each of the domains within each zone to review and assess the grade distributions. Some example swath plots along strike are shown for North in Figure 11-15 and Tembo in Figure 11-16.



Note: * Oblique cross-section looking 030°, +/- 15 m projection.

Figure 11-13: Example Cross-section* of Ni% Grade Estimates at North Zone (shows Kima) (truncated UTM)



Note: * Oblique cross-section looking 038°, +/- 15 m projection.

Figure 11-14: Example Cross-section* of Ni% Grade Estimates at Tembo Zone (truncated UTM)

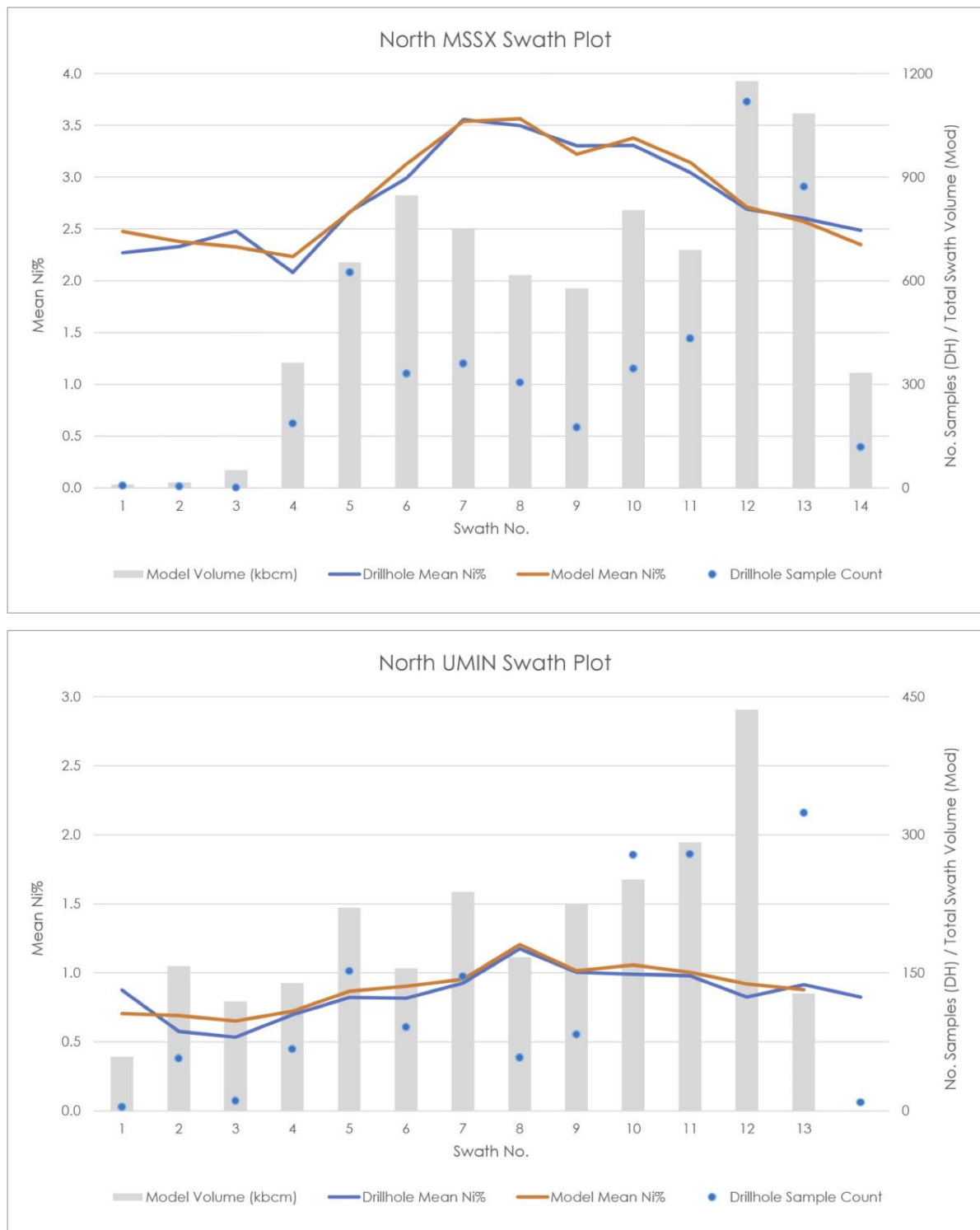


Figure 11-15: Example Swath Plots – Ni% Along Strike for North Zone MSSX and UMIN

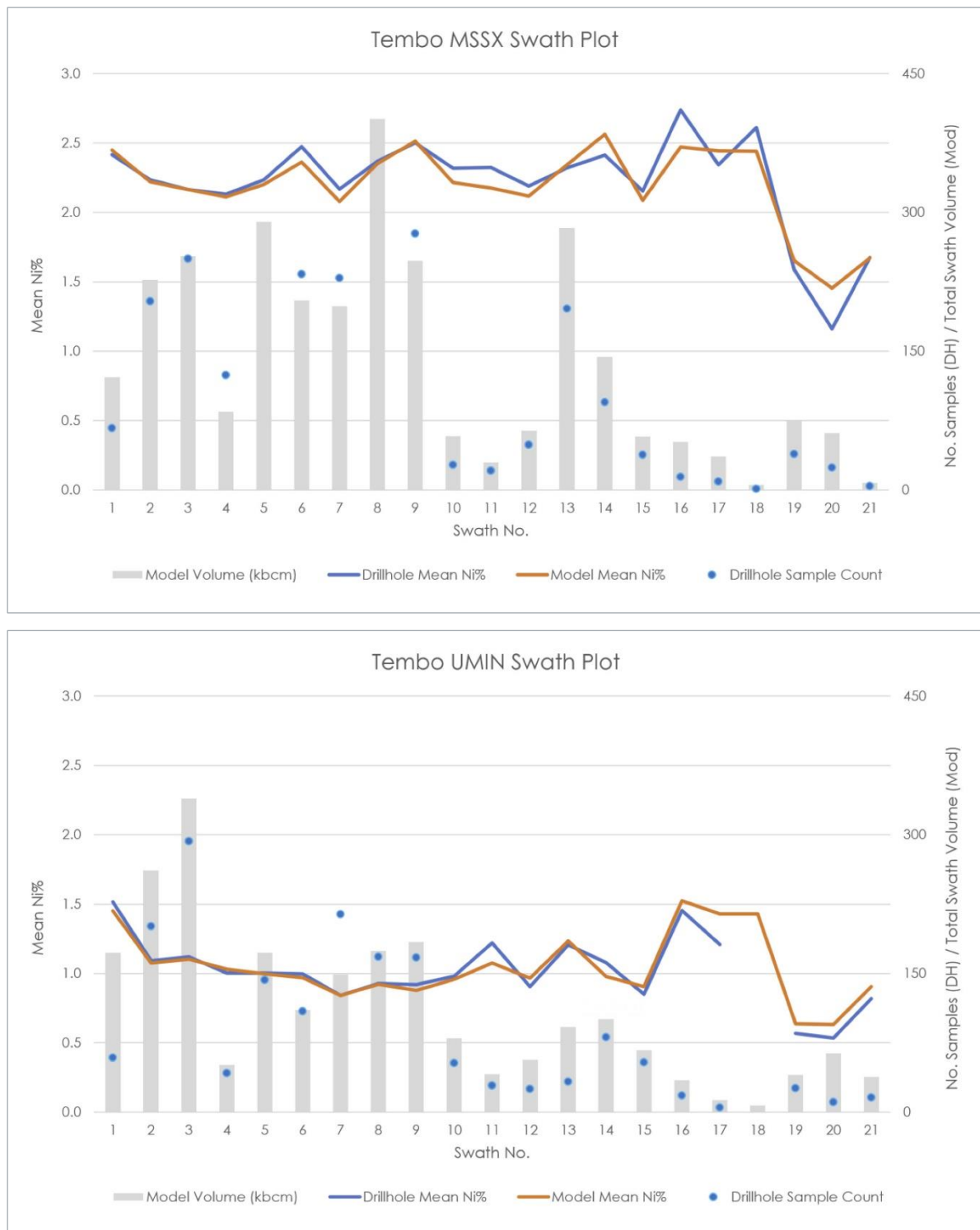


Figure 11-16: Example Swath Plots – Ni% Along Strike for Tembo Zone MSSX and UMIN

11.3.11 Classification

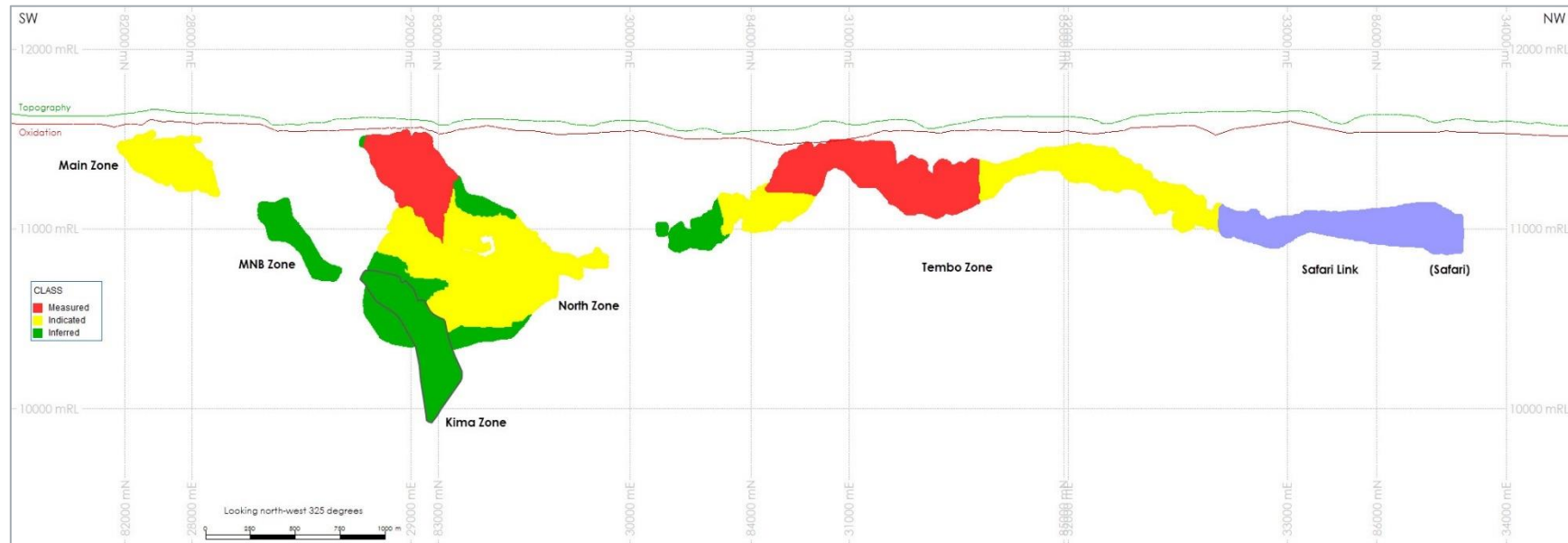
The 2024MRU was classified after reviewing the previous classification criteria and is based on a variety of factors, including the geometry and spatial and geochemical continuity of the Mineral Resource, as well as the success rate at predicting mineralization locations and thicknesses when intersecting the interpreted mineralization with recent (2021–23) drilling. Manually defined wireframe solids were produced to enclose areas to be defined as Inferred, Indicated, or Measured.

Significant emphasis and time were given to ‘tightening’ the geological and mineralogical interpretation throughout the entire Project area in the 2024 work. This tightening was achieved through:

- The development of a sedimentary host strata model. The host sedimentary stratigraphy comprises a reliably predictable sequence of known strata on a whole-Project scale that is very well supported by the drillhole logging database. The robust strata model helps to guide and control the interpreted extent and shape of the later intrusives.
- A full and comprehensive reinterpretation of the mineralization in all mineralized zones.
- Smaller subcelling along the boundaries of the mineralized units (MSSX and UMIN), forcing tighter constraint of the volumes within these domains (note: ‘UMIN’ is the domain field name in the cell model and drillhole files to denote the presence or absence of ultramafic mineralization (corresponds to the UMAF_1a logging code in drillhole samples)).

The tightened geological and mineralogical interpretation achieved in 2024 had the downside effect of slightly reducing the overall mineralization tonnage but positively influenced confidence in the interpretation at a local and deposit scale, resulting in an upgrade in classification in several locations and an overall increase in the tonnages in the Measured + Indicated inventory.

A schematic of the classification is shown in Figure 11-17.



Note: Topography and oxidation wireframes are sliced on the long-section plane, whereas the model is projected onto the plane.

Figure 11-17: Schematic Projected Long-section of the Kabanga Classification (truncated UTM, looking northwest)

11.4 Mineral Resource Cut-off Grade

As the Kabanga mineralized zones contain multi-element mineralization, a grade-equivalent formula has been used for reporting from the Mineral Resource estimates.

DRA reviewed the grade equivalent formulas and the cut-off grade assumptions that were used for the Kabanga 2024MRU dated December 4, 2024. It was determined through this review that the assumptions remain appropriate for informing the grade-equivalence strategy and Mineral Resource cut-off in this FS TRS.

The metal prices recommended by DRA for the Mineral Resource estimate are based on its assessment of recent market prices, long-term forward curve prices, and consensus prices from analysts and institutions. The metal prices selected are at the upper range of long-term consensus price forecasts over the last 10 years; this is an optimistic view of prices for use in the cut-off grade analysis to ensure that the reasonable prospect of economic extraction considerations does not exclude material that may be able to be included in future studies for defining Mineral Reserves. For the Mineral Resource estimate in the FS TRS, the recommended metal prices are the same as those used in the 2024MRU and the 2025 IA TRS; these are presented in Table 11-2.

Table 11-2: Kabanga Metal Prices

Metal	Long-term Price (USD/lb)
Nickel	9.50
Copper	4.50
Cobalt	23.00

With nickel being the primary payable metal, a formula was used to convert other payable metals in each model cell, to a nickel-equivalent (NiEq) value, by using the individual metal prices and expected recoveries, compared to those of nickel. This results in a total NiEq grade for each model cell.

The 2024 nickel-equivalent (NiEq24) formulas are as follows:

- $MSSX\ NiEq_{24} = Ni + (Cu \times 0.454) + (Co \times 2.497)$
- $UMIN\ NiEq_{24} = Ni + (Cu \times 0.547) + (Co \times 2.480)$

The 2024 NiEq cut-off grades are:

- $MSSX = 0.73\% NiEq_{24}$
- $UMIN = 0.77\% NiEq_{24}$

Metal price and recovery assumptions used for the NiEq24 and cut-off grade determination are shown for MSSX and UMIN in Table 11-3 and Table 11-4 respectively.

Table 11-3: NiEq24 MSSX Input Parameters

Metals	Metal Prices (USD/lb)	Recoveries (%)		Net Recovered (USD/lb)	NiEq Ratio
		Concentrator	Refinery		
Nickel	9.50	66.6	96.5	6.11	1.000
Copper	4.50	63.4	97.2	2.77	0.454
Cobalt	23.00	68.2	97.3	15.26	2.497

Table 11-4: NiEq24 UMIN Input Parameters

Metals	Metal Prices (USD/lb)	Recoveries (%)		Net Recovered (USD/lb)	NiEq Ratio
		Concentrator	Refinery		
Nickel	9.50	64.0	96.5	5.87	1.000
Copper	4.50	76.9	97.2	3.36	0.547
Cobalt	23.00	65.0	97.3	14.55	2.480

11.4.1 NiEq24 Cut-off Grade

The NiEq24 cut-off grade used is a 'break-even cut-off grade'. It is defined as the Ni grade of a model cell in the resource model at which the net sales return (NSR) is equal to the cost for producing nickel cathode (Cost).

The 2024MRU is based on the following key assumptions:

- Mining rate: an underground mining rate of 3.4 Mtpa.
- Mining method: underground stoping with backfill, feeding an on-site concentrator.
- Processing rate: a concentrator located on-site at Kabanga with a capacity of 3.4 Mtpa feed.
- Concentrate was assumed to be transported to a hydrometallurgical refining facility at Kahama to produce final LME grade nickel, copper, and cobalt metals. The refinery capacities were assumed to be: concentrate feed 347 ktpa and total metal production 77.7 ktpa (63.0 ktpa nickel, 9.0 ktpa copper, and 5.7 ktpa cobalt).
- Transport of nickel and copper cathode and cobalt rounds to the Port of Dar es Salaam for sale locally or for export.
- All power requirements are assumed to be supplied from the national grid.

Modifying factors were estimated using the above Project scenario and comparisons with studies of similar projects. The cost accuracy level is approximately $\pm 50\%$ with a contingency level of 25%.

Table 11–6 details the input assumptions used for determination of the cut-off grade.

NiEq24 has been calculated in the resource model to account for the grades of all three payable metals. In the cut-off grade calculation, only the revenue from nickel is considered for the Net Sales Return. In model cells where there are no Cu and Co grades, the NSR calculated from Ni only can then be applied to the NiEq24.

A description of the formulas for calculating NSR and Cost follows.

11.4.1.1 Net Sales Return

- **Mass Pull** = $\text{Ni Grade} * \text{Concentrator Recovery} / \text{Concentrate Ni Grade}$
- **NSR** = $((\text{Nickel Price} * \text{Concentrate Ni Grade} * \text{Refinery Recovery}) * (1 - \text{Royalties}) - (\text{Transport} + \text{Insurance})) * \text{Mass Pull}$

11.4.1.2 Concentrator Recoveries, Mass Pull and Concentrate Grades

Concentrator recoveries, mass pull, and concentrate grades formulas were estimated using the testwork results and other assumptions for the production scenario. The assumptions are shown in Table 11-5. The Concentrator recoveries, when plotted with the relevant feed grades, are curves where the lower feed grades have lower recoveries. The recoveries at the cut-off grades have been used in the cut-off grade calculations. For example, the nickel grade of 0.77% Ni has an MSSX concentrator recovery of 66.6%, a grade of 2.0% Ni would have a recovery of 89.2% for MSSX and 76.1% Ni for UMIN.

The Concentrator Recovery and Mass Pull relationships are presented in Table 11-5. The Concentrator recoveries for nickel, copper, and cobalt for both MSSX and UMIN as a function of feed grades are shown in Figure 11-18 to Figure 11-20. The nickel concentrate grades as a function of feed grade are shown in Figure 11-21, and the mass pull as a function of nickel grade is shown in Figure 11-22.

Table 11-5: Concentrator Recoveries and Mass Pull Assumptions

MSSX Nickel Recovery %

$$(-1.77 + 36.658 * (\text{Mass Pull})^{0.3864}) * (-0.022 * \ln(\text{Ni Feed Grade}) + 1.0277) + 0.63$$

UMIN Nickel Recovery %

$$(-3.77 + 36.658 * (\text{Mass Pull})^{0.3864}) * (-0.022 * \ln(\text{Ni Feed Grade}) + 1.0215) - 0.68$$

MSSX Copper Recovery %

$$e^{(4.601495 - 0.0022253 / (\text{Cu Feed Grade} * \text{Cu Feed Grade}))} * 1.0025$$

UMIN Copper Recovery %

$$(75.35 + 39.508272 * \text{Cu Feed Grade}) * 0.991$$

MSSX Cobalt Recovery %

$$1 / (0.0061895713 + 37.653048 / (\text{Ni Recovery} * \text{Ni Recovery}))$$

UMIN Cobalt Recovery %

$$1 / (0.0061895713 + 37.653048 / (\text{Ni Recovery} * \text{Ni Recovery}))$$

MSSX and UMIN Mass Pull %

$$-1.67933 + 117.056 * ((12.31 * (\text{Ni Feed Grade})^{-0.603})^{-1.093}) * (0.0009 * \ln(\text{Ni Feed Grade}) + 0.982)$$

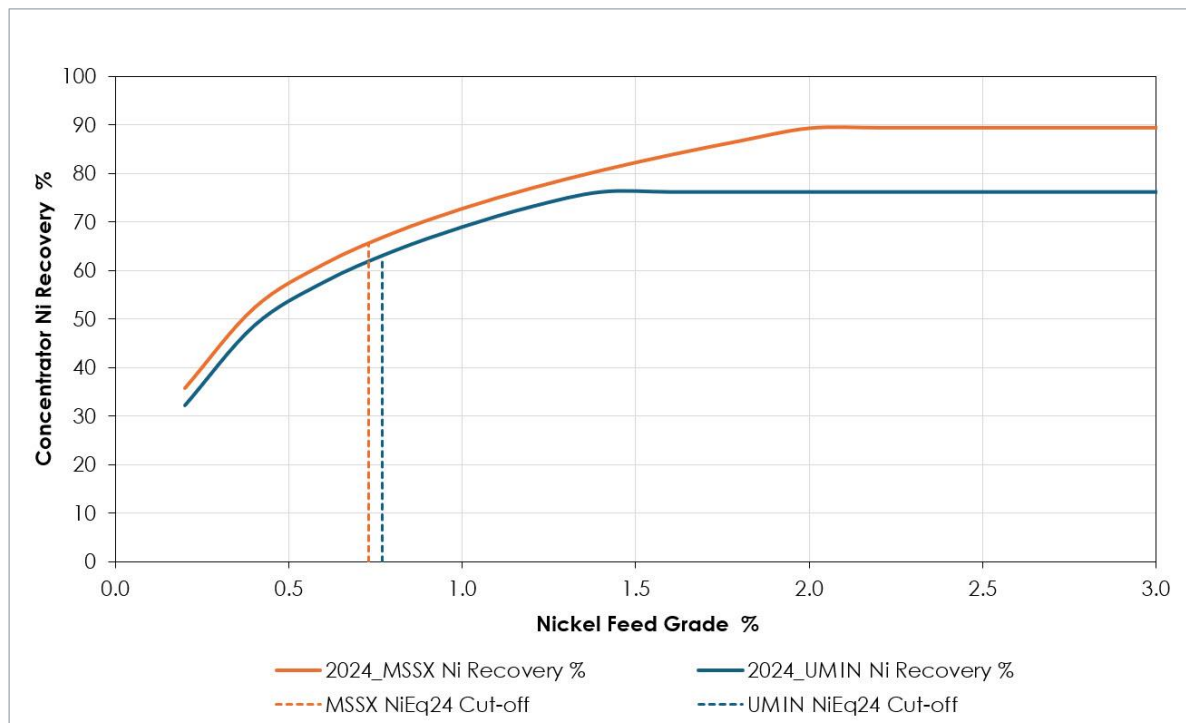


Figure 11-18: MSSX and UMIN Concentrator Nickel Recoveries

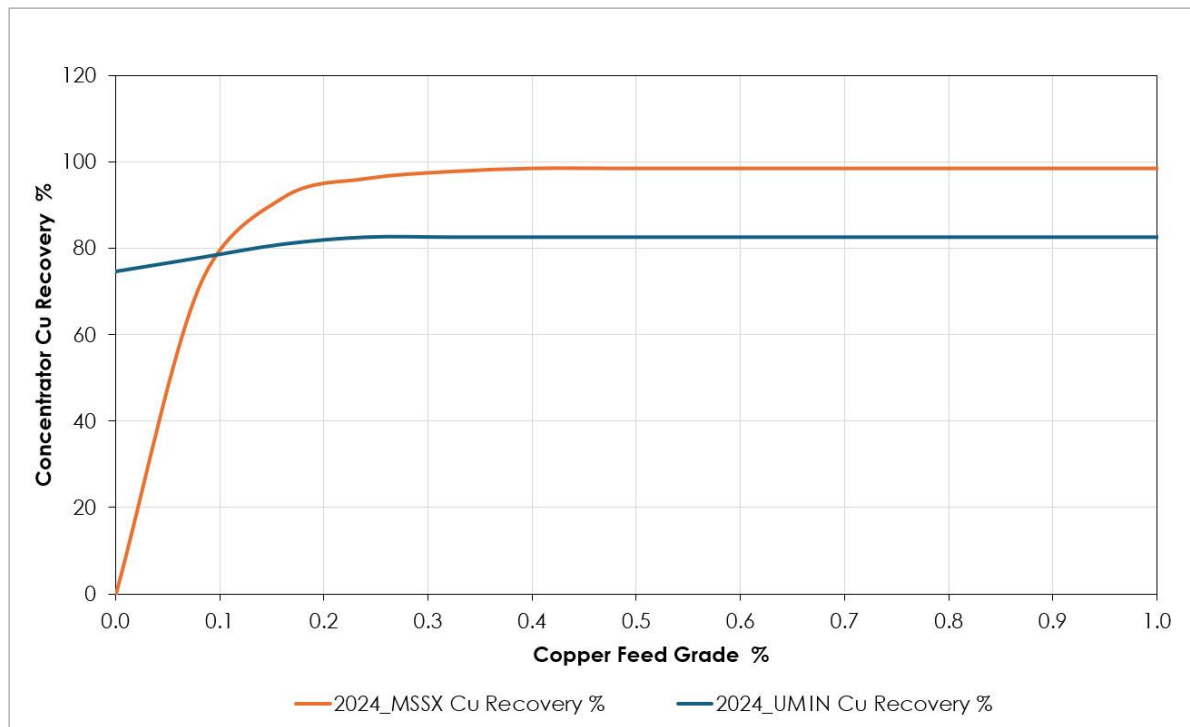


Figure 11-19: MSSX and UMIN Concentrator Copper Recoveries

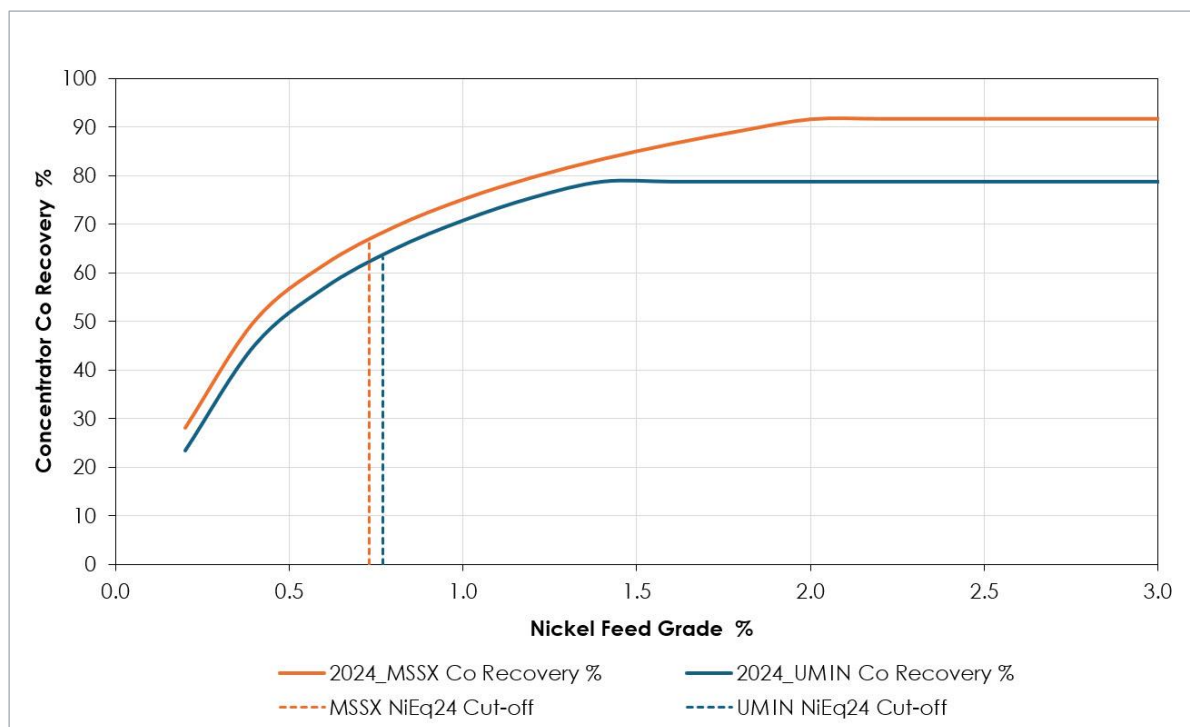


Figure 11-20: MSSX and UMIN Concentrator Cobalt Recoveries

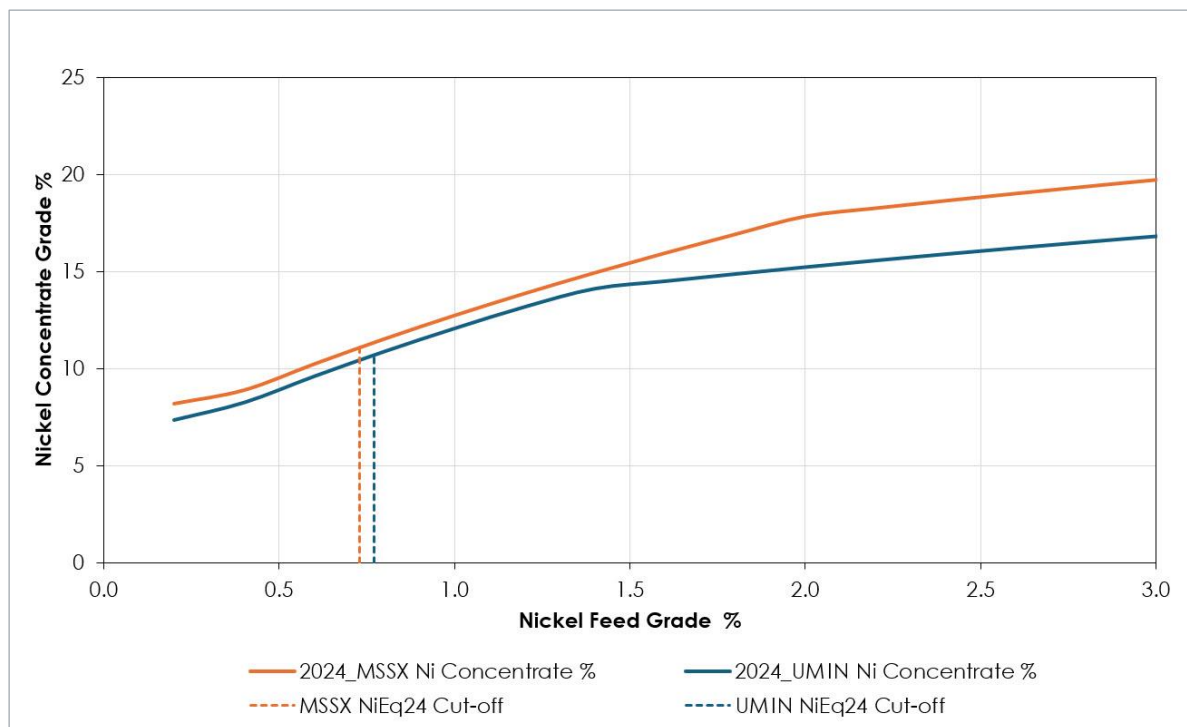


Figure 11-21: MSSX and UMIN Concentrate Nickel Grade

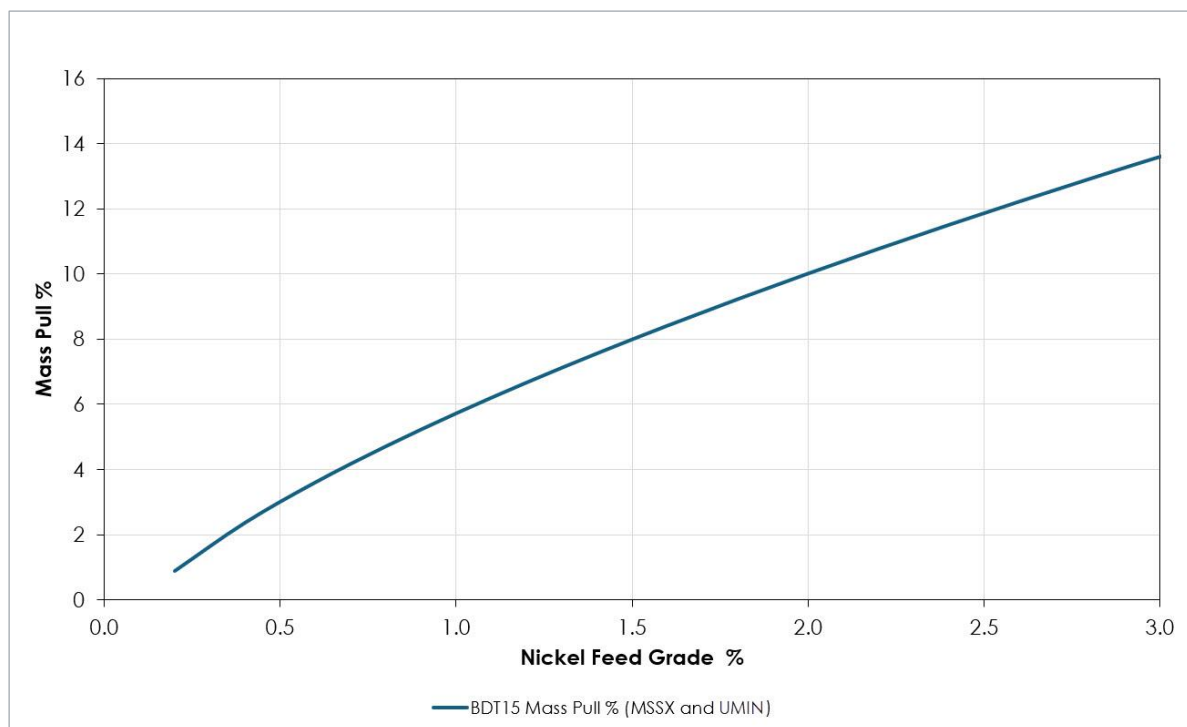


Figure 11-22: MSSX and UMIN Mass Pull

11.4.1.3 Cost

- Refinery Cost = (Refinery Cost per lb) * (lb/t) * Concentrate Ni Grade * Mass Pull
- Break-even Cost = Mining + Process + Refining + G&A

11.4.1.4 Break-even Cut-off Grade

- Cut-off Grade is the Ni Grade when Net Sales Return = Cost.

Table 11-6: 2024 Cut-off Grade Assumptions

Description	Unit	Value
Metal Prices		
Nickel	USD/lb	9.50
Copper	USD/lb	4.50
Cobalt	USD/lb	23.00
Refinery Recovery		
Nickel	%	96.50
Copper	%	97.20
Cobalt	%	97.30
Concentrate		
Moisture Content	%	9
Transport Cost	USD/t.km conc. (wet).	0.08
Royalties and Fees		
Royalties and Fees	%	6.47
Refining		
Refinery to Port Transport Cost	USD/t.km Metal	0.05
Port and Sea Freight Cost	USD/t Metal	102.02
Insurance Cost	% freight value	0.40
Refining Cost	USD/lb recovered metal	0.99
Mine Operating Costs		
Underground Mining	USD/t Mined	50.07
Processing	USD/t Processed	12.64
General and Administration	USD/t Processed	8.69

11.4.2 Cut-off Grade Sensitivity

As part of the 2025 IA, and revalidated within the FS, a sensitivity assessment to changes in the key assumptions to the cut-off grades was undertaken based on the updated project scenario and most recent cost estimates. Changes included selling nickel and cobalt sulfates and copper cathode instead of exclusively metal cathode products.

The latest costs from recent project studies were used in this sensitivity, with all the assumptions that changed captured in Table 11-7.

Table 11-7: 2025 IA Sensitivity Assumptions

Description	Unit	Value
Refinery Recovery		
Nickel	%	97.20
Copper	%	93.00
Cobalt	%	97.70
Refining		
Refinery to Port Transport Cost	USD/t	51.41
Sea Freight Cost	USD/t	50.00
Port Handling Costs	USD/t	27.22
Refining Cost	USD/t feed	18.57
Mine Operating Costs		
Underground Mining	USD/t Mined	54.24
Processing	USD/t Processed	12.37
General and Administration	USD/t Processed	4.88

After updating the assumptions as detailed in Table 11-7, it was observed that the NiEq break-even cut-off grade was very similar to those calculated for the 2024MRU.

The 2025 IA NiEq cut-off grades were:

- MSSX = 0.75% NiEq24
- UMIN = 0.78% NiEq24

This represents a 0.02% and 0.01% nickel-equivalent grade difference from the respective MSSX and UMIN cut-off grades used in the 2024MRU. The cut-off grade assumptions and methodology used in Section 11.4 are reasonable, technically sound, and appropriate for the declaration of Mineral Resources in this Feasibility Study. It is the opinion of DRA, responsible and acting as the QP for the Kabanga Project, that there is no requirement to change the cut-off grades applied to the 2024MRU and that the 2024 Mineral Resource estimate remains current.

11.5 Reasonable Prospects of Economic Extraction

The Mineral Resource estimate used in this FS is based on the 2024MRU and the 2025 IA, which were both prepared in accordance with S-K 1300. The Mineral Resource estimate was supported by a cut-off grade analysis that incorporated conceptual assumptions including underground mining at a rate of 3.4 Mtpa using stoping with backfill, processing at an on-site concentrator, and transport of concentrate to an off-site hydrometallurgical refinery producing nickel, cobalt, and copper metals. These assumptions were used to evaluate reasonable prospects for economic extraction at the effective date of the Mineral Resource estimate and remain the basis for the Mineral Resource estimate carried forward into the FS.

To support the determination of reasonable prospects for economic extraction, a preliminary cash flow analysis was completed as part of the IA. The IA incorporated updated assumptions, including the production of nickel and cobalt sulfate as final products. A cut-off grade sensitivity analysis was also conducted to evaluate the robustness of the 2024MRU under the revised economic framework.

Based on this review, DRA, responsible and acting as the QP for the Kabanga Project concluded that the assumptions underlying the 2024MRU remain appropriate for the purposes of this FS. No changes to the reported cut-off grades were required, and the existing Mineral Resource estimate is considered to continue to demonstrate reasonable prospects for economic extraction under the updated scenario.

All Mineral Resources are reported in accordance with Item 1302(d) of Regulation S-K 1300 and use economic parameters appropriate for an FS. These Mineral Resources do not represent Mineral Reserves.

11.6 Mineral Resource Statement - Kabanga 2024

The Mineral Resource estimates, exclusive of Mineral Reserves, are shown in Table 11-8. The point of reference for the Mineral Resources is the point of feed into the concentrator.

The subset of the Mineral Resource estimates that relates to the massive sulfide mineralization, exclusive of Mineral Reserves, is shown in Table 11-9.

The subset of the Mineral Resource estimates that relates to the ultramafic mineralization, exclusive of Mineral Reserves, is shown in Table 11-10. Reporting of contained nickel-equivalent metal is shown in Table 11-11. Only the portion of the total mineralization that is attributable to LZM's interest in the property and exclusive of Mineral Reserves is shown in Table 11-8 through Table 11-11.

The IA Mineral Resources were reported in June 2025, prior to the estimation of Mineral Reserves. The tables of Mineral Resources in the IA TRS are therefore the entire LZM-attributable Mineral Resources.

The Mineral Resource estimates have an effective date of December 4, 2024. Mineral Resource estimates have been reported in accordance with S-K 1300.

Table 11-8: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves, as at December 4, 2024

Mineral Resource Classification	LZM Tonnage ³ (Mt)	Grades (%)				Metallurgical Recovery (%)		
		NiEq24	Ni	Cu	Co	Ni	Cu	Co
MAIN – MSSX plus UMIN								
Measured	–	–	–	–	–	–	–	–
Indicated	6.7	1.25	0.94	0.17	0.09	66.5	82.5	69.0
Measured + Indicated	6.7	1.25	0.94	0.17	0.09	66.5	82.5	69.0
Inferred	–	–	–	–	–	–	–	–
MNB – MSSX plus UMIN								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	2.1	1.59	1.25	0.18	0.10	75.3	88.8	78.6
KIMA – MSSX plus UMIN								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	4.1	2.01	1.60	0.24	0.12	81.3	92.3	84.2
NORTH – MSSX plus UMIN								
Measured	3.5	1.67	1.33	0.17	0.10	75.2	85.7	77.5
Indicated	4.1	2.01	1.62	0.22	0.11	78.5	89.2	81.1
Measured + Indicated	7.6	1.85	1.48	0.19	0.11	77.2	87.8	79.5
Inferred	7.0	3.25	2.62	0.35	0.19	85.7	95.1	88.6
TEMBO – MSSX plus UMIN								
Measured	2.4	1.36	1.05	0.15	0.09	69.6	81.3	71.6
Indicated	1.7	1.53	1.19	0.17	0.10	73.3	84.2	75.8
Measured + Indicated	4.1	1.43	1.11	0.16	0.10	71.2	82.5	73.4
Inferred	0.3	2.49	2.01	0.23	0.15	84.2	90.3	87.0
MINERAL RESOURCE ALL ZONES – MSSX plus UMIN								
Measured	5.9	1.54	1.21	0.16	0.10	73.2	84.1	75.3
Indicated	12.4	1.54	1.20	0.19	0.10	72.7	85.2	74.5
Measured + Indicated	18.3	1.54	1.20	0.18	0.10	72.9	84.9	74.7
Inferred	13.5	2.59	2.08	0.28	0.15	83.7	93.7	86.5

Notes:

- Table 11-8 reports the Mineral Resources for the combined MSSX and UMIN mineralization types.
- Mineral Resources are reported exclusive of Mineral Reserves.
- Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
- Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
- NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480).
- The point of reference for Mineral Resources is the point of feed into a concentrator.
- All Mineral Resources in the 2024MRU were assessed for reasonable prospects for eventual economic extraction by reporting only material above cut-off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%.
- Totals may vary due to rounding.

**Table 11-9: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves
– MSSX Only (subset of Table 11-8) as at December 4, 2024**

Mineral Resource Classification	LZM Tonnage ³ (Mt)	Grades (%)				Metallurgical Recovery (%)		
		NiEq24	Ni	Cu	Co	Nickel	Copper	Cobalt
MAIN – MSSX Only								
Measured	–	–	–	–	–	–	–	–
Indicated	1.0	1.89	1.40	0.29	0.15	77.6	94.5	81.0
Measured + Indicated	1.0	1.89	1.40	0.29	0.15	77.6	94.5	81.0
Inferred	–	–	–	–	–	–	–	–
MNB – MSSX Only								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	1.4	1.90	1.49	0.21	0.13	79.1	92.2	82.5
KIMA – MSSX Only								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	3.1	2.31	1.84	0.28	0.13	84.1	94.4	87.3
NORTH – MSSX Only								
Measured	0.9	3.07	2.46	0.31	0.19	86.2	94.9	89.2
Indicated	1.5	3.55	2.87	0.38	0.20	86.2	95.6	89.2
Measured + Indicated	2.4	3.37	2.72	0.35	0.20	86.2	95.3	89.2
Inferred	6.5	3.39	2.74	0.36	0.20	86.2	95.4	89.2
TEMBO – MSSX Only								
Measured	0.3	2.66	2.09	0.27	0.18	86.2	94.2	89.2
Indicated	0.5	2.37	1.87	0.25	0.16	84.4	93.7	87.6
Measured + Indicated	0.7	2.48	1.95	0.26	0.16	85.1	93.9	88.2
Inferred	0.2	2.76	2.25	0.23	0.16	86.2	93.0	89.2
MINERAL RESOURCE ALL ZONES – MSSX Only								
Measured	1.2	2.98	2.38	0.30	0.19	86.2	94.7	89.2
Indicated	3.0	2.80	2.21	0.33	0.18	84.1	95.0	86.6
Measured + Indicated	4.2	2.85	2.26	0.32	0.18	84.7	94.9	87.4
Inferred	11.3	2.89	2.32	0.32	0.17	85.2	94.9	88.1

Notes:

- Table 11-9 reports the Mineral Resources for the MSSX mineralization only.
- Mineral Resources are reported exclusive of Mineral Reserves.
- Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
- Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
- NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480).
- The point of reference for Mineral Resources is the point of feed into a concentrator.
- All Mineral Resources in the 2024MRU were assessed for reasonable prospects for eventual economic extraction by reporting only material above cut-off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%.
- Totals may vary due to rounding.

**Table 11-10: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves
– UMIN Only (subset of Table 11-9) as at December 4, 2024**

Mineral Resource Classification	LZM Tonnage ³ (Mt)	Grades (%)				Metallurgical Recovery (%)		
		NiEq24	Ni	Cu	Co	Nickel	Copper	Cobalt
MAIN – UMIN Only								
Measured	–	–	–	–	–	–	–	–
Indicated	5.6	1.13	0.86	0.15	0.08	63.1	78.2	64.9
Measured + Indicated	5.6	1.13	0.86	0.15	0.08	63.1	78.2	64.9
Inferred	–	–	–	–	–	–	–	–
MNB – UMIN Only								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	0.7	0.99	0.78	0.11	0.06	61.1	77.0	62.5
KIMA – UMIN Only								
Measured	–	–	–	–	–	–	–	–
Indicated	–	–	–	–	–	–	–	–
Measured + Indicated	–	–	–	–	–	–	–	–
Inferred	1.0	1.09	0.85	0.12	0.07	63.1	77.1	64.8
NORTH – UMIN Only								
Measured	2.6	1.16	0.91	0.12	0.07	64.5	77.1	66.6
Indicated	2.5	1.10	0.88	0.12	0.06	63.6	77.1	65.5
Measured + Indicated	5.1	1.13	0.90	0.12	0.07	64.1	77.1	66.1
Inferred	0.4	1.01	0.80	0.10	0.06	61.6	76.3	63.1
TEMBO – UMIN Only								
Measured	2.1	1.18	0.91	0.13	0.08	64.4	77.7	66.4
Indicated	1.2	1.22	0.94	0.14	0.08	65.2	78.0	67.4
Measured + Indicated	3.3	1.20	0.92	0.14	0.08	64.7	77.8	66.8
Inferred	0.1	1.50	1.15	0.23	0.09	69.5	80.3	72.4
MINERAL RESOURCE ALL ZONES – UMIN Only								
Measured	4.7	1.17	0.91	0.13	0.08	64.5	77.4	66.5
Indicated	9.4	1.14	0.87	0.14	0.08	63.5	77.9	65.4
Measured + Indicated	14.1	1.15	0.89	0.14	0.08	63.9	77.8	65.8
Inferred	2.2	1.05	0.83	0.12	0.06	62.5	77.1	64.1

Notes:

1. Table 11-10 reports the Mineral Resources for the UMIN mineralization only.
2. Mineral Resources are reported exclusive of Mineral Reserves.
3. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
5. NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480).
6. The point of reference for Mineral Resources is the point of feed into a concentrator.
7. All Mineral Resources in the 2024MRU were assessed for reasonable prospects for eventual economic extraction by reporting only material above cut-off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%.
8. Totals may vary due to rounding.

**Table 11-11: Kabanga Mineral Resource Estimates, Exclusive of Mineral Reserves
– Showing Contained Metals as at December 4, 2024**

Mineral Resource Classification	LZM Tonnage ³ (Mt)	Grades (%)				Contained Metals (kt)			
		NiEq24	Ni	Cu	Co	Nickel Equiv.	Nickel	Copper	Cobalt
MSSX Only									
Measured	1.2	2.98	2.38	0.30	0.19	36	29	4	2
Indicated	3.0	2.80	2.21	0.33	0.18	84	66	10	5
Measured + Indicated	4.2	2.85	2.26	0.32	0.18	120	95	13	8
Inferred	11.3	2.89	2.32	0.32	0.17	327	263	36	19
UMIN Only									
Measured	4.7	1.17	0.91	0.13	0.08	55	43	6	4
Indicated	9.4	1.14	0.87	0.14	0.08	107	82	13	7
Measured + Indicated	14.1	1.15	0.89	0.14	0.08	162	125	19	11
Inferred	2.2	1.05	0.83	0.12	0.06	24	19	3	1
Total MINERAL RESOURCE – MSSX plus UMIN									
Measured	5.9	1.54	1.21	0.16	0.10	91	72	10	6
Indicated	12.4	1.54	1.20	0.19	0.10	191	148	23	12
Measured + Indicated	18.3	1.54	1.20	0.18	0.10	282	220	33	18
Inferred	13.5	2.59	2.08	0.28	0.15	351	281	39	21

Notes:

1. Table 11-11 reports the Mineral Resources for the MSSX and UMIN mineralization types.
2. Mineral Resources are reported exclusive of Mineral Reserves.
3. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Cut-off applies to NiEq24, which is derived using a nickel price of USD 9.50/lb, copper price of USD 4.50/lb, and cobalt price of USD 23.00/lb with allowances for recoveries, payability, deductions, transport, and royalties.
5. NiEq24 formulas are: MSSX NiEq24 = Ni + (Cu x 0.454) + (Co x 2.497) and UMIN NiEq24 = Ni + (Cu x 0.547) + (Co x 2.480).
6. The point of reference for Mineral Resources is the point of feed into a concentrator.
7. All Mineral Resources in the 2024MRU were assessed for reasonable prospects for eventual economic extraction by reporting only material above cut-off grades of: MSSX NiEq24 > 0.73% and UMIN NiEq24 > 0.77%.
8. Totals may vary due to rounding.

11.6.1 Comparison to Previous Mineral Resource Estimates – All Mineralization Types

The following comparison is undertaken on the entire Mineral Resource inclusive of Mineral Reserves to enable direct comparison to the November 2023 Mineral Resource estimates, which were not put through mine planning processes therefore did not convert to Mineral Reserves at that time.

The comparison relates to the LZM-attributable component of the Mineral Resource estimates.

Comparison of the previous Mineral Resource estimate (which was effective as at November 30, 2023) to the updated December 2024 Mineral Resource estimate shows an increase of 3.3 Mt (+7% relative) in Measured + Indicated (Table 11-12). The additional Measured + Indicated tonnage is associated with an increase in grade (+2% relative NiEq24%), making more metal available to the mine planning process (+9% NiEq24 metal) (Table 11-13).

There is a decrease of 6.2 Mt (–35%) in the Inferred category, (Table 11-12).

Upgrade of Measured and Indicated classification is evident, with an overall total (LZM-attributable) of 46.8 Mt of Measured + Indicated reported in December 2024, versus 43.6 Mt Measured + Indicated in the previous estimates (+7% tonnage increase).

These outcomes are the product of significant emphasis in the 2024 work on ‘tightening’ the interpretation throughout the entire Project area. This tightening has been achieved through:

- The development of a sedimentary host strata model. The host sedimentary stratigraphy comprises a reliably predictable sequence of known strata on a whole-Project scale that is very well supported by the drillhole logging database. The robust strata model helps to guide and control the interpreted extent and shape of the later intrusives.
- A full and comprehensive reinterpretation of the mineralization in all mineralized zones.
- Smaller subcelling along the boundaries of the mineralized units (MSSX and UMIN), forcing tighter constraint of the volumes within these domains (note: ‘UMIN’ is the domain field name in the cell model and drillhole files used to denote the presence or absence of UMIN mineralization (corresponds to UMAF_1a logging code in drillhole samples).
- Re-evaluation of classification considerations in light of the more robust geological and mineralogical interpretation.

Changes to the NiEq formulas and increases in the cut-off grades have slightly reduced the quantities that report through to all categories of Mineral Resource. The revised NiEq24 formulas and cut-off grades account for a loss of only 0.6% of the metal in Measured + Indicated, and 0.66% loss of NiEq24 metal overall.

Table 11-12: Kabanga Mineral Resource Estimates Comparison, Inclusive of Mineral Reserves – Tonnes and Grades

Mineral Resource Classification	LZM Tonnage ² (Mt)	Grades (%)			
		NiEq24	Ni	Cu	Co
December 2024 – MSSX plus UMIN					
Measured	19.1	2.48	1.95	0.26	0.16
Indicated	37.3	2.69	2.16	0.30	0.16
Measured + Indicated	56.4	2.62	2.09	0.29	0.16
Inferred	13.6	2.59	2.08	0.28	0.15
November 2023 – MSSX plus UMIN					
Measured	17.0	2.61	2.03	0.28	0.17
Indicated	35.6	2.55	2.02	0.28	0.15
Measured + Indicated	52.5	2.57	2.02	0.28	0.16
Inferred	21.1	2.79	2.23	0.31	0.16
ABSOLUTE DIFFERENCE (Dec'24 minus Nov'23)					
Measured	2.2	−0.14	−0.08	−0.02	−0.01
Indicated	1.7	0.14	0.14	0.02	0.01
Measured + Indicated	3.9	0.05	0.07	0.01	0.00
Inferred	−7.4	−0.20	−0.16	−0.03	0.00
RELATIVE DIFFERENCE (Dec'24 minus Nov'23)					
Measured	13%	−5%	−4%	−7%	−6%
Indicated	5%	5%	7%	7%	7%
Measured + Indicated	7%	2%	3%	4%	0%
Inferred	−35%	−7%	−7%	−10%	−6%

Notes:

1. Table 11-12 reports the Mineral Resources for the combined MSSX and UMIN mineralization types.
2. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
3. The Comparison is undertaken on the entire Mineral Resource inclusive of Mineral Reserves to enable direct comparison to the November 2023 estimates, which were not put through mine planning processes therefore did not convert to Mineral Reserves at that time.
4. Totals may vary due to rounding.

The key differences between the penultimate and the current Mineral Resource estimates are (a) the increase in Measured and Indicated tonnages in 2024, which is associated with an increase in grade, and (b) the reduction in Inferred Mineral Resource (tonnage and grade) in 2024. These outcomes are the product of significant emphasis on 'tightening' the interpretation throughout the entire Project area.

Table 11-13: Kabanga Mineral Resource Estimates Comparison, Inclusive of Mineral Reserves – Contained Metals

Mineral Resource Classification	LZM Tonnage ² (Mt)	Contained Metals (kt)			
		Nickel Equiv.	Nickel	Copper	Cobalt
December 2024 – MSSX plus UMIN					
Measured	19.1	474	374	50	31
Indicated	37.3	1,004	805	112	59
Measured + Indicated	56.4	1,479	1,180	162	89
Inferred	13.6	353	283	39	21
November 2023 – MSSX plus UMIN					
Measured	17.0	444	345	47	29
Indicated	35.6	907	717	100	54
Measured + Indicated	52.5	1,351	1,062	147	83
Inferred	21.1	589	471	65	33
ABSOLUTE DIFFERENCE (Dec'24 minus Nov'23)					
Measured	2.2	31	30	3	2
Indicated	1.7	97	88	12	5
Measured + Indicated	3.9	128	118	15	7
Inferred	−7.4	−236	−188	−26	−12
PERCENTAGE DIFFERENCE (Dec'24 minus Nov'23/ Nov'23)					
Measured	13%	7%	9%	6%	6%
Indicated	5%	11%	12%	12%	9%
Measured + Indicated	7%	9%	11%	10%	8%
Inferred	−35%	−40%	−40%	−41%	−37%

Notes:

1. Table 11-13 reports the Mineral Resources for the combined MSSX and UMIN mineralization types.
2. Mineral Resources are reported showing only the LZM-attributable tonnage portion, which is 84.0% of the total.
3. The Comparison is undertaken on the entire Mineral Resource inclusive of Mineral Reserves to enable direct comparison to the November 2023 estimates, which were not put through mine planning processes therefore did not convert to Mineral Reserves at that time.
4. Totals may vary due to rounding.

11.7 Mineral Resource Risks and Opportunities

11.7.1 Specific Identified Risks

Risk factors that could materially impact the Mineral Resource estimates and cost/revenue assumptions, and therefore the reporting cut-off grade include:

- Metal price and exchange rate assumptions.
- Changes in the interpretations of mineralization geometry and continuity of mineralized zones as additional information becomes available.
- Changes to geotechnical, mining, and metallurgical recovery assumptions.
- Changes to the assumptions related to the continued ability to access the site, retain mineral and surface right titles, maintain environment and other regulatory permits, and maintain the license to operate.

The classification of the estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. At present there are no known environmental, permitting, legal, title, taxation, socio-economic, marketing, or political issues that would adversely affect the Project Mineral Resource estimates presented in this FS TRS. However, Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability. There is no assurance that the Project will be successful in obtaining any or all of the requisite consents, permits or approvals, regulatory or otherwise, for the Project.

11.7.2 Mineral Resource Opportunities

In terms of discovery, the mineralization has not yet been closed off between the North and Tembo zones, and between the Tembo and Safari zones. There remains opportunity to identify extensions of the mineralization in these areas and at depth. Regional targets, including the Exploration Targets discussed in Section 7.6, also provide opportunities for potential additional mineralization.

11.8 QP Opinion

11.8.1 Opinion – Geology and Mineral Resources

The Mineral Resource estimates in the FS TRS are based on resource modeling completed in 2024. The QP has prepared the updated modeling and reviewed supplied data and considers the estimates to be acceptable.

Mineral Resource estimates in the FS TRS are reported in accordance with subpart 1300 of U.S. Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (S-K 1300).

The FS TRS Mineral Resource estimates are shown to meet reasonable prospects for eventual economic extraction through an IA prepared by DRA's QP. The IA has been prepared to demonstrate reasonable prospects of economic extraction, not the economic viability of the Mineral Resource estimates. The IA is preliminary in nature, it includes Inferred Mineral Resources that are considered too speculative geologically to have modifying factors applied to them that would enable them to be categorized as Mineral Reserves, and there is no certainty that this economic assessment will be realized.

11.8.2 QP Opinion – Other

A variety of factors may affect the Mineral Resource estimate, including, but not limited to: changes in nickel price assumptions; re-interpretation of the geology; geometry and continuity of mineralized zones; updates to mining and metallurgical recovery factors; and results from future infill or step-out drilling campaigns. The cut-off grades used remain valid and no changes are required to the 2024 Mineral Resource estimate.

It is the opinion of DRA, as the QP for the Project, that all material technical and economic factors that could reasonably be expected to affect the prospect of economic extraction have been identified, and that any outstanding matters can be addressed through additional technical work during subsequent study phases.

12 MINERAL RESERVE ESTIMATES

12.1 Introduction

The Mineral Reserve estimate was completed by the LZM technical department. The QP reviewed the assumptions, parameters, and methods used to prepare the Mineral Reserve statement and is of the opinion that the Mineral Reserve is estimated and prepared in accordance with the U.S. Securities and Exchange Commission (US SEC) Regulation S-K subpart 1300 rules for Property Disclosures for Mining Registrants (S-K 1300).

12.2 Cut-Off Value Calculation

The Kabanga Nickel Project Feasibility Study (FS) analyzes a production case with a throughput of 3.4 Mtpa, involving three underground mines (Main, North, and Tembo), a concentrator (processing facility), and associated infrastructure located at Kabanga.

The associated capital and operating costs, which were developed specifically for the FS, are categorized into pre-production capital, sustaining capital, operating costs and closure costs. The majority of the costs are based on tenders, quotations and first-principles estimates.

The Mineral Reserve has been developed based on the mine plan prepared for the FS and informed by the December 2024 Mineral Resource Update (2024MRU). The mining method will be longhole stoping with paste backfill.

12.2.1 NSR Cut-Off Value Calculations per Mining Area

Economic cut-offs were calculated for the Mineral Reserve on the basis of NSR. The cut-off values for the MSSX and UMIN material were calculated separately and included estimates of the operating and sustaining costs for mining, processing (concentrator), and general and administration (G&A).

The NSR break-even cut-off value was determined for MSSX and UMIN as USD 75.57/t feed and USD 76.89/t feed, respectively. Table 12-1 shows the input parameters used to calculate the NSR cut-offs.

Table 12-1: NSR Calculation Assumptions

Parameter	Unit	Value	
Revenue			
Nickel Price	USD/lb	8.50	
Copper Price	USD/lb	4.24	
Cobalt Price	USD/lb	18.34	
Concentrate Payabilities	%	as per market analysis, including discussions with offtakers	
Concentrator Recovery	%	Formula	
Transport	USD/t conc. (wet)	209.75	
Royalties	%	7.30	
Costs		MSSX	UMIN
Mining	USD/t	52.18	52.18
Processing	USD/t	10.38	11.69
G&A	USD/t	8.18	8.18
Tailings Storage Facility	USD/t	2.21	2.21
Surface Infrastructure	USD/t	1.60	1.60
Total Costs	USD/t	75.57	76.89
Cut-Off		MSSX	UMIN
NSR	USD/t	75.57	76.89

Cut-off optimization study work in 2025 demonstrated that higher cut-off grades/values can improve the project economics. For the Mineral Reserve, the NSR cut-offs selected for each zone were USD 170/t at North Upper, USD 100/t at North Lower and Tembo, and USD 85/t at Main. Applying the higher cut-offs has increased the ore head grade, reduced the payback period, and increased the Project net present value (NPV).

An economic cut-off grade of 0.5% NiEq grade was applied to all lateral operating development in the mine plan.

The NSR cut-off values applied to the various mining blocks are shown in Figure 12-1.

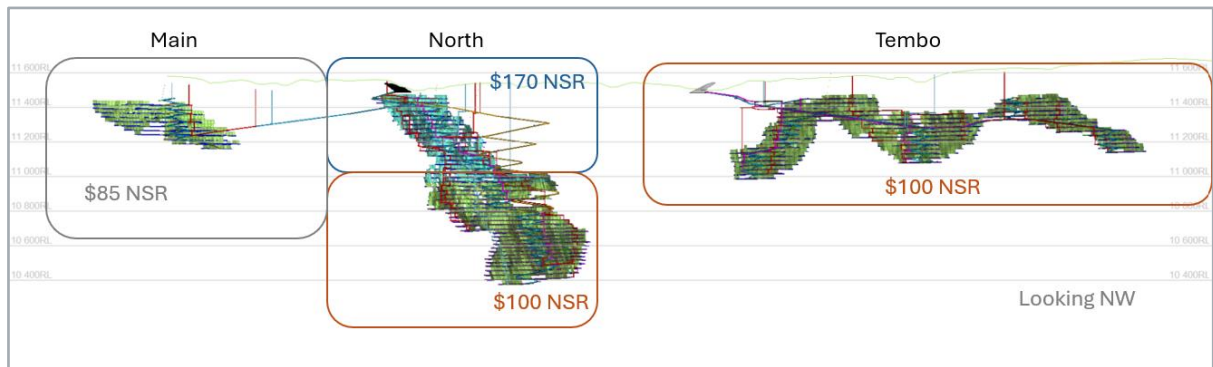


Figure 12-1: Projected Long-section showing NSR Cut-Off per Mining Area

Metal prices were selected after consideration of the pricing information described in Section 16, which includes a description of the time frame used for the selection of the price and the reasons for selection of such a time frame. The metal prices selected are representative of the range of price estimates publicly reported for Mineral Reserve cut-offs.

12.3 Modifying Factors

The modifying factors that have been used to convert Mineral Resources to Mineral Reserves are listed below.

12.3.1 Mining Dilution

12.3.1.1 Planned Mining Dilution

Stope designs were generated using the stope optimization module. The automated stope shapes generated are simplistic and can include material from outside the mineralization wireframes that has no grade in the resource model. For the purposes of the FS, this material is termed 'planned dilution' and comprises 16.1% of the mining inventory.

As geological confidence increases with further mine-definition drilling and tunnel development during mining operations, a greater resolution can be applied in the stope design process to reduce the amount of planned dilution in the stope designs.

12.3.1.2 Unplanned Mining Dilution

Stopes will experience varying degrees of overbreak during mining activities for several reasons, including drill and blast damage, presence of rock defects, pastefill overbreak, hanging wall (HW) dips and spans. For the FS, this overbreak is termed "unplanned dilution". A dilution factor has been applied to each stope design separately in the mining inventory to account for unplanned dilution. The unplanned dilution estimate for each stope has been developed based on the stope width and HW dip.

Due to the geometrical uniformity of Tembo Zone, all the stopes were assigned an unplanned dilution factor of 10.0%. Table 12-2 summarizes the unplanned dilution factors applied to the North and Main stopes in Deswik based on dip and width.

In summary, the unplanned dilution (tonnage) at each mine is estimated at 9.3% for North, 10.0% for Tembo, and 11.4% for Main.

Table 12-2: Unplanned Dilution Factors Applied to the North and Main Stopes

Stope Geometry	Stope Dilution (%) per Stope Width (m)				
	0–8 m	8–12.5 m	12.5–17 m	17–21 m	21+ m
North and Main					
Hanging wall Dip 60°+	13%	9%	8%	6%	6%
Hanging wall Dip 45°-60°	18%	13%	10%	8%	7%
Hanging wall Dip 30°-45°	27%	19%	14%	12%	10%

Unplanned dilution is factored into the lateral tunnel development designs to account for drill and blast overbreak, areas of poor ground, etc. An additional 0.2 m is applied to the drive width (W) and 0.2 m in height (H) in the design. For example, a 5.0 m W × 5.0 m H drive, as reported, will have a digitized design in the mine planning software of 5.2 m W × 5.2 m H. Using this approach, the dilution is assigned a grade from the resource model interrogation process.

12.3.2 Mining Recovery

A mining recovery factor has been applied to the mine design as follows:

- For all the development activities, a mining recovery of 100% has been applied.
- For all the stopes, a mining recovery of 90% has been applied to account for the following:
 - Blasted ore that cannot be accessed by the loader.
 - Unbroken ore after blasting (bridges).
 - Human error in ore categorization and materials handling.

12.3.3 Production Schedule Tail Cutting

The last two years of production were removed from the production schedule (uneconomic tail) and resulted in a net loss of 389 kt of ore from the mining inventory.

12.4 Mineral Reserve Classification

Measured Mineral Resources were converted to Proven Mineral Reserves, and Indicated Mineral Resources were converted to Probable Mineral Reserves. The Inferred Mineral Resources were treated as waste and were not converted to Mineral Reserves. However, the Inferred Mineral Resources that intersected with the stopes or development are included in the Mineral Reserves as internal waste dilution with zero grade to the stopes or development.

Mineral Resource classifications, like metal grades, are assigned to all the stope and development section designs in the mine plan during the Mineral Resource model interrogation process.

A portion of the mining inventory (stope and development design sections) comprises material with multiple resource classifications (e.g. Measured and Indicated). For the purposes of reporting Mineral Reserves, the dominant resource classification has been determined and assigned to each stope and development design section. Therefore, a stope with 60% Measured and 40% Indicated material would be assigned a 100% Measured classification. Similarly, a stope with 40% Measured and 60% Indicated material would be assigned a 100% Indicated classification.

Unclassified planned dilution (with zero grade) in the design shape (for stopes) would also be assigned the dominant resource classification (e.g. Indicated) and thus be included in the Mineral Reserves, increasing the ore tonnes and reducing the head grade. If this approach had not been taken, the Mineral Reserve (Proven and Probable) grades would be reported substantially higher than the grades that are planned to be mined.

This approach generates a more realistic account of the grade and tonnage of the material planned to be mined and can be used to inform the reported Project economics in the FS.

A total Inferred Mineral Resource inventory of 18.3 kt at 0.97% NiEq (0.79% Ni) are included in the mining inventory, mainly due to planned development tonnes that will report to the concentrator. The grade of this material was zeroed for the purposes of inclusion in the mine plan and hence the Project's financial evaluation. The 18.3 kt of Inferred classified material (representing 0.035% of total tonnes

mined) was omitted from the Mineral Reserve statement due to its Inferred classification. This explains the 18.3 kt difference between the stated Mineral Reserve and the mined tonnage in the financial model.

Mineral Resource classifications that were applied in the mine design process for the Mineral Reserve classification are shown in Figure 12-2.

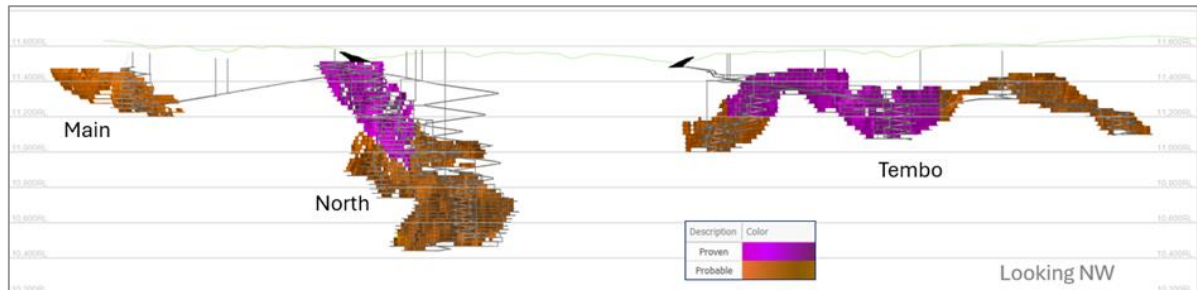


Figure 12-2: Projected Long-section showing Mineral Reserve Classifications

12.5 Mineral Reserve Estimate

The Mineral Reserve estimate was completed by the LZM technical department. The QP has reviewed and accepted this information for use in the FS TRS. The QP has reviewed the assumptions, parameters, and methods used to prepare the Mineral Reserve statement and is of the opinion that the Mineral Reserve has been prepared in accordance with S-K 1300.

The Mineral Reserve estimate is shown in Table 12-3, presented on an LZM-attributable share 84.0% basis, including tonnage, grades, contained metal, and metallurgical recoveries, broken down by mine. The Mineral Reserve estimate shown in Table 12-4, presented on an LZM-attributable share basis but only reflecting MSSX by mine. Table 12-5. The reference point at which the Mineral Reserve is identified is where ore is delivered to the processing plant (i.e., mill feed).

The QP is unaware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that may materially affect the Mineral Reserve estimate. However, the Mineral Reserve may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource and Mineral Reserve estimates. The Mineral Reserve may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors. The effective date of the Mineral Reserve is July 18, 2025.

Table 12-3 shows the summary of the LZM-attributable share (84.0%) of the Project Mineral Reserve, split by Mine. Table 12-4 shows the summary of the LZM-attributable share (84.0%) of the Project Mineral Reserve – MSSX only, split by Mine. Table 12-5 shows the summary of the LZM-attributable share (84.0%) of the Project Mineral Reserve – UMIN only, split by Mine. Table 12-6 shows the summary of the LZM-attributable share (84.0%) of the Mineral Reserve estimate – UMIN only, split by Mine. Table 12-6 shows the summary of the Project Mineral Reserve, on a 100% basis and LZM-attributable share (84.0%), split by ore type.

Table 12-3: Project Mineral Reserve Estimate by Mine, as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – MSSX plus UMIN										
Proven	6.4	2.10	0.28	0.16	135	18	11	88.9	96.7	91.3
Probable	0.9	2.03	0.27	0.14	17	2	1	89.0	96.6	91.4
Proven + Probable	7.3	2.09	0.28	0.16	152	20	12	88.9	96.7	91.3
North Lower – MSSX plus UMIN										
Proven	0.3	1.66	0.21	0.12	6	1	0	82.1	89.5	84.8
Probable	18.0	2.42	0.33	0.16	435	58	30	89.0	97.5	91.4
Proven + Probable	18.3	2.41	0.32	0.16	441	59	30	88.9	97.4	91.3
Tembo – MSSX plus UMIN										
Proven	8.1	1.64	0.23	0.14	133	18	11	83.8	93.5	86.5
Probable	5.7	1.50	0.20	0.12	86	12	7	81.5	92.1	84.3
Proven + Probable	13.8	1.58	0.22	0.13	219	30	18	82.9	93.0	85.6
Main – MSSX plus UMIN										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	4.4	1.25	0.18	0.09	55	8	4	77.3	90.6	79.7
Proven + Probable	4.4	1.25	0.18	0.09	55	7	4	77.3	90.6	79.7
Total – MSSX plus UMIN										
Proven	14.9	1.84	0.25	0.15	273	37	22	87.0	94.9	89.4
Probable	29.0	2.05	0.28	0.14	594	81	42	87.5	96.0	89.7
Proven + Probable	43.9	1.98	0.27	0.15	868	118	64	87.3	95.6	89.6

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total Project Mineral Reserves.
4. Mineral Reserve cut-offs grades are based on a USD 8.50/lb nickel price, USD 4.24/lb copper price and USD 18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated NSR cut-off values were selected for each mine namely, USD 170/t at North (upper), USD 100/t at North (lower) and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. The Ni, Cu, and Co recovery estimates for the respective MSSX and UMIN categories have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade. The total combined recovery for the blend (MSSX+UMIN) reflects the outputs of the same recovery formula applied to the FS mine and processing schedule.

Table 12-4: Project Mineral Reserve Estimate by Mine – MSSX only, as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage ³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – MSSX Only										
Proven	6.2	2.12	0.28	0.16	131	17	10	89.3	97.1	91.7
Probable	0.8	2.04	0.28	0.15	17	2	1	89.3	97.0	91.7
Proven + Probable	7.0	2.11	0.28	0.16	148	20	11	89.3	97.1	91.7
North Lower – MSSX Only										
Proven	0.2	1.86	0.24	0.13	3	0	0	87.6	96.2	90.1
Probable	17.3	2.46	0.33	0.17	426	57	29	89.3	97.9	91.7
Proven + Probable	17.5	2.45	0.33	0.17	429	58	29	89.3	97.9	91.6
Tembo – MSSX Only										
Proven	6.3	1.72	0.24	0.15	108	15	9	85.6	96.1	88.3
Probable	4.2	1.56	0.21	0.13	66	9	5	83.1	95.2	85.9
Proven + Probable	10.5	1.66	0.23	0.14	174	24	15	84.7	95.7	87.4
Main – MSSX Only										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	3.1	1.35	0.19	0.10	42	6	3	79.8	94.0	82.6
Proven + Probable	3.1	1.35	0.19	0.10	42	6	3	79.8	94.0	82.6
Total – MSSX Only										
Proven	12.6	1.92	0.26	0.16	242	33	20	88.3	96.6	90.8
Probable	25.5	2.16	0.29	0.15	551	75	39	88.5	97.1	90.9
Proven + Probable	38.1	2.08	0.28	0.15	793	107	58	88.5	97.0	90.8

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-offs grades are based on a USD 8.50/lb nickel price, USD 4.24/lb copper price and USD 18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated NSR cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North Lower and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for MSSX have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade.

Table 12-5: Project Mineral Reserve Estimate by Mine – UMIN only, as at July 18, 2025

Mineral Reserve Classification	LZM Tonnage ³ (Mt)	Grades (%)			Contained Metals (kt)			Metallurgical Recovery (%)		
		Ni	Cu	Co	Ni	Cu	Co	Ni	Cu	Co
North Upper – UMIN Only										
Proven	0.2	1.65	0.22	0.13	4	0	0	76.1	82.6	78.8
Probable	0.0	1.80	0.25	0.12	0	0	0	76.1	82.6	78.8
Proven + Probable	0.2	1.67	0.22	0.13	4	1	0	76.1	82.6	78.8
North Lower – UMIN Only										
Proven	0.2	1.48	0.18	0.10	3	0	0	76.1	81.6	78.8
Probable	0.6	1.41	0.19	0.09	9	1	1	76.1	82.1	78.8
Proven + Probable	0.8	1.43	0.19	0.09	12	2	1	76.1	82.0	78.8
Tembo – UMIN Only										
Proven	1.8	1.36	0.18	0.12	25	3	2	76.1	81.7	78.8
Probable	1.5	1.36	0.18	0.11	20	3	2	76.1	81.6	78.8
Proven + Probable	3.3	1.36	0.18	0.12	45	6	4	76.1	81.7	78.8
Main – UMIN Only										
Proven	-	-	-	-	-	-	-	-	-	-
Probable	1.3	1.01	0.16	0.08	13	2	1	69.3	80.9	71.3
Proven + Probable	1.3	1.01	0.16	0.08	13	2	1	69.3	80.9	71.3
Total – UMIN Only										
Proven	2.2	1.40	0.18	0.12	31	4	3	76.3	81.7	79.2
Probable	3.5	1.24	0.17	0.10	43	6	3	74.2	81.4	76.7
Proven + Probable	5.7	1.30	0.18	0.11	74	10	6	75.1	81.5	77.8

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-offs grades are based on a USD8.50/lb nickel price, USD4.24/lb copper price and USD18.34/lb cobalt price; the overall average nickel, copper and cobalt metallurgical recoveries are 81%, 89%, and 84%, respectively.
5. Elevated NSR cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North Lower and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for metallurgical recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for UMIN have been calculated using the metallurgical recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade.

Table 12-6: Project Mineral Reserve Estimate with Tonnage on a 100% and LZM-attributable Basis (84.0%), as at July 18, 2025

Mineral Reserve Classification	Tonnage (Mt)		Grades (%)			Metallurgical Recovery (%)		
	100% Basis	LZM-attributable	Ni	Cu	Co	Ni	Cu	Co
MSSX Only								
Proven	15.1	12.6	1.92	0.26	0.16	88.3	96.6	90.8
Probable	30.4	25.5	2.16	0.29	0.15	89.3	97.3	91.7
Proven + Probable	45.4	38.1	2.08	0.28	0.15	89.0	97.1	91.3
UMIN Only								
Proven	2.7	2.2	1.40	0.18	0.12	76.1	81.7	78.8
Probable	4.2	3.5	1.24	0.17	0.10	74.0	81.3	76.5
Proven + Probable	6.8	5.7	1.30	0.18	0.11	74.9	81.5	77.5
Total – MSSX plus UMIN								
Proven	17.7	14.9	1.84	0.25	0.15	86.4	94.9	88.9
Probable	34.5	29.0	2.05	0.28	0.14	87.7	96.0	90.0
Proven + Probable	52.2	43.9	1.98	0.27	0.15	87.3	95.6	89.6

Notes:

1. The effective date of the Mineral Reserves is July 18, 2025.
2. Mineral Reserves are reported based on the December 2024 Mineral Resource model.
3. Mineral Reserves are reported showing 100% of the total and the LZM-attributable tonnage portion, which is 84.0% of the total.
4. Mineral Reserve cut-off grades are based on a USD 8.50/lb nickel price, USD 4.24/lb copper price and USD 18.34/lb cobalt price; the overall average nickel, copper and cobalt recoveries are 81%, 89% and 84%, respectively.
5. Elevated NSR cut-off values were selected for each mine, namely, USD 170/t at North (upper), USD 100/t at North Lower and Tembo, and USD 85/t at Main.
6. All the cut-off values include allowances for processing recoveries, payability, deductions, transport and royalties.
7. An economic analysis has been conducted using a long-term nickel price of USD 8.49/lb, copper price of USD 4.30/lb and cobalt price of USD 18.31/lb.
8. The point of reference for the Mineral Reserves is the point of feed into the processing facility.
9. Totals may vary due to rounding.
10. Ni, Cu, and Co recovery estimates for the respective MSSX and UMIN categories have been calculated using the processing recovery algorithm formulas detailed in Section 10 (Table 10-12 and Table 10-13) and the combined Proven and Probable recovery for each reflects the weighted average recovery based on the tonnage and grade. The total combined recovery for the blend (MSSX+UMIN) reflects the outputs of the same recovery formula applied to the FS mine and processing schedule.

The following factors could materially affect the Mineral Reserves:

- Environmental, permitting, social and community – The Project is subject to the laws and regulations of Tanzania, and there are several local communities near the mine. To operate the mine, LZM must maintain appropriate relations with all the authorities and stakeholders. Social, community and government relations are managed by LZM and include programs and engagement with the local communities and local and national governments.
- Concentrate export permit approval – With the phased development plan for the Project an export permit from the Tanzania Mining Commission is required to be obtained for future concentrate production and export until a potential future beneficiation facility is commissioned and can meet the Project full production.
- Metal price impacts – Nickel is the primary revenue element, with copper and cobalt being the secondary revenue elements. The ore is mined at an elevated cut-off grade, which serves to mitigate the risks from periods of lower metal prices.
- Health and safety impacts – LZM will need to maintain best practice systems and procedures to operate the Project efficiently and mitigate risks to health and safety. This will mean continuously modifying and adapting the systems and procedures to suit the conditions at the time.
- Mining impacts – LZM will need to manage changes in the Mineral Resource, geotechnical and mining assumptions and continuity of mineralized zones as additional information becomes available.

- Processing impacts – LZM will need to manage changes in metallurgical recovery assumptions for the Concentrator.

12.5.1 Mineral Resource to Mineral Reserve Conversion

The key steps to convert the total Project Mineral Resources to Mineral Reserves are summarized as follows:

- Produce resource model and Mineral Resource estimate.
- Generate in situ economic stoping inventory.
- Create in situ mine design based on optimized cut-off grade.
- Apply mining dilution and recovery factors.
- Apply production schedule tail cutting.
- Complete Mineral Reserve conversion (including removal of any Inferred classification grades).

This FS is based on the Project Mineral Resource from December 2024, which featured a total Measured plus Indicated inventory of 67.2 Mt at a 2.09% Ni grade on a 100% Project basis.

Stope designs were then generated using Deswik Stope Optimizer. The cut-off grade applied to generate the original economic stoping inventory was based on the break-even NSR value of USD 77/t (approximately 0.9% NiEq). The mining inventory created from this process is summarized as in situ material, thus excluding dilution and recovery factors. The Project in situ mining inventory above a USD 77/t cut-off was estimated at 57.9 Mt at 2.07% Ni.

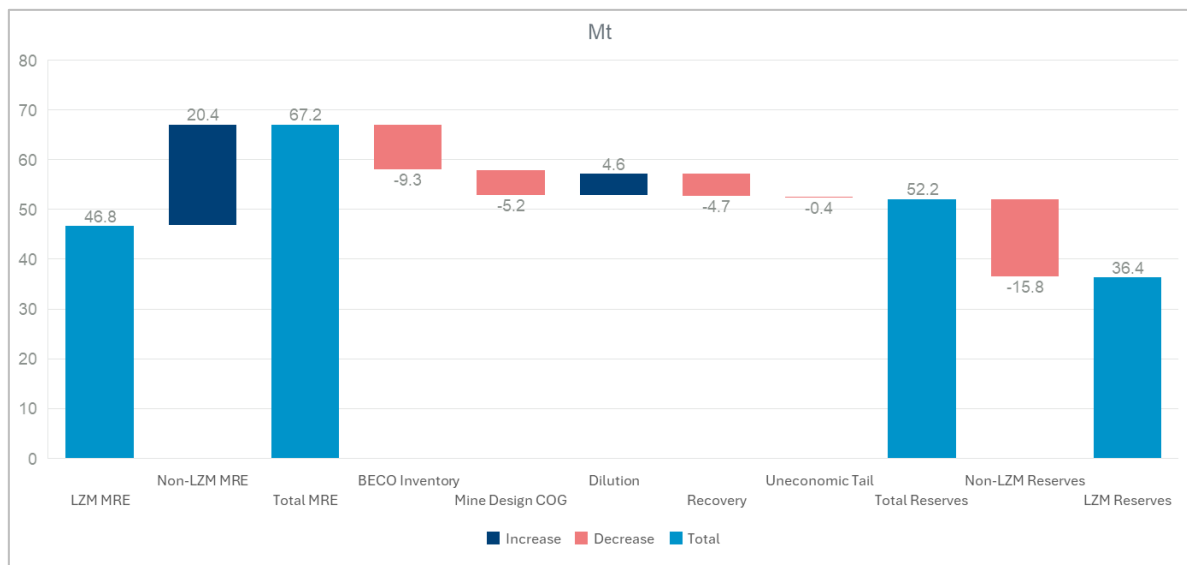
A mine design was completed using the above mining inventory and included the engineering for all the mine access development, mine ventilation infrastructure, materials haulage systems, etc. During this process, a cut-off grade optimization study was undertaken, leading to increases in the selected cut-offs for the Project. Based on the mine design and increased cut-offs, but without applying dilution and recovery factors, the Project mining inventory was 52.7 Mt at 2.20% Ni.

Applying modifying factors for mining dilution and mining recovery then generated the mining inventory informing the Project Mineral Reserve. The unplanned mining dilution was 4.6 Mt and reduced the head grade by 0.23%. A mining recovery of 90% was applied to the stopes, reducing the mining inventory by 4.7 Mt.

Production schedule tail cutting resulted in a net loss of 389 kt ore from the mining inventory.

As described in Section 12.4, each stope and tunnel development section in the design is assigned the dominant resource classification to better account for the planned dilution (unclassified) material.

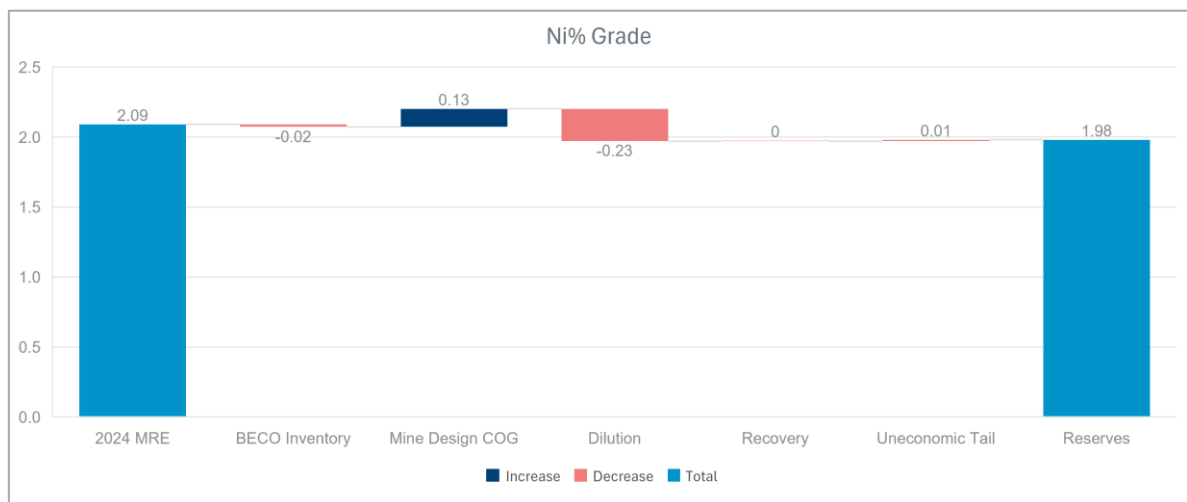
Figure 12-3 shows the conversion of tonnage from the Mineral Resources to the Mineral Reserves.



Notes: BECO = Break-even Cut-off; COG = Cut-off Grade.

Figure 12-3: Total Project Mineral Resource to Mineral Reserve Tonnage Waterfall Graph

Figure 12-4 shows the influence of the modifying factors on the nickel grade in the Mineral Resource to the Mineral Reserve conversion process.



Notes: BECO = Break-even Cut-off; COG = Cut-off Grade.

Figure 12-4: Total Project Mineral Resource to Mineral Reserve Nickel Grade Waterfall Graph

12.6 Comparison with Previous Estimates

There have been no previous Mineral Reserve estimates for the Project.

12.7 QP Opinion

It is the opinion of DRA, responsible and acting as the QP for the Mineral Reserve, that the Mineral Reserve has been estimated using industry best practice, and in accordance with S-K 1300 guidelines. No material risks were identified that would affect the Mineral Reserve and the QP is unaware of any mining, metallurgical, infrastructure, or other factors that might materially affect the Mineral Reserve, aside from those mentioned in this section.

The Mineral Reserve estimates have been shown to meet reasonable prospects for economic extraction through a detailed mine plan prepared by LZM.

13 MINING

13.1 Summary

The Feasibility Study (FS) mine plan has been prepared using the 2024MRU. The total planned production for the FS case is 52 Mt at 1.98% Ni, 0.27% Cu, and 0.15% Co. The Mineral Reserve produces from the North, Tembo, and Main zones. The relative locations of the zones are shown in Figure 13-1. The mining method for all mines is longhole stoping with paste backfill. The mine plan reflects four years of construction and ramp-up, with steady-state production at 3.4 Mtpa achieved in Year 4. This production rate continues to Year 15, after which there is a three-year ramp-down period.

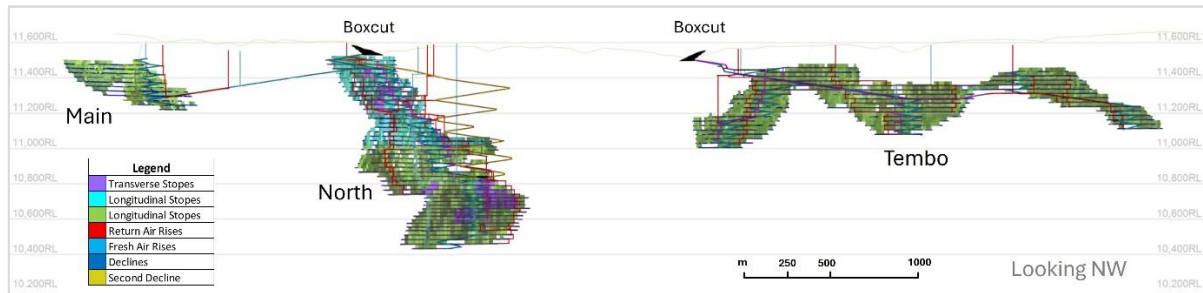


Figure 13-1: Long-section of the FS Mine Design

North and Tembo are accessed from declines at the surface. North Mine includes a second decline for the majority of the depth of the mineralization; lower North Zone is accessed by a single decline only. This second decline assists in traffic management by allowing one-way travel from the surface and back. Main Mine is accessed via a decline from North and is mined in the later years of the mine life. The ore production and proportions of the mining tonnages by zone, from each mine, are shown in Table 13-1.

Table 13-1: Ore Mined by Zone

Zone	Ore Mined (Mt)	Ore Proportion (%)	Ni (%)	Cu (%)	Co (%)
North	30.5	58%	2.32	0.31	0.16
Tembo	16.5	32%	1.58	0.22	0.13
Main	5.3	10%	1.25	0.18	0.09
Total	52.2	100%	1.98	0.27	0.15

13.2 Mine Geotechnical

MineGeoTech (MGT) completed the geotechnical component of the FS for the Project, focusing on the Main, North, and Tembo mining areas. The study incorporated geotechnical data from both historical and recent diamond drilling campaigns. A targeted data collection program was implemented to validate historical datasets and ensure adequate coverage of critical infrastructure zones.

The collected data supported the following key areas of analysis:

- Structural environment definition
- Geotechnical design domain characterization
- In situ stress environment
- Rock mass quality assessments

Using the data collected, geotechnical analyses informed the determination of:

- Ground support requirements
- Maximum unsupported stope spans
- Paste fill strength parameters

- Vertical development design
- Suitability of the global extraction sequence

13.2.1 RMR89 Geotechnical Data

All drillholes during the 2022 and 2023 program were overseen by on-site contractors Pejuni, who were engaged by TNCL to manage drill rig contractors and undertake geotechnical logging of the drill core.

Pejuni used the client's RMR89 (Bieniawski 1989) log sheet template with additional columns requested by MGT to close data gaps that were identified from the review of the historical RMR89 dataset (MineGeoTech, 2025). The additional columns included main stratigraphic unit, structure type and joint infill thickness. MGT specified that the logging interval of consistency could range between 0.3 m and 3 m governed by lithology, material strength, and fracture frequency.

These logged gaps were used to verify assumptions made to convert the historical RMR89 database into Q-system (NGI, 2015) classification parameters. Table 13-2 summarizes the total number of holes and rock mass quality meters per zone from the historical RMR (rock mass rating) dataset.

Table 13-2: Summary of Filtered Historical Rock Mass Rating Datasets

Zone	Number of Holes	Total Rock Mass Quality Data (m)
North	424	48,850
Tembo	364	66,031
Main	56	13,466

13.2.2 Ground Support

The development drive dimensions used in the FS mine plan were evaluated using empirical, kinematic, and numerical modeling methods to inform ground support design. Empirical analysis considered rock mass quality, while kinematic modeling determined bolt length and spacing requirements down to approximately 600 m below surface (mBS). At greater depths, where stress effects become more significant, numerical modeling was used to refine support requirements.

Based on these analyses, ground support schemes were developed for varying drive profiles and divided into four depth-based domains to reflect changes in weathering and stress conditions as the mine depth increases.

The recommended support elements are summarized in Table 13-3, with detailed schemes outlined for the typical decline profile in Table 13-4 and or drive development in Table 13-5.

Table 13-3: Details of Ground Support Scheme Elements Used

Ground Support Scheme Element	Description
Weld Mesh	Australian standard - 5.6 mm diameter galvanized weld mesh – 100 * 100 mm, 2.4 mW *4.5 mL
Fibercrete	Australian standard - fiber-reinforced, 50 mm thick
Friction Stabilizer (FS)	47 mm diameter Friction Stabilizer (Spilt Set) - length as indicated. Standard accessories: 300 * 280 mm Combi domed plate
Solid Rebar Resin Bolt (SRR)	Length as indicated. Standard accessories: Resin cartridge Med/Slow set resin with 300 * 280 mm Combi domed plate
Friction Stabilizer - Stubby	39 mm diameter, 0.9 m Friction Stabilizer (Stubby). Standard accessories – 150 * 150 mm domed plate - for insert into 47 mm FS as required
Friction Stabilizer - Chubby	47 mm diameter, 0.9 m Friction Stabilizer (Chubby). Standard Accessories: 300 * 280 mm Combi domed plate - for pinning mesh as required
Cable - Production Drives	17.8 mm Single Plain Strand Cable - 6.3 m long. Standard Accessories: 300 * 300 * 12 mm plate, barrel and wedge
Cable - Intersections	15.2 mm Twin-Strand, Bulbed Cable - 6.3 m long. Standard Accessories: 300 * 300 * 12 mm plate, barrel and wedge for both strands.

Table 13-4: Ground Support Scheme for Decline (5.5 mW x 5.8 mH)

Depth (mBS)		Weathering	Surface	Reinforcement Type	Length (m)	Wall Coverage	No. bolts per row	Bolt Pattern (m) (in plane * row spacing)	GSS Pattern
From	To								
Surface	100	Transitional and Fresh	1) Fibercrete in weathered rock 2) Weld mesh in fresh rock	SRR	2	to 1.5–2 m off floor	13	1.1 x 1.2	GS1 GS1.1
100	350	Fresh	Weld mesh	FS	2	to 1.5–2 m off floor	13	1.1 x 1.2	GS2
350	600	Fresh	Weld mesh	FS	2	to 1.5– 2 m off floor	13	1.1 x 1.05	GS3
600	1,350	Fresh	Fiber reinforced shotcrete +Weld mesh	SRR	2	to 1.5 to 2 m off floor	13	1.1 x 1.05	GS4

Notes: GSS: Ground Support Scheme, FS: Friction Stabilizer, SRR: Solid Rebar Resin Bolt.

Table 13-5: Ground Support Scheme for Ore Drives (5.0 mW x 5.0 mH)

Depth (mBS)		Weathering	Surface	Reinforcement Type	Length (m)	Wall Coverage	No. bolts per row	Bolt Pattern (m) (in plane * row spacing)	GSS Pattern
From	To								
Surface	100	Transitional and Fresh	1) Fibercrete in weathered rock 2) Weld mesh in fresh rock	SRR	2	to 1.5–2 m off floor	11	1.1 x 1.2	GS1
100	350	Fresh	Weld mesh	FS	2	to 2 m off floor	11	1.1 x 1.2	GS2
350	600	Fresh	Weld mesh	FS	2	to 2 m off floor	11	1.1 x 1.05	GS3
600	1,350	Fresh	Fiber reinforced shotcrete +Weld mesh	SRR	2	to 1.5 m off floor	11	1.1 x 1.05	GS4.1
				Plain strand cable 17.8 mm with 300 mm plate	6	backs	4	~1.5 x 2	

Notes: GSS: Ground Support Scheme, FS: Friction Stabilizer, SRR: Solid Rebar Resin Bolt.

13.2.3 Stress Environment

The in-situ stress environment at Kabanga was examined through two approaches. An initial desktop study was conducted to support early geotechnical analysis for mine planning, and the second approach includes Acoustic Emission (AE) stress measurements on core samples (Windsor et al., 2010). The main geotechnical analysis is based on the AE stress measurements on core samples, which were carried out by the Western Australian School of Mines (WASM) at Curtin University. These samples, comprising three samples for Tembo Mine and three sample for North Mine were sent to the WASM laboratory in Kalgoorlie, Western Australia. Of the six samples collected, four were tested (three from Tembo and one from North) after laboratory QA/QC assessment for testing compliance.

Reviewing these results against the WASM dataset (Figure 13 2) indicates that the Kabanga stress environment is lower than many other mines and is appropriate for mines near the Great Rift valley.

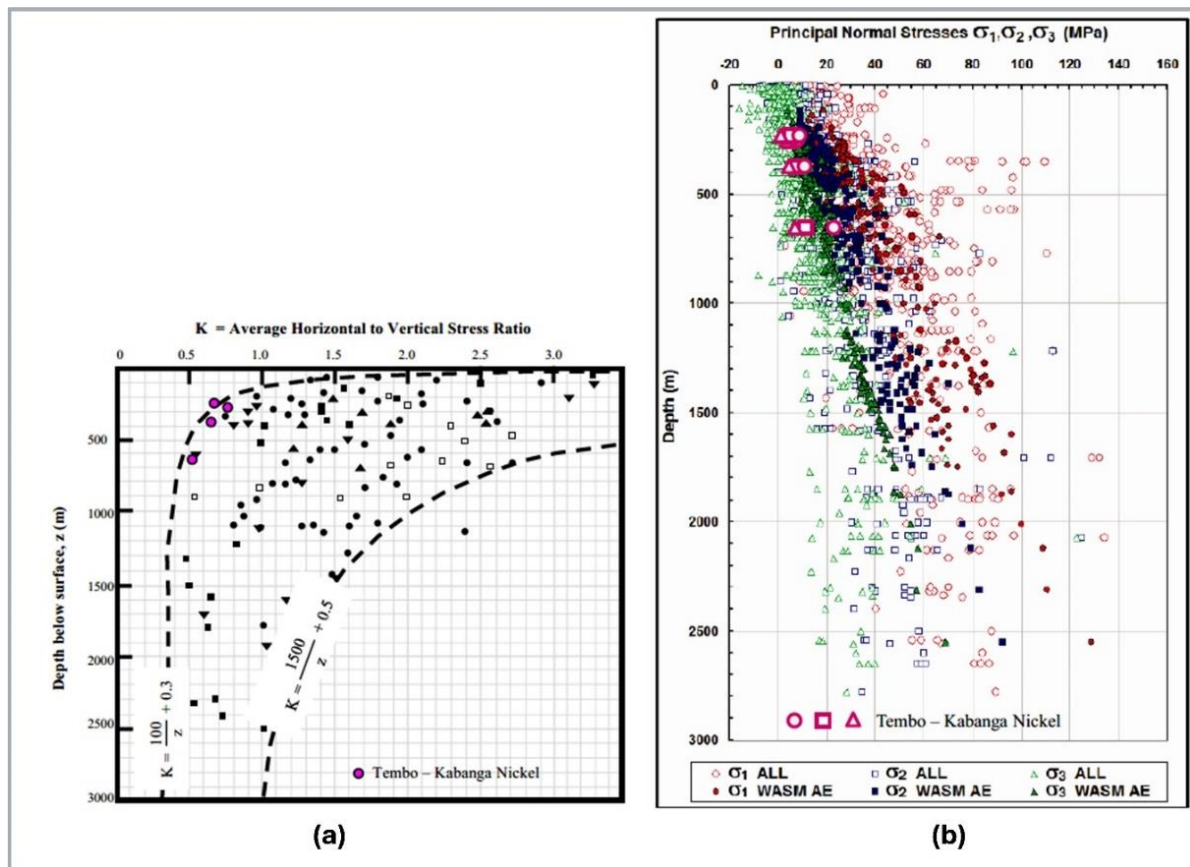


Figure 13-2: Kabanga AE Measurement Results Compared to WASM Dataset (a) Ratio of Average Horizontal to Vertical Stress (b) Principal Stress Magnitude Chart Comparison

It is recommended that that a stress assessment from core (AE or similar) is carried for the Main Zone once the project has been established and it is practical to include in future surface drill programs.

13.2.4 Material Strength Testwork

Laboratory testing was completed on rock samples with the objective of achieving a spatial and statistical representation of each of the geotechnical domains across the project area. The collated data set includes 197 single-stage Hoek Triaxial tests and 68 Brazilian tests. The following objectives were achieved:

- Target samples to investigate intact material strength of sedimentary stratigraphy units, intrusives and mineralization.
- Target samples to investigate the strength of the foliation in the stratigraphy units.

- Sample and test similar units at North to determine whether results are within the same data population.
- Some of the samples were sub cored to achieve intact failure mode. When compared to the whole core samples tested, the sub core results were higher. The increase due to the smaller core diameter was in the range of ratios from Hoek, 2023. The sub cored intact strength was reduced by the ratio from Hoek, 2023 for inclusion with the whole core results.
- Hoek and Brown, 2019 recommend single stage Hoek cell testing to determine material strength properties.

The resulting intact material strength properties are summarized in Table 13-6. These tests have been undertaken at E-Precision laboratory in Western Australia and is to International Society of Rock Mechanics standards. This standard defines the length, flatness, parallelism, loading rate and data sample rate.

MGT reviewed the results and classified as intact and structure failure mode on a per sample basis against the entire population of samples by lithology defining the intact strength and fabric strengths. All results are plotted.

It is recommended that core samples be collected from the Main Zone once the project has been established and it is practical to include in future surface drill programs. Samples should be used to conduct materials strength testwork to uplift the Main Zone to the same level as North and Tembo.

Table 13-6: Material Strength Results from Laboratory Testing – North and Tembo

Geotechnical Design Domain	Total No. of HTRX Tests	No. of Valid HTRX	Average Density (t/m ³)	Std Dev Density	Ave Valid Modulus	Std. Dev. Modulus (MPa)	UCSci Intact Rock Strength (MPa)	UCSci Intact Rock Strength Std Dev	Average Tensile (MPa)	Hoek-Brown (m _i)	Cohesion (MPa)	Friction Angle (°)
BNPU	24	24	3.07	0.63	26,228	5,298	90	15.2	-12.0	10	12.4	37.4
LRPU	85	50	2.83	0.18	30,354	7,545	105	16.1	-10.6	11.75	9.5	33.8
LSSC	6	0	2.90	0.02	-	-	-	-	-	-	7.1	39.5
MSSX	13	11	4.31	0.54	27,984	7,478	65	19.1	-10.6	18	-	-
UMIN	14	11	3.67	0.33	50,858	6,962	275	9.8	-21.7	13.5	-	-
Intrusive	31	43	3.14	0.57	29,045	10,443	110	42.1	-14.2	13	-	-

Notes:

1. HTRX = Hoek Triaxial.
2. UCSci = derived or estimated value of the uniaxial compressive strength (UCS) based on regression analysis of multiple test datasets—specifically, triaxial compression tests and Brazilian tensile strength tests (indirect tensile strength), obtained as the y-intercept of a fitted line.
3. m_i = A constant in the Hoek-Brown criterion, a fundamental parameter required for determining the compressive strength of rock.
4. Friction angle and cohesions are based on the strength of samples that failed on structures.
5. A valid HTRX is one where the sample has intact failure mode, rather than fabric or structural control. Only valid results are used for the Hoek-Brown assessment.

13.2.5 Structural Setting

The major fault structural model was developed by Golder in 2009. The model was reviewed by MGT using 2022–23 diamond drilling to identify drillhole intercepts and, where possible, inspect core photos, rock mass quality and structural logging to verify characterization and extent of the individual fault wireframes.

This review validated the Golder model with recent drilling and confirmed the appropriateness of use for the study. These outcomes enabled identification of which major faults warranted inclusion in three-dimensional numerical modeling.

In future drill programs, there should be attention given to Main Zone to ensure the structural knowledge is uplifted to the same level of confidence as North and Tembo in advance of mining commencing at Main, which is currently planned to start in Year 10.

13.2.6 Empirical Slope Span Analysis

An empirical slope stability assessment was conducted to determine stable strike lengths for slope design, forming a key input to mine planning and numerical modeling. The analysis employed the Modified Stability Graph method, initially developed by Mathews et al. (1981) and subsequently refined by Potvin (1988) and others. This method uses the Modified Stability Number (N') to assess the stability of unsupported slope spans based on rock mass and geometric parameters.

The N' value was calculated using the formula:

$$N' = Q' \times A \times B \times C$$

where:

- Q' represents the rock mass quality, determined using the Q-System (NGI, 2015),
- A is a stress adjustment factor (Villaescusa, 1996),
- B accounts for the orientation of discontinuities relative to slope walls (Potvin, 1988), and
- C reflects the influence of gravity and wall orientation on slope stability (Potvin, 1988).

Rock mass quality values (Q') were determined using the lower quartile and mean Q' values for key lithological units exposed during stoping. These included LRPU, UMAF_KAB, and the mineralized zone at Tembo, and additionally BNPU and LSSC units at North. Stress inputs for Factor A were derived from site-specific stress measurements, while structural data used in Factors B and C were sourced from the structural analysis completed.

Slope geometry was evaluated using the hydraulic radius, defined as the ratio of wall area to perimeter. Hydraulic radius was applied to assess maximum stable slope dimensions for both single (25 m) and double (50 m) lift scenarios. The results provide slope span recommendations, guiding mine planners in selecting appropriate slope dimensions for subsequent detailed modeling and mine design refinement.

13.2.6.1 North Mine Slope Span Analysis

North Mine has been divided into two depth ranges to account for predicted changes in stress conditions. This decision is informed by AE stress measurements collected on site and the depth extent of North Mine. The depth-based zoning enables more accurate geotechnical design and mine planning by reflecting the increase of stress with depth. The results are summarized in Table 13-7. These are also supported by the numerical modeling discussed in Section 13.2.8.

Table 13-7: North Mine Unsupported Stope Span Configuration

Depth From (mBS)	Depth To (mBS)	Weathering zone	25 th % Q'			Mean Q'		
			Single/Double Option	Strike (m)	Width (m)	Single/Double Option	Strike (m)	Width (m)
0	600	Fresh	single	40	20	single	60	20
			double	30	20	double	40	20
600	1150	Fresh	single	40	20	single	60	20
			double	25	20	double	25	20

Notes:

1. mBS meters below surface.
2. Q' is a modified version of the Q-System rock mass classification that excludes the Stress Reduction Factor (SRF) during logging and represents the rock mass quality based on core logging before stress conditions are considered.

13.2.6.2 Tembo Mine Stope Span Analysis

Tembo Mine has been assessed as three discrete areas (southwest, middle, and northeast), due to the strike length of the mine as shown in Figure 13-3. Given that Tembo Mine has such similar stope geometry, each area was assessed at different depths to decipher if any changes occurred. The results from the stope span analysis across these areas at Tembo are very consistent and therefore have been presented in a single table, applicable to all areas and depth intervals at Tembo, as shown in Table 13-8.

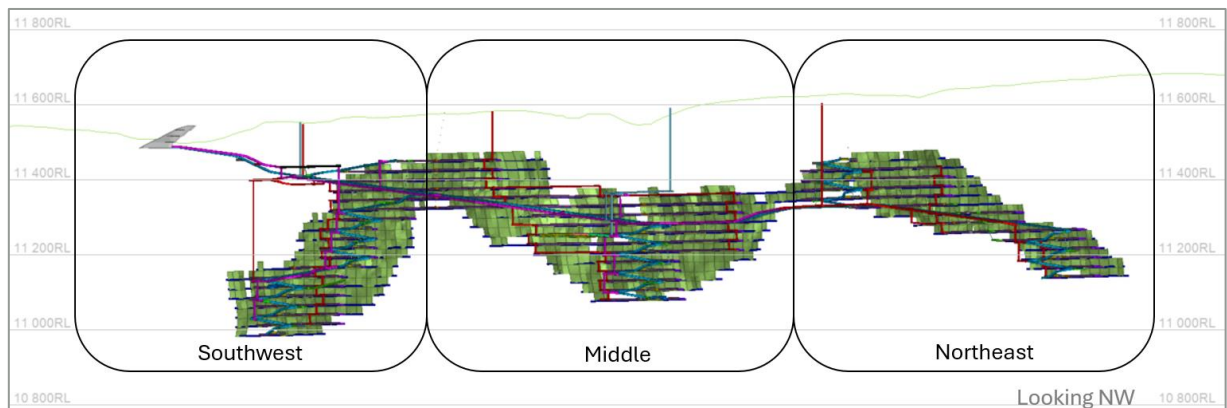


Figure 13-3: Tembo Mine Long-section Overview (looking northwest)

Table 13-8: Tembo Unsupported Stope Span Configuration

Depth From (mBS)	Depth To (mBS)	Weathering Zone	Single/Double Option	25 th % Q'		Mean Q'	
				Strike (m)	Width (m)	Strike (m)	Width (m)
0	575	Fresh	Single	45	20	60	20
			Double	30	20	35	20

Note: Q' is a modified version of the Q-System rock mass classification that excludes the Stress Reduction Factor (SRF) during logging and represents the rock mass quality based on core logging before stress conditions are considered.

13.2.6.3 Main Mine Slope Span Analysis

Main Mine unsupported slope span recommendations for the lower quartile and the mean are presented in Table 13-9. Spans were derived considering results from all the Geotechnical Design Domains. Both single (25 m) and double (50 m) lifts were assessed, however not all rock mass quality supported a double lift option.

Table 13-9: Main Mine Unsupported Slope Span Recommendations

Depth From (mBS)	Depth To (mBS)	Weathering Zone	Single/Double Option	25 th % Q		Mean Q'	
				Strike (m)	Width (m)	Strike (m)	Width (m)
Variable zones		Transitional	Single only	20	20	20	20
0	400	Fresh	Single	25	20	35	20
			Double	20	20	25	20

Note: Q' is a modified version of the Q-System rock mass classification that excludes the Stress Reduction Factor (SRF) during logging and represents the rock mass quality based on core logging before stress conditions are considered.

13.2.7 Empirical Paste Strength Assessment

Paste fill (PF) strength estimates were determined using Mitchell et al. (1982). Using this method required some assumptions which are discussed further below.

Two mining methods were considered for PF strength:

1. Longitudinal retreat – stopes are extracted one at a time along an ore drive, retreating to an access.
2. Transverse retreat – stopes are extracted together moving back to a common access. Two sequences for this method are assessed.

Parameters that were used for preliminary PF strength calculations were derived using MGT's internal engineering experience and datasets. These include:

- Density – 2.1 t/m³
- Elastic Modulus – 400 MPa
- Poisson's ratio – 0.25
- Friction angle – 30°
- Factor Safety – 1.0 (no adjustment made to strengths)
- Constant Closure Model – 10 mm

Final strength requirements will depend on several operational factors, including the particle size distribution of the tailings feed, binder type and dosage, mixing conditions, and the target mechanical performance (e.g., compressive or tensile strength), aligned with the expected failure mechanisms. This has been covered in detailed testing and under the backfill study completed by MineFill).

Mostly, stopes will be retreated longitudinally resulting in a single wall fill mass exposure and undercut. However, North will have some areas of transverse retreat, where consideration is required for backfill strength since more than one side wall is exposed to the fill mass.

13.2.7.1 Longitudinal Retreat Exposure

Where stopes are being extracted and only exposing the side wall, the strength requirements are shown in Table 13-10, based on various stope widths.

Table 13-10: Side Wall Exposure Backfill Strengths

Stope Width (m)	PF Strength - End Wall Exposure Single Lift – 25 m Height (kPa)	PF Strength - End Wall Exposure Double Lift – 50 m Height (kPa)
5	85	94
10	147	172
15	193	238
20	229	294
25	258	343
30	281	386

Undercut strength requirements were assessed for three volumes:

3. Plug height of 15 m
4. Single lift height of 25 m
5. Double lift height of 50 m

Table 13-11 summarizes the results showing failure mechanism influencing the strength requirement of the fill mass. Where yellow highlights crushing, orange caving and blue flexural.

Table 13-11: Results Summary for PF Undercut Backfill Strength (kPa) Assessment

	PF Strength - Undercut (kPa)								
	Single Lift - 15m plug Paste Column			Single Lift - 25m backfill column			Double Lift - 50 m backfill column		
Width (m)	30m Strike	20m Strike	10m Strike	30m Strike	20m Strike	10m Strike	30m Strike	20m Strike	10m Strike
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
10	500	500	500	500	500	500	500	500	500
15	742	742	500	742	742	500	742	742	500
20	989	989	500	989	989	500	989	989	500
25	1,375	989	500	1,236	989	500	1,236	989	500
30	2,708	989	500	1,483	989	500	1,483	989	500

Key:

Crushing	Flexural	Caving

The recommendation for backfill strength targets is informed by the fill strategy show in Figure 13-4 and is summarized in Table 13-12 and Table 13-13.



Figure 13-4: Longitudinal Retreat Backfill Strategy

Table 13-12: Longitudinal Retreat Plug Strength

Undercut Strength	Plug (15m) (kPa)	
Width (m)	20 m Slope Length	30 m Slope Length
10	500	500
20	989	989
30	989	2,708

Table 13-13: Longitudinal Retreat Lift 2 Strength

Width (m)	Single Lift (kPa)	Double Lift (kPa)
10	147	172
20	229	294
30	281	386

13.2.7.2 Transverse Retreat Exposure

Where transverse retreat is required, this may result in more than one backfilled wall being exposed at the same time. Where this occurs, an increase of backfill strength will be needed. Two scenarios that may eventuate are shown in Figure 13-5 and Figure 13-6.

Scenario One (Figure 13-5) is a typical primary/secondary retreat. In this scenario while “three” paste faces of the fill mass are exposed, only one wall of each backfilled slope, so therefore, the previous longitudinal retreat strengths apply as summarized in Table 13-14.

Scenario Two (Figure 13-6), two faces of lift two might be exposed. In this case, strength requirements have been assessed for two face exposures of either 20 m or 30 m.

These strengths are summarized in Table 13-14. Undercut strengths for transverse retreat are the same as for the longitudinal summarized in Table 13-12.



Figure 13-5: Plan View of a Typical Primary/Secondary Transverse Retreat

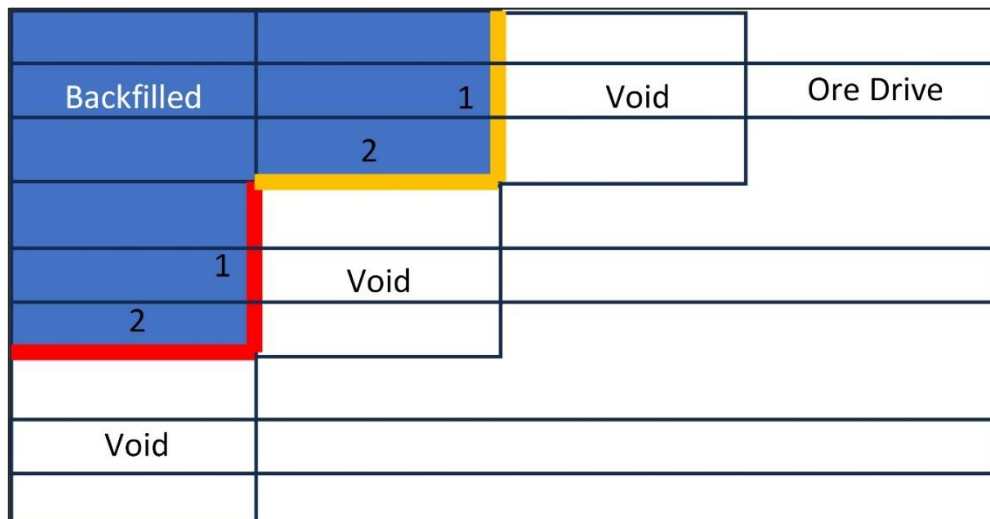


Figure 13-6: Plan View Showing a Possible Transverse Retreat Highlighting Two Face Exposure

Table 13-14: Transverse Retreat – Two Face Wall Exposure

Exposure 1 - Strike (m)	Exposure 2 - Width (m)	Single Lift - Height 25m (kPa)	Double Lift - Height 50 m (kPa)
20	20	330	481
20	30	376	589
30	20	363	555

13.2.8 Infrastructure

13.2.8.1 Vertical Development

An empirical assessment was completed to determine possible stable unsupported diameters in the LRP.

To provide guidance to enable mine design and budgeting, a range of possible diameters was investigated with this empirical method using variations of the rock mass quality. For this, the mean and the 10th, 25th, 75th, and 90th percentile Q' values for the LRP for each mine were assessed.

The results indicate that a 5 m to 5.5 m diameter raisebore is possible in the LRP.

13.2.8.2 Boxcut and Portal

A dedicated geotechnical drilling program was completed in 2023 to support final design of the boxcuts and portal excavations for the North and Tembo mining areas. A total of ten geotechnical holes were drilled (six at North and four at Tembo) specifically targeting planned portal locations. These drillholes were planned in alignment with the mine design and are shown in Figure 13-7 and Figure 13-8.

At the North area, three potential boxcut locations were evaluated. The drilling program was designed to include near-horizontal pilot holes aligned with the planned decline orientations, supported by moderately dipping holes targeting future boxcut walls. While site conditions, including terrain and drill rig capabilities, imposed some limitations on execution, all critical geotechnical objectives were achieved. Drillhole designs were successfully adapted in the field to ensure collection of the necessary geotechnical data to support final portal and boxcut design. The boxcut designs and geotechnical drillholes can be seen in Figure 13-7 and Figure 13-8.

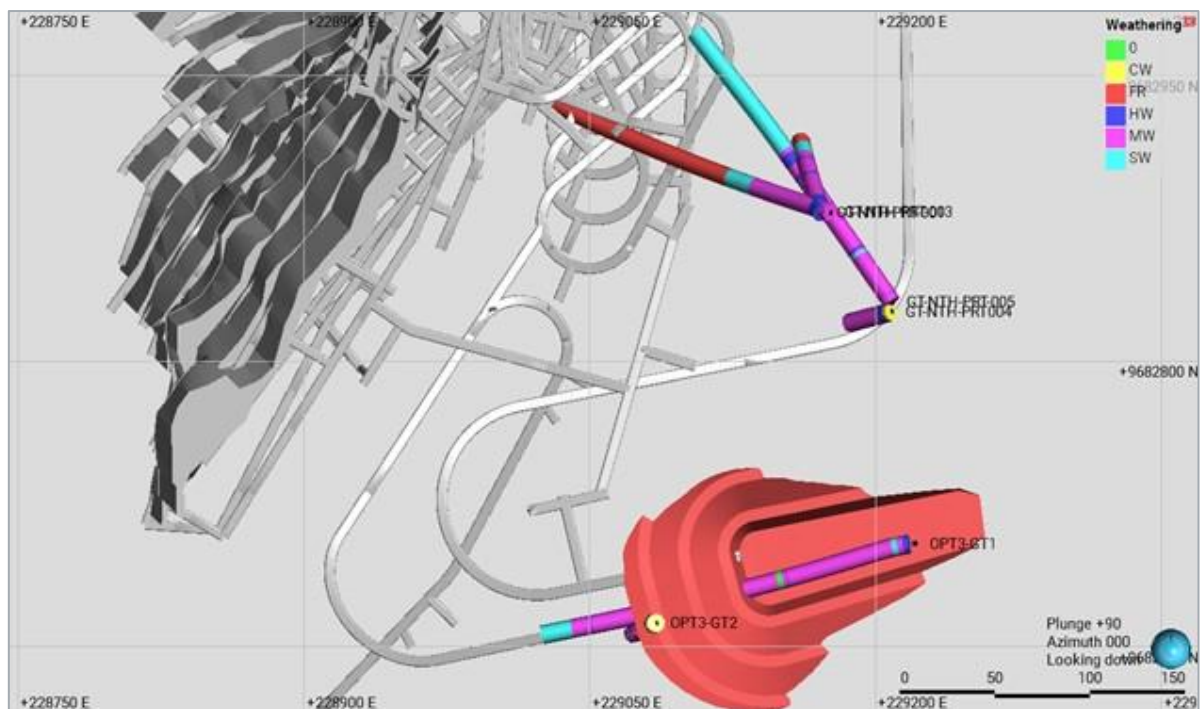


Figure 13-7: Plan View of North Boxcut and Mine Design

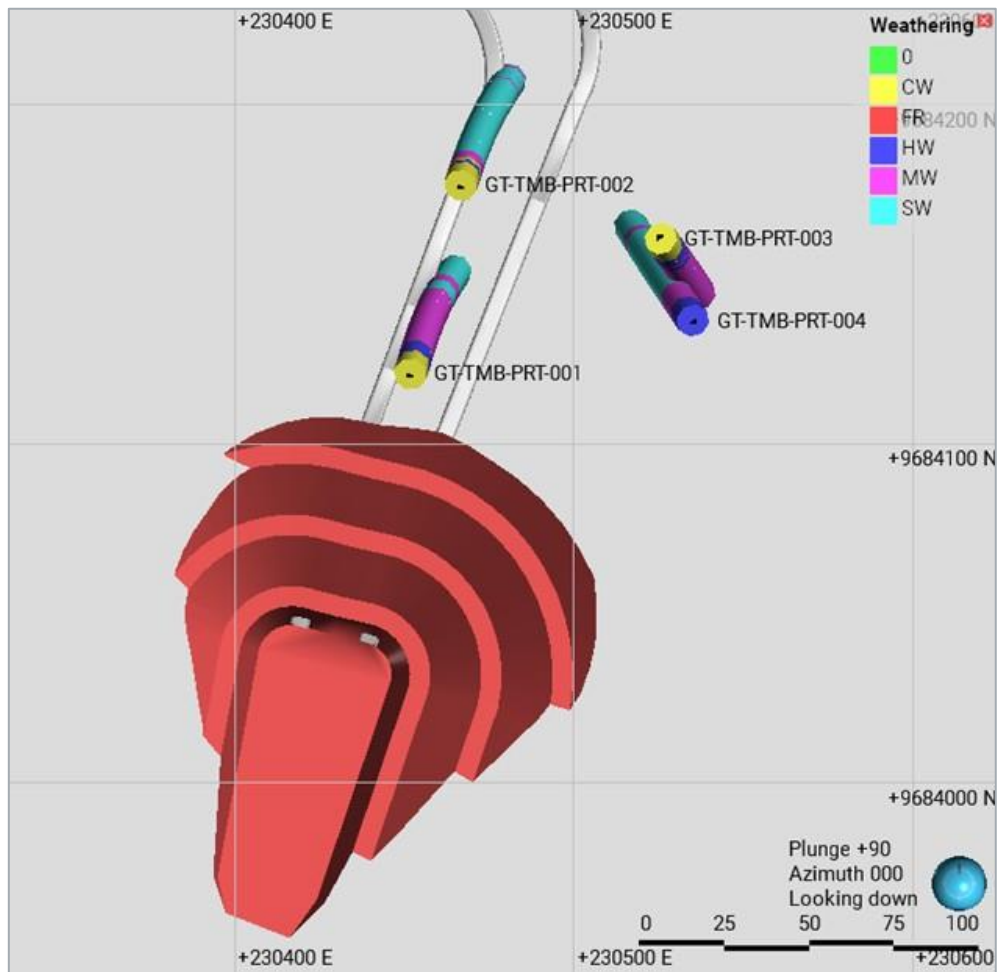


Figure 13-8: Plan View of Tembo Boxcut and Initial Decline

The weathering profile in the vicinity of the boxcuts has been reviewed to investigate potential exposure of weathered rock mass for budgeting purposes. Core photos were inspected by MGT to check the current regolith wireframe interpretation.

North boxcut will be cut in weathered rock, potentially the top 1.5 benches will be made up of soil and the remainder strong to transitional oxide. The decline is expected to intercept fresh rock after approximately 180 m of development, as shown in Figure 13-9.

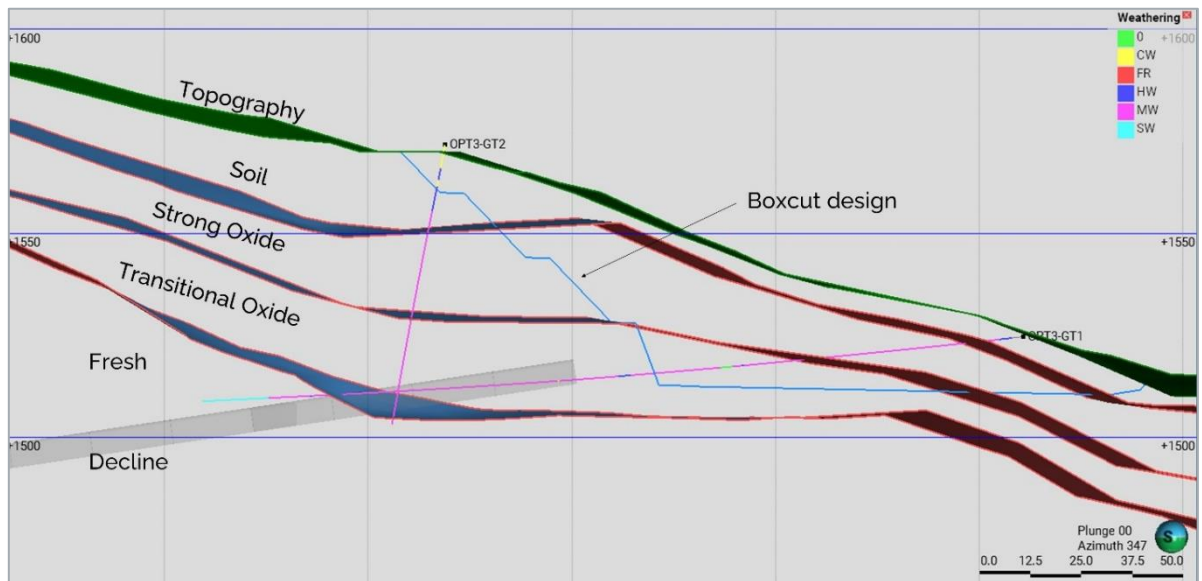


Figure 13-9: Cross-section of North Boxcut Design Looking North

Tembo boxcut is designed to expose mostly strong oxide material. Geotechnical drillholes have not intercepted 'fresh' rock mass, and the current oxide wireframe interpretation suggests that the decline will develop approximately 250 m in oxide and weathered rock until intercepting fresh rock. This is illustrated in Figure 13-10.

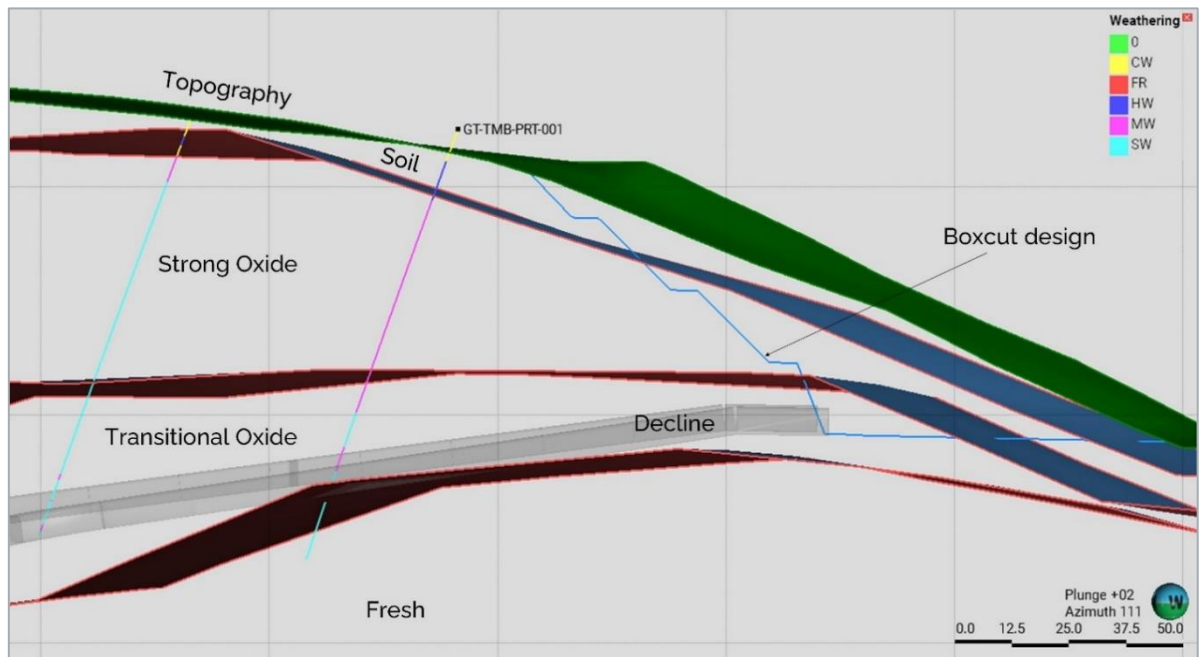


Figure 13-10: Cross-section of Tembo Boxcut Design (looking northwest)

For budgeting purposes, MGT provided preliminary ground support recommendations for the Tembo and North boxcuts based on visual core logging and engineering experience in similar geological conditions. Ground support schemes include both surface treatments (such as fiber-reinforced shotcrete and TECCO mesh for rockfall protection) and reinforcement elements (e.g., 6 m T32 threadbar anchors). Similar support strategies were outlined for the initial 50–100 m of decline development.

Initial drill and blast guidance was also developed to minimize blast-induced damage and support early excavation stability. Recommendations include staged firing sequences, tight perimeter control, and conservative advance rates (~2 m per round) until ground response is confirmed.

13.2.8.3 *Underground Infrastructure*

The 2022–23 geotechnical drill program was designed to target areas of planned mine infrastructure, early decline placement with the objective to identify any adverse geological features. Figure 13-11 and Figure 13-12 display the drilling at Tembo and North with Q' results along the drillhole traces.

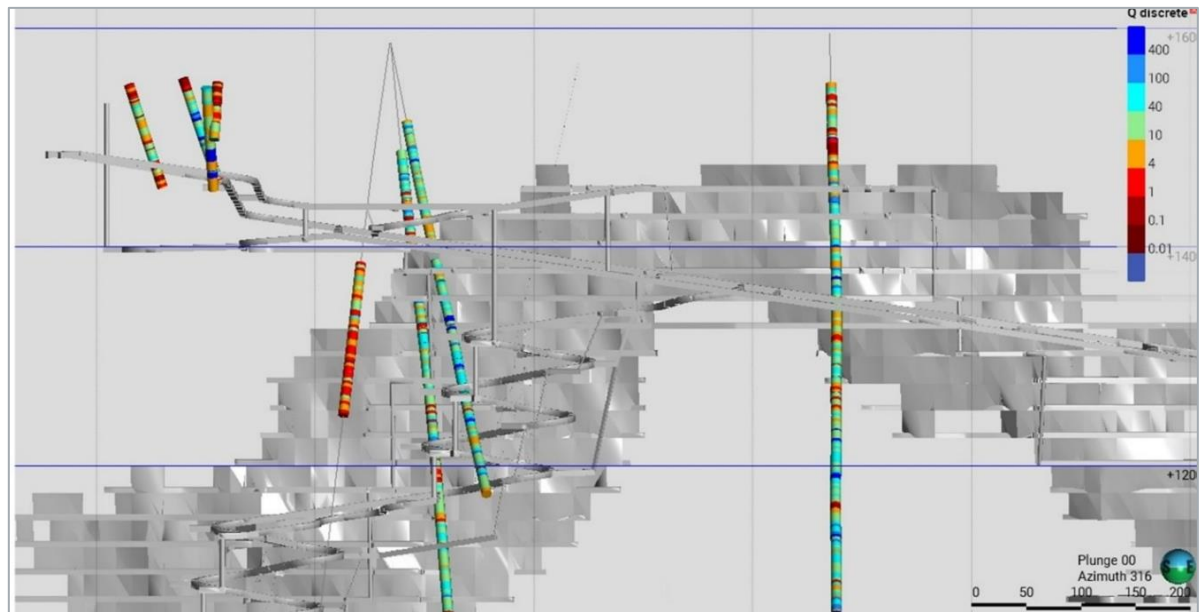


Figure 13-11: Geotechnical Drillholes Intercepting Tembo Southwest (including portal) – Long-section (looking northwest) showing Q'

Drillholes targeting Tembo decline infrastructure indicates that the rock mass quality can vary. At Tembo Southwest, good to very good quality rock mass (Barton Q' classification) with some intervals of poor quality.

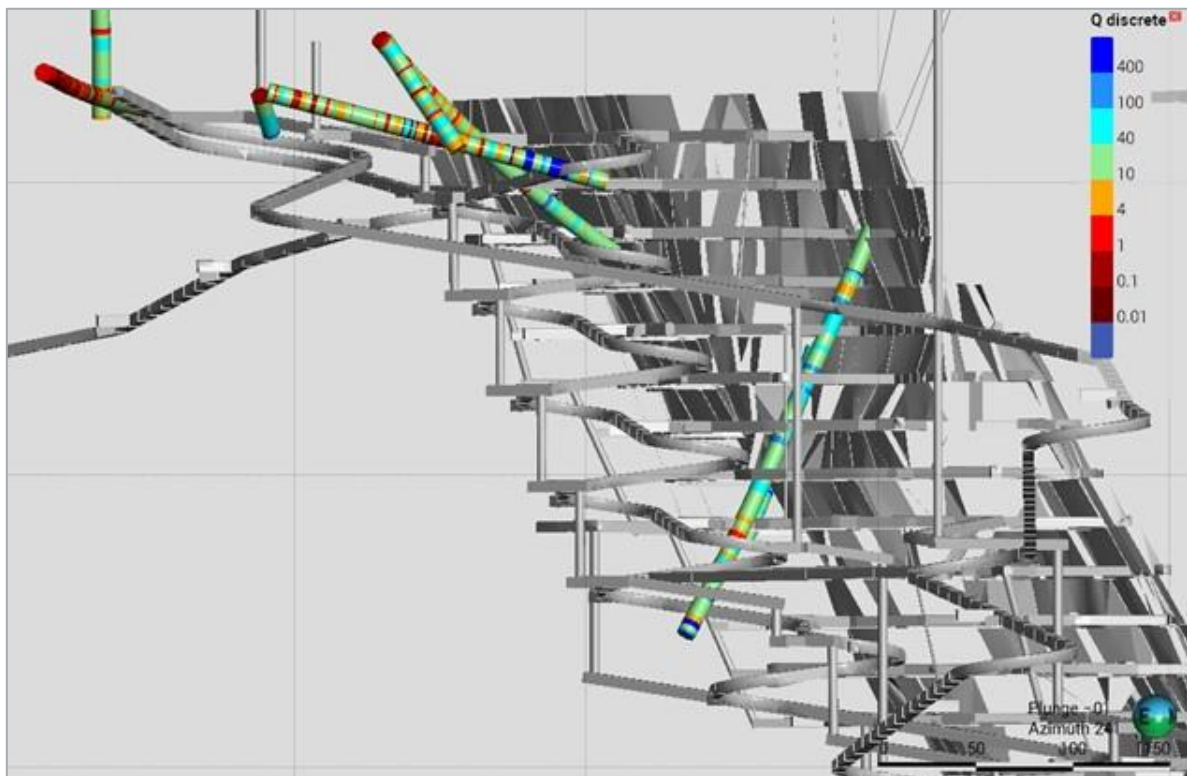


Figure 13-12: Geotechnical Logged Holes at North Targeting Early Decline Placement Showing Q' Classification

Drillholes targeting the early stages of the North decline are shown in Figure 13-12 and display similar Q' results with mostly classification of good to very good rock mass with some intervals of poorer quality mixed in.

Ground support strategies have accounted for both rock mass quality and the minor structural setting for the declines. Placement compared to the mining front has been assessed using three-dimensional numerical modeling. Model outcomes show that mining is not having an adverse effect on the decline and therefore placement is appropriate.

13.2.9 Numerical Modeling

Three-dimensional finite element modeling was conducted for North and Tembo mines using a preliminary version of the mine plan, to assess global stability based on rock mass quality, material strength, faults, and foliation, using the planned mine geometry and extraction sequence. The models included annually sequenced development and stoping voids over 20 stages, with geologically defined wireframes. Figure 13-13 and Figure 13-14 show the North and Tembo models built up with the mine plan and geology wireframes. The mine design shapes used in the numerical modeling was compared to the final mine design and no geotechnically significant difference was identified and therefore wasn't required to be updated.

Additional numerical model inputs included Rock Mass Strength, Far-field Stress and Fault Strength.

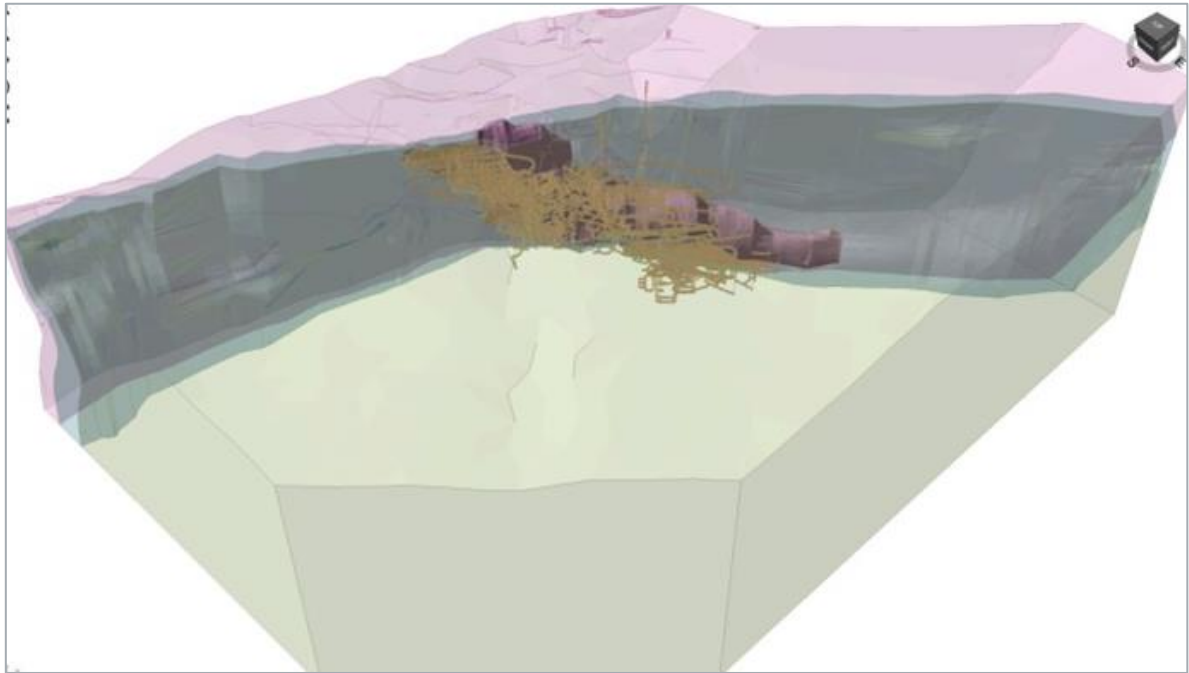


Figure 13-13: Perspective View (from Southeast) showing the Geological Units Included in the North Model

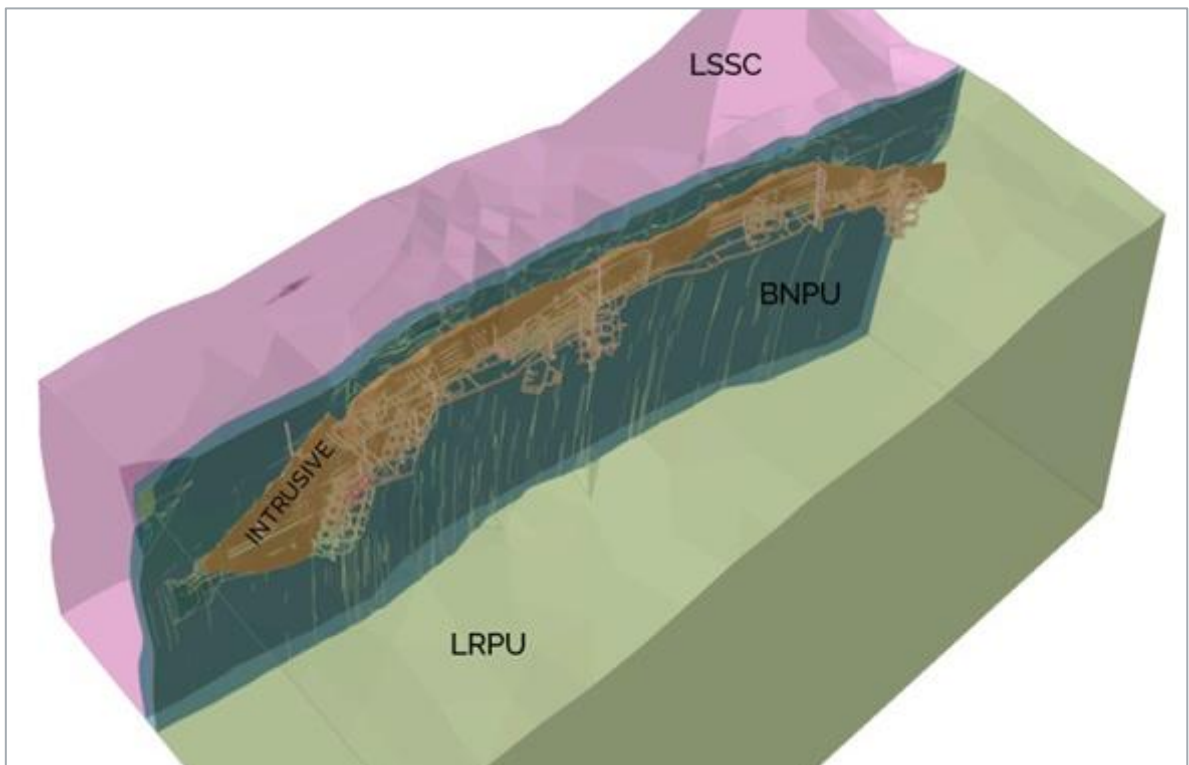


Figure 13-14: Perspective View (from South) showing the Geological Units Included in the Tembo Model

13.2.9.1 Model Results

Inelastic modeling provides the means to identify areas of rock mass damage, by means of inelastic strain forecasts. The degree of damage is related to volumetric strain as shown in Figure 13-15. A strain threshold of 1% typically indicates the onset of cracking that would require ground support to maintain excavation stability.

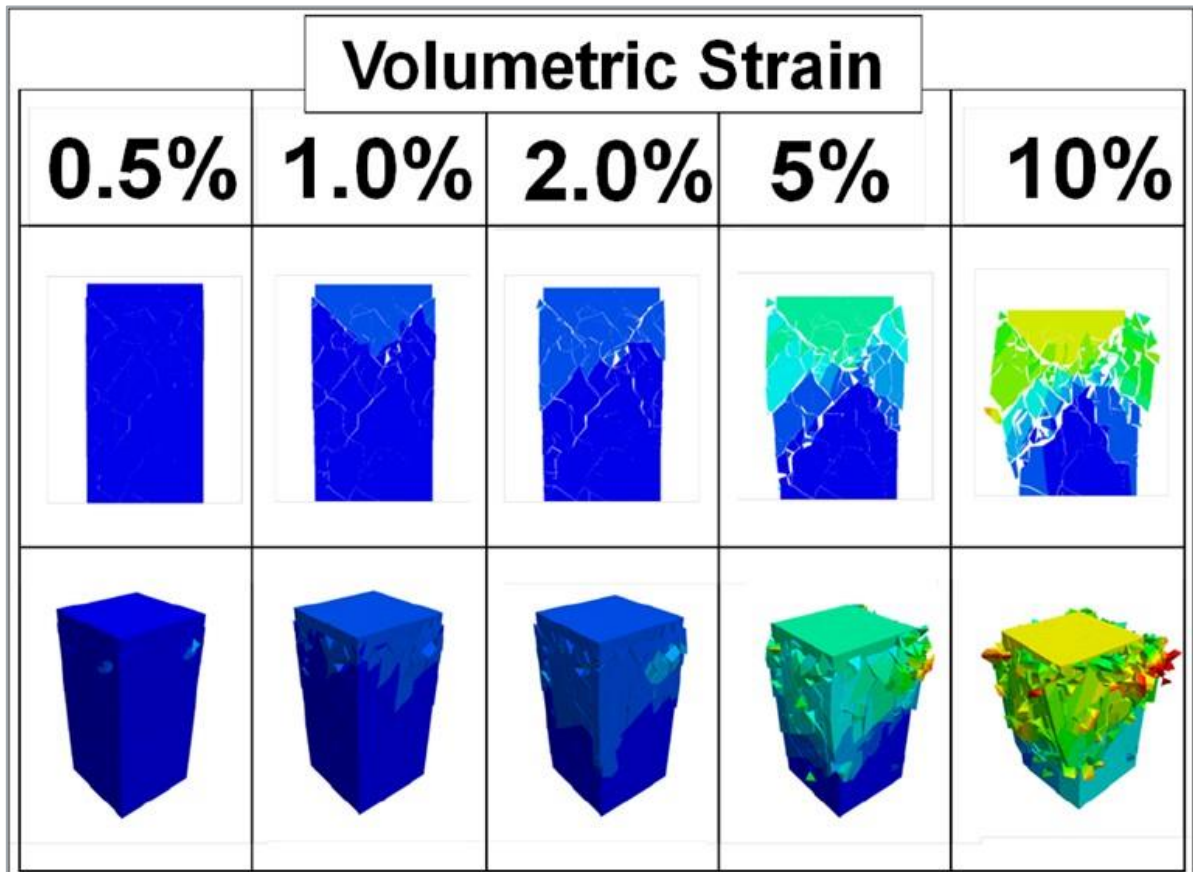


Figure 13-15: Visual Representation of Rock Mass Damage for a Range in Volumetric Strain
(reproduced from Vakili et al., 2014)

North Mine Stope Stability

The numerical modeling predicts 1% and some 2% strain isosurface at North Mine at the end of North Mine life, indicating cracking in stope hanging walls and footwall. However, due to the stopes being grouped in annual stages (rather than by individual stopes), the forecast damage appears worse than the actual case. More detailed analysis of specific areas, with stope-by-stope sequencing, is required to investigate further as the progresses into execution and development.

Tembo Mine Stope Stability

Numerical modeling for Tembo Mine indicates that no strain levels exceed 1%, suggesting that hanging wall and footwall cracking is unlikely to pose any stability concerns. This outcome is primarily attributed to the shallow mining depth, low stress environment, the long strike length of the orebody, and the presence of a competent rock mass.

Numerical Modeling Conclusions

Numerical modeling results from the preliminary version of the mine plan were evaluated against those from the final mine plan to assess completeness and consistency. The analysis confirmed that the modeling outcomes are consistent across both versions, primarily due to the similarity in mine design and production sequencing between the two plans. The results are as follows: numerical modeling

shows that North Mine may experience localized stope and development damage, foliation slip, and potential fault slip, all manageable with appropriate ground support and monitoring. Tembo Mine is more stable, with minor development issues and expected foliation and fault slip, also manageable with planned support measures. Tembo's current mine plane does not show a transition into a high stress environment.

The model has forecasted hanging wall and footwall damage at North Mine, however, this damage is most likely due to the number of stopes "open" at once due to the yearly time step. In reality, not all of these stopes will be opened as backfill will be used. It is recommended that a detailed, localized model to assess the void-to-fill ratio and forecasted damage in these areas is commenced as part of the underground mine implementation. It is also recommended that Main Mine be included in future numerical modeling to ensure that Main is in-line with the work completed for North and Tembo.

Overall, the global extraction strategy for both mines is appropriate. No issues were identified with the extraction sequence, placement of levels and capital infrastructure.

13.3 Hydrogeology

Water inflow values used to determine the mine's dewatering requirements were sourced from WSP (SA)'s Water and Salt Balance Report (WSP 2025). Groundwater ingress to the underground mine is expected to be relatively low due to the low permeability of the surrounding rock, and it is not considered a 'wet mine'.

Figure 13-16 describes the expected groundwater ingress for both mines. North Mine is expected to reach a maximum ingress of 6,100 m³/d and Tembo Mine is expected to reach a maximum ingress of 2,400 m³/d, totaling a maximum groundwater ingress of 8,500 m³/d.

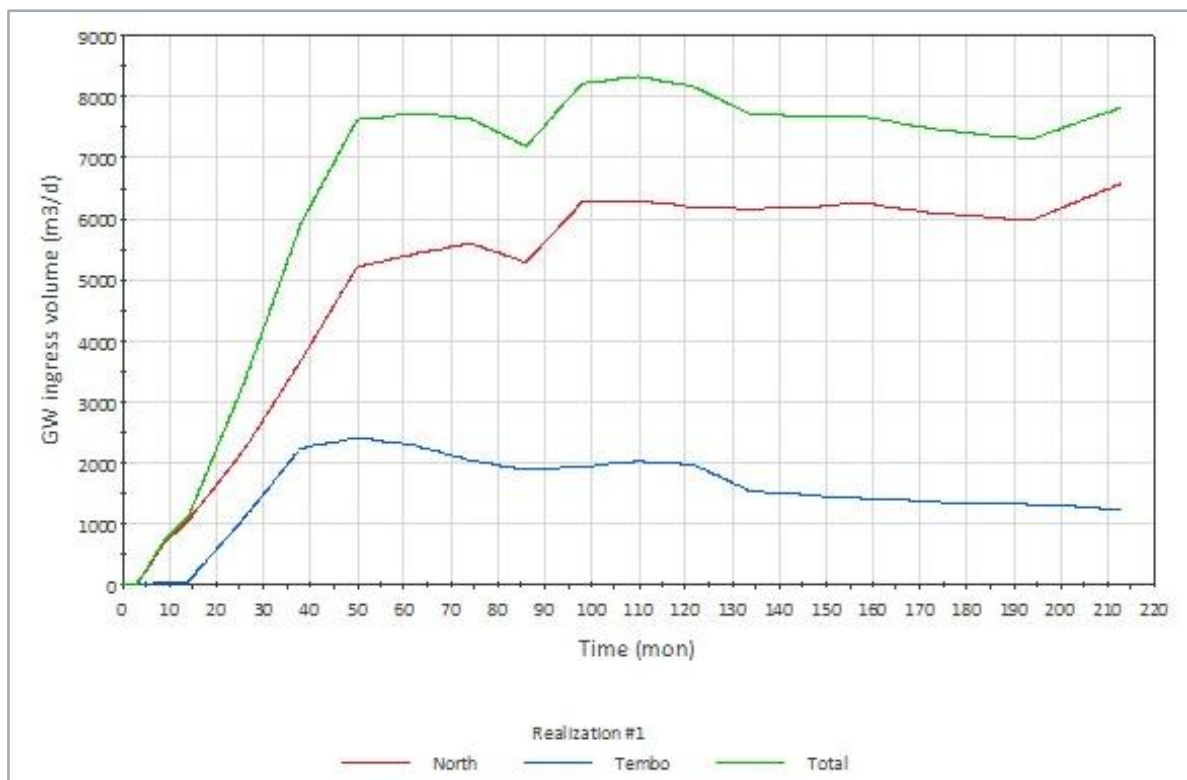


Figure 13-16: North Mine and Tembo Mine Groundwater Ingress

Mine service water is calculated at 0.4 m³ per tonne of production. The water balance for both mines, along with the daily flows per underground pump stations have been designed to account for the inflows indicated by the hydrogeology study, with additional capacity built into the underground dewatering network to ensure any excess rainfalls or inflows can be managed.

13.3.1 Hydrogeological Data Acquisition

Groundwater studies were undertaken to establish baseline hydrogeological conditions across the project area, with the aim of supporting water supply planning, site-wide monitoring, and impact assessments. Key objectives included characterizing:

- Aquifer properties, water levels, and flow directions near key infrastructure.
- The location and use of existing boreholes, springs, and community water sources.
- Groundwater quality and potential sources of contamination.

A desktop review and hydrocensus survey of existing data and infrastructure were conducted, identifying key data gaps. As a result, 21 new investigation boreholes were sited across the project area to support both water supply development and long-term groundwater monitoring. Borehole siting was guided by:

- Strategic placement upgradient and downgradient of potential contamination sources.
- Identified data gaps.
- The need to assess structural influences on groundwater flow.

Each borehole was logged with lithological data, construction details, water strike depths, and yield measurements. Aquifer tests (including test pumping and falling head tests) were conducted to determine transmissivity, hydraulic conductivity, and storativity.

- A numerical groundwater flow model was developed using *Feflow*®, supporting the following assessments:
 - Forecasting groundwater inflows to the proposed Tembo and North mines.
 - Predicting drawdown (cone of depression) from dewatering activities.
 - Evaluating impacts on baseflows to local rivers and drainage lines.
 - Assessing potential seepage plumes from the Tailings Storage Facility (TSF), including liner performance.
 - Estimating changes in groundwater quality and their potential impact on nearby environmental receptors.

13.4 Mining Design

13.4.1 Stope Optimization

The work for determining the stope optimization was completed in March 2025 when cost, payability and transport assumptions were at a level of confidence suitable for mine planning. Assumptions used to calculate the Net Sales Return (NSR) of each block in the 2024 Mineral Resource Model and the stope optimization are summarized in Table 13-15, which is based on 100% concentrate sales. Estimates for recovery and mass pull of Ni, Cu, Co, S, and Fe to nickel concentrate and pyrrhotite concentrate were used, based on metallurgical testwork.

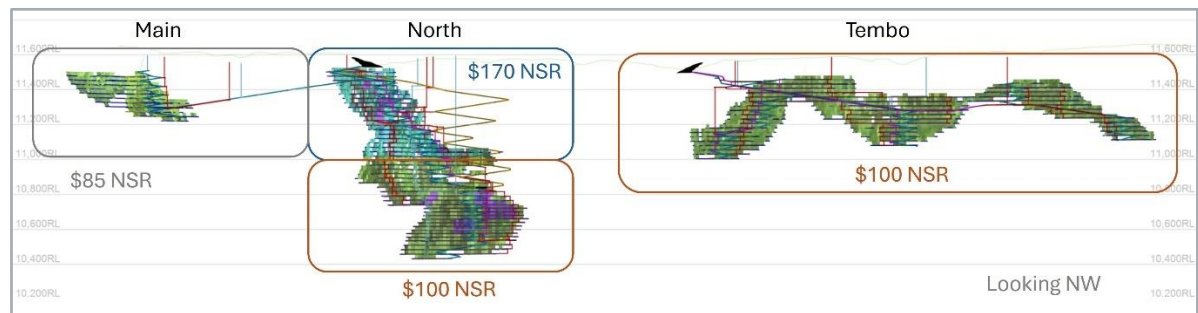
Table 13-15: NSR and Stope Optimization Assumptions

Parameter	Unit	Value
Revenue		
Nickel Price	USD/lb	8.50
Copper Price	USD/lb	4.24
Cobalt Price	USD/lb	18.34
Concentrate Payabilities	%	as per market analysis including discussions with offtakers

Parameter	Unit	Value	
Concentrator Recovery	%	Formula	
Transport	USD/t Conc. (wet)	209.75	
Royalties	%	7.30	
Costs		MSSX	UMIN
Mining	USD/t	53.20	53.20
Processing	USD/t	10.38	11.69
G&A	USD/t	8.18	8.18
TSF	USD/t	2.21	2.21
Surface Infrastructure	USD/t	1.60	1.60
Total Costs	USD/t	75.57	76.89
Cut-off		MSSX	UMIN
NSR	USD/t	75.57	76.89

The NSR break-even cut-off value was determined for MSSX and UMIN as USD 75.57/t feed and USD 76.89/t feed, respectively.

An elevated cut-off value was applied to each zone to improve payback and project economics. An elevated cut-off grade strategy will also protect against fluctuations in metal prices and costs to ensure the inventory being mined is robust. The NSR cut-off applied to each zone is USD 170/t at North Upper, USD 100/t at North Lower and Tembo, and USD 85/t at Main. These cut-off values are shown in Figure 13-17.



Note: 1) North Upper and North Lower are differentiated at approximately 600 mBS.

Figure 13-17: Stope Optimizer NSR Cut-off Grade by Zone

Deswik Stope Optimizer was used to generate the stope shapes for the mine design. All stopes used six-point resolution, controlled by mineralization wireframes, and have a 45° maximum change between adjacent stopes. The stope parameters are summarized by mining areas in Table 13-16.

Table 13-16: Stope Parameters

Parameter	Unit	North Upper	North Lower	Tembo	Main
Stope Strike	m	30	20	30	20
Minimum Stope Width	m	3	3	3	3
Minimum Pillar Length	m	8	8	8	8
Stope Height (floor to floor)	m	25	20–25	25	25
Hanging Wall and Footwall minimum angle	°	45	45	45	45

13.4.2 Mining Method

Several underground mining methods have been evaluated over the project life by previous owners and in multiple studies. Ultimately, longhole stoping with paste backfill was chosen due to its suitability for the mineralized area's geometry and dip, as well as its advantages in selectivity, operational flexibility, and recovery. Level spacing is typically 25 m floor-to-floor, except for a section at North Mine where the mineralized area dip is flatter and level spacing has been reduced to 20 m. A combination of top-down and bottom-up sequencing is used at micro and macro levels, with the preference leaning towards the top-down center-out sequence due to its favorable geotechnical characteristics. Stope strike lengths will vary between 20 m and 30 m, depending on depth and mineralization thickness. Most stopes are to be extracted via longitudinal retreat stoping, except in thicker mineralized areas at North Mine, where transverse retreat stoping from hanging wall drives will be implemented. Figure 13-18 depicts a typical mine design for North Mine, while Figure 13-19 shows both longitudinal and transverse stoping methods at North Mine.

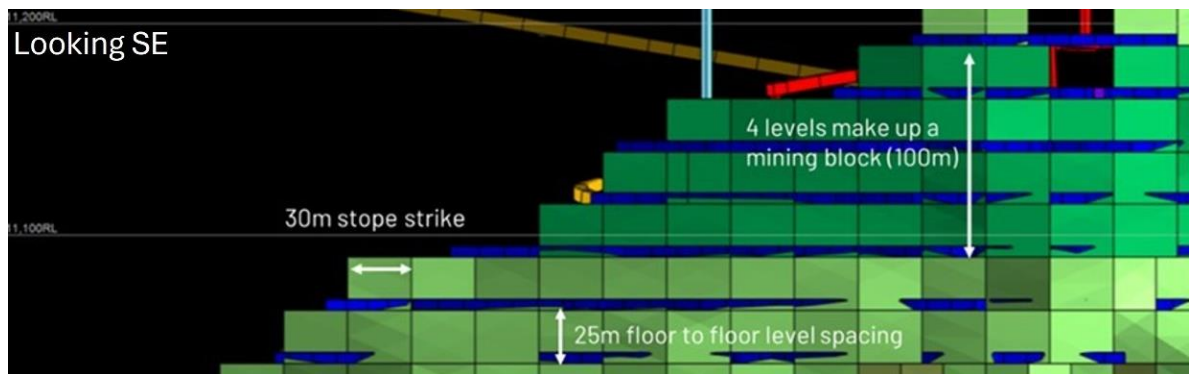


Figure 13-18: Typical Mine Design at North Mine

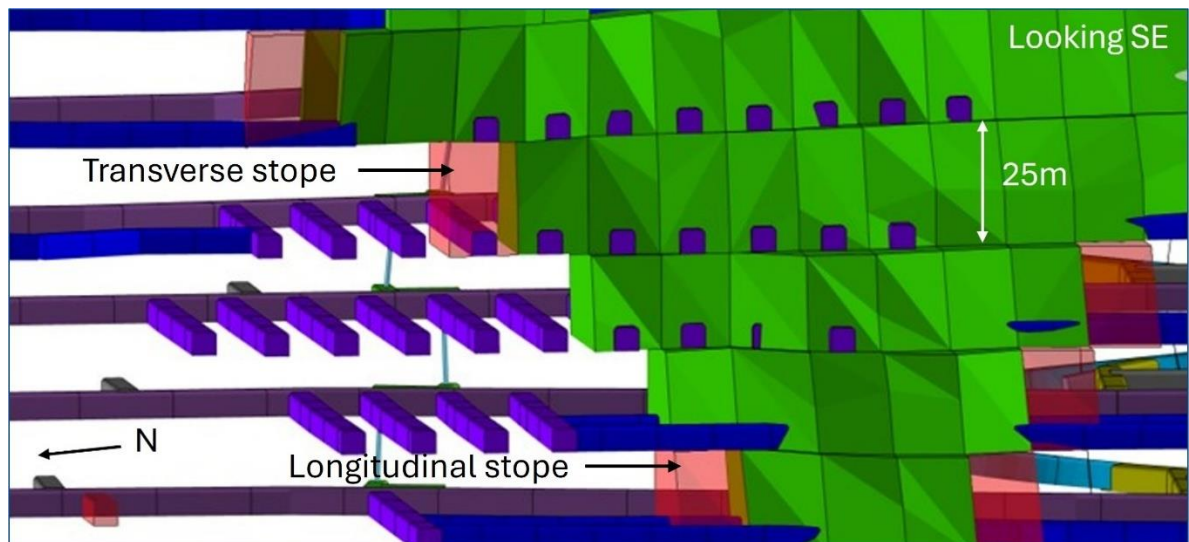


Figure 13-19: Longitudinal and Transverse Stoping at North (Oblique 3D)

13.4.3 Development

Development profiles are summarized in Table 13-17. Drift dimensions were dictated by ventilation requirements in conjunction with minimum clearances required for the selected mobile mining equipment. Typical layouts for stoping levels are shown in Figure 13-20, Figure 13-21, and Figure 13-22 for North, Tembo, and Main mines, respectively.

Table 13-17: Development Profiles

Development Type	Design Size (m) (width x height)
Decline	5.5 x 5.8
Trucking Decline	5.5 x 5.8
Access	5.5 x 5.5
Vent drives	5.5 x 5.5
Pump stations	5.5 x 6.0
Footwall drives	5.0 x 5.5
Escapeway drives	4.5 x 4.5
Crosscut drives	5.0 x 5.0
FAR access drives	5.0 x 5.0
Secondary RAR drives	4.5 x 4.5
Infra drive (paste cuddy)	5.0 x 5.0
UG magazine	5.0 x 5.0
Production Drives	5.0 x 5.0
Stockpiles	5.0 x 6.0
Sumps	4.5 x 5.0
Decline Passing bays	10.0 x 5.8

Notes: FAR = fresh air raise, RAR = return air raise.

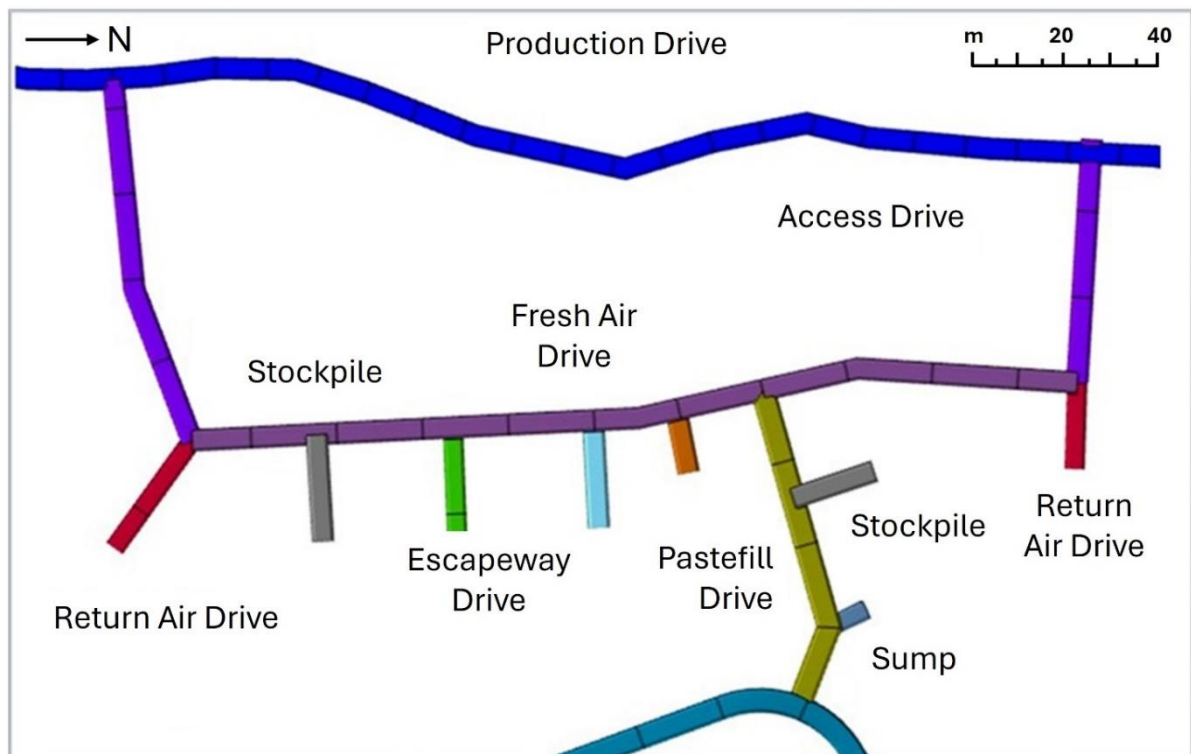


Figure 13-20: Typical Level Plan – North Mine

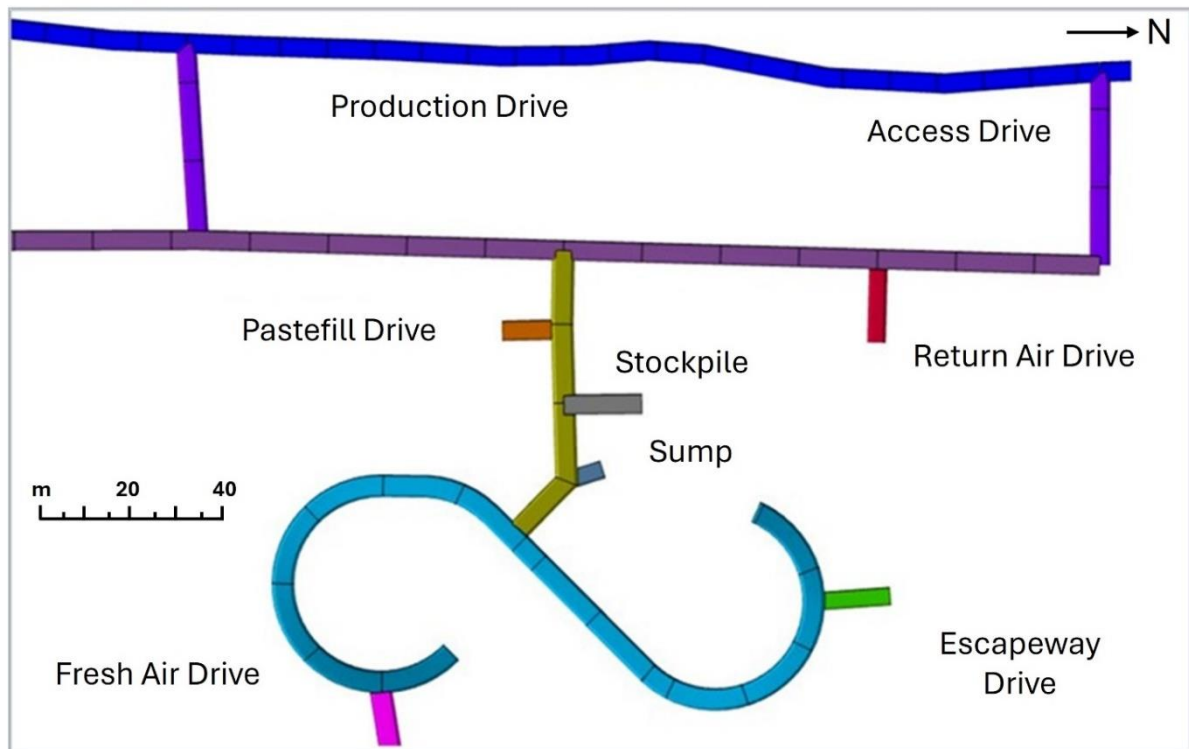


Figure 13-21: Typical Level Plan – Tembo Mine

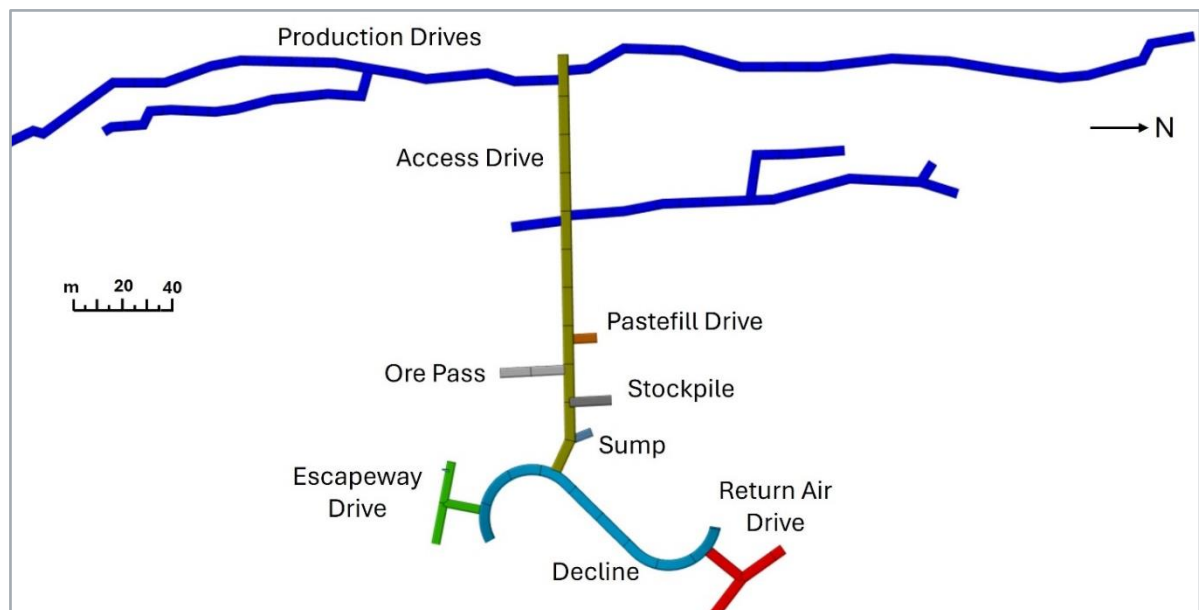


Figure 13-22: Typical Level Plan – Main Mine

13.4.4 Dilution and Recovery

Unplanned (external) dilution has been included in the stoping as an overbreak allowance. This is included as a total amount of overbreak and varies based on the width and height of the stopes. The external dilution at North Mine averages 9.4% of tonnes, at Tembo 10.0%, and at Main 11.5%. The average expected external dilution for the Project is 9.8%.

Several dilution figures were applied to the stopes at North Mine and Main Mine given that the geometry changes much more compared with Tembo Mine (all Tembo stopes have an allowance for

10% unplanned dilution). Table 13-18 summarizes the unplanned dilution values applied to the North and Main stopes in Deswik based on stope dip and width.

Table 13-18: Unplanned Dilution Values Applied to North and Main Stopes

Stope Geometry	Stope Dilution (%)				
North and Main	0–8 m	8–12.5 m	12.5–17 m	17–21 m	21+m
Hanging wall Dip 60°+	13%	9%	8%	6%	6%
Hanging wall Dip 45°–60°	18%	13%	10%	8%	7%
Hanging wall Dip 30°–45°	27%	19%	14%	12%	10%

As a result of the dip and geometry of the mineralized zones, there is some internal dilution within the Stope Optimizer shapes generated in Deswik, which can be referred to as ‘planned dilution’. This planned dilution at North Mine is 16.1%, at Tembo 15.1%, and at Main 19.1%. and the average project planned dilution is 16.1%. It is predicted that this planned dilution could be reduced in the operational phase of the project when the technical and operating teams have the ability to apply learning and experience to refining the final mined stopes shapes.

All stopes have a mining recovery of 90%.

13.4.5 Mining Sequence

In the upper section of North Mine, where the stress environment is relatively low, it is planned that higher-value stopes will be mined preferentially. This approach is feasible because multiple working faces across North Mine can be established during the construction period of the processing plant. Generally, the mining sequence will follow a top-down approach, with some localized bottom-up mining as required.

In the deeper sections of North Mine, the mining sequence will be a conventional center-out sequence, as shown in Figure 13-23. Geotechnical modeling has indicated that this approach can be adapted based on favorable results, providing flexibility in the sequence.

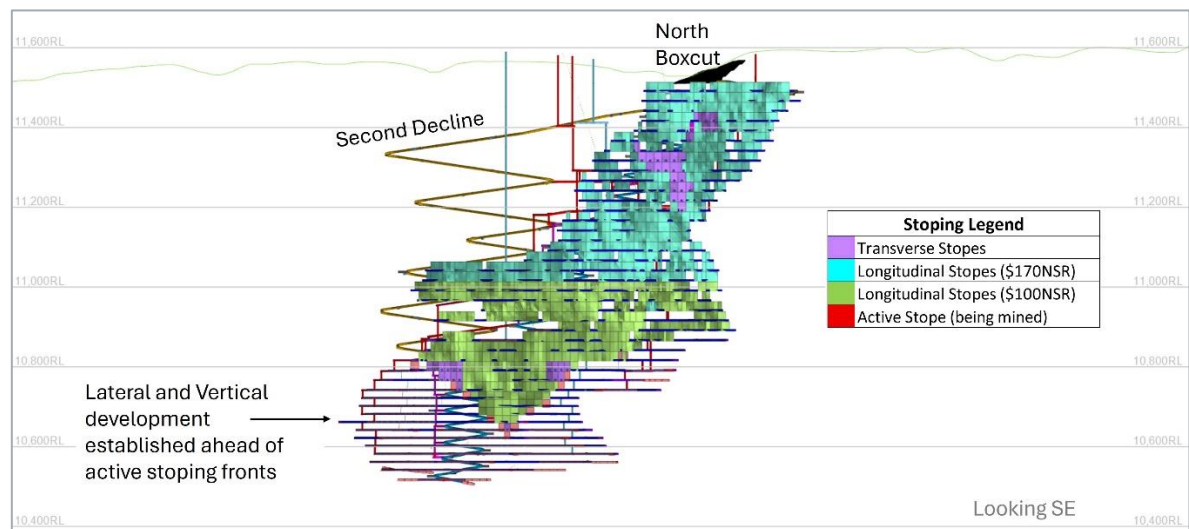


Figure 13-23: Schematic of North Mining Sequence

The planned Tembo Mine sequencing employs similar mining principles, utilizing a center-out approach combined with top-down mining where feasible. Due to the extensive three-kilometer strike length of the Tembo mineralized zone, multiple mining fronts will be established, allowing efficient management across the strike. Higher-value stopes will be accessed and mined early where possible. Notably, Tembo Mine’s operations would commence seven months after those at North Mine. Since

the Tembo mineralized zone does not extend below a depth of 700 m, sequence-induced sterilization is not anticipated. The sequence of mine development for Tembo is illustrated in Figure 13-24.

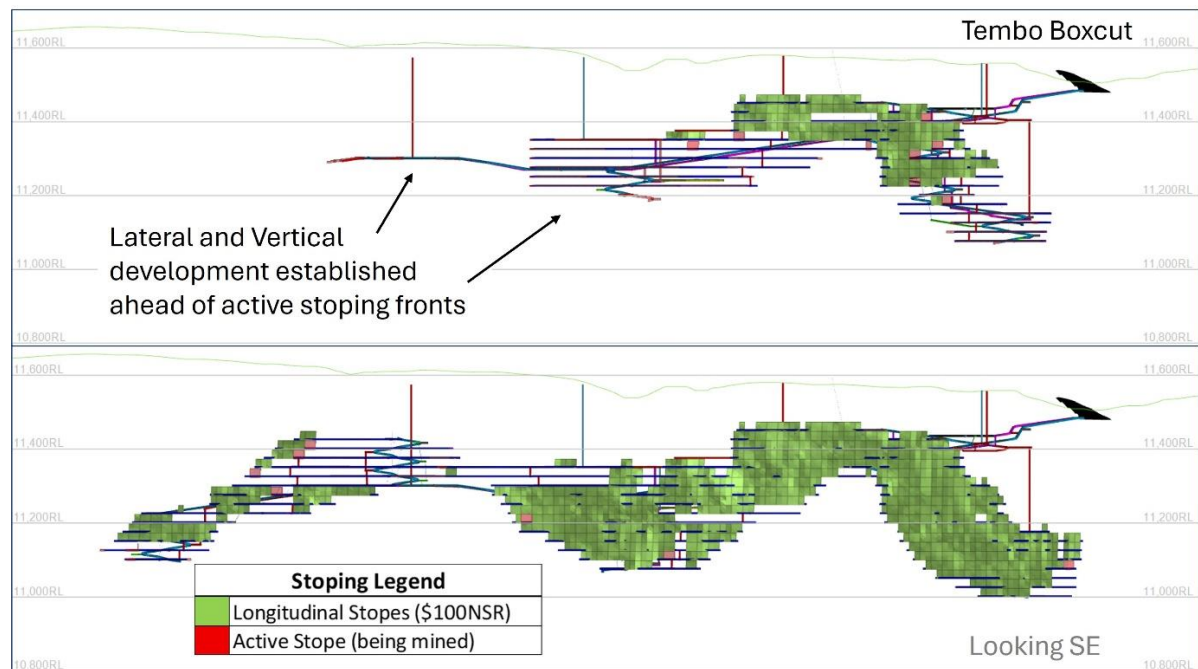


Figure 13-24: Schematic of Tembo Mining Sequence

The planned access for Main will be via a decline that will be mined off the North decline in the later years of the mine life. Appropriate ventilation and escapeways will be established that service Main Mine from both the North Mine access, and access to the surface as Main is relatively shallow. The mining sequence at Main will follow a mostly top-down echelon retreat with longitudinal stopes exclusively, as shown below in Figure 13-25.

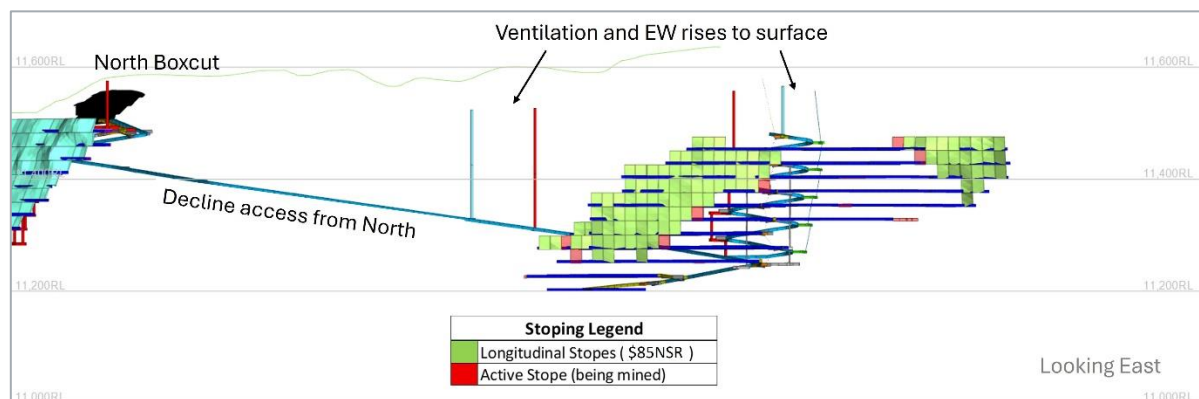


Figure 13-25: Schematic of Main Mining Sequence

13.4.6 Equipment

It is proposed that an experienced mining contractor be engaged for the initial five years to be responsible for the procuring, operating, and maintaining of all underground equipment.

Conventional trucking is the selected method of haulage from underground, with the haulage analysis completed based on defined assumptions. Fleet hours were used to estimate equipment requirements and cumulative usage, supporting maintenance, rebuilding, and replacement planning and these were finalized by checking mine physicals.

Drill numbers were based on scheduled development and advance rates. Equipment estimates for the mine life and the first five years were aligned with contractor estimates. Equipment quantities were rounded up with an extra unit added for availability, and replacement schedules were derived from equipment life.

The anticipated mobile equipment list, along with peak requirements, is shown in Table 13-19.

Table 13-19: Mobile Equipment List

Description	Example	Max Qty.
Production Drill	CAT Raptor 7X	7
Development Jumbo	CAT Troidon 66XL	10
Large LHD	CAT R2900XE	16
Underground Truck	CAT AD63	24
Charge Rig	Epiroc AARD UV100	6
Spraymec	Normet SF 050 D	4
Agitator	Normet LF 700	5
ITC Medium	CAT 930	6
ITC Large	CAT 962	5
Grader	CAT 140	3
Workshop Telehandler	Kanu Equipment Kemach 50H130	3
Workshop Forklift	Kanu Equipment Kemach D3.5	3
Utility / Delivery Truck	Epiroc AARD UV100	3
LV (Light Vehicle)	Toyota Landcruiser 79 Double Cab	37
Camp Transit Bus	Toyota Coaster Bus	6
Tembo Surface Loader	CAT 962	1
Tembo Surface Trucks	CAT 740	6

Note: ITC = Integrated Tool Carrier.

13.5 Backfill

MineFill has completed the backfill component of the FS for the Kabanga Nickel Project, focusing on evaluating all potential paste recipes using materials available on-site at Kabanga. The study included an extensive testwork program to define and deliver a robust backfill strategy aligned with the selected mining method and operational requirements. In addition, MineFill has designed and costed the surface backfill plants, which will produce paste and deliver it to underground stopes through a backbone distribution network. This network design has been validated through detailed flow modeling.

13.5.1 Backfill Demand

The anticipated annual backfill requirement for each zone is summarized in Table 13-20 , which contains the LoM and average annual fill requirements during peak demand in cubic meters (m³). The annual demand in Table 13-20 has been used to evaluate the system requirements.

Table 13-20: Kabanga Backfill Requirements

Mineralized Zone	Backfill Requirements (m ³)		
	LoM demand	Average Annual Design	Peak Annual Design
North	6,924,864	480,000	562,605
Tembo	3,822,012	250,000	250,000
Main	1,237,555	234,000	234,000
North + Main	8,162,419	-	605,868

13.5.2 Testwork and Paste Recipe

MineFill has conducted a testwork program, covering 41 tests based on various recipes and products made and available at Kabanga. Testwork included the use of:

- Non-pyrrhotite tailings (waste stream from the Concentrator)
- Stockpiled non-pyrrhotite tailings
- Crushed and screened waste rock from underground mining
- General purpose (GP) cement
- Tanzanian low heat (LH) cement

Based on the testwork results and process mass balance, the basis of design is to use non-pyrrhotite tails from the Kabanga Concentrator and waste rock from underground development, crushed and screened to < 5 mm. This is to enable the use of a positive displacement paste pump to ensure all stopes can be backfilled. Backfill will be referred to as a Paste Aggregate Fill (PAF). The PAF blend is 55% non-pyrrhotite and 45% waste rock combined with LH cement.

Testwork results indicate the strengths required for vertical and horizontal exposure are achieved using this planned recipe. Analysis of the backfill exposures show that, due to the significant size of some horizontal exposure spans, to limit horizontal exposure dilution quantities to less than 5%, by volume, significant binder addition (90 kg/m³ (5.2%) at North and 70 kg/m³ (4.1%) at Tembo) is required. This high binder content, combined with the crushing costs results in a relatively high operating cost for each system.

13.5.3 PAF Plant Design

13.5.3.1 PAF Plant Location

At Kabanga, PAF is required for filling activities in North/Main and Tembo mines. The distance from the upper level of North Zone (southwest end) to that in Tembo Zone (northeast end) is 4,500 m, while that from Tembo Zone to the center of Main Zone is 6,000 m. Furthermore, the terrain between Main Zone and Tembo Zone is mountainous. Transportation of PAF with conventional pumps from a single plant to these extremities would require PAF to be placed at yield stresses (and densities) less than 200 Pa, which is low relative to other operations. In addition to any increase in binder requirements that may arise because of operating at low densities, the presence of aggregate (which is required to achieve the mass balance requirements) means sustained operation at low yield stress would almost certainly result in settlement of aggregates within the reticulation pipework and potential blockages.

To overcome this, two PAF plants will be implemented at the Kabanga Site. Given the similar backfill duties (at North and Tembo mines) these PAF plants are identical, and the locations are presented in Figure 13-26.

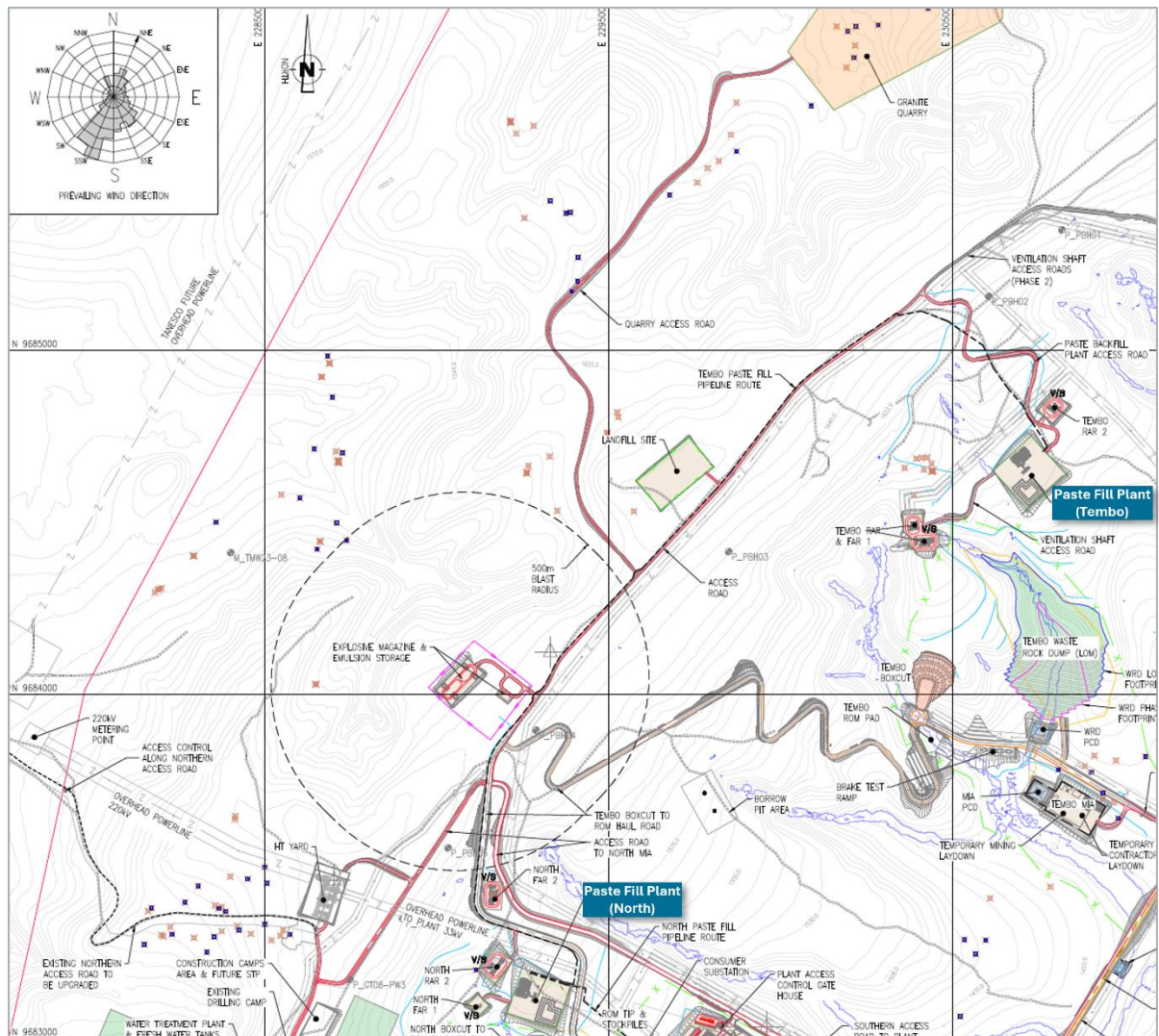


Figure 13-26: Schematic of Kabanga Site showing PAF Plant Locations

13.5.3.2 PAF Plant Overview

PAF is manufactured at two separate plants. One plant is located at North Mine (feeding both North and Main mines) while the other is located at Tembo Mine. PAF delivery from both plants requires high pressure pumping. The PAF pump selected for the duty is a hydraulic piston pump with a pulsation dampening system to prevent surging of PAF throughout the system. The pump has a “poppet valve” or “cone valve” “wet end” as this is more appropriate for the high fines content of the Kabanga PAF and results in a far lower maintenance requirement relative to s-tube style wet ends more common in concrete pumping applications. The drawback with this pump is that the piston opening is relatively small and consequently the feed material must be limited to a maximum particle size of 5 mm. To account for this constraint, underground waste rock is crushed to a top size of 5 mm. This crushing activity is undertaken at North Mine’s waste rock stockpile area, before hauling crushed rock to each plant.

Given the relatively shallow depth and large lateral extent of the mineralization, even after positioning the plants directly above, a pump is still required (at each PAF plant) to deliver PAF to the extremities of the mines.

The planned route for delivery of tailings, process water and return of wastewater is a single delivery system to transport these materials between the concentrator and North plant and then from North to Tembo plant. The plan with this infrastructure is to deliver tailings slurry, at nominally 55% solids, to an agitated 2,000 m³ tailings storage tank at the North plant. From this tank tailings slurry is drawn to

feed both the filter and mixer at the North plant, as well as feeding a 1,000 m³ tailings storage tank at Tembo Mine's PAF plant. Waste water from the Tembo plant is returned to the waste return hopper at the North plant, where it is combined with waste from the North PAF and returned to the tailings thickener at the concentrator. Waste items include spillage, belt cloth washing and general hose up water.

The two PAF plants are effectively identical, both designed for instantaneous production rate of 95 m³/h. At this production rate the backfill requirements at North and Tembo can be satisfied with a system utilization of 64% and 31%, respectively. The plants are fitted with a combined tailings storage capacity of 3,000 m³ and are configured to enable a higher portion of tailings addition where appropriate. This provides an upside opportunity to reduce operating costs associated with aggregate crushing. Testing shows that, over the design range, the tailings/aggregate ratio in the PAF has little impact on the binder requirements necessary to achieve the required strengths.

In 2039, Main Mine requires backfill and North Mine's PAF plant will service both North and Main mines. The design approach is to ensure the system has sufficient "sprint capacity" to support the peak demand in 2042. At the planned fill rate of 95 m³/h, to meet the extra PAF requirement in 2042, North Mine's plant utilization increases from 64% up to 69%. Costs associated with overland piping, pumping upgrades and infrastructure are incorporated into Main Mine's operating costs.

A 3D view of the PAF plant for North Mine is presented in Figure 13-27. The plant for Tembo Mine is similar.

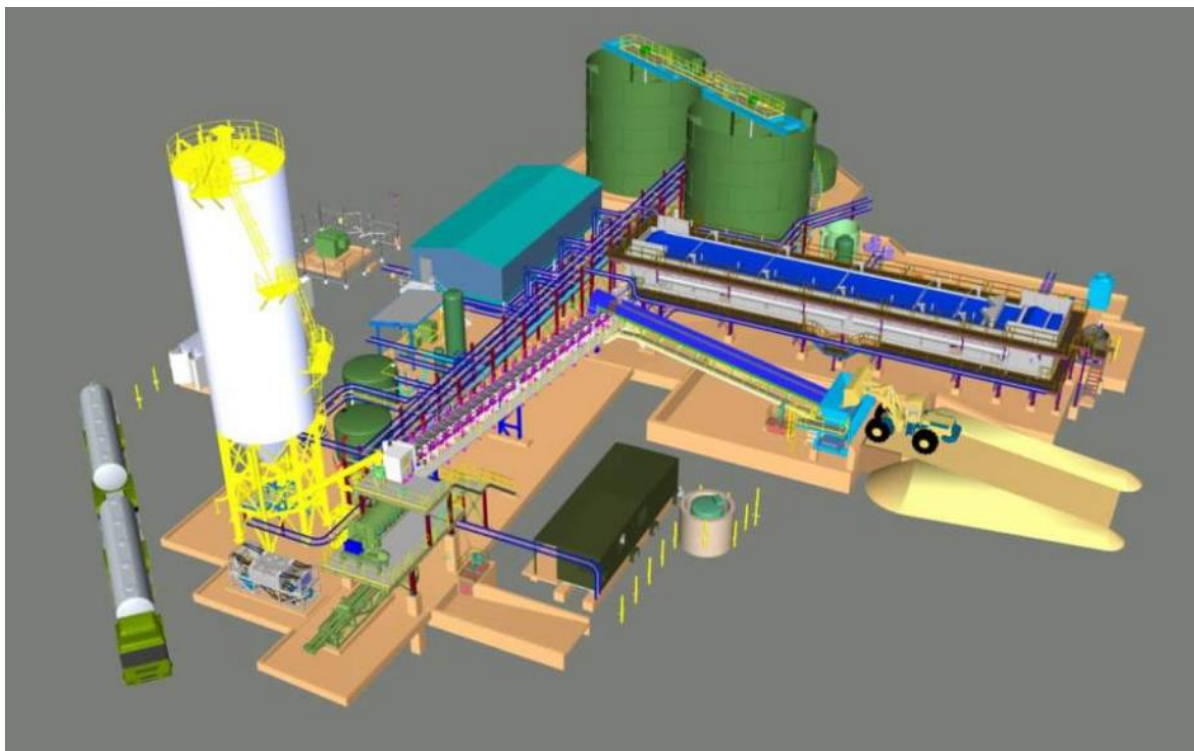


Figure 13-27:3D View of North PAF Plant

13.5.4 Reticulation

While a considerable pumping duty is required to feed the upper sections of North Mine, this reticulation system is relatively direct and only requires a maximum pump discharge pressure of 50 bar. After taking this pressure into account, the reticulation system has been designed with a combination of 150NB steel borehole casing and elbows and 160OD PN120 steel wire reinforced composite polyethylene (SRCP). SRCP is relatively new technology that is replacing traditional steel 3pipe throughout the mining industry due to its light weight, flexibility and wear resistant characteristics and is considered ideal for North Mine. SRCP allows much faster and safer pipe installation, resulting in a lower overall operating cost.

At Tembo a design pump discharge pressure of 150 bar is required, to distribute paste throughout the mine. To accommodate this high pressure, the reticulation system incorporates 150NB Schedule 120 pipe with Victaulic 809N weld ring couplings.

Surface borehole(s) at both mines are lined with 150NB Schedule 120 flush thread steel pipe installed within a grouted 250NB Schedule 40 outer casing, within a 350 mm diameter borehole. Filling activities for the Main mineralized area would be undertaken through a 1.7 km overland pipe from North Mine's PAF plant to a surface borehole located above Main Mine. To reticulate paste to this area, North Mine's PAF pump is upgraded to discharge pressure of 150 bar.

13.5.5 Fill Strategy

Two options are possible for the filling of stopes from underground. These are typically referred to as in-level filling and tight filling. Narrower stopes can adopt the in-level strategy, illustrated in Figure 13-28, whereas tight-fill will be used in large stopes, as shown in Figure 13-29, to manage span stability.

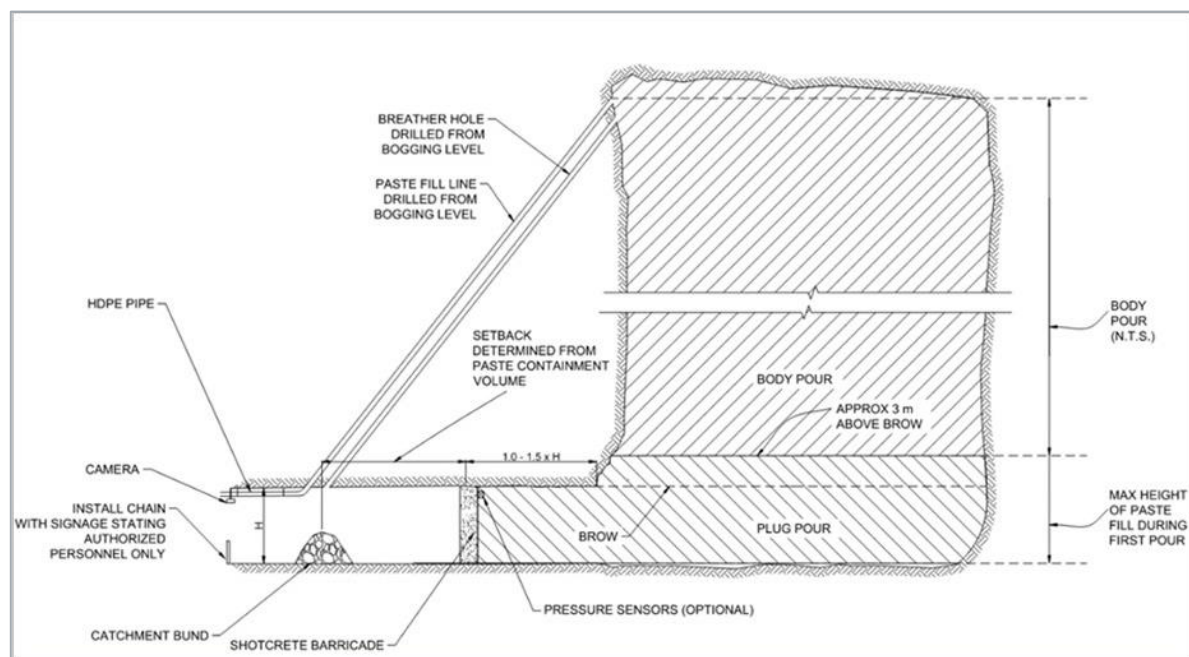


Figure 13-28: In-level Filling Arrangement

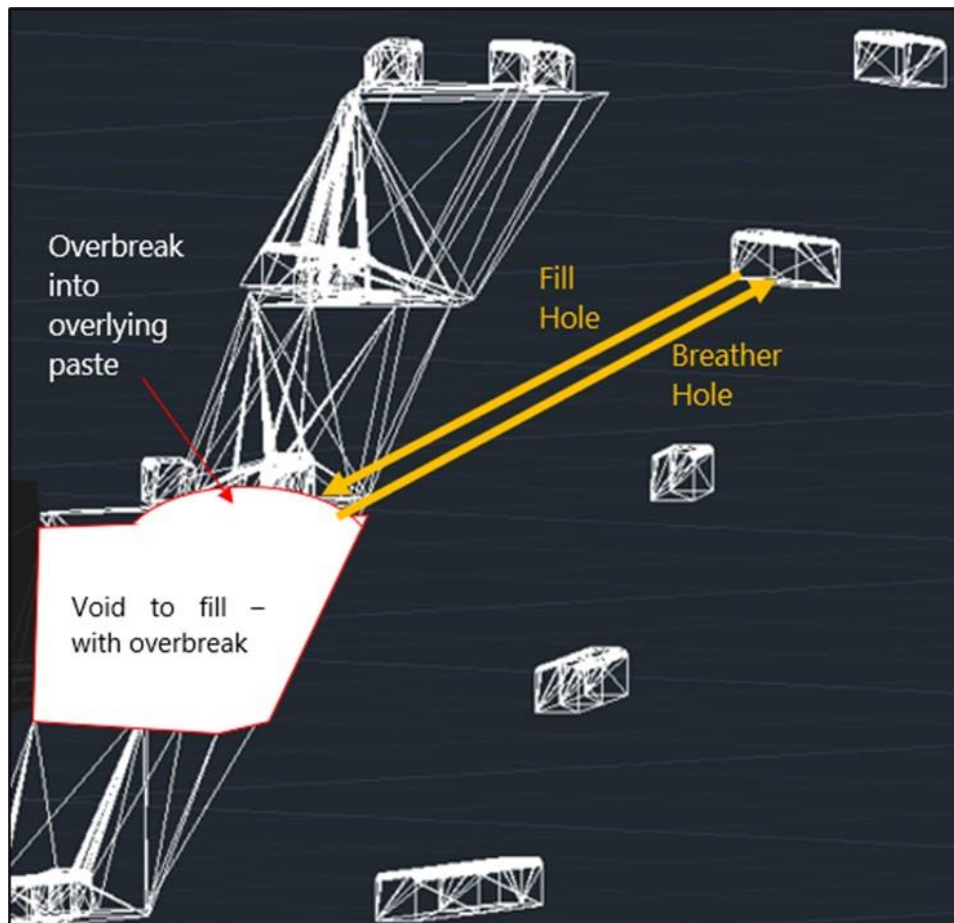


Figure 13-29: Typical Cross-section Showing the Proposed Tight Filling Strategy

13.6 Ventilation

Ventilation and cooling requirements have been calculated considering climatic conditions, mining depth, surrounding rock, diesel, and electrical equipment. Design criteria and production assumptions are then applied to estimate heat loads and ventilation requirements based on best practices that comply with Tanzanian legislation. Ventsim ventilation models were constructed to validate calculations.

The current work includes ventilation and heat load modeling to confirm the following points:

- Workplace environmental conditions
- Positioning of intake and return raises
- Ventilation layout and controls
- Design and phase-in of the major ventilation and cooling infrastructure
- Capital estimates and profiles

13.6.1 Airflow Requirements

Peak airflow requirements to meet and balance the air demand for North, Tembo, and Main mines have been summarized in Table 13-21 and Table 13-22.

Table 13-21: Primary Fesh Air Requirements

North Mine	Volume (kg/s)	Tembo Mine	Volume (kg/s)	Main Mine	Volume (kg/s)
South decline *	66	South decline *	148	Main Decline	70
North decline **	68	North decline **	140	Main FAR1	162
South FAR	88	South FAR	298	Main FAR2	145
Central FAR	426	Central FAR	256	Escape raise	15
North FAR	434				
Total	1,082	Total	842	Total	392

Notes: FAR = fresh air raise, RAR = return air raise; * Primary; ** Secondary.

Table 13-22: Primary Return Air Requirements

North Mine	Volume (kg/s)	Tembo Mine	Volume (kg/s)	Main Mine	Volume (kg/s)
South RAR	356	South RAR	244	Main RAR 1	392
North RAR 1	346	Central RAR	306		
North RAR 2	380	North RAR	292		
Total	1,082	Total	842	Total	392

FAR and RAR locations are illustrated in Figure 13-30.

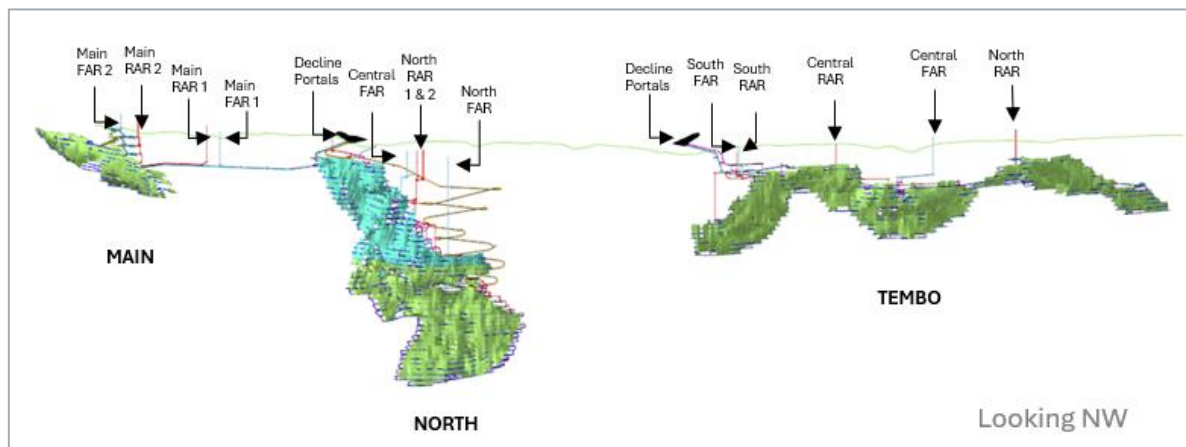


Figure 13-30: Ventilation Infrastructure for Tembo, North and Main Mines

13.6.2 Ventilation Infrastructure

It is planned to use bifurcated centrifugal and axial fans, as summarized in Table 13-23. This will result in three primary fan stations at North, one at Main, and three at Tembo as a result of the extensive strike of the mineralized area at Tembo.

Table 13-23: Ventilation Infrastructure

Mine	Location	Operational Equipment
North	South Fan Station	Bifurcation with 2 centrifugal fans
	North Fan Station 1	Bifurcation with 2 centrifugal fans
	North Fan Station 2	Bifurcation with 2 centrifugal fans
	Central BAC	5.0 MWc BAC
	North BAC	5.0 MWc BAC
Tembo	South Fan Station	Bifurcation with 2 x Axial fans
	Central Fan Station	Bifurcation with 2 x Axial fans
	North Fan Station	Bifurcation with 2 x Axial fans
	South BAC	5.0 MWc BAC
Main	Main RAR 1	Bifurcation with 2 centrifugal fans

Note: BAC = bulk air cooler.

13.6.2.1 Primary Ventilation Fans

Primary ventilation will be provided using an exhaust-type system whereby air will be drawn through the mine using exhaust fans on all Return Air Rises (RAR). Fan types and arrangements have been selected to suit the application, and where possible and practical, the commonality of equipment will be maximized. The following surface fans are planned:

- North Mine South RAR fan station (bifurcated, each fan providing 235 m³/s at 3.7 kPa SP)
- North Mine North RAR 1 fan station (bifurcated, each fan providing 223 m³/s at 3.4 kPa SP)
- North Mine North RAR 2 fan station (bifurcated, each fan providing 180 m³/s at 3.8 kPa SP)
- Main Mine Main RAR 1 fan station ((bifurcated, each fan providing 203 m³/s at 1.5 kPa SP)
- Tembo Mine South RAR fan station (bifurcated, each fan providing 230 m³/s at 2.1 kPa SP)
- Tembo Mine Central RAR fan station (bifurcated, each fan providing 204 m³/s at 2.3 kPa SP)
- Tembo Mine North RAR fan station (bifurcated, each fan providing 230 m³/s at 1.1 kPa SP)

At North, the South, North 1, and North 2 RARs share an identical design, each featuring a 5.0 m upcast shaft with a bifurcated fan station as shown in Figure 13-31. Centrifugal fans, selected for their suitability under high-pressure conditions, are used with inlet guide vanes (IGVs) for dynamic duty modulation. Each station includes two identical fans for flow capacity and redundancy. Surface ductwork incorporates non-return doors, flexible connections, safety screens, and structural stiffening to ensure operational safety and stability.

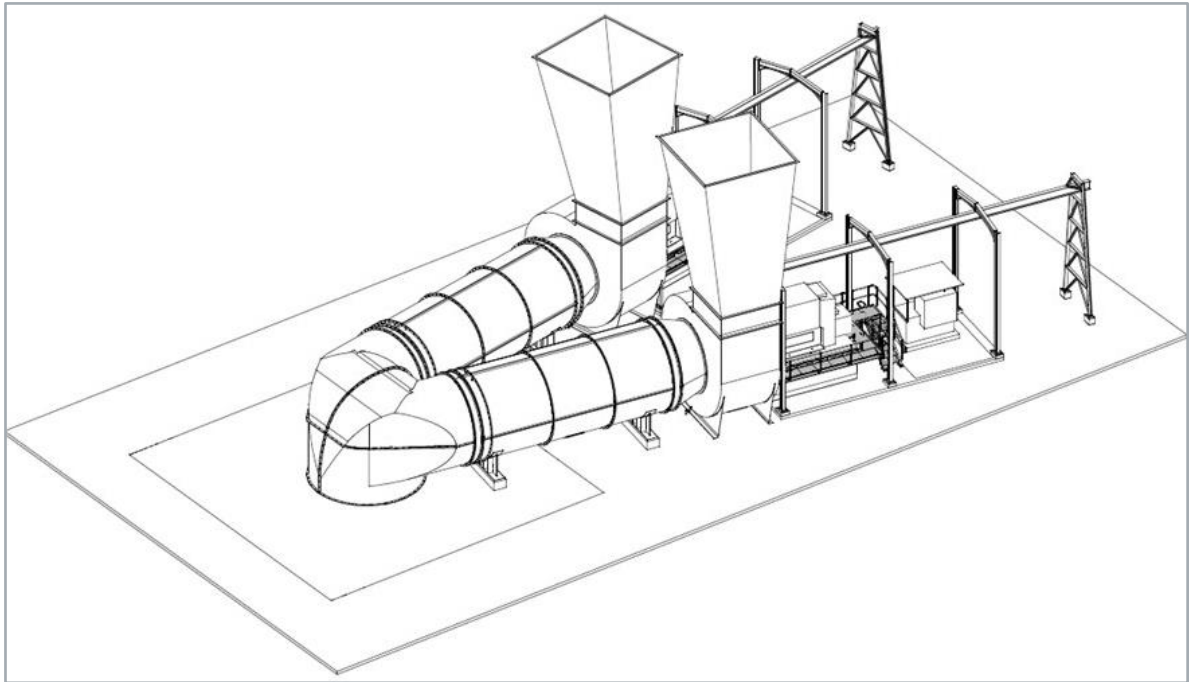


Figure 13-31: Typical Bifurcated Centrifugal Exhaust Fan Arrangement (North)

The South, Central, and North RARs at Tembo Mine are identical, each featuring a 5.0 m upcast shaft with a bifurcated fan station, as illustrated in Figure 13-32. Axial fans are selected due to their efficiency, cost-effectiveness, and suitability for low-pressure operation. These fans, with standard cast aluminum blades, can handle moderate dust and water levels. However, centrifugal fans are recommended for improved long-term reliability if water ingress into the shaft is expected, due to their greater durability in handling entrained air contaminants.

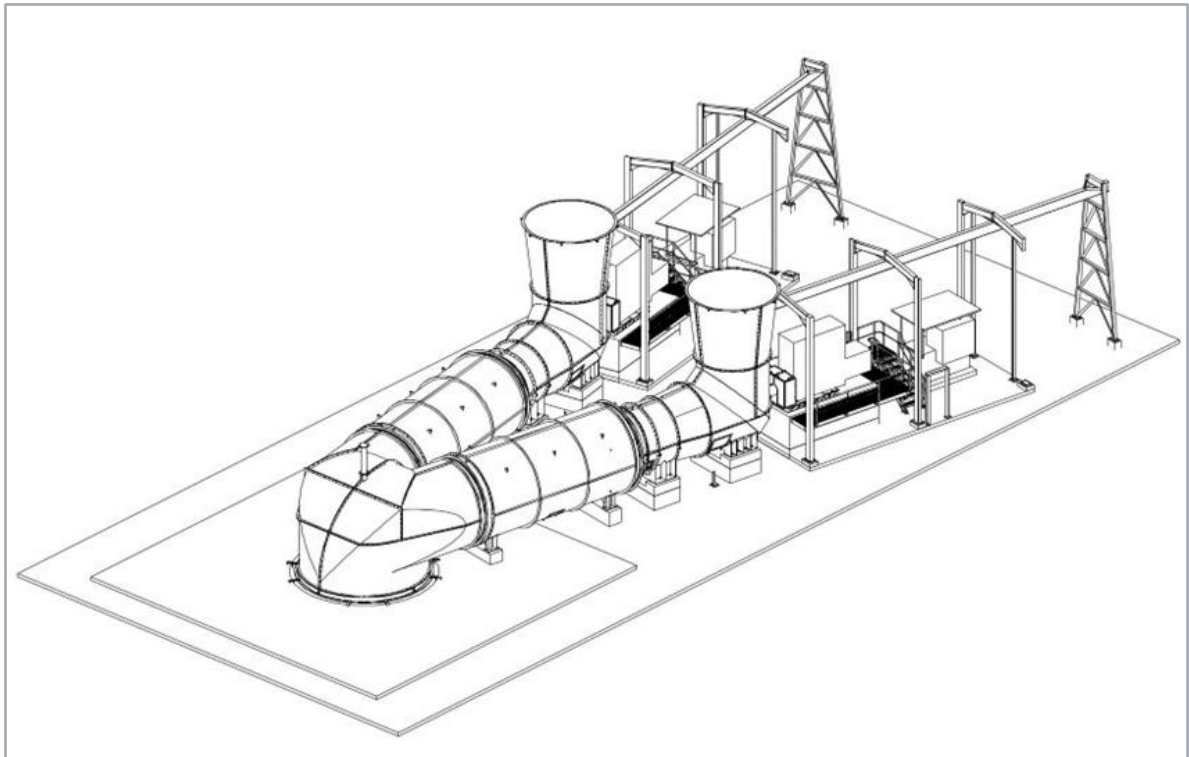


Figure 13-32: Typical Bifurcated Axial Exhaust Fan Arrangement (Tembo)

13.6.2.2 Refrigeration and Cooling

Surface air cooling is required to supplement the cooling potential of ambient air to maintain workplace temperatures. Therefore, air entering the mine at the FARs will be cooled in surface air coolers before being sent underground. The independent surface air cooling and refrigeration systems are planned as follows:

- North Mine - Central FAR: One 5.3 MWc BAC served by a 6.0 MWr refrigeration plant
- North Mine - North FAR: One 5.3 MWc BAC served by a 6.0 MWr refrigeration plant
- Tembo Mine - South FAR: One 5.3 MWc BAC served by a 6.0 MWr refrigeration plant

The air cooler is supplied with chilled water from a refrigeration plant comprising refrigeration machines, condenser cooling towers (CCTs), chilled water, and CCT water circuits. The air-coolers are mechanical, induced-draft type air-coolers. Axial-flow fans draw air through each air-cooler and push the cooled air down the rises. Tembo Mine will require cooling from Year 5, and North Mine from Year 7.

13.6.3 Secondary Ventilation

All development ends would be force-ventilated using dual stage 110 kW fans with 1,400 mm ventilation bags. The production level ends would be force-ventilated using dual stage dual speed 75 kW fans and will be installed in 'in-level' and off the decline where possible to ensure shorter ventilation runs and utilizing fresh air rises that are on-level where possible.

The distribution of secondary ventilation fans across North, Tembo, and Main mines is illustrated in Figure 13-33. The total number of secondary fans reaches a peak of 37 units, with individual area maximums as follows: North – 24, Tembo – 18, and Main – 9 units.

The allocation of secondary fans correlates directly with the number of active production and development work areas. In addition, some levels may retain secondary ventilation despite being temporarily inactive, due to the presence of remaining ore reserves or pending completion of final extraction activities prior to level closure.

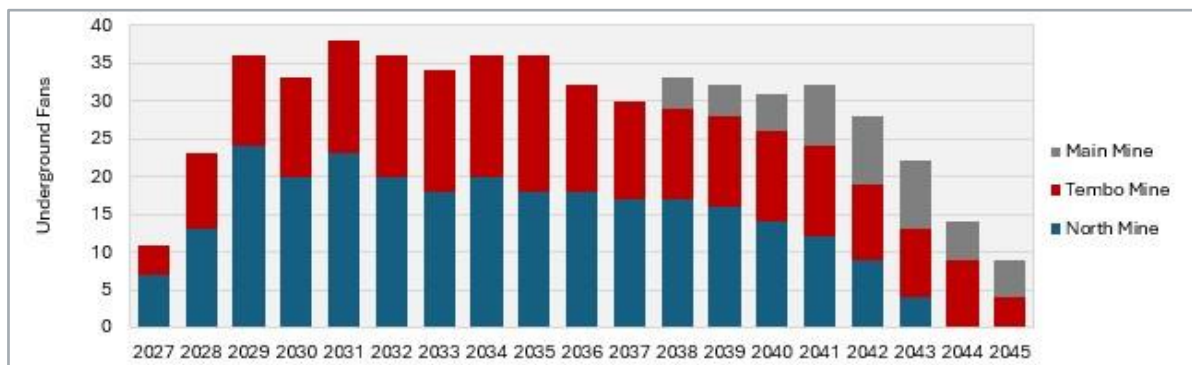


Figure 13-33: Secondary Ventilation Fan Allocation

13.7 Secondary Egress

The Project will implement the Safescope Escapeway System across all underground workings due to its proven global performance and numerous safety and operational advantages. The system is corrosion-resistant, quick to install with minimal excavation, and designed for enhanced stability, visibility, and ease of use. Its ergonomic, low-maintenance design includes a fall arrest system and allows for removal and reuse up to 100 m installations. It can be installed in various excavation types without the need for airleg bolting. An example of the system is shown in Figure 13-34, with the escapeway raise locations shown in Figure 13-35.



Figure 13-34: Example of Safescape Ladder System

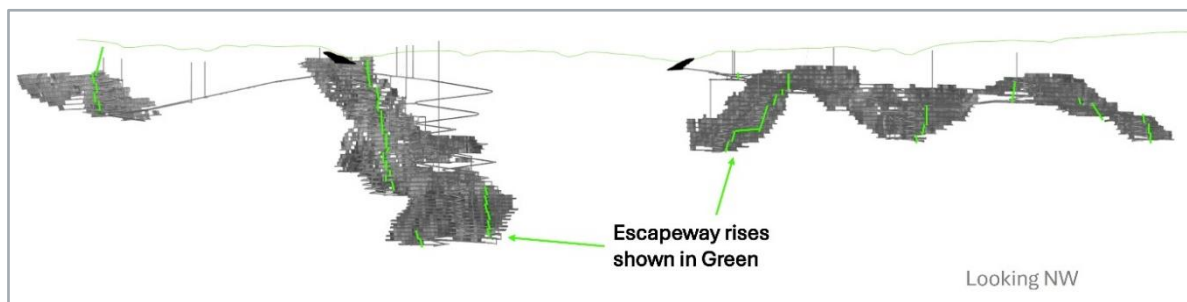


Figure 13-35: Escapeway Raise Locations

13.8 Mining Underground Infrastructure

DRA has prepared designs for the underground infrastructure including pumping, mine services, workshops, electrical, explosives storage, and instrumentation and control, which have been used to inform pricing and schedule and have been incorporated into the project studies.

13.8.1 Materials Handling

Blasted material will be loaded by load-haul-dump (LHD) units onto haul trucks, which will transport the material via decline access to the surface RoM stockpile or waste rock dumps (WRDs).

The Main and Tembo mines are each serviced by a single decline, which will be sufficient for both access and haulage requirements due to the relatively lower proportion of total ore tonnage sourced from these areas.

In contrast, the North Mine will require a higher volume of material movement. To support the planned trucking activity and to mitigate the risk of haulage congestion or material handling bottlenecks, a second decline is designed at North. This will establish a dedicated trucking loop, improving traffic flow and operational efficiency during sustained periods of production.

13.8.2 Dewatering

The dewatering system will consist of transfer pump stations and Gravity Transfer Systems (GTS) and North, Tembo, and Main mines. The GTS system will drain the water to the lower levels where the transfer pump stations will be installed. Water will cascade from one pump station to the next. As the mine is dewatered, the lowest pump station will have the lowest volumetric dewatering duty, whilst the one nearest to the surface will have the greatest.

From the working face, water will be collected in a sump and pumped to the nearest GTS. The water will then gravity feed down to the next transfer dam and pump station. From the transfer dam and

pump station, the water will be pumped to the next cascading dam and pump station, until it is pumped to the surface settler. Figure 13-36 visually represents the flow of water from the working face to the surface.

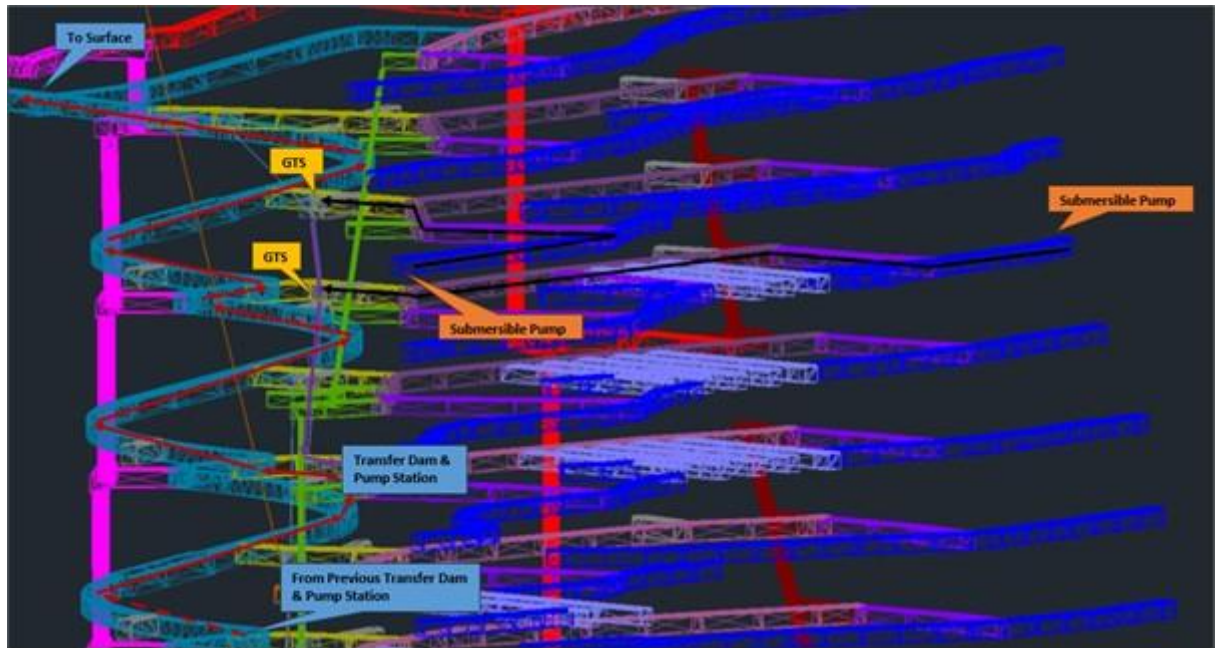


Figure 13-36: Dewatering Schematic (3D View looking south)

13.8.3 Workshops

The main underground workshop is designed to support routine maintenance and service requirements for the underground mobile equipment fleet. The area has been designed to accommodate additional underground infrastructure, including:

- Stores
- Lunchroom
- Hose repair bay
- Welding/cutting bay
- Medium ramp service bay
- Large ramp service bay
- Minor repairs workshop
- Lube storage
- Wash bay

Figure 13-37 shows the workshop layout. Facilities are positioned such that 4-way intersections are avoided. A separate entrance is provided for the wash-bay to reduce traffic in the workshop. The elevations are such that the lowest point is at the wash bay, which is equipped with an oil and water separator. The fleet maintenance philosophy is that the workshop will be used for routine interval services (weeklies) and non-major services.

Service bays have also been designed, costed, and included at North and Tembo underground to support with general breakdowns in locations to avoid long trams to the surface or underground workshop.

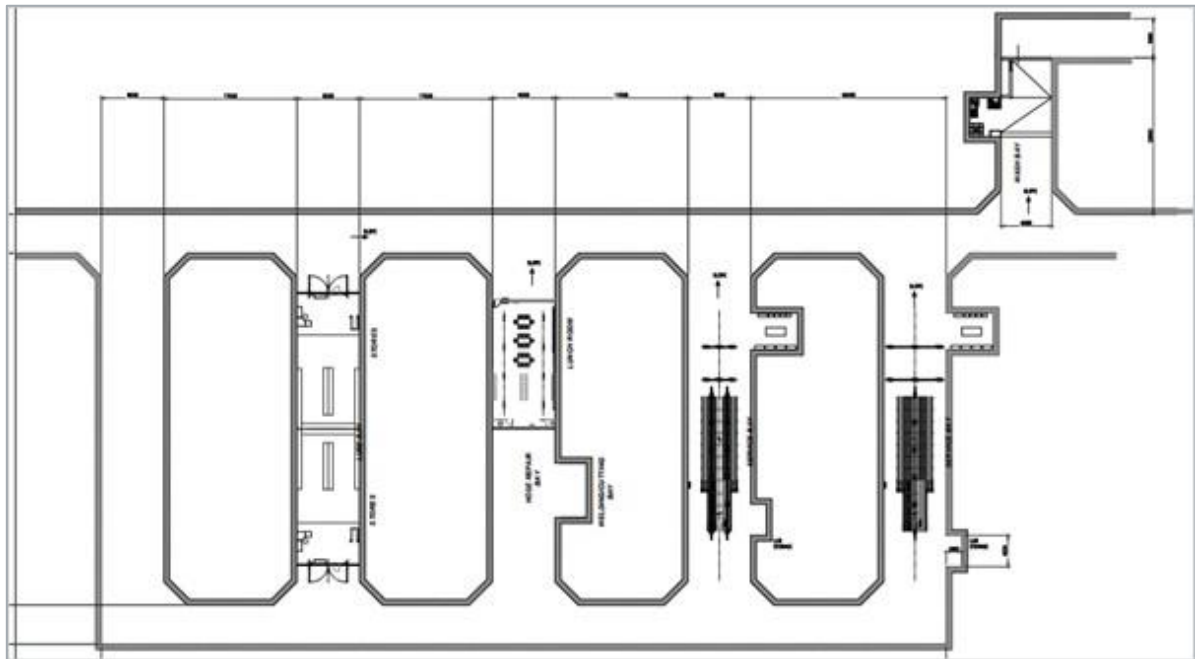


Figure 13-37: Plan view of Underground Workshop

13.8.4 Explosives Storage

13.8.4.1 Surface Explosives Magazine

A centrally located surface explosive magazine will be provided. This magazine will service both North and Tembo mines. Storage regulations as per the Tanzanian Explosive Act 56 of 1963, detonators and relays can be stored together but separate from other explosives (boosters). Detonators will be stored on one side of the compound, with boosters on the opposite side. The area is provided with a 500 m clearance radius to other infrastructure. The area is also fenced, with access control to the area.

Emulsion storage facilities will be installed at both North and Tembo mines, each consisting of two 28-ton silos. These facilities will handle the receipt, storage, and dispensing of emulsion and sensitizer.

13.8.4.2 Underground Explosives Magazine

Both North and Tembo mines will have an underground magazine for detonators and explosives to be stored. The design is presented in Figure 13-38. An additional area for emulsion cassettes is also provided within the design footprint.

The entire area is provided with ventilation into a return air way. Fire doors are provided, along with access control at both entry points.

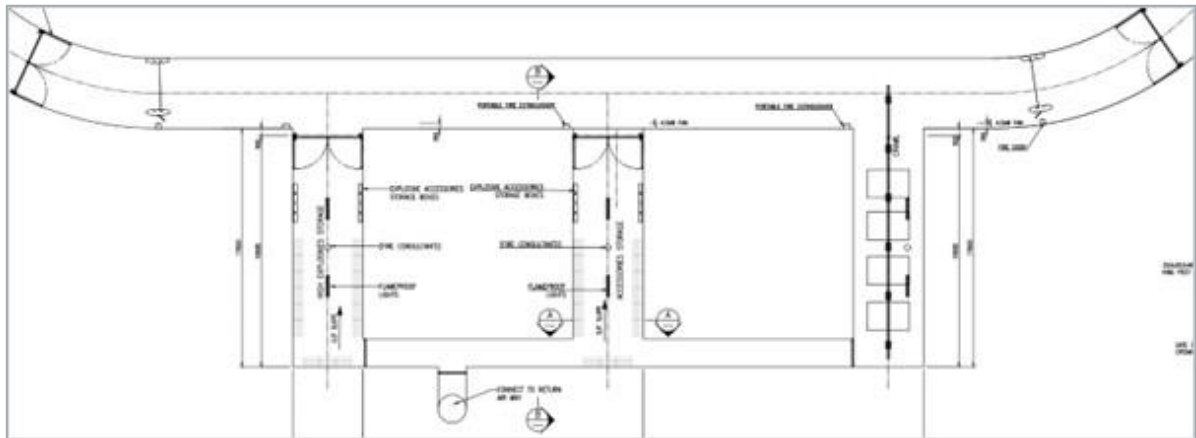


Figure 13-38: Underground Explosives Magazine and Emulsion Storage

13.8.5 Refuge Chambers

Kabanga will implement refuge chambers as a critical component of underground safety infrastructure to protect personnel during emergencies such as fires, explosions, or gas releases, as well as management of potential entrapment scenarios. Small mobile chambers (4–8 person capacity) will be strategically located to address potential entrapment scenarios, while larger, fixed chambers (20–30 person capacity) will be installed at intervals not exceeding 1,400 m. This configuration ensures timely access to secure shelter, supporting safe refuge and minimizing evacuation risk.

It is proposed that Kabanga utilize MineARC refuge chambers, a proven solution widely adopted in the mining sector, including in Tanzania. These units are low maintenance, relocatable, and suitable for evolving underground layouts, offering flexibility as mining progresses. A summary of the number of chambers at each mine is in Table 13-24.

Table 13-24: Refuge Chambers at each Mine

Area	Number
North	15
Tembo	13
Main	6
Total	34

13.9 Mining Labor

Workforce requirements have been estimated using the equipment fleet requirements as well as estimates of the required supervision and technical personnel. A summary of the peak labor demand across the mining departments is summarized in Table 13-25.

During the initial five-year ramp-up period, mining operations will be undertaken by a mining contractor, with the Project retaining responsibility for key management and technical functions. The mining contractor will determine the workforce required to deliver their scope of work. Personnel estimates provided by prospective contractors have been used to inform planning for camp capacity and project infrastructure.

Table 13-25: Maximum Mining Labor Requirements

Mining Department	Maximum Number
Management	25
Supervision	4
Mine Technical Services	30
Engineering/Maintenance	171
Mining Operations	574
Total	804

Consideration has been given to the mining method and the need for successful planning, backfill and drill and blast practices when determining the labor estimated. The Mining Technical Services human resources structure has been established considering the level of technical support required at Kabanga.

Key mining positions for specific underground roles that have been identified as challenging to source or retain in Tanzania, have been considered in the labor estimate.

13.10 Mine Schedule

The mine schedule has been developed in Deswik by using the activity rate, productivity rates, quantity limits and geotechnical sequencing discussed earlier in this section. Development meters have been limited by applying equipment build-up as the mine grows and more work areas are available in Figure 13-39.

The primary scheduling constraint in the mining sequence involves the pastefill links between stopes. These links are essential for ensuring the stability of the mine and are dictated by the backfill testwork conducted by MineFill, which aligns with geotechnical strength requirements. The schedule is impacted by the need to observe delays between adjacent stopes that are horizontally and vertically exposed. Typically, there is a 7-day delay required for side-exposure to allow the pastefill to gain sufficient strength before the next stope can be fired. For undercutting, a more extended delay of 28 days is necessary to ensure that the backfill has fully cured and achieved the required strength. These constraints are crucial for maintaining safety and structural integrity within the Kabanga Mine, but can affect the overall pace of extraction. An example of the schedule sequence is shown in Figure 13-39 where each stope follows the required production cycle.



Figure 13-39: Production Cycle Example

The first period of underground mining is focused on development, while the Concentrator is under construction. This gives the mine time to prepare production areas, while also establishing critical infrastructure such as primary ventilation rises, power, dewatering and backfill systems. Following the preparation of mineable stopes, a reasonable ramp-up is possible.

In the mine plan, priority was given to higher grade areas and stopes, particularly in North Mine, which allows for targeting of higher value stopes in the shallow portion of the mine.

As the mines progress, a center out retreat sequence is applied, as illustrated in Figure 13-23, particularly in the deep areas of North Mine, to ensure stress and deformation can be managed.

13.10.1 Scheduling

The mine schedule has been designed to follow geotechnical guidelines, maintain safe and efficient mining rates, and ensure a consistent feed of 3.4 Mtpa to the processing plant. To minimize the risk of mineralized material oxidation, stockpiles are kept to a minimum during normal operation and the schedule process.

The scheduling of both mine development (such as tunnel creation) and mineralized material extraction (stopping) was built using planning tools in Deswik software. Schedule productivity rates are summarized in Table 13-26 and Table 13-27. Vertical development activities are scheduled at rates between 2 m/d and 3 m/d depending on the type and size.

Table 13-26: Lateral Development Productivity Rates

Lateral Development Description	Single Heading Rate (m/month)
Access Drive	90
Crosscut Drive	90
Decline	120
Footwall Drive	90
Production Drive	60

A benchmarking exercise was conducted to verify the development rates used for Kabanga, specifically the Jumbo development productivity rate used in mine scheduling. Information was gathered from projects with similar ground conditions, locations, contractor/owner mining arrangements, and project phases.

A summary of the development benchmarking data is provided in Table 13-27.

Table 13-27: Development Productivity Benchmarking

Mine	Country	Monthly			Comments
		Jumbo Advance Av per Rig (Multi)	Decline Face (Single)	Ore Drive (Single)	
Mine A	East Africa	270	120	80	
Mine B	West Africa	350	190	120	
Mine C	West Africa	175		80	Challenging circumstances / conditions
Mine D	Southern Africa	230	125	100	
Mine E	West Africa	225	120	60	
Mine F	West Africa	255	180	120	
Mine G	Australia	240			
Mine H	Australia	275			
Mine I	Australia	300			
Mine J	Southern Africa		180		Single Decline Only
Mine K	Southern Africa		180		Single Decline Only
Mine L	Central Africa	254			Contractor Established Crews
Mine L	Central Africa	233			Owner operated local workforce
Mine M	Central Africa	221			Limited heading availability (New Mine)
Mine N	Central Africa		178		Decline Only Twin heading 7 m x 6 m
Mine L	Central Africa	256.6			Established crews average greater than 6 months
Mine L	West Africa	256.6			Same Crews average minus less the first 6 months
Mine L	West Africa	169.1			Crews with less than 6 months Experience
Minimum		175	120	60	Minimum
Average		253	159	93	Average
Maximum		350	190	120	Maximum
Kabanga	Tanzania	230– 255	120	60	DFS

Benchmarking was undertaken to verify the development rates used, specifically the Jumbo development productivity rate. Information was gathered from 16 mines with similar ground conditions, locations, contractor/owner mining arrangements and project phases. It was confirmed that the Project development rate assumptions are appropriate.

To capture the range of difference stopes sizes and geometry (tonnage, dip and thickness), different stope activity rates have been used. These have been applied based on the stope tonnage and are summarized in Table 13-28.

Table 13-28: Slope Tonnage and Associated Productivity Rate

Slope Tonnage	Mucking/Bogging Rates (mined t/month)	Backfill (m ³ /day)	Production Drilling (m/day)
> 50,000 t	40,000	1,000	240
> 30,000 t	30,000	1,000	240
> 20,000 t	22,000	850	200
> 15,000 t	18,000	750	180
< 15,000 t	15,000	750	180

13.10.2 Development Schedule

The mine plan development schedule by year is shown in Figure 13-40 for lateral development and Figure 13-41 for vertical development.

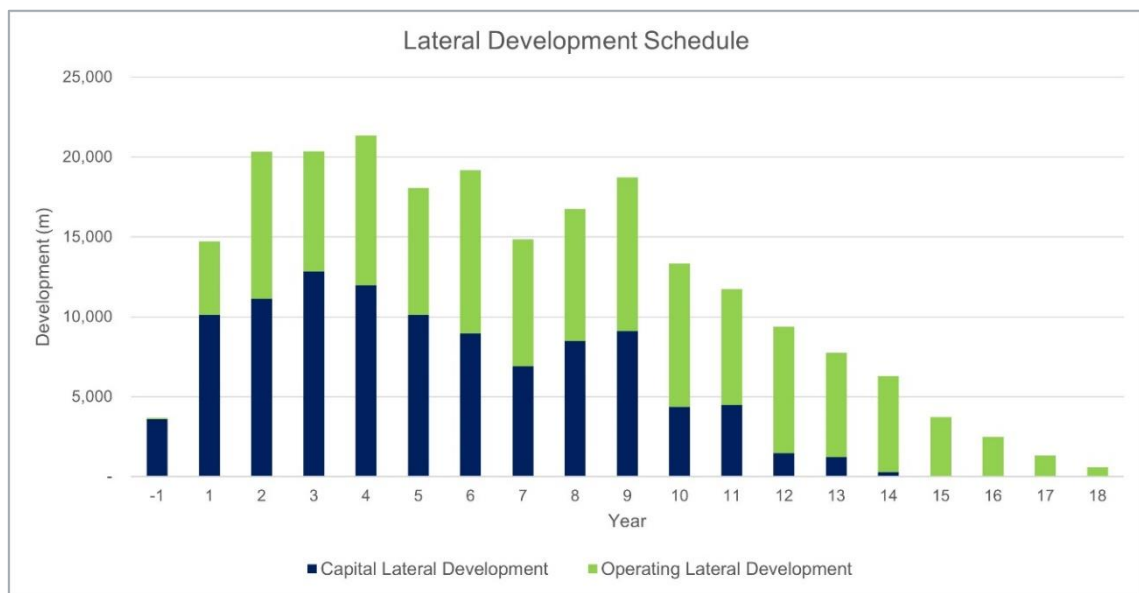


Figure 13-40: Lateral Development by Year

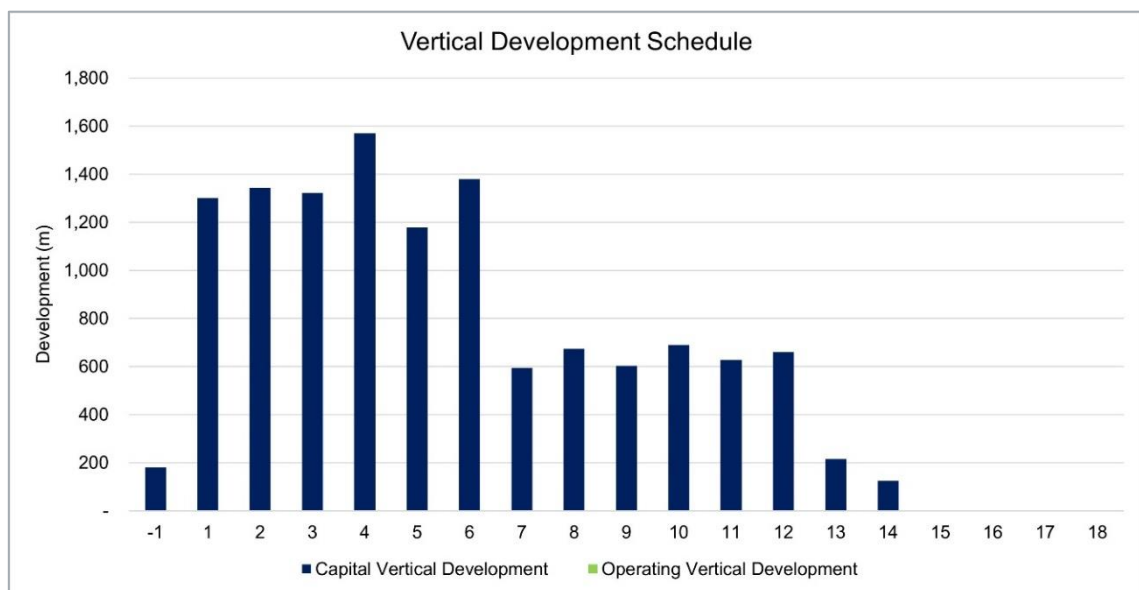


Figure 13-41: Vertical Development by Year

13.10.3 Production Schedule

Quantity limits have been applied to the global mineralized material tonnage, while also governing the tonnage from each mine to achieve the 3.4 Mtpa target rate. The production split by mine is provided in Table 13-1 and by Mineral Reserve category in Table 13-29. Figure 13-42 displays the mine design sequence shaded by color gradient on a yearly basis.

Table 13-29: Mine Plan by Mineral Reserve Category

Classification	Tonnes (kt)	Ni (%)	Cu (%)	Co (%)
Proven	17,700	1.84	0.25	0.15
Probable	34,507	2.05	0.28	0.14
Waste	18	0.00	0.00	0.00
Total	52,225	1.98	0.27	0.15

Note: The Total tonnage includes 18.3kt of Inferred material. The grade of this material was zeroed for the purposes of inclusion in the mine plan and hence the Project's financial evaluation.

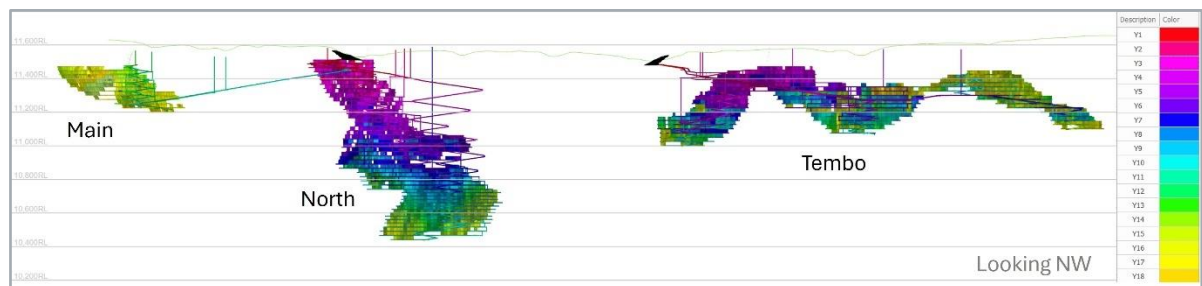


Figure 13-42: Mining Sequence by Year

The mine plan for the FS includes a small amount of Inferred material which is contained inside the mining shapes, i.e., internal dilution. Inferred Mineral Resources were treated as waste and were not converted to Mineral Reserves. This was actioned by applying a zero grade attributed to any Inferred Mineral Resources that intersect stopes or development. A long-section of the mine plan by Mineral Resource category can be seen in Figure 13-43. The production schedule shown by Mineral Reserve category is shown Figure 13-44.

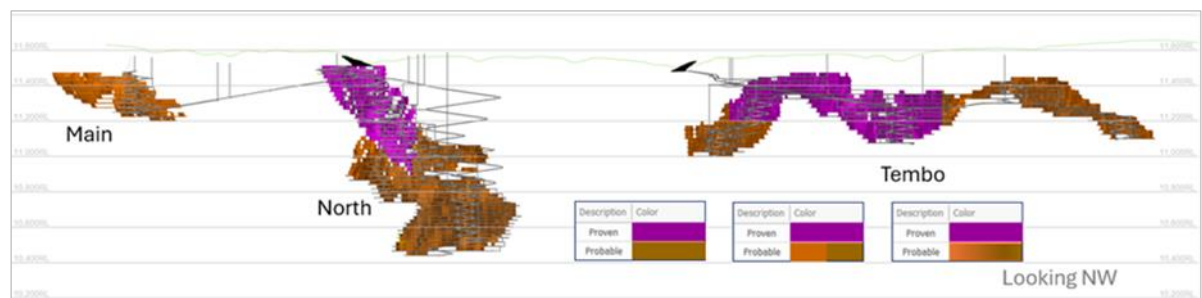


Figure 13-43: Kabanga Long-section by Mineral Reserve Category

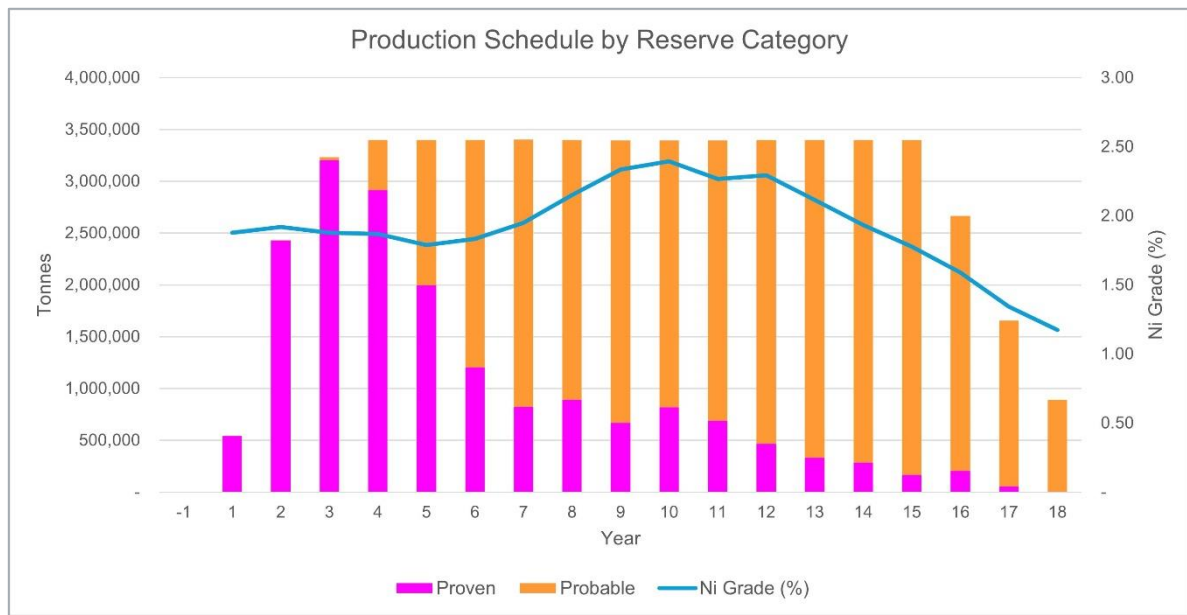


Figure 13-44: Production Schedule by Mineral Reserve Category

The production schedule showing the stoping and development split is shown Figure 13-45.

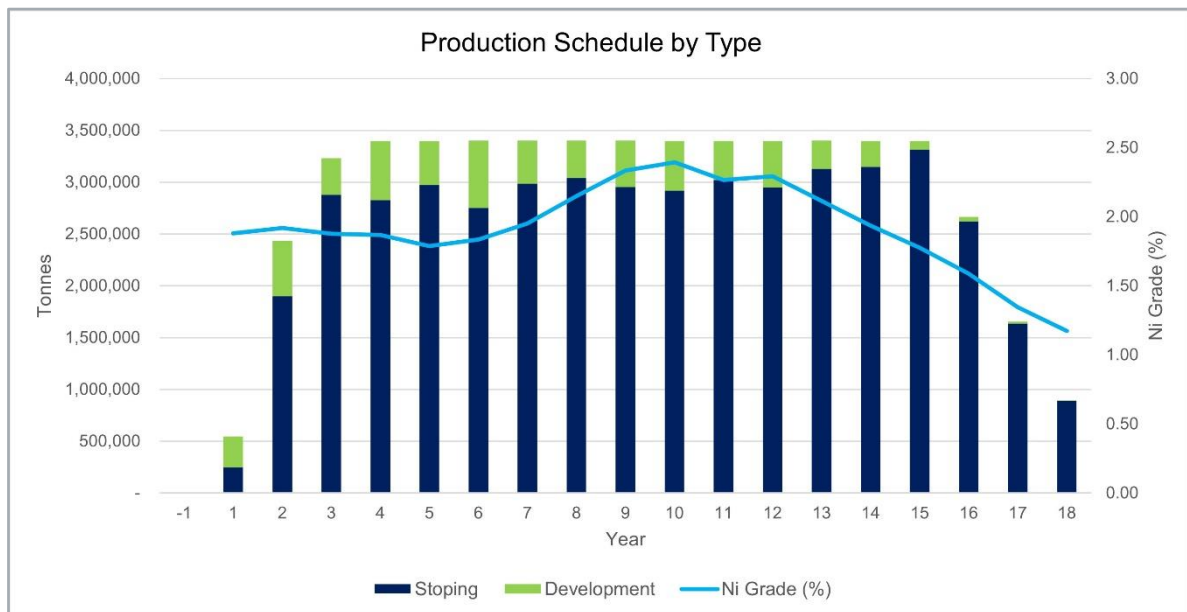


Figure 13-45: Mineral Reserve Production Schedule by Mining Type

The production schedule shown by source is shown in Figure 13-46.

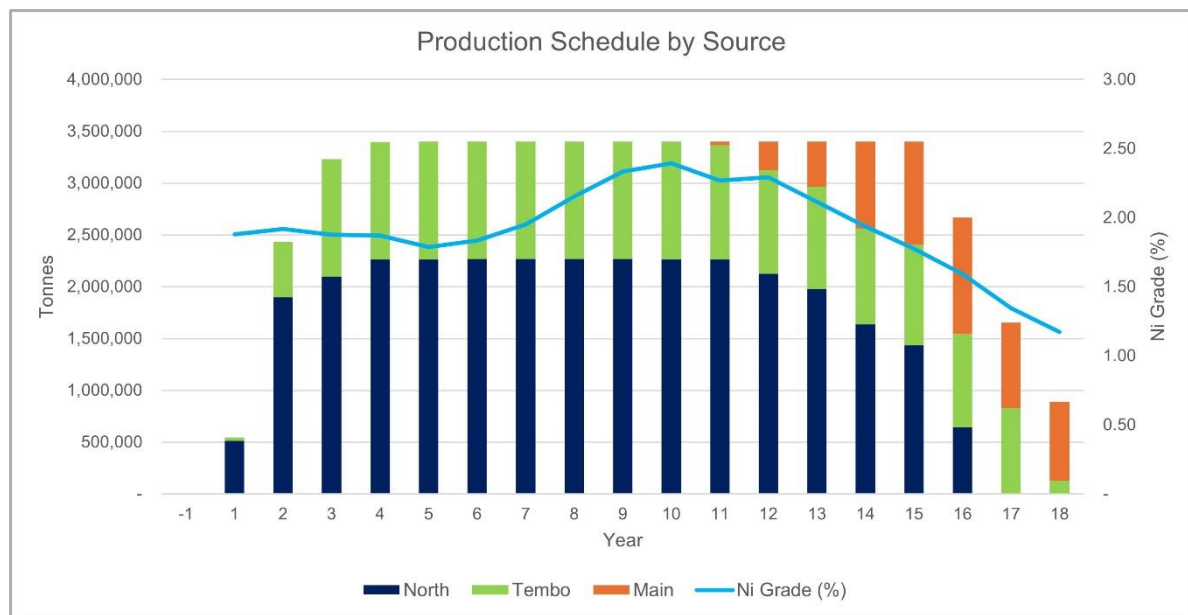


Figure 13-46: Mineral Reserve Production Schedule by Source

13.11 Mining Contact

The Project initiated a tendering process for the underground mine by advertising locally and engaging in industry networking. Expressions of interest were invited from tier-1 contractors with relevant experience in Africa and expertise in the mining methods and skills required for the Project, as listed below. The contract term is set for five years, with an option to extend for an additional three years, subject to mutual agreement between the principal and the contractor.

The scope of work includes:

- Underground Development
- Longhole Drilling
- Mucking/Bogging
- Pastefill Activities
- Raisebore Activities
- Mine Infrastructure
- Explosive Management

The process involved evaluating the capabilities of eight contractors who submitted expressions of interest. Of these, five were identified as having the necessary capabilities to be successful at Kabanga. These four contractors were then provided with tender packages, which included:

- Contractors Management Systems (CMS)
- Scope of Work (SOW)
- Specifications and Mining Physicals
- Responsibilities Matrixes
- Returnable Schedules

All five contractors submitted their returnable schedules, which will be used as the basis for the next stage of contractor selection and negotiations. This will ensure timely procurement and mobilization ahead of the commencement of underground activities. These contractor costs have been used to inform the first five years of the underground mining costs.

13.12 Waste Rock

There will be two waste rock dumps at Kabanga, one at North and the second at Tembo. North Mine's waste rock dump (WRD) will stockpile waste from North and Main mines, while the Tembo stockpile will service Tembo Mine's waste only. Over the LoM, there will be 8.0 Mt of waste rock generated from North and Main mines, while Tembo will generate 4.5 Mt of waste rock. The waste production profile by source is shown below in Figure 13-47.

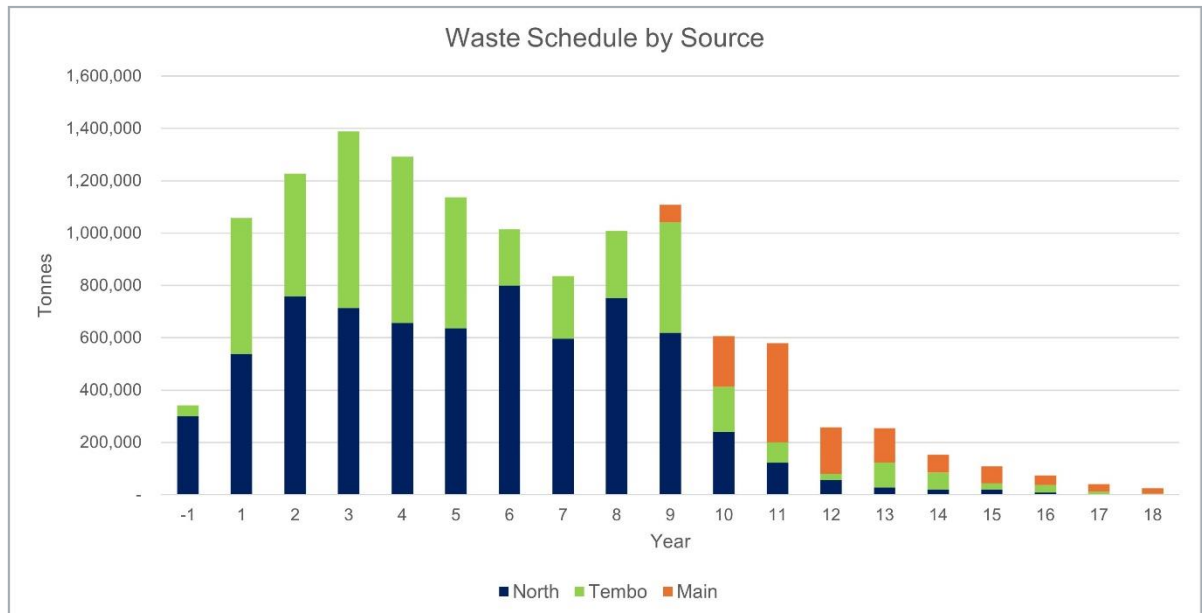


Figure 13-47: Waste Rock Schedule by Source

As the backfill recipe is a blend of 55% non-pyrrhotite tailings and 45% crushed waste rock, there is a large portion of the waste rock from the surface WRDs that will be used in the PAF reverting underground. North and Main will use 6.2 Mt of waste rock in PAF over the mine life, resulting in final waste dump size of only 1.8 Mt at North. Tembo will use 2.9 Mt of waste rock in PAF over the mine life, resulting in a final waste dump size at Tembo of only 1.6 Mt.

Because the waste rock is potentially acid-forming, the WRDs on the surface will need to be lined and contact water will be captured and treated appropriately. The location of the WRDs can be seen in Figure 15-2.

13.13 QP Opinion

The mining study discussed in Section 13 demonstrates that the mining strategy is technically sound and appropriate for an FS under S-K 1300. Supporting studies, including geotechnical, ventilation, and backfilling have contributed to the development of feasibility-level mine plans. The mining method, dilution, recovery and scheduling parameters are appropriate for the deposit. It is recommended that the Project continue with development beyond the Feasibility Study.

In the opinion of DRA, responsible and acting as the QP for the Kabanga Mine, the mining studies completed to date meet the requirements for an FS under S-K 1300 and are based on sound engineering, consistent with industry best practices, and are adequate to inform the quantification of Mineral Reserves.

14 PROCESSING AND RECOVERY METHODS

14.1 Process Overview and Description

The planned Concentrator will be built at the Kabanga Site and has been sized to process 3.4 Mtpa of RoM feed to match the steady-state underground mining production rate. The Concentrator will treat the MSSX (massive and semi-massive sulfides) and UMIN (disseminated ultramafic-mafic intrusive lithology sulfides) feed types in the mine production profile, for recovery of nickel, copper, and cobalt sulfide minerals. Iron sulfide minerals are expected to be recovered as a byproduct of processing but are not considered in this FS as a Mineral Resource or in the economic analysis.

The flowsheet consists of crushing, wet grinding, and flotation to produce a Ni-Cu-Co sulfide concentrate, and separate pyrrhotite flotation concentrate and non-pyrrhotite tailings streams. The Concentrator will produce approximately 350 ktpa (dry) nickel-copper-cobalt flotation concentrate, containing 17.7% nickel at the steady-state 3.4 Mtpa production rate. The concentrate will contain approximately 2.6% copper, 1.3% cobalt, 32% sulfur and averaging 0.6% magnesium oxide (MgO) over the LoM.

The concentrate will be loaded into FBCs before being trucked and railed to the Port of Dar Es Salaam for sale to international customers. The non-pyrrhotite tailings stream will be used in the underground pastefill mix, and the pyrrhotite tailings stream will be disposed of in the TSF. The flowsheet is conventional and well-known, uses common reagents, and has been commercially established as a suitable processing route for base metal sulfide ores.

14.2 Process Flowsheet and Design Basis

The Concentrator feed will contain Ni, Cu, Co, and Fe sulfide minerals along with non-sulfide gangue. This will be processed to produce a Ni-Cu-Co concentrate, a separate pyrrhotite flotation concentrate, and a non-pyrrhotite tailings stream. The Ni-Cu-Co concentrate produced will be filtered, bagged in FBCs, and then dispatched by truck to the Isaka rail freight terminal, where it will be railed on the new standard gauge rail (SGR) to the Port of Dar es Salaam. The pyrrhotite concentrate will be stored in a TSF, and the non-pyrrhotite tailings stream will predominantly be used as underground backfill along with the crushed mine waste.

The process design has been developed based on historical studies, testwork findings and assessments, various desktop-level trade-off studies, relevant DRA design information, and standard engineering and operational practices.

14.2.1 Concentrator Flowsheet

The flowsheet is based on a conventional two-stage crushing and ball milling circuit followed by flotation and dewatering and includes the following conventional size reduction and mineral beneficiation unit processes:

- Primary and Secondary Crushing and Screening
- Milling and Classification
- Aeration and Conditioning
- Ni-Cu-Co Rougher Flotation
- Ni-Cu-Co Rougher Flotation Concentrate Re grind
- Ni-Cu-Co Cleaner, Re-Cleaner and Cleaner Scavenger Flotation
- Ni-Cu-Co Concentrate Dewatering, bagging, and dispatch
- Pyrrhotite Rougher Flotation
- Pyrrhotite Tailings Dewatering and Pumping
- Non-Pyrrhotite Tailings Dewatering and Pumping
- Reagent Delivery, Make-up, and Dosing Facilities

- Services: Air and Water Supply and Distribution

The design is based on a facility, executed in a single phase, comprising two 1.7 Mtpa milling and flotation modules to achieve the full 3.4 Mtpa production rate. The milling and flotation modules share a common primary and secondary crushing circuit, tailings pumping circuit, and concentrate handling circuit, as well as shared utilities and services.

The modular design philosophy was selected based on the mine production ramp-up profile, the feed characteristics of the different lithology types, and a comminution circuit options trade-off study. This approach allows for variations and flexibility in feed types, competency, and rates and caters for a wide throughput operating window, which provides increased processing flexibility and introduces redundancy.

A simplified Concentrator block flow diagram is presented in Figure 14-1.

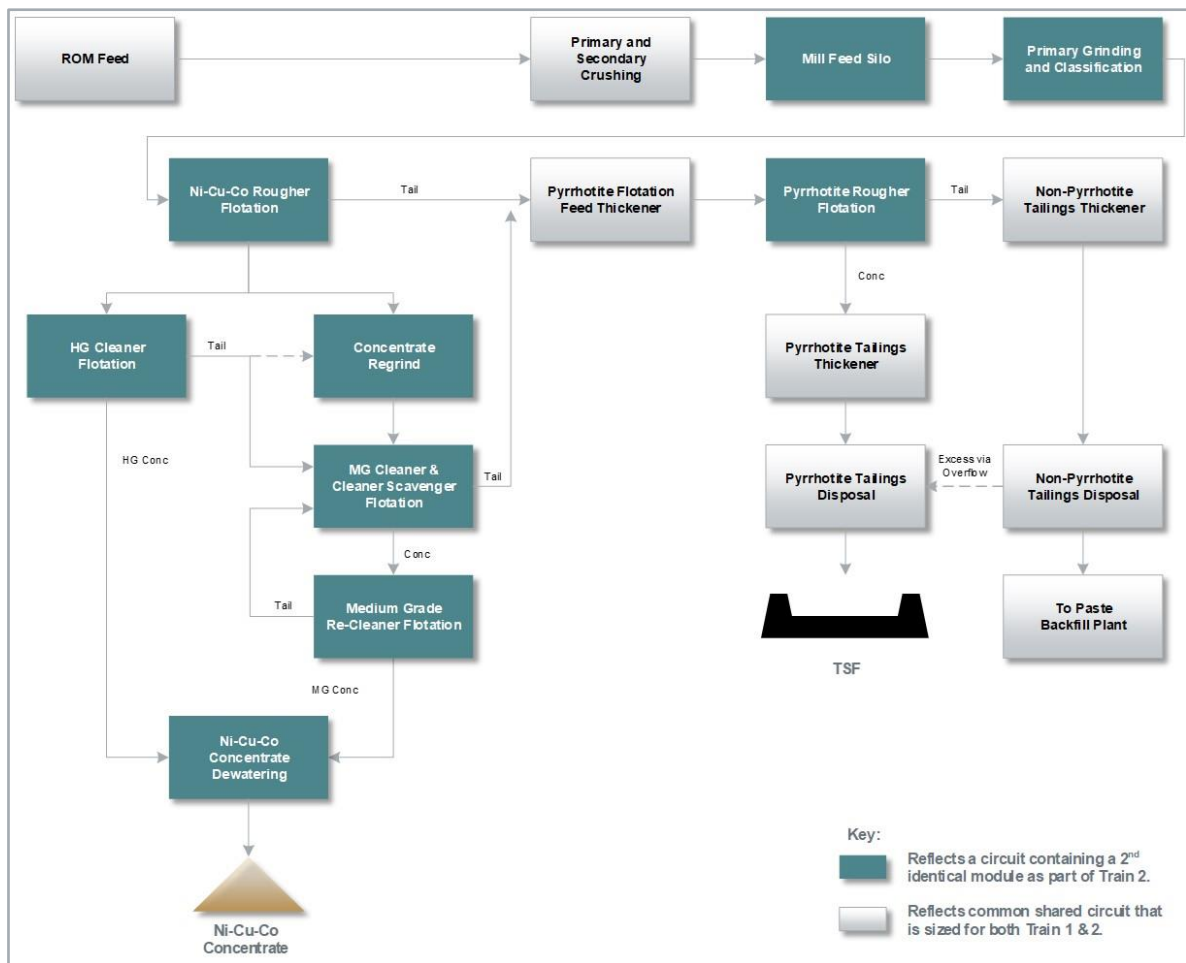


Figure 14-1: Simplified Concentrator Process Flowsheet

14.2.2 Concentrator Production Profile

The FS mine production schedule was developed by the Project team and used to confirm the required Concentrator throughput and ramp-up requirements as illustrated in the Concentrator FS processing production schedule in Figure 14-2.

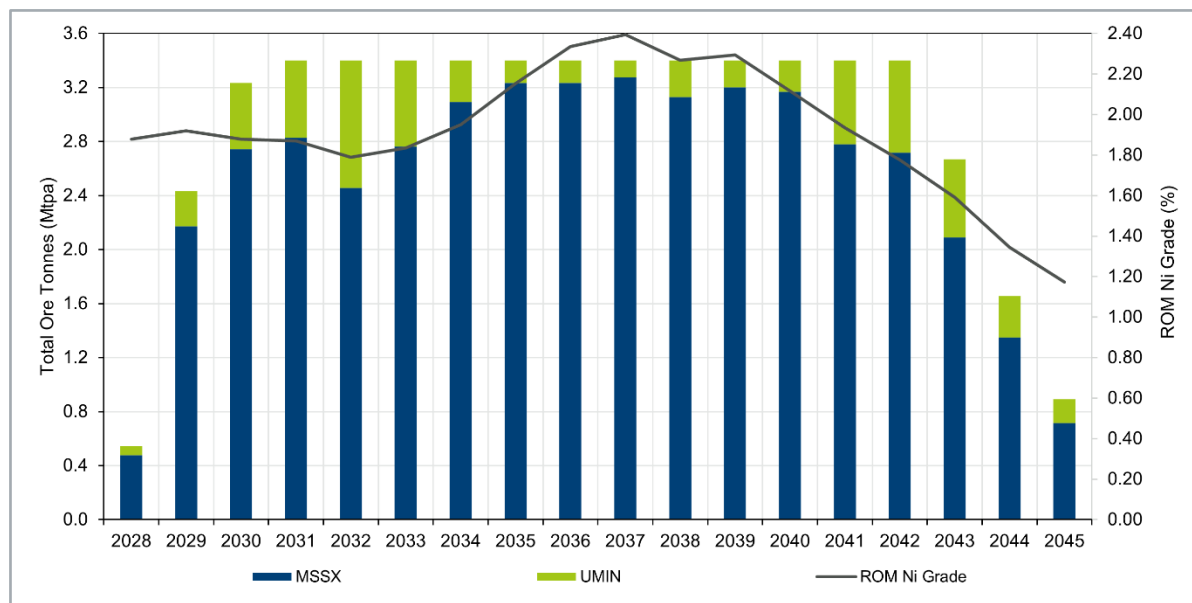


Figure 14-2: Concentrator Production Profile

The concentrator will process 52.2 Mt over the total LoM with 58% of the feed comprising material from North Mine, 32% of the feed will come from Tembo Mine, and the remaining 10% will come from Main Mine, which will be processed from Year 10 onwards. As previously detailed in Section 10, future testwork during implementation is required to validate the metallurgical performance assumptions for Main Zone.

The Concentrator production profile ramps up to 3.4 Mtpa at steady state over a two-and-a-half-year period. The concentrator will process a feed blend comprising predominantly MSSX with UMIN ranging from 4% to 28% and averaging 13% over the 18-year LoM.

14.2.3 Concentrator Design Basis

The Concentrator will operate 24 hours per day, seven days per week, and 52 weeks per year. The Concentrator design overall run time will be 6,000 hours per annum for the primary and secondary crushing circuit and 8,000 hours per annum for the milling and flotation circuits reflecting an overall run time (inclusive of all the combined availability and utilization factors) of 68.5% and 91.3% respectively. The Concentrator run time is based on typical design values for similar African concentrator operations and reflects conventional engineering norms for mineral processing and flotation style concentrators internationally.

The Concentrator design is based on a mill feed blend comprised of 70% MSSX and 30% UMIN and contains dilution ranging from 12% to 18% by mass and ranging up to a maximum of 25% for design purposes. This is considered a conservative approach, particularly for the comminution circuit design given the LoM percentage of the more competent UMIN ranges from 4% to 28% at steady state and averages 13% over LoM.

Based on the testwork findings, the mine production will be managed to maintain the proportion of UMIN in the concentrator feed nominally below 20% UMIN and limited to a maximum of 30% to ensure optimal flotation performance. The design thus includes allowance to stockpile and selectively blend ahead of the Concentrator in instances when the RoM contains a high proportion of UMIN-rich material.

A high-level summary of the Concentrator design basis is presented in Table 14-1.

Table 14-1: Key Concentrator Process Design Criteria

Parameter	Unit	Value ¹	
Design Throughput	Mtpa (dry)	3.4	
Nickel feed grade (range/average)	%	1.17–2.39	1.98
Cobalt feed grade (range/average)	%	0.09– 0.17	0.15
Copper feed grade (range/average)	%	0.17–0.32	0.27
Sulfur feed grade (range/average)	%	18.5–27.5	24.0
Iron feed grade (range/average)	%	29.9–41.2	35.0
Iron design feed grade	%	42.0	
Design feed blend – MSSX:UMIN	%	70.30	
Design feed blend dilution	%	25	
RoM feed moisture	%w/w	5	
Design solids specific gravity	t/m ³	4.26	
Crusher circuit annual run time	h	6,000	
Design primary crushing throughput	tph	567	
Milling and flotation annual run time	h	8,000	
Number of milling and flotation trains	No.	2.0	
Design milling and flotation throughput	tph (dry)	425	
Design milling and flotation throughput per train	tph (dry)	212.5	
RoM feed size (F ₉₅ /F ₁₀₀)	mm	600 / 800	
Flotation feed size (F ₈₀)	µm	100	
Target nickel concentrate grade	%	> 16	
Design nickel concentrate mass pull		9.7–11.0	
Target nickel concentrate moisture	%	9	

¹Values have been rounded

Key aspects of the Concentrator process design for each processing area are discussed in more detail in the process design and processing descriptions in Section 14.3.

14.2.4 Comminution Circuit Trade-Off

A comminution (crushing and grinding) trade-off study was undertaken to select the preferred circuit for the Concentrator. At the time this assessment was undertaken, the potential for a slower mining production ramp-up and phased execution of the grinding and flotation modules to defer capital were also under consideration and was based on a design throughput rate of 212.5 tph (dry) for Module 1 increasing to 425 tph (dry) with the addition of Module 2, while achieving a target grind of 80% passing 100 µm.

The trade-off considered two-stage crushing and ball milling as well as autogenous grinding (AG), semi-autogenous grinding (SAG) and semi-autogenous grinding and ball milling with in-circuit pebble crushing (SABC) flowsheet configurations as follows:

- Two-stage crushing and ball milling, which considered both series and parallel ball milling options as follows:
 - Two-stage crushing and ball mill for Module 1 with the addition of a second identical ball mill module operating in parallel for the Module 2 capacity increase.
 - Two-stage crushing and ball mill for Module 1 with the addition of a second ball mill operating in series for the Module 2 capacity increase.

- AG milling with phased expansion to SAG milling. This option considered an AG mill, ball mill, and pebble crusher (ABC) in Module 1 with a conversion of the AG mill to a SAG mill, ball mill, and pebble crusher (SABC) circuit to expand capacity.
- SAG milling with the addition of a new ball mill and pebble crusher for increased capacity. This option considered SAG milling for Module 1 with the addition of a new ball mill and pebble crusher for conversion to an SABC circuit for a Module 2 capacity increase.

The trade-off was conducted early in the study utilizing the available test data to derive breakage parameters for a design mill feed blend comprised of 30% UMIN and 70% MSSX, as an estimate of the maximum proportion of the harder feed type. The analysis also assumed a conservative 85th percentile of the ore hardness tested, which is a typical engineering design standard.

Alongside accommodating a design throughput of 1.7 Mtpa (Module 1) and 3.4 Mtpa (Combined Module 1 and 2), this trade-off study also compared the operating cost (Opex), capital cost (Capex), throughput ramp-up strategies, and available grinding circuit capacity turndown flexibility and robustness to the significant difference in hardness between the MSSX and UMIN feed types. Additional considerations included downtime required during expansion tie-ins if the deferred module approach was selected, operability and maintenance, technical risk, potential for additional throughput for each option, and an evaluation of environmental, social, and governance (ESG) factors, including carbon footprint.

Each of the options were assessed based on scoring criteria using a ranking of 1 to 5 for a number of different criteria (where 5 is the best score). The outcome of this assessment is summarized in Table 14-2.

Table 14-2: Comminution Circuit Trade-Off Assessment Outcome

Ranking Matrix	Weight	Option 1A 2C + Parallel Ball Mills	Option 1B 2C + Series Ball Mills	Option 2: ABC Phased to SABC	Option 3: SAG Phased to SABC
Capex	20	3	4	4	4
Opex	20	4	3	4	3
Ease of Ramp-Up / Scale-Down (1.7 Mtpa /3.4 Mtpa)	10	5	4	3	3
Downtime for Expansion Tie-Ins	10	5	4	3	3
Operability and Maintenance	10	4	4	3	3
Technical Risk	10	4	4	2	2
Additional Throughput Potential	10	4	4	4	4
ESG / Carbon Footprint	10	4	3	3	3
Overall Ranking	100	4.0	3.7	3.4	3.2

The trade-off study recommended proceeding with Option 1A, i.e., a two-stage crushing and two identical 1.7 Mtpa ball milling circuits operating in parallel with a combined capacity of 3.4 Mtpa. In this case, two parallel ball milling circuits were considered a lower risk option with the highest overall ranking. This comminution circuit is also considered the most robust given the variability in the feed types and blends expected, particularly the large variance in comminution characteristics for the MSSX (relatively soft) and UMIN (hard) feed types, the need for a consistent grind size for flotation, and the requirement for appropriate turndown of the circuit during early operations as underground mine production ramps up.

Given the variability in the feed blends expected, and the large variance in comminution characteristics for the MSSX (soft to medium hard) and UMIN (medium to hard) feed types, the AG and SAG circuits were deemed unsuitable for the Project. In comparison to an SABC circuit, the parallel ball milling circuits are expected to be more consistent in terms of throughput and are expected to produce a more consistent grind, targeting an 80% passing 100 µm as required for the flotation circuit.

The findings of the FS comminution circuit trade-off are consistent with historical comminution trade-off and value engineering studies for a lower 0.6 Mtpa throughput option, which concluded that ball milling and SAG milling capital costs were approximately equal; however, the ball mill circuit offered opportunity for lower operating cost in combination with potential for improved metallurgical performance and reduced operational risk.

14.3 Process Design Description

14.3.1 Run of Mine Receiving

RoM material will be transported from the underground mining operation to the Concentrator using articulated dump trucks (ADTs). The trucks will deposit the ore directly into the crushing and screening circuit via the primary crusher tip bin (i.e., direct tip). Alternatively, the RoM can be placed onto blending stockpiles, located on the RoM pad in close proximity to the primary crusher tip bin.

A front-end loader (FEL) will be used to reclaim and blend the ore. RoM pad management will be under the supervision of mining, while the RoM feed blend will be determined by the metallurgical group. As previously discussed, the processing strategy will employ direct tipping and processing of MSSX material with an allowance to stockpile and selectively blend ahead of the Concentrator, when the RoM contains a high proportion of UMIN-rich material.

Key aspects of the design can be summarized as follows:

- The RoM bin has a nominal capacity of 240 tonnes, sufficient to receive up to eight loads from 30-tonne ADTs.
- Benchmarked blast fragmentation data from the mining consultant specified an expected RoM F_{80} and F_{100} size of approximately 250-450 mm and 800 mm respectively. Based on this information the RoM tip bin design incorporates a 500 mm static grizzly and rock breaker for top size control to target a primary crusher feed top size of 600 mm.
- In addition to the adoption of a coarse blast fragmentation particle size distribution (PSD), the design and operations will aim to limit the time between blasting and ore processing, i.e., the RoM and crushed ore storage and crushed ore will be stored in a covered concrete silo ahead of the mill.
- Since the MSSX material exhibits a faster rate of oxidation, the processing strategy employs direct tipping and processing of MSSX material with allowance to stockpile and selectively blend ahead of the Concentrator when the RoM contains a high proportion of UMIN-rich material.
- UMIN rich ore blends stockpiled onto the surface RoM pad ahead of the crushing circuit will be dumped and arranged to create four finger stockpiles with a capacity of roughly 35 kt. This provides approximately three-and-a-half days of production surge capacity. The size of the fingers will be managed in conjunction with mining to limit the ore blasted, hauled to surface and stockpiled. There is space to expand the size of the RoM pad if required.

14.3.2 Crushing, Screening and Mill Feed Storage

A two-stage crushing circuit has been selected based on the comminution circuit trade-off findings previously detailed in Section 14.2.4.

The crushing circuit will treat RoM material withdrawn from the RoM tip bin, with a maximum (top) feed size (F_{100}) of 800 mm, at a design throughput rate of 567 tph (dry). The circuit comprises a crusher tip bin, static grizzly, rock breaker, vibrating grizzly feeder, primary jaw crusher, overhead belt magnet and two secondary cone crushers in parallel, which will be operated in closed circuit with a double deck classification screen to produce a crusher product of 100% passing (P_{100}) 30 mm.

The crusher circuit classification screen undersize material will be conveyed to the covered concrete mill feed silos. Two silos will be constructed with each milling module being supplied by a dedicated silo.

Key aspects of the crushing circuit design can be summarized as follows:

- The crushing equipment sizing and selection has been based on crushing circuit simulations utilizing both the Metso Bruno and Sandvik PlantDesigner simulation software using the 85th percentile weighted mine blend CWi of 11.3 kWh/t. This resulted in the selection of a 160 kW primary jaw crusher and two 315 kW secondary cone crushers for the crushing duty.
- The design uses open steel structures to enable mobile crane access for maintenance purposes and the secondary crusher building is fitted with hoist to facilitate the regular relining of the cone crushers.
- The covered concrete mill feed silos cater for 12 hours storage, which has been selected to minimize the risk of oxidation of the crushed material.

14.3.3 Milling

Based on the comminution circuit trade-off findings previously detailed in Section 14.2.4, two identical ball milling circuits will be installed. Each circuit will have a capacity of 1.7 Mtpa and will operate in parallel to achieve a combined throughput of 3.4 Mtpa.

Crushed ore will be withdrawn from the silo using one or two vibrating feeders controlled by variable speed drives (VSD) and discharged onto a mill feed conveyor, grinding media will be added to this belt from a dedicated system after the mill feed weightometer.

Each milling circuit will consist of a single 4.88 m diameter (Ø) x 7.16 m effective grinding length ball mill, with a 15 mm grate discharge arrangement and 3.5 MW VSD. Each ball mill will operate in closed circuit with a classification cyclone cluster to achieve a throughput rate of 212.5 tph (dry) while targeting a cyclone overflow product stream of 80% passing 100 µm. Process water will be added in the mill feed hopper to achieve an in-mill solids concentration of 72%–75% (w/w). Lime will also be added into the mill feed hopper to achieve a target pH of 9.0–9.5.

The +8 mm mill scats will be removed by trommel screen and deposited onto a scats stockpile, which will be reclaimed via FEL. Depending on the assayed metal content, the scats will be transported to the waste rock stockpile or get reprocessed if the grade is high enough to warrant this.

The sizing and selection of the mills were based on the comminution testwork data, using an energy-based population balance modeling methodology. The modeling was based on a mill feed F_{80} of 22 mm and target a flotation feed F_{80} of 100 µm. A summary of the comminution circuit modeling outcomes for a range of feed blends, at the 1.7 Mtpa throughput for each grinding module, is provided in Table 14-3.

Table 14-3: Summary of the Comminution Circuit Modeling Outcomes

Scenario	Feed Blend	% Ni Feed	Feed (tph _(dry))	Steel Charge (%v/v)	Mill Nc, (%)	Est. Gross Power (kW)	E_{FF} (kWh/t)
Design P ₈₅	70% MSSX	~1.6	212	28	76	2 980	13.2
MSSX Rich	82% MSSX	~1.8	212	20	70	2 372	10.4
MSSX	100% MSSX	~2.0	238	20	70	2 378	9.3
UMIN	100% UMIN	~1.3	199	30	80	3 118	14.8
UMIN	100% UMIN	~1.0	177	30	80	3 104	16.6

The mill simulations indicate an effective pinion power requirement (E_{ff}) of 10.4 kWh/t for an MSSX rich blend containing 82% MSSX and 18% UMIN and grading approximately 1.8% Ni. When treating a higher grade MSSX feed containing 2.0% Ni, there is potential for an approximate 12% increase in throughput. However, when treating low-grade UMIN material, throughput is reduced by approximately 7%-16% dependent on the amount of dilution as indicated by the Ni grade. The FS mine and processing schedule reflects an average LoM blend containing 87% MSSX and 13% UMIN at an average Ni feed grade of 1.98% for which the milling circuit is conservatively sized.

Key aspects of the mill circuit design can be summarized as follows:

- Dependent on the feed blend, a mill gross power draw of 2.4-3.0 MW is expected. The larger 3.5 MW motor requirement is driven by the design requirement to cater for a 35% v/v ball charge, whereas for normal operation the ball charge is expected to be lower at between 20%-28% v/v. The range of the ball charge, together with the variable speed motor capability installed on the mill, allows the Concentrator design to cater for the expected variation in the feed material, required grind size and mill throughput.
- Load cells will be installed on each mill to measure total mill load, and mill power will also be measured to assist with the process control strategy and speed variation. The mill operating parameters will be controlled using an advanced mill control system, to optimize throughput and grind while catering for feed hardness and/or changes in the feed PSD. Additionally, the design includes allowance for a particle size analyzer (PSA) to continuously measure the mill cyclone overflow product size. Provision has been made for ball loading systems to load grinding media into the mills.
- To cater for feed blends containing varying amounts of MSSX, UAMF_1a and waste, and to ensure consistent product size, the design incorporates a variable speed motor for each ball mill in combination with an advanced mill control system and continuous online particle size analysis of the mill product stream.
- Hydrocyclones (cyclones) have been selected for the mill circuit product classification duty. Due to the relatively high material SG of 4.26, the cyclone operation and performance must be monitored and optimized to ensure that the target grind size is maintained. The cyclones will operate at a solids feed concentration of 55%-60% w/w solids allowing for a coarser cut point, and sizing for the cyclone feed pumps and cyclone cluster caters for a mill circulating load of 140%-250% in the cyclone underflow stream. It has also been recommended by the vendor that the cyclones be installed at a 45° angle to cater for the expected operating range.
- The comminution circuit modeling has indicated that the mill circuit will generate a scats stream. The mill grate discharge product (< 15 mm) will discharge into a trommel screen with an 8 mm aperture for scats removal. Mill scats from each mill will be deposited into a scats bunker via a discharge chute. Scats from the bunkers will be removed via a front-end loader (FEL) and sampled as required for assay.
- The waste component of the mill feed is the most competent material. As a result, the scats are expected to be low grade. Dependent on the assayed metal content, the scats will be transported to the WRD or reclaimed for reprocessing if the grade is high enough. Subject to geochemical testing, there is also potential for the low-grade scats material to be used in road building and/or backfill applications.
- Mill liner installation and replacement is supported by liner bolt removal machines fitted over the mill platform. The liner bolt removal machines will be supported off a dedicated crawl beam next to each mill to optimize mill relining time and improve safety. The elevated concrete deck at the mill feed end also provides space for the placement of the new liners prior to installation.

14.3.4 Flotation

The flotation circuit is used to separate the valuable nickel, cobalt, and copper sulfide minerals from the sulfide gangue, predominantly pyrrhotite, and from the non-sulfide gangue, to produce a high-grade saleable Ni-Cu-Co sulfide concentrate.

The flowsheet includes a Ni-Cu-Co flotation circuit, consisting of pre-aeration and conditioning, rougher flotation, high-grade cleaner flotation, rougher concentrate regrinding, medium-grade cleaner, and re-cleaner flotation and cleaner scavenger flotation. The Ni-Cu-Co flotation tailings will be thickened before treatment through a pyrrhotite rougher flotation circuit for recovery of pyrrhotite from these tailings.

Two Ni-Cu-Co flotation circuits will be installed, both of which will be sized for a throughput of 1.7 Mtpa each, allowing for a total capacity of 3.4 Mtpa. The two modules provide sufficient operating flexibility to meet the requirements of the mine production ramp-up and full-scale steady-state operational requirements.

The design is based on a flotation circuit feed size of 80% passing 100 μm , a feed solids concentration of 35% w/w.

The Ni-Cu-Co flotation reagent regime comprises lime as a pH modifier, Potassium Ethyl Xanthate (PEX) collector, Aero 3477 promoter (A3477), Aerophine 3418A promoter (A3418), Sodium sulfite (Na_2SO_3) as a pyrrhotite depressant, Methyl isobutyl carbinol (MIBC) frother, and Carboxy methyl cellulose (CMC) to depress magnesium silicate gangue minerals.

The pyrrhotite flotation circuit reflects a simple rougher flotation circuit employing a reagent regime which uses sulfuric acid (H_2SO_4) as a pH modifier to target the lower pH of approximately 8 required to float pyrrhotite, copper sulfate (CuSO_4) as an activator, PEX collector, and MIBC frother.

The flotation equipment technology selections are based on testwork where mechanically agitated, forced-air flotation tank cells were selected for the aeration, rougher, cleaner, and cleaner scavenger duties. Jameson flotation cells have been selected for the HG cleaner and MG re-cleaner duties based on their superior cleaning performance in testwork.

The basis for the flotation circuit sizing for each flotation module is summarized in Table 14-4.

Table 14-4: Flotation Equipment Sizing Basis

Description	Design Basis		
	Residence time (min)	Mass pull (%)	Equipment Selection per Flotation Module
Aeration	35.0	-	5 x 70 m ³ mechanically agitated forced air tank cells
Ni-Cu-Co Rougher	48.2	15–25	6 x 70 m ³ mechanically agitated forced air tank cells
Ni-Cu-Co Cleaner	25.0	12.5	5 x 30 m ³ mechanically agitated forced air tank cells
Ni-Cu-Co Cleaner Scavenger	31.3	2–3	4 x 30 m ³ mechanically agitated forced air tank cells
Ni-Cu-Co HG Cleaner	-	4–8	E1732/4 Jameson flotation cell
Ni-Cu-Co MG Re-Cleaner	-	3–8	E2532/6 Jameson flotation cell
Pyrrhotite Rougher	35	55–65	5 x 70 m ³ mechanically agitated forced air tank cells

Key aspects of the flotation circuit design can be summarized as follows:

- The design residence times are based on the bench-scale testwork to which a scale-up factor of 2.5 has been applied to reflect the residence times applied in the optimized flotation testing which is also aligned with the design residence times derived from the historical MPP testwork campaigns.
- The sizing of the aeration circuit is based on the residence time requirement and aims to achieve a slurry dissolved oxygen (DO) concentration of approximately 6 ppm aligned to the measured values in testwork. Forced air mechanical flotation cells were selected for this duty aligned to the testwork procedure. Instrumentation will be installed to monitor DO levels.
- The sizing of the mechanically agitated flotation cells is based on the residence time requirements while also considering the froth carry rate (FCR) and lip loading (LL) to ensure that both of these design parameters do not exceed 1.5 t/m²/h. This is particularly relevant to the pyrrhotite flotation circuit which will operate under a high mass pull regime.
- Due to the relatively high material SG of 4.26 t/m³ and high settling nature of the slurry, the flotation cell sizes have been limited to 70 m³ or smaller and the layout caters for a suitable step height for each flotation cell. An installed power of > 2.0 kW/m³ has been specified for all agitated flotation cells.
- The flotation cell selections also aim to cater for common equipment sizing, where practical.
- The Jameson cells for the final cleaning duties are sized based on bench scale open-circuit testwork and are expected to produce a final concentrate with an average Ni grade of > 17% for the LoM feed blend. Based on the testwork, the design makes adequate provision for staged collector and promoter additions throughout the flotation circuit.

- The concentrate regrind circuit will treat the MG rougher flotation concentrate. The design allows for optional routing of the HG Jameson cleaner tails and cleaner scavenger concentrate to the regrind circuit but is not incorporated into the base case flotation circuit configuration.
- To avoid overgrinding, the regrind circuit includes cyclones to remove fines ahead of the vertical type regrind mill which will be operated in open-circuit to achieve a target grind of 80% passing 35–45 μm for the combined mill product and cyclone overflow. The concentrate regrind mill is sized based on testwork undertaken by Swiss Tower Mills for a maximum throughput of 31 tph (dry) and caters for a specific grinding energy of 3.9 kWh per tonne of mill feed. The mill will have a minimum installed power of 185 kW and will operate with 2–6 mm ceramic grinding.
- A froth factor of 3.0 has been applied to all pumps handling flotation concentrate products.

The flotation circuit process design is described in more detail in Sections 14.3.4.1 to 14.3.4.3 below.

14.3.4.1 Pre-Aeration and Conditioning

Pre-aeration and conditioning in a controlled alkaline environment aims to preferentially partially oxidize and depress the pyrrhotite and condition the slurry with reagents and provide appropriate residence time conducive to separating the valuable sulfides from the gangue sulfides and non-sulfides using flotation.

Two identical pre-aeration and conditioning modules will be installed. In each circuit, the flotation feed slurry, at 35% solids (w/w) will be pumped to a single bank of five 70 m³, forced air, flotation tank cells in series with a total residence time of 35 minutes. Lime will be added to achieve a target pH of 9.0–10.0. Low-pressure blower air will be introduced into the aeration tank cells to selectively partially oxidize the pyrrhotite surface to suppress its flotation properties.

The aeration circuit product will gravitate to an agitated pH adjustment and conditioning tank, where lime is added to achieve a target pH of 9.0–10.0. The pH adjustment tank overflows to an agitated reagent conditioning tank where collector and promoter are added and feed is conditioned prior to flotation.

14.3.4.2 Ni-Cu-Co Flotation

The valuable sulfides are separated from the gangue sulfides and non-sulfides using a series of rougher flotation, regrinding and cleaner, re-cleaner and cleaner scavenger flotation stages to produce a high-grade saleable Ni-Cu-Co sulfide concentrate. The cleaner flowsheet includes Jameson Cell dilution cleaning of the HG rougher concentrate from the first rougher cell, in combination with regrind, cleaning, and dilution re-cleaning of the MG rougher concentrate from the remaining rougher cells. A cleaner scavenger circuit will treat the cleaner tailings to ensure optimal Ni recovery.

Two identical Ni-Cu-Co flotation modules will be installed. Each Ni-Cu-Co rougher flotation circuit comprises six 70 m³, forced air, tank cells operating in series to achieve a residence time of 48 minutes. Two Ni-Cu-Co rougher concentrates will be produced, namely a high-grade and medium-grade concentrate. The HG rougher concentrate from the first rougher cell in each circuit will report directly to a HG Jameson cleaner flotation cell for recovery of a final HG cleaner concentrate to the froth phase. The tailings slurry will be recycled to the MG Jameson re-cleaner, or the concentrate regrind circuit.

The MG rougher concentrate from each circuit will be pumped to the concentrate regrind circuit, which includes feed classification cyclones followed by regrind of the coarse cyclone underflow stream in a vertical type stirred regrind mill for each module. The regrind mill will use ceramic grinding media and be operated in open-circuit (to avoid overgrinding) to achieve a target grind of 80% passing 35–45 μm for the combined mill product and cyclone overflow.

Each concentrate regrind circuit product slurry will be pumped to the MG cleaner flotation circuit, comprising five 30 m³, forced air, tank cells per module to achieve a residence time of 25 minutes. The MG cleaner concentrate will be collected to the froth phase and pumped to the MG re-cleaner flotation circuit, comprising a single Jameson flotation cell for each module.

The HG Jameson cleaner concentrate and MG Jameson re-cleaner concentrate from each module, will be combined and pumped to the concentrate product dewatering circuit. The MG cleaner flotation

tailings will flow by gravity to a cleaner scavenger flotation circuit, which comprises four 30 m³, forced air, tank cells per module to achieve a residence time of 31 minutes. Cleaner scavenger concentrate will be collected to the froth phase and pumped to the MG cleaner. Alternatively, this stream can be optionally routed to the concentrate regrind circuit feed tank.

The design caters for staged addition of collector, promoter, lime, sodium sulfite, and frother throughout the Ni-Cu-Co flotation circuit. Carboxymethyl cellulose will also be dosed in the roughers to depress carbonate and talcaceous gangue when processing feed blends with a magnesium level > 2% in the feed. Lime addition will be controlled by online pH meters.

14.3.4.3 Pyrrhotite Flotation

Pyrrhotite flotation is used to separate the pyrrhotite from the non-pyrrhotite components of the tailings. This allows the non-pyrrhotite stream to be re-purposed in the underground pastefill. The separate pyrrhotite stream is then stored in a TSF, where it can potentially be re-purposed in the future to recover sulfur credits and/or metal values.

The Ni-Cu-Co rougher and cleaner scavenger flotation tailings will be pumped to a thickener, which will treat the combined Ni-Cu-Co flotation tailings from both modules for recovery of water for reuse in the milling and Ni-Cu-Co flotation circuits. Flocculant will be dosed at a controlled rate to aid solids settling. A single Ø30 m thickener has been selected. The sizing was conservatively based on the full steady-state mill feed tonnage of 425 tph (dry) and a unit area thickening rate of 0.6 t/h/m² to target an underflow solids concentration of 65% (w/w).

The pyrrhotite flotation circuit thickener underflow, at approximately 65% solids (w/w), will undergo pH adjustment, repulping and reagent conditioning ahead of the pyrrhotite rougher flotation circuit, which comprises two banks of five 70 m³, forced air, tank cells to achieve a residence time of 35 minutes at the full 3.4 Mtpa production rate.

The pyrrhotite rich, rougher concentrate will be pumped to a pyrrhotite tails thickener and the pyrrhotite rougher flotation tailings will report to the non-pyrrhotite tailings thickener. The design caters for staged addition of collector, activator, sulfuric acid, and frother in the pyrrhotite flotation circuit.

14.3.5 Concentrate Dewatering, Storage, Loading, and Dispatch

The final Ni-Cu-Co concentrate handling circuit includes thickening and filtration to dewater the concentrate prior to bagging in FBCs and dispatch to the Port of Dar es Salaam. This circuit will treat the combined final concentrate stream from the Module 1 and Module 2 milling and flotation circuits.

The combined Ni-Cu-Co flotation concentrate will be pumped to a thickener where flocculant will be dosed at a controlled rate to aid settling. The thickener overflow water will be filtered and utilized as gland seal water (GSW) and launder/spray water in the flotation circuit. The thickened concentrate slurry will be stored in two agitated concentrate storage / filter feed tanks before being pumped to a Larox pressure filter. The concentrate filter is a vendor package consisting of a Larox pressure filter, and associated high-pressure compressors, air receivers, wash water tanks, and pumps.

The concentrate filter cake product will be loaded into FBCs, large, reinforced bags, each containing approximately 9.4 t of wet concentrate, using a loading frame. These will be loaded onto flatbed trucks for transport. Prior to departure, the loaded concentrate will be sampled by an auger sampler and the load of each bag and overall truck load will be measured using a weighbridge.

Key aspect of the concentrate handling circuit design can be summarized as follows:

- The circuit has been sized based on a concentrate tonnage at a design mass pull of 11% equivalent to 47 tph (dry). The nominal concentrate mass pull over LoM is expected to be lower, averaging approximately 9.9% of the feed tonnage over the LoM.
- A Ø25 m concentrate thickener was selected for the thickening duty. The sizing is based on a unit area thickening rate of 0.15 t/h/m² to target an underflow solids concentration of 65% w/w. The design has thus adopted a lower (more conservative) unit area thickening rate than the 0.25 t/h/m² achieved in testwork. This is based on operational experience, which has shown that, typically, base metal concentrate froth does not de-aerate and break down well (i.e., classified as a tenacious froth). This often results in froth/scum build-up on top of the thickener, increasing the opportunity

for fines losses to the overflow. To mitigate this, the design adopted a conservative thickening rate, and it is recommended that the inclusion of a froth collection system should be investigated during the implementation phase once vendor selections have been finalized.

- The concentrate filter has been sized based on a filtration rate of 500 kg dry solids (D.S) /m²/h and a concentrate moisture content of 9% (w/w) based on the testwork findings. This resulted in the selection of a single 132 m² Larox Pressure Filter (vertical type) with the flexibility to expand capacity to 156 m² by installing additional filter plates. The early operational performance will be assessed to determine if any additional filtration capacity is required. Space allocation has been made the layout for a second filter. Testwork has, however, indicated that this should not be required.
- Based on operational experience, the concentrate filtration circuit is sized based on a lower annual run time of 6 800 hours equivalent to 85% of the milling and flotation circuit run time. The design thus incorporates a filter feed surge tank catering for 8 hours residence time (based on thickener underflow) and the concentrate filter has been sized for a higher peak processing rate of 55 tph (dry).
- TML testing results on concentrates generated during the current FS testwork campaign ranged from 9.0% to 9.7% w/w resulting in the decision to adopt a filtered concentrate target moisture level of 9% w/w for the current FS. During previous study phases, conducted by others, historical TML testwork on Kabanga concentrate samples indicated a TML of approximately 9% w/w, which is aligned to the current findings. Further materials handling verification testwork and concentrate classification will be undertaken during the detailed design.
- The concentrate filter cake will be stored in concrete storage bunkers in a covered shed to minimize fugitive dust and concentrate losses.
- The sealed FBC bags will mitigate the potential for any product loss during transport. The concentrate adhering to the outside of bags and tires of the trucks can be washed off using manual high-pressure washers installed in the loading area. The wash water and concentrate will be recovered to the thickener via the spillage handling system, preventing concentrate loss.
- Seven days of concentrate production can be accommodated in the covered storage area of the filter building. Additional storage for the weather-proof FBCs is available outside the building.
- Historical and current testwork shows that the concentrate exhibits some self-heating properties, and while manageable, excessively large or long storage is not advisable, and the filter cake should be stored and transported wet and not allowed to completely dry out.

14.3.6 Tailings Handling

The tailings handling system comprises separate pyrrhotite and non-pyrrhotite tailings dewatering and slurry pumping systems. The pyrrhotite flotation concentrate (pyrrhotite tailings) is pumped to the TSF, while non-pyrrhotite tailings is pumped to the nearby North backfill plant. From here, it can also be pumped to Tembo Mine's backfill plant. The design includes the option to combine the excess non-pyrrhotite tailings with the pyrrhotite tailings and pump it to the TSF.

Although the slurry to the backfill plants is described as non-pyrrhotite tailings, it still contains an appreciable level of pyrrhotite, but not to the extent of the pyrrhotite tailings.

The Concentrator design for the FS caters for an average LoM Fe feed grade of 35% and a design value of up to 42 % as a conservative basis of design. The Fe feed grade range is aligned to the metallurgical testwork (current and historical) and reflects an appropriate design approach for sizing of the pyrrhotite flotation circuit, as well as the pyrrhotite and non-pyrrhotite tailings dewatering and pumping duties. It ensures that adequate storage capacity is incorporated into the TSF design for the LoM. It is considered a robust and conservative approach to the tailings dewatering and pumping design requirements.

14.3.6.1 Non-Pyrrhotite Tailings Handling

The non-pyrrhotite tailings handling circuit is designed to treat the combined pyrrhotite rougher tailings stream at the full 3.4 Mtpa RoM feed rate and incorporates a thickener and slurry transfer pumping system, which will deliver the thickened non-pyrrhotite tailings slurry to the North backfill plant.

The pyrrhotite rougher flotation tailings will be pumped to a thickener where flocculant will be dosed at a controlled rate to aid settling. The thickener overflow water will be collected in the pyrrhotite flotation process water tank and recycled to the pyrrhotite flotation circuit. The thickener underflow at 55%–65% solids (w/w) will be pumped to the agitated non-pyrrhotite tailings disposal tank before being pumped to the North paste backfill plant.

Key aspects of the non-pyrrhotite tailings handling circuit design can be summarized as follows:

- A Ø25 m non-pyrrhotite tailings thickener was selected to cater for a feed surge tonnage of up to 239 tph (dry) while the throughput is expected to be nominally lower, ranging from approximately 120 to 185 tph (dry). The sizing is based on a unit area thickening rate of 0.5 t/m²h aligned to the lower range achieved in testwork. The conservative approach, using a 30% design factor, as adopted for the thickener sizing is deemed appropriate considering the uncertainty associated with the tailings mass split. Additionally, operational variability is expected during transient flotation operating conditions where the mass recovery to the pyrrhotite flotation concentrate may be significantly lower than at steady state. Capacity constraints in the tailings handling system will quickly result in mill stoppages and production losses, while, in contrast, allowance for spare thickening capacity does not significantly increase the capital cost.
- Two non-pyrrhotite tailings transfer lines will be installed. Each line will have a capacity of 84 m³/h, with two lines normally operational at the 3.4 Mtpa throughput with a shared common standby pump set. Each of the three pump sets will consist of two centrifugal pumps in series, with a variable speed motor installed on the second pump in each train. This arrangement allows for a wide range of operating flows.
- The non-pyrrhotite tailings tank will overflow directly into the pyrrhotite tailings transfer tank, when full. This allows for pumping the combined non-pyrrhotite and pyrrhotite tailings to the TSF when the Concentrator is producing more non-pyrrhotite tailings than required in the paste mix or the paste backfill plants are down for maintenance.

14.3.6.2 Pyrrhotite Tailings

The design caters for the installation of a single pyrrhotite tailings thickening circuit designed to treat the pyrrhotite rougher concentrate stream at the full 3.4 Mtpa RoM feed rate. The design incorporates a thickener and slurry transfer pumping system, which will deliver the thickened pyrrhotite tailings slurry to the TSF. As previously discussed, the design includes the option to pump the combined pyrrhotite and non-pyrrhotite tailings to the TSF.

The pyrrhotite rougher flotation concentrate slurry will be pumped to a thickener where flocculant will be dosed at a controlled rate to aid settling. The thickener overflow water will be collected in the pyrrhotite flotation process water tank and recycled to the pyrrhotite flotation circuit. The thickener underflow at 55%–65% solids (w/w) will be pumped to an agitated pyrrhotite tailings disposal tank and combined with high-density sludge plant sludge, reverse osmosis (RO) plant brine, and excess non-pyrrhotite tailings before being pumped to the subaqueous TSF. A small amount of lime may also be added to the pyrrhotite tailings disposal tank to provide additional alkalinity as required to neutralize potential acidity associated with thiosalts in the tailings water and TSF water cover.

Key aspects of the pyrrhotite tailings handling circuit design can be summarized as follows:

- A Ø30 m pyrrhotite tailings thickener was selected to cater for a tonnage of up to 262 tph (dry) based on a unit area thickening rate of 0.5 t/h/m² aligned to the lower range achieved in testwork. Similarly to the non-pyrrhotite tailings circuit, a conservative design approach has been adopted to ensure that the tailings handling system has sufficient capacity and can accommodate large variances in the pyrrhotite flotation circuit mass split ratio between concentrate and tailings.

- Two pyrrhotite tailings transfer lines will be installed to accommodate the range of flows from the two milling and flotation modules. Each line will have a capacity of 220 m³/h, with two lines normally operational at the 3.4 Mtpa design throughput with a shared common standby pump set. The pumping system will target a fixed flow regime, and the pumped slurry solids concentration may vary between 35% and 50% w/w, depending on the solids throughput requirement.
- Centrifugal pumps in series were selected for pumping duty based on the outcome of a trade-off assessment, which considered centrifugal and positive displacement (PD) pumps.

14.3.7 Sampling, Analysis, and Process Control

The plant will have a central control room from where mechanical equipment will be controlled and monitored. The design also makes provision for advanced mill and flotation control systems. Metal accounting slurry samples will be collected via a primary cross-cut and secondary sampler arrangement. The mill feed will be sampled via manual belt cut samples and each final concentrate truck shipment will be sampled via a manual auger sampler for QA/QC purposes.

For metal accounting purposes, weightometers will be located on the primary jaw crusher discharge conveyor, secondary crushing circuit feed conveyor, and both mill feed conveyors. All concentrate shipments will also be recorded on the Concentrator plant weighbridge. Tailings mass reconciliation will be determined by density gauges and flowmeters.

In addition to the primary metal accounting samples, the design provides process control sampling via inline pressure pipe samplers in combination with continuous online analysis via Courier® and Blue Cube® online analyzers. The online continuous assay values will be used to derive an instantaneous metallurgical balance, which will be continuously measured and displayed on the process automation system to facilitate grade and recovery optimization during operation.

Mining, geology and concentrator samples, as well as some environmental monitoring samples, will be processed through an on-site laboratory. An owner-operated laboratory has been allowed for in the FS.

14.3.8 Concentrator Engineering Design and Layout

The Concentrator design considers appropriate engineering practice, regulatory compliance, ergonomics, and health and safety. Structural and civil engineering designs follow the requirements of the mechanical engineering layouts, while the electrical design is based on the electrical needs of the mechanical equipment.

The Concentrator location has been selected to be close to the North Mine boxcut where over 68% of the ore production will be brought to surface, minimizing haulage cost, on a relatively gentle slope, allowing for optimized terrace design and cost-effective road access.

The proximity of the Concentrator to the North Mine Infrastructure Area (MIA) allows for optimization of the infrastructure and common services, like raw water, potable water supplies and construction laydown facilities.

A snapshot of the Concentrator 3D model output is presented in Figure 14-3.

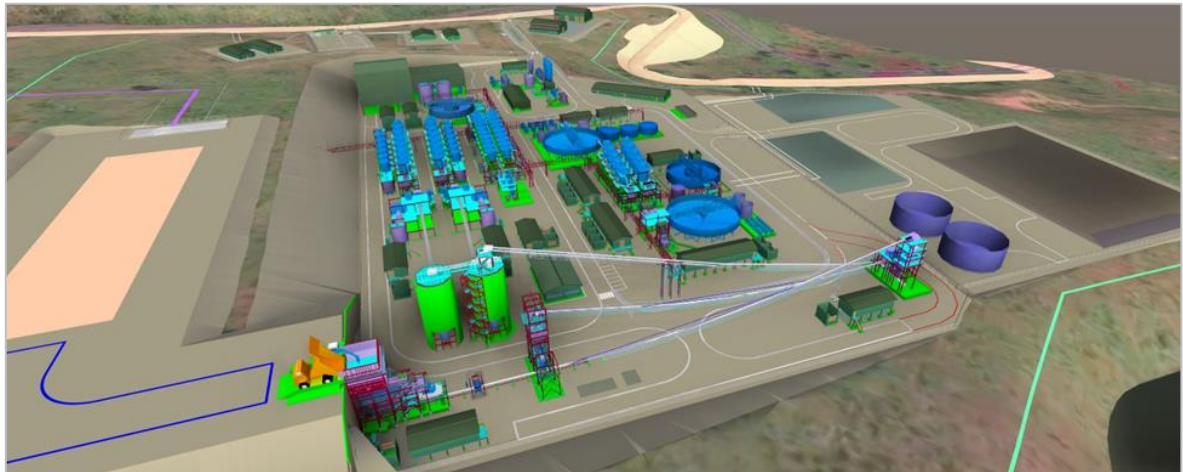


Figure 14-3: Concentrator 3D Model Layout

14.3.9 Reagents and Consumables

The design includes reagent make-up and dosing systems for the PEX, CMC, CuSO_4 , frother, lime, Aero 3477, Aero 3418A, Na_2SO_3 , flocculant, and H_2SO_4 . The design basis for each reagent system is summarized in Table 14-5. The reagent suite reflects conventional reagents, which are widely used in flotation concentrator applications.

Table 14-5: Reagent Make-Up and Dosing System Design Summary

Reagent	Delivery Form	Dosing Strength (%w/v)	Consumption (g/t)		Dosing System	Storage ¹ (days)
			Average	Design		
Lime	Bulk Truck or 1,250 kg bag	20	2,047	3,000	Ring main	7
PEX Collector	25 or 1,000 kg Bag	15	138	250	VSD Dosing Pumps	30
Aero 3477	Liquid IBC	100	58	145	VSD Dosing Pumps	30
Aero 3418A	Liquid IBC	100	22	50	VSD Dosing Pumps	30
Na_2SO_3	1,250 kg Bag	15	189	300	VSD Dosing Pumps	30
CMC Depressant	1,000 kg Bag	1.0	68	650	VSD Dosing Pumps	30
H_2SO_4	Bulk Tanker / Liquid IBC	100	274	400	VSD Dosing Pumps	30
CuSO_4	1,250 kg Bag	15	39	50	VSD Dosing Pumps	30
Frother	Liquid IBC	100	30	60	VSD Dosing Pumps	30
Flocculant	25 or 850/1,000 kg Bag	0.1	23	30	VSD Dosing Pumps	30

Note: ¹Storage Capacity based on nominal consumption rate while reagent dosing systems cater for the design dosage rate.

Additionally, grinding media will be required for the primary ball mills (steel media) and concentrate regrind mills (ceramic media) as summarized in Table 14-6.

Table 14-6: Grinding Media Storage and Consumption Design Summary

Application	Delivery Form	Specification	Consumption (g/t _{milled})		Storage ¹ (days)
			Nominal	Design	
Primary Mill	Bulk Bag / Drum 850 – 1,250 kg	80 or 90 mm High Chrome	202	300	30
Regrind Mill	Bulk Bag 1,000 / 1,250 kg	2–6 mm Ceramic Media	32	50	30

Note: ¹Storage Capacity based on nominal consumption rate.

Reagents and consumables will be stored in a warehouse inside the plant and transported to the respective make-up and dosing area via a forklift as required. A storage capacity of seven days has been allowed for local supply items and 30 days for imported supply items based on supply chain risk assessments and African operational norms.

14.3.10 Air and Water Services

14.3.10.1 Air Services

The Concentrator air supply system makes provision for the supply of low-pressure flotation air, which will be generated by rotary lobe blowers and introduced down the flotation cell agitator shafts at a controlled rate. High-pressure air for the filtration, instrument and plant air systems will be supplied by rotary screw compressors.

Air required in the aeration and flotation circuits will be supplied at a pressure of 0.8 bar at a design supply rate of 324 m³/min at standard temperature and pressure (STP). The air supply rate was based on typical vendor specifications for tank cell design air supply requirements at STP.

The blower sizing and selection for each module considered a range of options, which included positive displacement rotary lobe blowers (four duty, one standby), multistage centrifugal blowers (two duty, two standby), and single-stage integrated motor-type blower (two duty, one standby). Rotary Lobe PD blowers were selected due to site conditions (altitude and design temperatures for the Project), complexity, spares holding (motors) equipment availability/redundancy and cost.

High-pressure compressed air will be supplied to the concentrate filter for pressing and drying. The filtration air requirements were specified by the filter vendor and include a drying air duty compressor with a design capacity of 43.6 m³ / min free air delivery (FAD) and a maximum working pressure of 13 bar (g) with a dedicated 50 m³ air receiver. The pressing duty air compressor has a rated capacity of 12.7 m³ / min FAD and a maximum working pressure of 20 bar (g) with a dedicated 15 m³ air receiver.

The design includes a high-pressure air supply system to cater for the plant and instrument air requirements. Instrument air is used for operating instrumentation, while process air will be intermittently used across various operations like the Concentrator workshop and air-driven spillage pumps. The system has a total rated capacity of 60 m³ / min FAD. The capacity was estimated based on preliminary estimates for the instrumentation requirements in combination with benchmarked data for similar projects. The design incorporates three rotary screw compressors (two duty and one standby). A 10 m³ air receiver has been allowed for each of the instrument and plant air supply systems.

14.3.10.2 Water Services

The design includes provision for the supply of raw water from underground mine dewatering. This will provide the majority of the raw water demand, but will be supplemented, when necessary, with water abstracted from the Ruvubu River using a dedicated pumping and pipeline system. Within the milling and flotation circuits, process water will be recovered and recycled and water will also be recycled from the TSF.

The water supply system design requirements for the Concentrator were derived from the mass and water balance in combination with the WSP Kabanga site-wide water balance modeling outputs based on the FS mine plan with key aspects of the design for each circuit detailed below.

Fresh / Raw Water Supply

Fresh / raw water is supplied to the Concentrator via the fresh water tank, which receives water from the Ruvubu River in combination with treated water product from the Kabanga water treatment plant (WTP) which is included in the infrastructure scope. The primary source of make-up water will come from the WTP which treats TSF return water and the water from underground mine dewatering.

Within the Concentrator, fresh / raw water is required only for specific process requirements like reagent mixing, mill seal water, dust suppression and potable water. Additionally, fresh / raw water will be used to meet the water make-up requirements for the Ni-Cu-Co flotation process water circuit.

Based on the water balance outputs, a nominal Concentrator plant raw water make-up of 317 m³/h is required at the steady-state 3.4 Mtpa throughput. The design includes a duty / standby pumping system and supply line to supply raw water from the fresh water tanks to the Concentrator raw water supply tank, at a maximum design flowrate of 367 m³/h. In the Concentrator, the raw water will be distributed via pressurized supply header with a capacity of 320 m³/h.

At the design throughput of 3.4 Mtpa, the 1,000 m³ raw water tank at the concentrator provides approximately three hours of operational capacity. An additional 24 hours of production capacity is supported by two fresh water storage tanks, each with a capacity of 4,000 m³.

Concentrator Process Water Supply Systems

The Concentrator design incorporates the following four process water reticulation systems:

- Ni-Cu-Co flotation process water system which receives recycled process water from the pyrrhotite flotation feed thickener overflow in combination with raw water make-up. The reticulation system includes a common supply tank and pumped, supply lines for process water and wash water.
- GSW and flotation spray water system which receives recycled process water from the Ni-Cu-Co concentrate thickener overflow (filtration), in combination with raw water make-up. The reticulation system includes a common supply tank and pumped supply lines for low-pressure GSW, high-pressure GSW, and flotation spray water.
- Pyrrhotite flotation process water system which receives recycled process water from the pyrrhotite flotation concentrate thickener and non-pyrrhotite tailings thickener overflows in combination with TSF return water make-up. The reticulation system includes a common supply tank and pumped, supply lines for process water and wash water.
- TSF return water system which receives recycled TSF return water into the process water tanks at the Concentrator (two off 4 000 m³ tanks) which caters for approximately 27 hours of TSF return water capacity. This water is recycled to the pyrrhotite flotation process water system and the excess is treated in the WTP included in the infrastructure scope.

The flotation circuit has adopted a split process water circuit, catering for separate process water supply systems for the respective Ni-Cu-Co and pyrrhotite flotation circuits. This is based on the requirement for different reagent regimes in each of these circuits. The pyrrhotite flotation circuit operates at a lower pH (~8) and uses CuSO₄ as an activator. In testwork, it was found that even at starvation addition rates of ~2 g/t, the presence of CuSO₄ in the Ni-Cu-Co flotation circuits had a negative effect on Ni/Fe separation efficiency. A conservative design approach, using separate water circuits has thus been adopted. This is widely practiced in differential flotation circuits and has been found to be more efficient while allowing for reduced reagent consumption due to the optimal recycle of reagents in the respective circuits.

Potable Water

The design includes provision for potable water distribution in the Concentrator with a design supply capacity of 5 m³/h. Potable water is supplied from outside the Concentrator battery limit as detailed in Chapter 15 (Infrastructure and Logistics).

Water Treatment

Provision has also been made for a water treatment circuit, which is included in the infrastructure scope and comprises:

- High-density sludge (HDS) processing circuit for the treatment of excess mine water reclaimed from the contact water pond. The HDS product water will be transferred to the Concentrator TSF return process water tanks where it will be combined with TSF return water. The HDS plant sludge will be combined with the Concentrator pyrrhotite tailings and pumped to the TSF. The HDS plant has a design capacity of up to 8,000 m³/day based on the requirement to treat volumes ranging from approximately 4,000 m³/day in the early years increasing to approximately 8,000 m³/day from year 16 onwards as detailed in the WSP overall site wide water balance.
- The RO plant which will treat excess water from the Concentrator TSF return process water circuit (combined HDS product and TSF return water) to achieve a product water stream that is suitable for discharge into the Ruvubu River. The RO plant sludge/brine will be combined with the Concentrator pyrrhotite tailings and pumped to the TSF. The RO plant has a modular design permitting a variable treatment rate of approximately 2,800–4,000 m³/day in the first year increasing to approximately 10,500–13,500 m³/day thereafter as detailed in the WSP overall site wide water.

14.3.11 Electrical Reticulation

The Project's electrical reticulation system is designed to ensure reliable power supply across the site. Bulk power will be provided by TANESCO via a new 220 kV overhead line terminating at a TANESCO-owned substation outside the mine. From there, the Project will construct a 220 kV line to a Mine Consumer Substation, where power will be stepped down to 33 kV for site-wide distribution.

Electrical distribution will utilize a 33 kV ring-fed overhead network. Emergency power will be supplied by generators to critical equipment, supported by an automated load control system and 60-minute battery backup for lighting to enable safe evacuation if needed.

The system operates across standard voltage levels—from 220 kV bulk supply to 400 V low-voltage distribution—with equipment and motors sized accordingly. Earthing and lightning protection systems are implemented throughout, with separate provisions for medium- and low-voltage systems.

Low-voltage power is supplied through standardized 1,600 kVA transformers feeding the motor control centers (MCCs), which in turn distribute 400 V power to equipment. Intelligent motor protection and VSDs are applied based on load requirements.

14.4 QP Opinion Concentrator

The Concentrator design and supporting engineering has planned a conventional crushing, grinding and flotation flowsheet, using a typical flotation reagent regime, and based on testwork, demonstrated its suitability for the effective production of a high-grade nickel concentrate.

It is the opinion of DRA, responsible and acting as the QP for the Kabanga Concentrator, that the design undertaken for the processing and recovery methods for the Concentrator is at a level that meets the requirements for an FS and represents good industry practice.

15 INFRASTRUCTURE

15.1 Kabanga Site

Kabanga is an established site with some existing infrastructure, but more is required for the full operation. The Project scope includes the design and development of the necessary temporary construction facilities and permanent infrastructure to support the construction and operation of the Kabanga Mine and Concentrator. This includes site access and internal roads, earthworks, electrical power supply and reticulation, water supply and associated water systems, accommodation and messing facilities, site buildings, waste rock dumps, a tailings storage facility, waste and sewage management, fuel services, laydown areas, security, laboratory, surface mining infrastructure, and other miscellaneous requirements.

Logistics systems during construction and operation have also been developed for the FS. Further discussion is provided in the sections below.

15.1.1 Existing Infrastructure

The Kabanga site has an existing exploration camp, which is well-maintained, enclosed by a perimeter fence, and includes office buildings, security access control, and facilities for geological assessment, technical services, and community relations. Additional amenities include a canteen, clinic, workshops, staff housing, and space for sample and drill core storage. The exploration camp will be expanded to 300 beds and will facilitate all personnel during initial construction activities, while the permanent camp is constructed.

The Kabanga Site is equipped with mobile telephone networks and video conferencing facilities for communication. Cell phone reception via Vodacom and Simba network services providers is well established.

The exploration camp is currently serviced by a newly upgraded 33 kV electrical supply from TANESCO. This supply is limited to 9 MVA of electrical power which is suitable for construction and initial mine development. However, this capacity is insufficient for steady-state operation and consequently requires an upgrade.

Water to the exploration camp is currently sourced from a borehole located 900 m to the northwest of the exploration camp. For the operation of the Concentrator and Mine, the primary source of water would be from mine dewatering, with supplementary water supply to be extracted from the Ruvubu River at a point within the SML. The Kabanga Site is mostly water positive, and as such treated water will be discharged back to the Ruvubu River. The Ruvubu River flows from south to north, approximately 14 km southwest of the Kabanga Site, along the border with Burundi.

15.1.2 External and Internal Site Access Roads

15.1.2.1 External Access Roads and Regional Infrastructure

The Kabanga Project site is accessible via two unpaved roads: a northern and a southern access route, both linking to the sealed B3 highway. The northern route connects to the B3 near Nyabisindu, approximately 55 km from site, and is currently used for heavy vehicle traffic. The southern route, a 77 km gravel road connecting at Muzani, provides the most direct access to the Isaka Dry Port, Dar es Salaam, and inland markets. This southern route will be upgraded during construction to support equipment transport and general site access, with only minor improvements required for operational readiness. The Kabanga Site access roads are shown in Figure 15-1.

The northern route also provides access to Ngara Airport (89 km from site) for charter and emergency flights. Kahama Airport (KBH), located 320 km away, is the nearest commercial airport with direct flights to Dar es Salaam. Recently upgraded in January 2024, KBH can accommodate 200 passengers and small cargo, and will support personnel movements during construction and operations.

There is no direct rail connection to site. However, the Isaka Dry Port, 347 km away, serves as the nearest inland container terminal and is undergoing upgrades to improve logistics capacity.

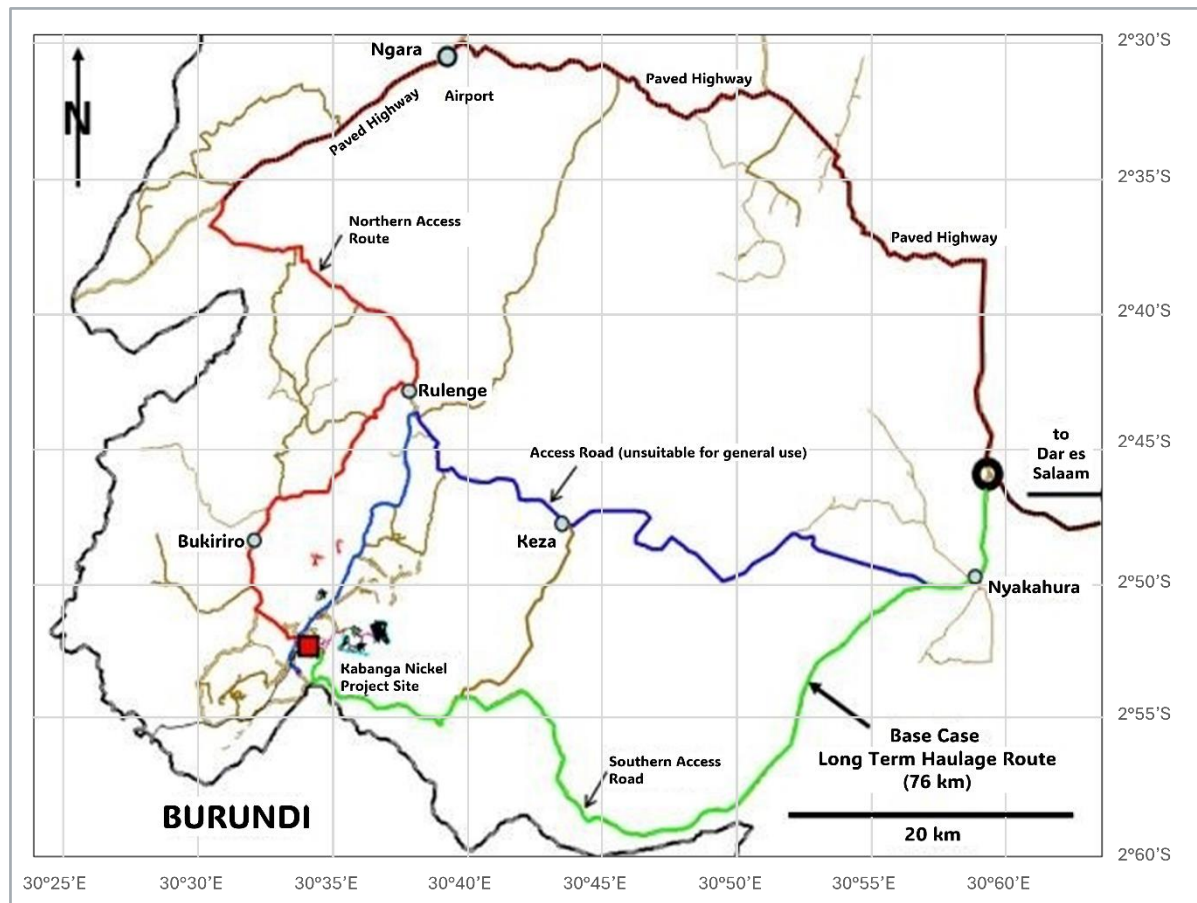


Figure 15-1: Kabanga Site External Access Roads

15.1.2.2 Internal Site Roads

All roads within the Kabanga Site perimeter have natural gravel-wearing course surfaces. Concrete surfacing will be applied on surface haul road sections with steep inclines to improve safety and production. Parking areas and pedestrian walkways are covered by interlocking concrete paving blocks.

Main access roads make up approximately 20 km of the total roads, with haul roads comprising approximately 4 km and service roads approximately 7 km. The existing northern access road will provide initial construction access to the Concentrator for daily heavy vehicle deliveries until the southern access road has been upgraded to acceptable standards. Existing access tracks will be used for early construction of the North boxcut and mine infrastructure area, Tembo boxcut, and Concentrator. The main internal access road to the Concentrator and TSF is required prior to commissioning of the Concentrator.

15.1.3 Power Supply

A new 220 kV OHL to supply power to the Kabanga Site will be constructed. The planned 220 kV Nyakanazi–Kabanga transmission line will be approximately 87.6 km in length, originating from the Nyakanazi substation from where it will be constructed within a 35 m wide corridor to a metering point at the Kabanga Site boundary.

The metering point will consist of a substation managed by TANESCO. The Project will complete the last section of the 220 kV transmission line to the consumer substation located at the Kabanga Site. The Project will install 2 x 60 MVA transformers with space allocation for an additional two transformers if required. The notified maximum demand for the Project site is 58 MVA.

The main areas that require medium voltage feeds are the Concentrator, North Mine, Tembo Mine, permanent camp, construction camp, ventilation shafts, pastefill plants, and the Ruvubu pump station.

The 33 kV power distribution will be stepped down to 400 V_{AC}, three-phase electrical power at the various areas by a mix of distribution transformers, minisubs, and pole-mounted transformers.

Back-up power for emergency loads will be provided by three generators (3.5 MVA each) and ancillary equipment that will connect to the grid in the event of a TANESCO grid power failure. The back-up power plant will be equipped with fuel tanks, switchgear, and transformers to provide emergency power at 33 kV.

15.1.4 Water Supply

Water is required for a number of water systems, namely:

- Potable water for on-site personnel; drinking and domestic use, including cooking and sanitation.
- Construction water for construction contractors; dust suppression, earthworks construction, and concrete mixing.
- Service water for the mining contractor and the Owners' mining operations; drilling and other mining activities.
- Concentrator raw water make-up for use in the Concentrator.
- Fire water system consisting of tanks and pumps to provide a store of water for the suppression of fires should they arise.

Four sources of water are available to meet the Project demand:

- Underground mine dewatering
- The Ruvubu River
- Groundwater
- Rainwater capture

The existing exploration camp is currently supplied with groundwater extracted from existing, equipped boreholes. Water from the boreholes is stored in HDPE storage tanks at the exploration camp. This water is used to supply the current potable water needs of the camp and was also used for exploration drilling activities.

Four production boreholes have been drilled and pump-tested on the Kabanga Site. The recommended extraction capacity for the boreholes is 635 m³/day. During operations, the balance of the service water requirements in excess of that from the underground dewatering will be extracted from the Ruvubu River.

A modular potable WTP will treat water from the boreholes and the Ruvubu River once the Ruvubu pipeline and pump station are installed, to produce drinking-quality water. The central WTP, with a capacity is 320 m³/day, will be installed during construction on the ridge next to the existing drilling camp. Potable water will be reticulated from the WTP to the North MIA, Concentrator, Tembo MIA, drilling camp, contractor's camps, and the exploration camp. The permanent camp will have a dedicated WTP with a capacity of 125 m³/day.

The total water requirement during construction (potable water and raw water) is estimated to peak at 1,300 m³/day. The potable water demand, which includes potable drinking water, and concrete mixing water, is estimated to peak at 360 m³/day and will be supplied from the existing borehole supply. The construction raw water requirement for dust suppression, earthworks, washdown, and service water is estimated to peak at 940 m³/day. This water will also initially be supplied from boreholes and will then be supplemented by the groundwater ingress into the boxcuts, which will be captured in the waste rock dump pollution control dams (PCDs).

The net operational water demand is estimated to ramp up from 3,400 m³/day at the start-up of the operation to an average of 8,700 m³/day during the full capacity of the Project, when the mine and Concentrator reach steady-state production of 3.4 Mtpa feed. The bulk of this water will be provided

by recycling of process and TSF water, and the underground mine dewatering requirements, but will initially be supplemented by the Ruvubu River during the TSF first fill and early production.

The WSP SA site-wide water balance concluded that a maximum extraction rate of 2,000 m³/day will be required from the Ruvubu River during production ramp-up. Thereafter, the treated water from the RO plant can supply the raw water requirements, with occasional supply required from the Ruvubu River. Excess treated water will be discharged to the Ruvubu River along the same supply pipeline.

The Ruvubu supply will also provide security of supply for upset conditions on site, such as a breakdown in the RO plant. The permit application allows abstraction from the Ruvubu River up to a maximum of 9,000 m³/day. This is less than half of one percent of the river flow during the dry season.

15.1.5 Plot Plan Development

The development of the Kabanga Site will take place in a single construction phase. Construction will commence with the development of the North Mine boxcut and infrastructure, along with the permanent camp, WRDs, and PCDs. This would be followed by the construction of the Tembo boxcut, Concentrator, and TSF. These facilities will be linked by roads and service roads of various specifications. The Kabanga Site layout is presented in Figure 15-2.



15.1.5.1 Bulk Earthworks

The undulating landscape necessitates the creation of flat terraces for Mine and Concentrator infrastructure, buildings and structures, as well as stormwater management purposes. Various historical geotechnical investigation reports are available for the Kabanga Site with information on 47 historical geotechnical boreholes (BH) and 151 historical test pits (TPs). A new geotechnical investigation was completed by WSP (SA) for the FS, which included an additional 34 geotechnical BHs and 56 TPs.

There are no heavy dynamic structures located on the North MIA terraces and normal cut-and-fill construction is allowed for in the design. The North Mine terraces include around 666,543 m³ of bulk earthworks. The Concentrator beneficiation circuit includes a primary crusher, secondary crusher and screening structures, two concrete mill feed silos, and two ball mills. These are all classified as heavy dynamic structures with deep raft foundations. Most of the Concentrator terraces are in-cut, to reach the suitable in situ bearing pressures and include 871,250 m³ of bulk earthworks. There are no heavy dynamic structures located on the Tembo MIA terrace and normal cut-and-fill construction is allowed, including 267,856 m³ of bulk earthworks.

15.1.5.2 Stormwater Management

The surface stormwater run-off flows as sheet flow from the top of the ridge into defined natural drainage valleys down to the Nyamwongo River. The Nyamwongo River merges with and becomes the Muruhamba River forming the Burundi border. The Muruhamba River flows south into the Ruvubu River at the southern extent of the Kabanga Site. Most of the infrastructure is positioned on the ridge to minimize upstream catchment areas and avoid influencing natural drainage lines. The 1:100-year flood line levels were modeled by WSP (SA) as part of the TSF dam breach assessment (DBA). The total length of stormwater contact and non-contact drains is approximately 50 km.

15.1.6 Permanent Accommodation Camp

The permanent camp will provide accommodation for the operational staff working at the mine and Concentrator and will accommodate 636 persons. The development of the permanent camp is planned as one of the early site activities to enable the available rooms to be used for construction accommodation.

The permanent camp will be located southwest of the existing drilling camp and will be constructed using modular prefabricated units. Combined with the existing exploration camp facilities, 936 beds will be available for permanent operations accommodation.

The permanent camp includes the following facilities:

- Single ensuite accommodation units for management personnel
- Shared accommodation units with shared ablution facilities for general personnel and staff
- Kitchen and communal mess facilities
- Laundry facilities
- Offices and induction center
- Medical center
- Recreational facilities, including a gymnasium, sports fields, and a clubhouse
- Bus drop-off and parking

15.1.7 Concentrator and General Infrastructure

Building infrastructure layouts were developed to support the Kabanga Mine and Concentrator operations. The main buildings associated with the Concentrator and general access include:

- Concentrator office
- Concentrator changehouse

- Concentrator stores
- Security and access control
- Concentrator canteen
- Concentrator workshop
- Metallurgical laboratory
- Concentrator control room
- Electrical MCCs and transformer bays
- Main access gate house

15.1.8 Mining Surface Infrastructure

In addition to the underground infrastructure, including the boxcuts, portals, declines, ventilation and paste plants, mining surface infrastructure includes:

- North Mine offices
- North Mine clinic
- North Mine boxcut gate house
- North Mine lamp room
- Tembo Mine lamp room
- Engineering and light vehicle workshop
- North Mine capital stores, canteen, mine terrace access control
- Explosives magazine
- Wash bay

Additional details relating to the mining infrastructure are provided in Section 15.

15.1.9 Fuel Services

A new fuel storage and dispensing system will be installed at the drilling camp. The new fuel storage system would include fuel storage tanks, loading and dispensing units, fuel management systems, lubrication storage and dispensing units, and waste oil management units.

15.1.10 Waste Rock Dumps

The Kabanga North and Tembo WRDs were sized and optimized according to the material balance between the mine production schedule, waste rock development, and the backfill plant requirements. Additional geotechnical information will be required to complete the detailed designs on the WRDs as geotechnical fieldwork investigations were not completed during the study. The North and Tembo WRD capacities are designed for the peak tonnage with additional buffer storage. A significant portion of the waste rock is reused over time in the pastefill for the underground. At the end of the LoM, the remaining waste rock will be used as part of the TSF closure bulk fill material used beneath the impervious capping.

15.1.11 Sewage Treatment

A centrally located sewage treatment plant with a capacity of 200 m³/day will be installed at the North Mine area to service the North and Tembo boxcuts and MIAs, drilling camp, contractor's camps, exploration camp, and the Concentrator. A dedicated sewage treatment plant of 100 m³/day will be installed at the permanent accommodation camp.

15.1.12 Waste Handling

A central recyclable waste segregation and community reclaim facility is planned at the existing drilling camp. The central waste facility will consist of concrete bunded areas, hydrocarbon storage, skip bins, a baler, and refuse bins for sorting recyclable waste. Separate smaller satellite waste segregation and reclaim facilities are allowed at the individual areas, including the North MIA, Concentrator, Tembo MIA, and permanent camp.

15.1.13 Construction Facilities

The Project will provide construction laydown areas for the earthworks; infrastructure; mining contractors; civils and buildings contractors; steel, mechanical, plate work and piping (SMPP) contractor; and electrical control and instrumentation contractors. It is estimated that 13.6 ha of laydown areas are required for the construction phase. The available laydown areas on the Kabanga Site total 21.3 ha.

Peak construction labor is estimated at 2,586 people (including mining, Owners' team, administration and security) and peak construction labor requiring accommodation is estimated at 1,950 including all Owners' team, mining contractors, construction contractors, security and the Engineering, Procurement and Construction Management (EPCM) team. It is assumed that only expatriate and national workers will require accommodation in the construction camps and that the local un-skilled labor will stay in surrounding villages.

During construction the existing exploration camp will be used, along with the completed permanent camp housing units as they become available. The existing exploration camp will be expanded to 300 beds in the initial stages of construction and will serve to accommodate the initial Client's management team, EPCM team, and the contractors constructing the permanent camp. As the permanent camp units become available, the increased accommodation capacity will cater for the earthworks, buildings, and EC&I contractors. The construction accommodation will be supplemented by temporary accommodation provided by the contractors not accommodated in the exploration and permanent camps.

15.1.14 Other

In addition to the site infrastructure described above, the Project will be supported by other new infrastructure typical of this type of facility, including expanded site fencing, augmented security and access control, laydown areas, IT and communications, borrow pits, truck staging area, landfill, and other minor services.

15.1.15 Hydrology and Water Balance

A site-wide stochastic water and salt balance model (GoldSim) using the mine plan was developed to determine raw water requirements, size water storage and pumping systems, assess water treatment needs, and evaluate reuse potential. The model confirmed that groundwater ingress into the underground workings and run-off largely meet site demand, with intermittent top-up from the Ruvubu River (maximum 1,800 m³/day), and a 7,000 m³/day abstraction capacity was recommended for reliability. The construction phase water needs will be met from boreholes, WRD PCDs, and groundwater inflows. Post-treatment water is reused across the site or discharged to the Ruvubu River.

The water balance incorporates climate data (1992–22). This shows a mean annual precipitation (MAP) of 1,016 mm and evaporation of 1,580 mm, with seasonal variations considered in the stormwater design. A 12%–15% increase in rainfall Intensity-Duration-Frequency (IDF) curves was adopted for climate change resilience. Stormwater infrastructure separates clean and contact water, with PCDs and sediment control structures managing storage and discharge for a 1:100-year event.

Water management supports subaqueous tailings deposition and includes high-density-sludge and RO treatment plants for contact and process water. Treatment reliability is key, with modular designs and 24-hour contingency storage in place.

At the end of the LoM, treated water will be used to accelerate underground void filling, reducing the closure duration. An extended duration for post-closure water treatment has been catered for in the closure cost estimates to ensure environmental compliance and best practice.

15.1.16 Tailings Storage Facility

The Project proposes to construct and operate a TSF at the Kabanga Site, adhering to a number of national and international guidelines. The TSF, designed by WSP (AUS), will be constructed in the southern tributary valley of the Nyamwongo River. The TSF will be formed by the construction of a cross-valley embankment (main embankment) and in later raises, supported by a smaller saddle dam (saddle embankment). The TSF will commence with a starter embankment and up to five raises, for a design capacity of 50 Mt. This is in excess of the FS tailings storage requirement of approximately 32.5 Mt but allows for the potential future conversion of Inferred tonnes (42.5 Mt) and further additional contingency (50 Mt) to future proof the TSF location if additional feed is brought into the mine life.

At the FS design tailings storage capacity of 32.5 Mt, the full Raise 4 height will be 66.3 m, but the tailings elevation would be closer to 58 m with an impoundment area of approximately 70 ha. At the full 50 Mt design capacity, the Raise 5 maximum height will be approximately 72 m and the main embankment will have a crest elevation of 1517.1 mAMSLL with an impoundment area of approximately 120 ha. The embankments will be constructed using materials borrowed from areas around the TSF.

Due to the oxidation characteristics of the pyrrhotite component of the tailings and the geochemical assessment, subaqueous deposition is planned for the TSF. The TSF will be fully lined to minimize seepage and further reduce the geochemical risk. A liner leakage collection system (LLCS) has been included in the design to intercept the potential leakage from the TSF and return it to the TSF. Two springs have been identified in the valley of the TSF. A spring water transfer system is planned to collect and transfer the spring water downstream of the TSF to maintain the water flow downstream of the TSF as far as practically possible.

To support the TSF design, WSP (SA) conducted a dam breach study, water balance, geochemical assessments, groundwater response, and contaminant transport modeling. Design analyses were also undertaken for the TSF, including seepage and stability analyses, a tailings consolidation assessment, simplified deformation assessment, freeboard assessment, and piping erosion assessment. In addition, WSP (NZ) undertook a site-specific SHA for the TSF to support the design.

As a result of the dam breach study, the planned TSF has been classified as an 'Extreme' consequence classification dam in accordance with the Global Industry Standard on Tailings Management (GISTM) and has a rating of 'Very High "A"' in accordance with the requirements of the Tanzanian Dam Safety Guidelines. The elements with the highest category were the environmental impacts and potential loss of life. Cognizant of these outcomes, as a requirement of the GISTM, the TSF will have stormwater holding capacity of a 1:10,000 AEP, 72 h storm event, and the emergency spillways have been designed to manage the critical duration of a probable maximum flood (PMF). These requirements have been incorporated into the basis of design and stability modeling.

A simplified deformation assessment was undertaken for the main embankment, considering the liquefaction potential of the foundation and embankment materials, together with the expected 1:10,000 AEP earthquake loading of the site. The necessary allowances, factors of safety, contingency, and appropriate conservatism have been incorporated into the design.

Supplementary investigations (geophysical and geotechnical) were conducted for the TSF in 2023, following on from extensive historical assessments and studies conducted on the Kabanga tailings storage. The geophysical investigation included electrical resistivity imaging (ERI), seismic refraction, a multichannel analysis of surface waves (MASW), and a vertical seismic profiling (VSP) survey. The geotechnical investigation comprised drilling BHs, in situ standard penetration testing, tube sampling, TP excavation, bulk sampling, and laboratory testing of foundation and construction materials.

Cognizant of the outcomes of the geochemical assessment and subsequent recommendations, the closure of the TSF includes the development of a water-shedding structure to reduce the surface water infiltration into the tailings. The final landform will be gently graded towards a closure spillway to be located adjacent to the saddle embankment. For closure, a cover layer will be placed above the tailings, comprising general fill (to facilitate grading the final surface), a low-permeability layer (to reduce surface water infiltration), and topsoil (for vegetation growth).

The risks associated with the TSF have been identified throughout the design process. A Safety in Design (SiD) assessment was conducted to identify the potential health and safety hazards and to propose controls to manage the hazards with an unacceptable risk. A quantitative risk assessment was also conducted to determine whether the risks are as low as reasonably practicable (ALARP).

Applying an ALARP approach requires that all reasonable measures be taken with respect to tolerable or acceptable risks to reduce them until the cost or other impacts of additional risk reduction become grossly disproportionate to the benefit. The risks identified during the current stage of the TSF design are within the limits of tolerability defined by the Australian National Committee on Large Dams (ANCOLD) when individual failure and overall collective risk modes are considered. The quantification of risk for each failure mode is contingent on the design defenses being installed as designed and functioning as expected, and on the TSF design intent being met throughout the TSF life cycle, including construction and operations.

The TSF remains a key Project focus. Reviews of the TSF design have been conducted by an Independent Tailings Review Board (ITRB), a Tanzanian Ministry of Water Approved Professional Person (APP), and other subject matter experts. ITRB and other recommendations and actions are documented in a register, and this review and engagement process will continue throughout the detailed design phases of the Project. Adherence to GISTM principles will continue and will be implemented at the appropriate time during detailed design and operation.

15.2 Logistics

Tanzania has a well-established national network of roads, rail and ports which support the construction and operational logistics. Further details of the national and regional infrastructure are provided in Section 4.4.

15.2.1 Construction Logistics

A logistics study evaluated the Project's requirements for construction and operational logistics. A primary focus was the movement of all construction-related equipment and loads from points of origin globally to the Kabanga Site. The report evaluated four transport methodologies that were considered optimal:

- Importation via road freight: for goods manufactured/procured from South Africa or the East African Community (EAC).
- Importation via ocean freight: for goods sourced internationally outside the Southern African Development Community or EAC.
- Air freight: for emergency procurement deliveries during construction.
- Domestic rail/road freight: for inland transport of goods from ports/Tanzanian sources to the Kabanga Site.

The report includes route surveys to determine the requirements and constraints related to the transport of abnormal loads from the Port of Dar es Salaam to the Kabanga Site. Additional studies to evaluate bridge capacities along the proposed routes confirmed that no remedial works or temporary supports would be required for the Kabanga equipment transport.

For the purpose of the FS, it was assumed that road freight would be utilized for all construction related equipment and material deliveries from the Port of Dar es Salaam to site. During the execution phase, the viability of using the SGR line to Isaka Dry Port or Tabora for construction related equipment and material will also be evaluated, dependent on the availability and frequency of rail services to support the construction logistics requirements.

Upgrades to the southern access road will include essential temporary upgrades to allow delivery of the expected out of gauge (OOG) cargo and abnormal loads required for the construction of the mine and Concentrator. These loads include the mill shells, mill ends, concentrate filters and 60 MVA transformers.

The planned upgrades to the southern access road to the Kabanga Site include cutting and widening of the steep sections on the road, widening sharp switchbacks, and extending the associated stormwater infrastructure to facilitate the OOG deliveries during construction. Temporary slip lanes are planned where the road is too narrow to allow bi-directional traffic during transport of the OOG loads. Traffic on the road will be managed and batched during the delivery period to avoid long delays for regular road users and for safety considerations.

15.2.2 Operational Logistics

15.2.2.1 Inbound Freight

The Project's annual inbound freight to the Kabanga Site, made up of reagents, mine equipment, maintenance spares and other consumables, amounts to approximately 55,000 tonnes. These reagents would generally be in the form of 1 tonne bulk bags and 1,000 liter Intermediate Bulk Containers (IBCs) which would be containerized. The consumables including rock bolts, mesh, cement, emulsion, mill balls, mill liners, and crusher liners will also be containerized. In addition, the Project would require approximately 7 million liters of diesel annually, which would be delivered in approximately 270 isotainers (20ft).

15.2.2.2 Concentrate Export

The concentrate product logistics route selected for the Project comprises a road haul from the Kabanga Mine to the Isaka Dry Port, where the concentrate will be loaded onto the SGR and transported to the Port of Dar es Salaam using a staging yard at the existing Kwala Dry Port.

This is a 1,330 km route which, combined with the peak expected concentrate tonnage of the mine of 392 ktpa (approximately 430 ktpa wet concentrate) in 2037, will require 580 million tonne kilometers (tkm) of logistics capacity per annum and make the Project potentially the sixth largest mine in Central Africa in terms of logistics requirements. The annual forecast production of concentrate is presented in Figure 15-3 and averages approximately 350 ktpa (dry) at the steady-state production rate.

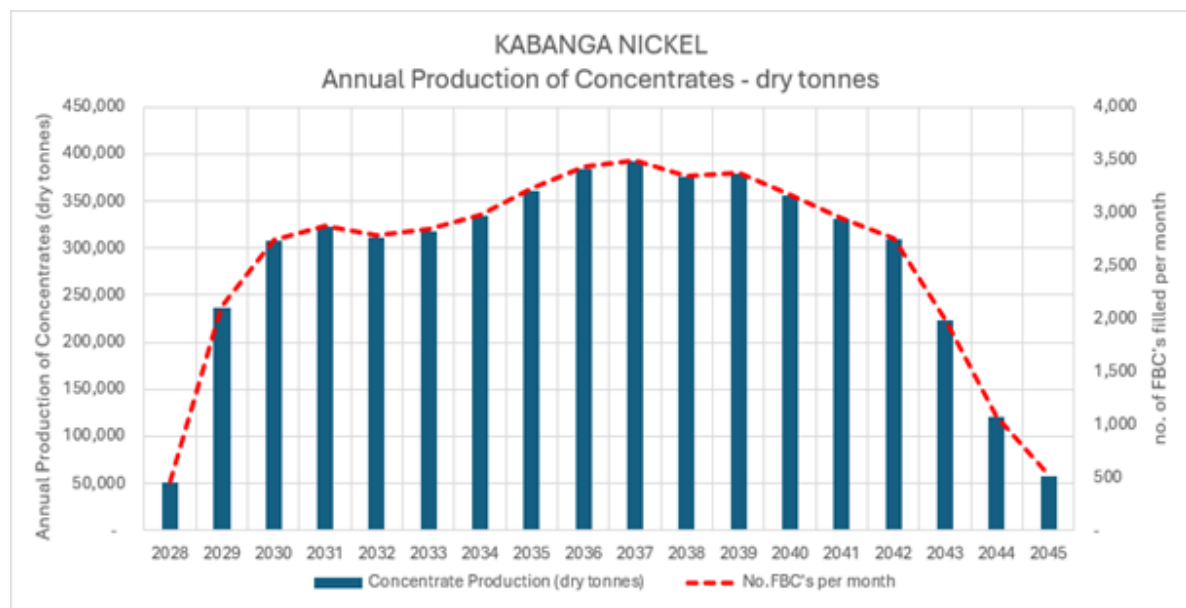


Figure 15-3: Planned Concentrate Production Profile

The Project will benefit significantly from the construction of the new high-speed SGR network in Tanzania. Approximately three-quarters (984 km) of the Project's primary export route will be serviced by the SGR, which is unavailable anywhere else in sub-Saharan Africa except Kenya. The SGR would need to support 40 wagon block freight trains moving between Isaka and Kwala/Dar es Salaam at average speeds of over 100 km/h.

The Project will also benefit from the planned investment (USD 250 million) into the Port of Dar es Salaam, by the new concessionaire, DP World. On October 22, 2023 the GoT (through the Tanzania Ports Authority) signed investment agreements with DP World, which covers the operation of docks number 0 to 7 of the Port of Dar es Salaam for a period of 30 years, including the handling of containers, general cargo, bulk cargo, and vehicle cargo. Their plans include upgrading quays 3 and 4 to become dedicated bulk material docks with a fixed conveyor loading and unloading capacity of up to 2,000 tph.

At the Kabanga Site, concentrate will be loaded under a covered area into reuseable FBCs, containing approximately 9.3 t per bag. The FBCs will be weighed, sealed and tagged and then loaded onto contractor provided tri-axle trucks with a payload of three FBCs per truck (28 t payload) for the 347 km haul to the Isaka Dry Port. Most of the truck loading would happen overnight with the loaded trucks passing over the Kabanga weighbridge before moving to the truck staging area where they will await dispatch.

The decision to use FBCs for the transport of concentrate from the Kabanga Mine at the Port of Dar es Salaam will eliminate the potential for product losses and contamination along the 1,330 km route. The use of FBCs also eliminates the need for traditional and smaller woven nylon bags, which are commonly used for moving bulk mineral products and which are normally slashed and incinerated at destination. The use of FBCs will also generate employment due to the required maintenance and repairs.

The road haulage route of approximately 347 km is expected to take six to seven hours, and trucks would drive in convoy, departing the mine at daylight. The convoys of loaded trucks will depart for Isaka with front and back escort vehicles to ensure the safety and security of the concentrate, other road users and villagers along the southern access road, which links the Kabanga Mine to the National B3 highway. The convoys would then join the B3 and proceed to the TANROADS Nyakahura weighbridge, before proceeding to Isaka. The escort vehicles would then wait at Nyakahura for the returning truck convoys (carrying mine supplies and empty FBCs) that would have left Isaka the same morning and escort the trucks safely back to the Kabanga Mine. The trucks would also pass over the TANROADS Kahama weighbridge before proceeding to the Isaka Dry Port (Figure 15-4).

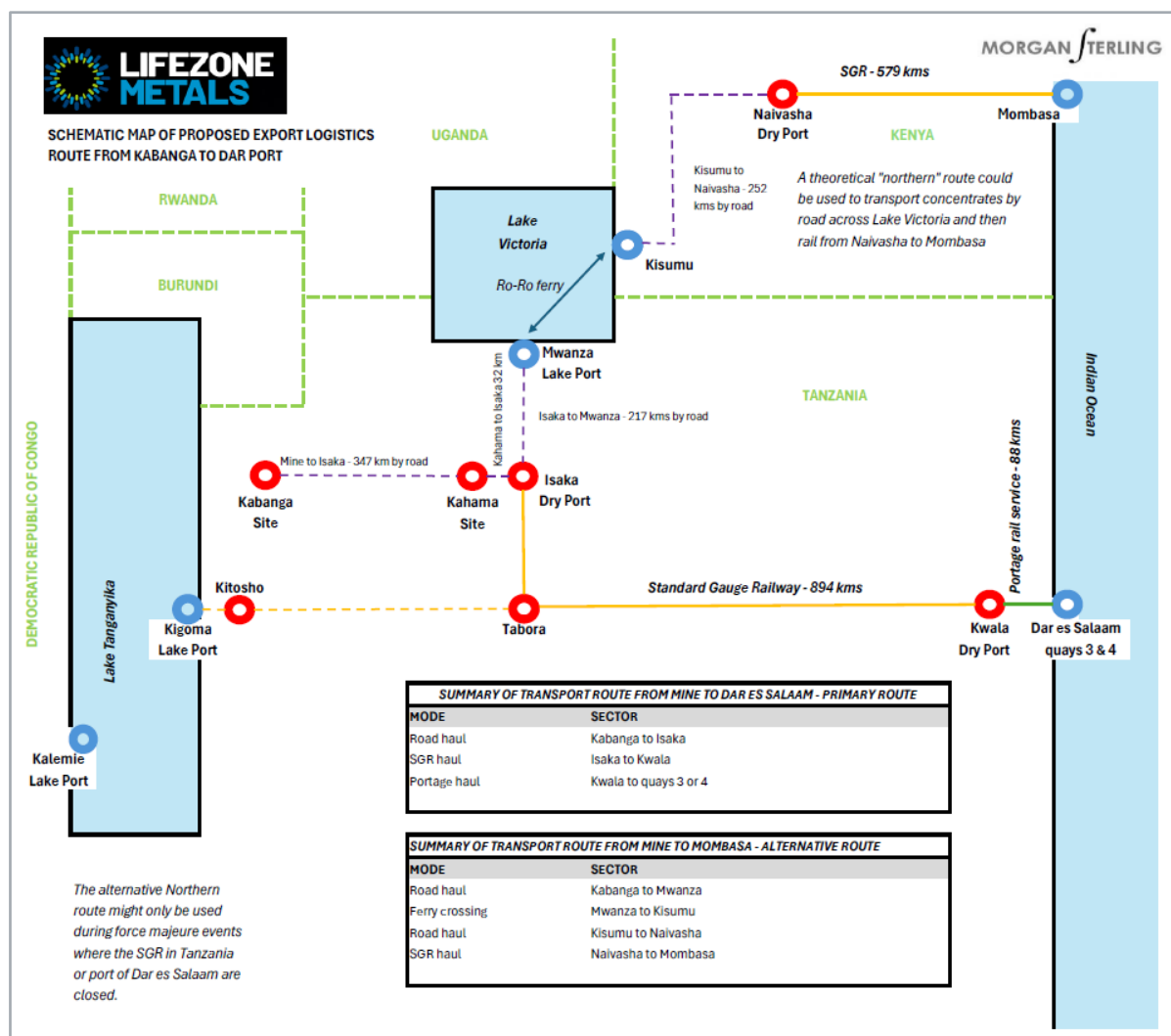


Figure 15-4: Kabanga Proposed Logistics Route

From Isaka Dry Port, the FBCs will be railed 894 km to the Kwala Dry Port in dedicated low-sided flatbed wagons via the SGR, which is currently under construction and expected to be operational at Isaka by November 2026. The typical freight train will consist of 40 wagons, with each wagon carrying five FBCs, delivering a train payload of approximately 1,860 t with departures every 48 hours. The use of flatbed wagons and FBCs also allows the backhaul of reagents and consumables to Kabanga.

Kwala Dry Port is a key staging point for imports and exports used to reduce congestion at the Port of Dar es Salaam by removing the need for quayside warehousing. The Kwala Dry Port is a large site with direct rail access. The facility has been designed for handling shipping containers and bulk materials and is managed and operated by Tanzania Ports Authority (TPA) on behalf of the Port of Dar es Salaam. It is currently connected to the port by the meter gauge railway network, with plans to build a 'Port Link' from the end of the SGR. At the Kwala Dry Port, FBCs will be stored in a leased area with sufficient capacity to cater for the monthly shipments of approximately 25,000 t. From Kwala Dry Port, the concentrate will travel the final 88 km to the Port of Dar es Salaam via the dedicated Port Link with SGR locomotives, as seen in Figure 15-5.



Figure 15-5: SGR Rail Locomotives

Kabanga has engaged with the Tanzania Railways Corporation (TNC) relating to access and rates, which have been used in the study. Two swing sets of wagons (one loading/unloading at each end) plus one set in motion have been allowed for in the capital cost estimate.

Each FBC is proposed to be fitted with a unique RFID tag and label, and all units will be scanned (by post or by handgun) at various points along the pipeline between the Kabanga Mine and the quayside at the Port of Dar es Salaam. In addition to tracking stockpiles and movements along the logistics export route, details of the concentrate inside each FBC (moisture content, concentrate grade, minor element grades, date of production, zone, etc.) will be held on file so that stock can be picked at Kwala Dry Port on a first-in first-out (FIFO) or grade blending basis if required. Moisture levels could also be monitored and updated as concentrate moves along the route and dries out inside the FBCs thereby allowing more accurate weighing and invoicing of product at the quayside at Port of Dar es Salaam.

At the Port of Dar es Salaam, DP World will handle the loading of dedicated 12,000–30,000 deadweight tonnage (DWT) bulk carriers using cranes to bottom discharge from the FBCs into the vessel holds.

Minerals to Market Pty Ltd were engaged to undertake concentrate sea freight studies to multiple destinations in support of the FS. Shipping costs for ocean-going freight and offloading, from the Port of Dar es Salaam to customer destination ports have been provided by multiple reputable shipowners including parcel carriers and multi-purpose ships. Parcel carriers operate larger vessels ranging from 28,000 to 56,000 DWT and load a variety of cargoes on each ship which are separated by different holds. Parcel carriers generally load and discharge at a variety of ports which results in longer transit times. Multi-purpose shipowners operate smaller vessels ranging from 10,000–18,000 DWT and would be more likely to ship a full and complete (i.e., single) cargo.

Quotes using April and May 2025 rates are reflective of the current shipping market condition at the time obtained, during April and May 2025. They were based on a number of specified terms such as maximum and minimum freight size, geared (own cranes) vessels, load and unload rates and loading days, allowance for laytime, cargo type, and classification and a maximum vessel age of 20 years to

avoid excessive marine insurance. The remaining terms and conditions requested are as per a Baltic and International Maritime Council (BIMCO) charterparty. BIMCO is one of the largest international shipping associations representing shipowners. These have been used in the cost estimation. Rates were also obtained for additional freight costs to ship during the ice season in some northern destination ports.

While a number of shipowners provided sea freight pricing, it is expected that other providers of this service would be willing to provide quotes once the Project is close to or commences production. Shipowners will sometimes cost voyages higher or lower than global averages depending on the return they require for their ships and whether they wish to position their ships to a particular destination to load their next cargo.

Time charter rates and fuel costs can fluctuate significantly, both above and below those received as part of the current indications received. For reference:

- At the time the indications were received, on April 4, 2025, the Baltic Exchange Dry Index was 1489 points, the Baltic Handysize index was 613 points and the Baltic Supramax Index was 1425 points.
- The average time charter rate for a Handysize vessel was USD 11,027 per day and the average time charter rate for a Supramax vessel was USD 12,278 per day.
- The global 20 ports average for very low sulfur fuel oil (VLSFO) was USD 548.50 /t.

The estimates are not a prediction of futures rates and do not represent the absolute highs or lows that might occur in the future. Operating costs are stress tested in the economic modeling to test the robustness to changes in cost, including sea freight.

Transport costs for concentrate to international customers have been estimated on this basis, using current quotations received from reputable logistics providers.

15.3 QP Opinion

The infrastructure design is appropriate for the FS level and supports the planned operations. The planned supporting Project infrastructure, sources and prices of logistics, power, and water are well understood and have been interpreted from reliable studies and evaluations.

It is the opinion of DRA, responsible and acting as the QP for the Kabanga infrastructure, that the level of assessment and design are appropriate for an FS and represent good industry practice.

16 MARKET STUDIES

16.1 Market Outlook

The following information on nickel, copper and cobalt supply and demand is summarized from information provided by CRU International Ltd (CRU), a leading independent data intelligence company focusing on the mining, metals and fertilizers industry. CRU data and forecasts were prepared in May 2025.

The long-term nickel, copper, and cobalt metal price assumptions used in the FS are based on May 2025 consensus industry pricing forecasts and compared to those used in other published studies and forecasts by independent research organizations.

A nickel-rich sulfide concentrate containing payable levels of copper and cobalt and levels of impurities below penalty limits is proposed to be produced at the Kabanga Site. Concentrate will be sold to the export market at the commencement of operations. Potential concentrate customers have been engaged, and indicative, non-binding concentrate payment and delivery terms for 100% of the concentrate during this period have been provided to support the study. This concentrate will be trucked, railed, and shipped to international customers.

Markets for nickel, copper, and cobalt are well established and demand for these metals is expected to continue to grow in the long term given the global trend of decarbonization and electrification. All three metals are key components in batteries, consumer electronics, energy storage and renewable energy capacity, and the outlook for these sectors remains robust.

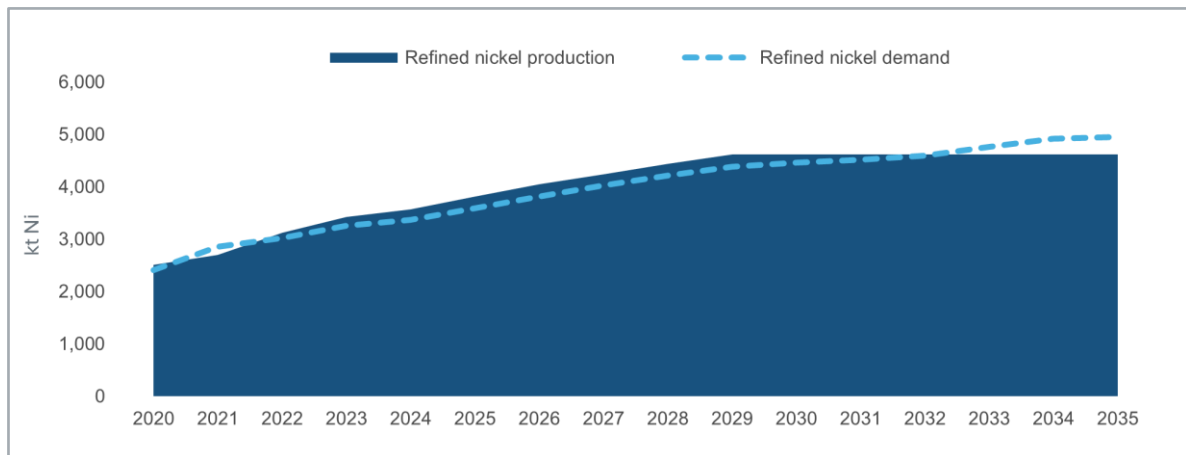
In the short to medium term, nickel and cobalt demand is robust, driven by strong growth in global electrification, battery manufacturing for electric vehicles and stainless steel sectors, especially in Asia. The long-term supply-demand dynamics indicate a favorable market for nickel and cobalt, aligning well with Kabanga's production timeline. In the long term, more aligned with the planned commencement of the Kabanga operation, there is a forecast supply gap which is expected to put upwards pressure on nickel and cobalt pricing. Copper demand remains strong with the green energy transition providing most of the demand support over the medium and long term.

16.1.1 Nickel

Nickel demand spans several categories, including stainless steel, batteries, plating, alloy and steel castings, non-ferrous alloys, and other products. Demand is forecast to exceed 4.5 Mtpa by 2029, coinciding with Kabanga's anticipated production start. This timing aligns with a projected decline in supply, eventually falling slightly below consumption levels.

Current global supply is predominantly concentrated in Indonesia and China, which together account for approximately 75% of total supply. Total nickel demand is primarily driven by the stainless steel sector which remains the largest end-use of nickel, and increasingly by the battery sector for electric vehicles (EVs) which is projected to grow at the fastest rate among major demand categories. The majority of nickel consumption occurs in Asia, particularly China, with comparatively lower demand in Europe and the Americas.

Nickel demand is expected to remain strong over the short, medium, and long term due to increasing demand for nickel in battery applications; including EVs, and other portable power and motive batteries, alongside steady growth in stainless steel consumption. Nickel demand for battery applications is forecast to double over the next five years and nearly triple by 2035. In the short to medium term, there is a forecast nickel market surplus, but a supply gap is expected to form in the early 2030s. Beyond 2030, nickel supply will need to grow to meet demand as presented in Figure 16-1.



Source: CRU.

Note: Production based on known supply forecast to 2029, not incorporating longer term supply additions.

Figure 16-1: Long-term Supply Gap

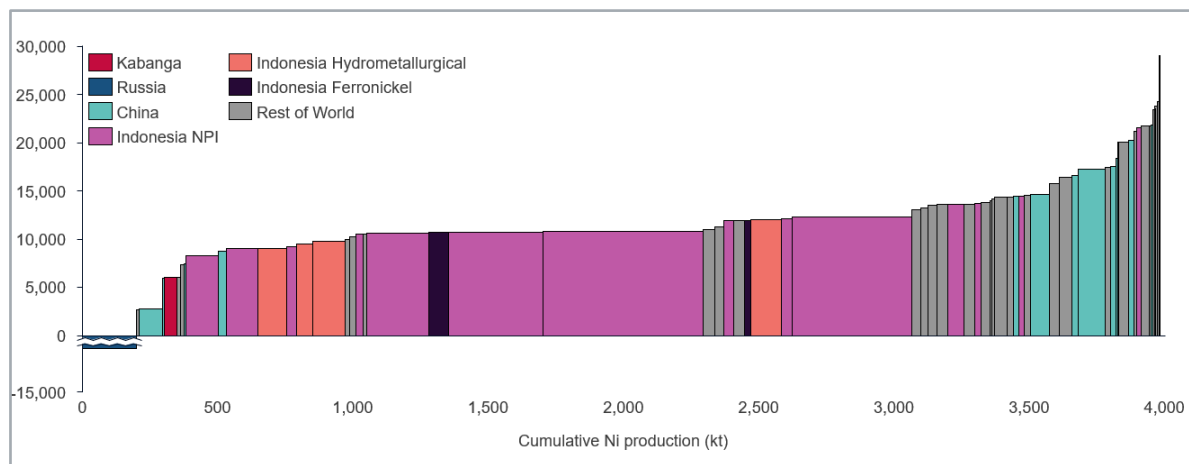
Based on CRU's assessment, key longer-term drivers to the nickel price include:

- **Advancements in Battery Technology:** The increased adoption of manganese-rich cathodes and lithium iron phosphate (LFP) batteries, particularly outside China, could reduce demand for nickel from the battery sector, exerting downward pressure on nickel prices.
- **Onshoring of Critical Mineral Supply Chains:** Environmental and country-of-origin regulations, such as the Foreign Entity of Concern sourcing obligations in the U.S. Inflation Reduction Act, are driving a preference for low carbon emissions and/or secure nickel supply chains, with incentives offered for domestic or trusted sources, aiming to reduce reliance on sources from jurisdictions with less stringent environmental and labor standards.
- **Increasing Marginal Costs in Indonesia:** The cost of producing nickel in Indonesia may rise due to factors like declining ore grades, higher energy costs, higher acid costs, increased feed ore prices, higher royalty costs, and more expensive tailings storage.
- **The Project's estimated low carbon intensity and other superior environmental, social and governance (ESG) credentials** compared to Indonesian nickel and cobalt production, as well documented in the public domain remains a key upside price opportunity. This includes the risk to curtailment of mining quotas, or cancellation and revoking of mining permits, particularly due to increasing international pressure from various organizations. For example, the four mining permits revoked in Raja Ampat, Indonesia in June 2025 due to concerns about their environmental impact.
- **A metal exchange proposal within Indonesia** may support higher prices in the future, however, this is not included within the base case assessment.
- **Expansion of Low-Cost Production Capacity:** Continued growth in Indonesian ferronickel, nickel pig iron (NPI), and high-pressure acid leaching (HPAL) capacity has reduced the need for other new nickel projects, subsequently lowering the price below that required to economically incentivize new nickel output.
- **Concentrate production from sulfide ores** has in recent years continued to decline steadily. Nearly all the major producers, including Norilsk, BHP with the idling of Nickel West assets, Vale, and Glencore Canada, are producing at lower-than-expected levels, having seen declines in production over the last five years. In the medium to long term, diminishing availability of third-party nickel concentrate is expected to increase demand for this feed into existing smelting operations, particularly for high grade concentrates such as that expected from Kabanga.
- **Increased Recycling:** Demand for primary nickel may be lower than forecast due to faster-than-anticipated recycling of nickel from batteries, driven by shorter battery lifespans and improved collection and recoveries. Additionally, China may accelerate its use of scrap in stainless steel production.

The Project benefits from its low estimated operating costs. CRU provided industry nickel production cost curves for 2025 using an all-in-sustaining costs (AISC) definition from CRU's in-house Nickel Cost Model. Cost estimates for the Project have been provided by Lifezone Metals with CRU's price assumptions for by-product revenue credits from the sale of copper and cobalt. While the asset is not currently producing, the exercise is intended to show its cost positioning within the current market environment.

The AISC includes cash costs adjusted to account for different products' payability relative to the LME, plus royalties, sustaining capital costs, interest on working capital and corporate general and administration costs. The adjusted cash costs allow for direct comparison of producers with different product types, such as concentrates, mixed hydroxide precipitate (MHP), metal, FeNi and NPI, all of which are valued differently; the adjustment aims to make them directly comparable against the LME price.

With Kabanga's supplied costs with CRU by-product revenue assumptions, its AISC sits well within the first quartile of the cost curve. This cost assessment is based on the Kabanga mine and concentrator only, selling concentrates to third parties as presented in Figure 16-2.



Source: CRU Nickel Cost Model and CRU Nickel Asset Services.

Note: Cost estimates for the Project have been provided by LZM using CRU price assessments for by-product credits. The chart excludes a small volume of platinum group metals (PGM) miners that produce nickel as a by-product. In USD 2024 real terms.

Figure 16-2: Nickel All-in Sustaining Costs for 2025 - USD/t Payable Nickel

The cost curve for 2025 shows that the lowest operating costs are predominately nickel sulfide concentrate producers. These producers can also generate high value by-products such as gold, silver, copper and cobalt, which lower their nickel production cost on a net of by-products basis. Indonesian HPAL producers occupy a large proportion of the remainder of the first quartile. The second and third quartile of the cost curve are mostly dominated by Indonesian NPI producers. Various Chinese NPI plants, HPAL facilities outside of Indonesia, the rest of RKEF plants, and some of the sulfide processing with depleting ore grades sit in the last quartile of the curve.

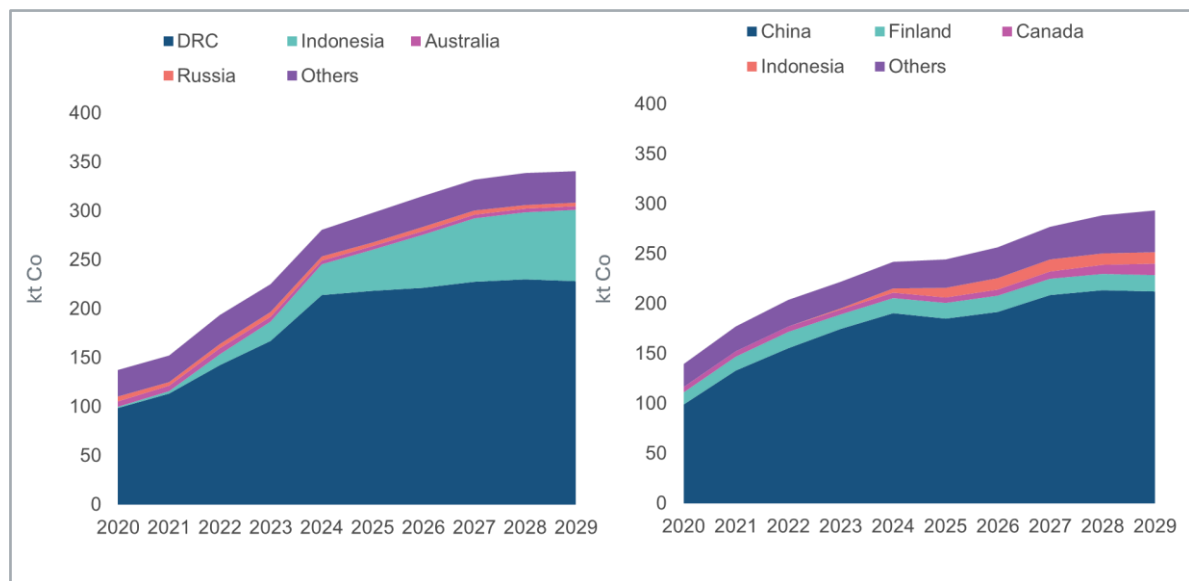
16.1.2 Cobalt

Cobalt demand is propelled by EVs and renewable energy. Similarly to nickel, the pricing and demand outlook for cobalt have changed as LFP cathode materials for use in battery EVs and energy storage applications have seen a strong momentum shift over the last year. The growth in the EV market is still expected to drive long-term cobalt demand, despite a substantial decline in cobalt intensity within EV batteries due to the increased adoption of cobalt-free LFP and nickel-rich, cobalt-lean nickel-manganese-cobalt (NMC) cathodes.

Supply of cobalt is primarily a by-product of nickel or copper production, making its price typically more volatile than either primary metal. Supply is concentrated in the Democratic Republic of the Congo (DRC), raising supply chain security, ethical sourcing, environmental, social and governance (ESG) concerns, especially with the European Union's (EU) Critical Raw Materials Act. Long-term cobalt demand is expected to outstrip supply.

Recent oversupply has been driven by historically high copper prices boosting production in the DRC from copper-cobalt ores and increasing supply from Indonesian nickel-cobalt HPAL production. Despite this putting downward pressure on prices, the longer-term outlook for cobalt remains positive. Demand is forecast to be strong and is expected to outstrip supply in the medium to long term.

Notably, the DRC imposed a shock export ban in February 2025, aimed to provide sustained price support, boost artisanal and small-scale mining output, and incentivize further processing in-country. Speculation and a paucity of spot volumes have so far fueled a short-term price rally across the market, but the timing and manner of the ban's resolution will determine whether these controls will be deemed a success. Export quotas will be necessary to rebalance the market. The key risk to the short to medium term cobalt price is the resolution of the export ban in the DRC, which has been expanded for an additional three months in June 2025. Mined and refined cobalt production by region is presented in Figure 16-3.



Source: CRU.

Note: Supply estimates shown above are not inclusive of unallocated mine disruptions.

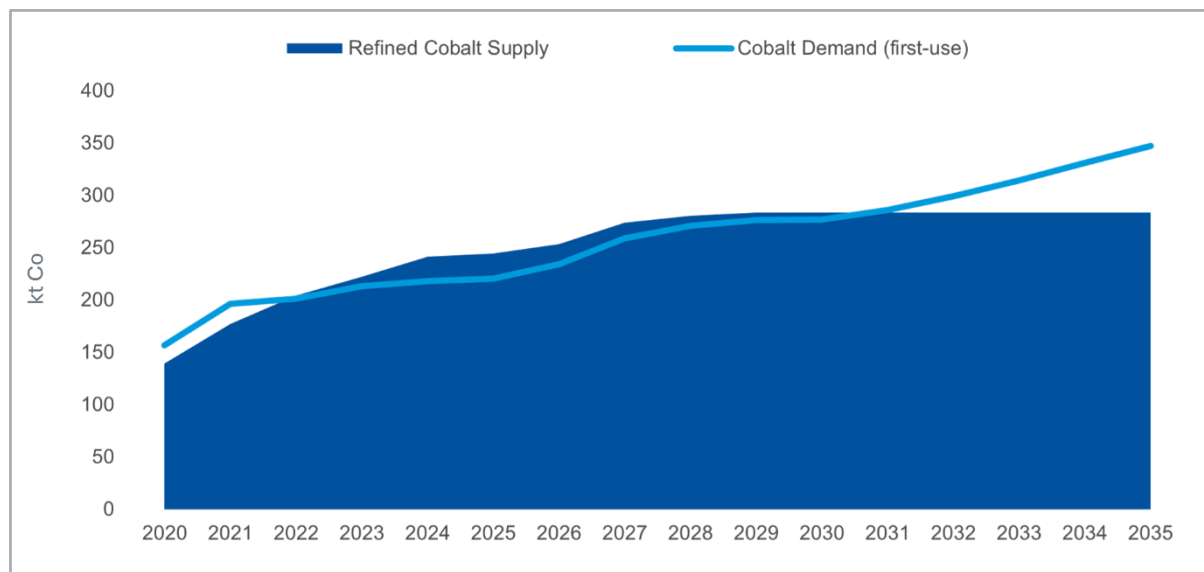
Figure 16-3: Mined (left) and Refined (right) Cobalt Production by Region

Based on CRU's assessment, key longer-term drivers to the cobalt price include:

Key Price Drivers for Cobalt:

- **Concentration of Production:** Cobalt production is limited to a few countries, with the DRC accounting for a significant portion of global output. Even as Indonesian production rises, the DRC will be the main source of global cobalt throughout the 2020s and 2030s. This concentration increases supply risk and reduces supply chain resilience. The realization of this risk has been seen in 2025, as the DRC has banned cobalt exports for a period of four months due to low market prices. However, major producers such as CMOC Group Limited or Glencore are unlikely to curtail cobalt production, assuming the ban will last only four months. Any curtailments are unlikely to amount to more than 20 kt of contained cobalt, much lower than the expected 2025 cobalt surplus.
- **ESG Concerns:** ESG issues in cobalt mining may have an impact on the supply chain, especially with the EU's Critical Raw Materials Act coming into effect this year. Regulatory changes in the European Union will require companies to address ESG issues or risk losing access to financing in the EU.
- **Rapid Changes in Battery Chemistry:** The pace of change in battery chemistry is swift, with higher cobalt prices and supply chain uncertainties driving a shift towards lower or no-cobalt battery types in some markets.

The forecast refined cobalt supply gap is presented in Figure 16-4.



Source: CRU.

Figure 16-4: Forecast Supply Gap for Refined Cobalt

16.1.3 Copper

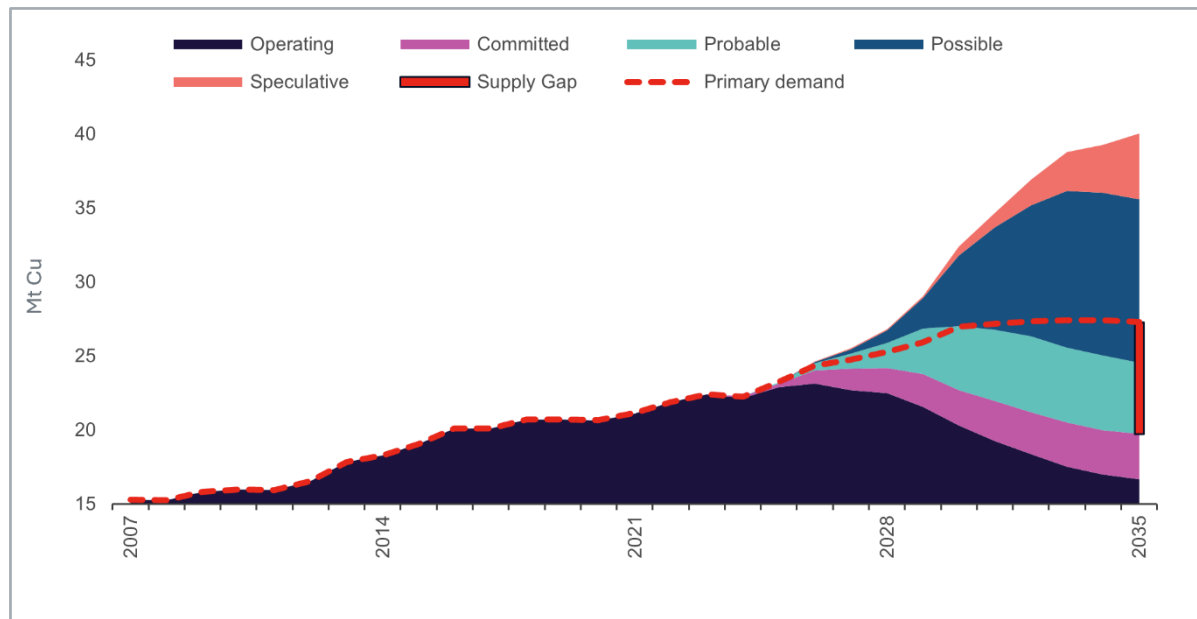
Copper is a primary driver for EVs, energy storage, and renewable energy sectors, reflecting demand growth across transport and utility industries. Strong demand is expected as industries continue with electrification, decarbonization, and energy transition, particularly in the EV and renewable energy sectors.

On the supply side, copper-producing regions like Chile and Peru face regulatory changes, environmental concerns, aging mines, and declining ore grades, all which challenge output. This is compounded by insufficient new project tonnage coming online to replace exhausted assets and meet additional demand.

Copper demand remains strong with the green energy transition providing most of the demand support over the medium and long-term. This demand growth will require USD 130 billion of investment needed to adequately meet demand. Projects have slowed in the development process and ore grades are expected to continue to decline. With over 60 uncommitted projects required to meet long-term copper demand CRU expects approximately 7.9 Mtpa copper supply gap to emerge by 2035 as presented in Figure 16-5.

Based on CRU's assessment, key longer-term drivers to the copper price include:

- **Economic Activity:** Copper demand is closely tied to global economic activity, often considered a bellwether for the global economy.
- **Geopolitical Factors:** Trade wars, sanctions, and political instability in major copper-producing nations significantly impacts copper prices.
- **Energy Transition:** Over and above economic activity, copper will be more intensively used through the green energy transition, leading to an intensity step-change as much more of the global economy electrifies items that once were powered by fossil fuels.



Source: CRU.

Figure 16-5: Forecast Supply Gap for Primary Copper

16.2 Market Prices

16.2.1 Metal Prices

The Project has received indicative, non-binding offtake terms for 100% of the concentrate with potential customers providing payment and delivery terms. This concentrate will be trucked, railed, and shipped to international customers. The market for nickel concentrate is well established, and demand for Kabanga's high-grade product is strong, particularly due to its high-grade and low impurities.

The long-term nickel, copper and cobalt metal price assumptions used in the FS are based on May 2025 consensus industry pricing forecasts and compared to those used in other published studies and forecasts by independent research organizations. The specific values are presented in Table 16-1 and are in real terms.

Table 16-1: Kabanga Metal Prices – FS Economic Assessment

Metal	Long term Price (USD/lb)
Nickel	8.49
Copper	4.30
Cobalt	18.31

16.3 Smelter Capacities

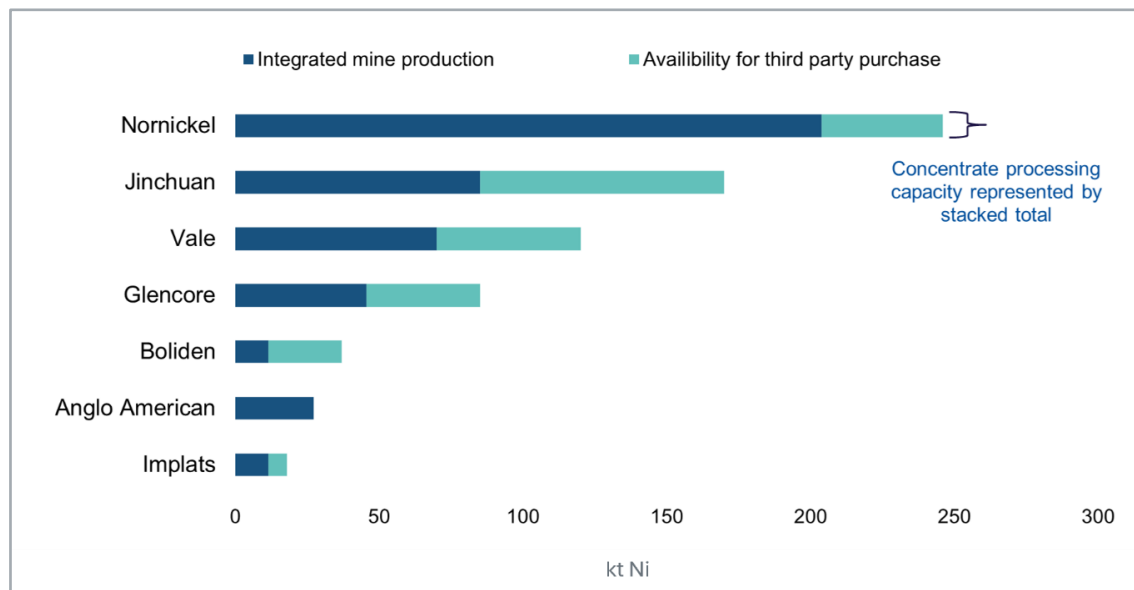
CRU undertook a review of potential key nickel sulfide smelters, their capacities, and idle capacity available for third-party concentrate purchases. Idled smelters have been excluded. The review demonstrated sufficient capacity and appetite for third-party concentrates as presented in Table 16-2 and Figure 16-6. It is likely that the superior specifications of the Kabanga concentrate would result in it being prioritized over lower-grade third-party concentrates that would be displaced. This smelter capacity and associated demand assessment is supported by the indicative, non-binding offtake terms provided by potential customers for over 100% of the concentrate production.

Table 16-2: Key Nickel Sulfide Smelter Capacities and Integrated Mine Production - (ktpa Ni)

Smelter Details			Concentrate Processing Capacity	Integrated Mine production		Availability for 3rd Party Purchase		Change 2024 –29
Country	Owner	Smelter	2024	2024	2029	2024	2029	2024–29
South Africa	Implats	Impala Platinum	18	11	18	7	0	-7
South Africa	Anglo American	Amplats	26	27	23	-1	3	4
Finland	Boliden	Harjavalta	37	12	11	25	26	0
Canada	Glencore	Sudbury	85	46	61	39	24	-16
Canada	Vale	Sudbury and Long Harbour	120	70	105	50	15	-35
China	Jinchuan	Jinchuan	170	85	85	85	85	0
Russia	Nornickel	Nadezhda	246	204	240	42	6	-36
Total			702	455	544	247	158	-90

Source: CRU.

Notes: No changes expected to listed concentrate processing capacities between 2023 and 2028. Idled smelters not included. All units are ktpa(Ni).



Source: CRU.

Note: Idled smelters not included.

Figure 16-6: Nickel Sulfide Mine Production vs. Concentrate Processing Capacity, 2024

In general, to take advantage of lower logistics costs, producers of custom concentrates are more likely to sell to smelters within their regions, to the extent that there is sufficient free concentrate processing capacity. At a global level, nickel sulfide concentrate processing capacity is expected to remain constant at around 700 kt Ni between 2025 and 2029.

Meanwhile, global concentrate production is expected to increase by +143 kt Ni from 652 kt Ni in 2024 to 721 kt Ni in 2026, before falling to 689 kt Ni by 2029. Reopening idled smelters—Fortaleza in Brazil (19 kt Ni capacity), Bindura in Zimbabwe (17 kt Ni), and BCL (46 kt Ni) in Botswana—would increase capacity to over 930 kt Ni. Without an increase in processing capacity the market for placing concentrates will become more competitive, however, Kabanga benefits from the high-grade grade low-impurity specifications which are typically preferred as smelter feed.

16.4 Concentrate Marketing

16.4.1 Concentrate Marketing

16.4.1.1 Concentrate Sales to the Export Market

A nickel-rich sulfide concentrate containing payable levels of copper and cobalt and levels of impurities below penalty limits is planned to be produced at the Kabanga Site. Concentrate will be sold to the export market from the commencement of operations. Potential concentrate customers have been engaged, and indicative, non-binding concentrate payment and delivery terms for 100% of the concentrate during this period have been provided to support the study. This concentrate will be trucked, railed and shipped to international customers. Concentrate transport, logistics and freight contracts would be established for this.

The market for high-quality nickel concentrates, such as Kabanga's product, remains robust. Kabanga's concentrate, with its high-grade and low-impurity profile, is particularly attractive to global smelters, ensuring strong demand and strategic placement opportunities; and due to a significant tonnage of third-party concentrate coming off the market in recent years due to several notable closures including BHP's Nickel West operation and IGO's Cosmos and Forrestania Nickel operations, in care and maintenance, in Western Australia.

16.4.1.2 Concentrate Typical Specification

The concentrate product has a high nickel grade, contains payable levels of copper and cobalt, and levels of impurities below penalty limits. Deleterious elements such as arsenic, antimony, lead, zinc, fluoride and chloride, which can potentially attract penalties in nickel concentrates, have been determined through both historical and current testwork not to reach threshold penalty limits.

Metallurgical algorithms have been developed from testwork to model concentrate grades based on the mine production schedule. The algorithms consider the different feed types, feed grades and feed blends to determine annualized recoveries and concentrate grades for the payable metals, specifically nickel, copper and cobalt. The recoveries and concentrate grades of sulfur, iron and magnesium/magnesia have also been modeled based on recovery algorithms derived from the testwork and the concentrate mass recovery. Minor element grades are based on comprehensive assays of flotation testwork concentrate samples.

The LoM concentrate grade is 17.5% nickel, 2.6% copper, and 1.3% cobalt. Over the same period, the concentrate has a calculated sulfur grade of 32%, iron of 39% and a low magnesium oxide (MgO) grade of 0.6%. The typical Kabanga concentrate specifications are presented Table 16-3.

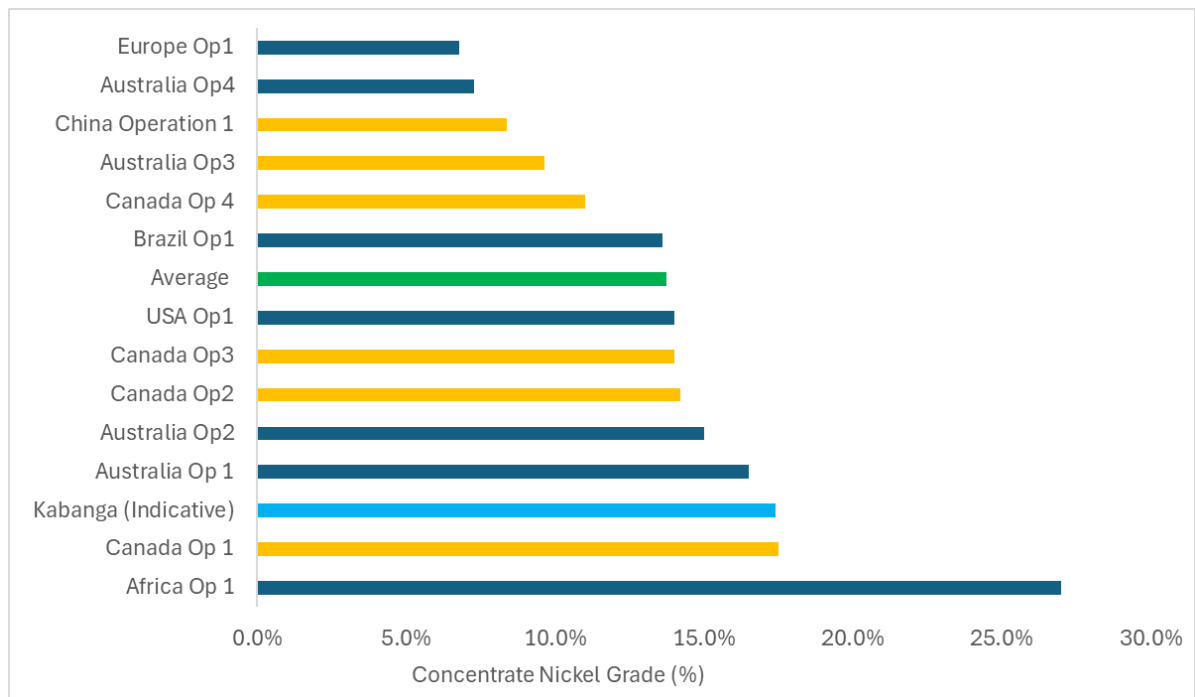
Table 16-3: Kabanga Concentrate Typical Specification

Element	Unit	Typical	Minimum	Maximum
Ni	%	17.5	16	18
Co	%	1.3	1.0	1.5
Cu	%	2.6	2.0	3.0
Fe	%	39	37	40
S	%	32	31	33
Pt	ppm	0.25	0.05	0.45
Pd	ppm	0.35	0.2	0.5
MgO	%	0.8	0.5	1.1
SiO ₂	%	7	5	9
Al	%	0.7		< 1
Ca	%	0.2		< 0.5
Mn	%	0.03		< 0.05

Element	Unit	Typical	Minimum	Maximum
Cr	%	0.1		< 0.2
As	ppm	50	< 50	100
Bi	ppm	5		< 10
Sb	ppm	5		< 10
Pb	ppm	200		< 500
Zn	ppm	150		< 200
Cd	ppm	10		< 20
Cl + F	ppm	<200		< 500
Au	ppm	0.5		
Ag	ppm	7		
Fe/MgO	#	46	36	75
Moisture	% w/w	9.0	> DEM	< TML

Notes: DEM: Dust Extinction Moisture; TML: Transportable Moisture Limit.

CRU undertook a benchmarking comparison of the proposed Kabanga concentrate specification against existing and recently shuttered operations. The Kabanga concentrate is considered to have nickel grade well above average and moderate payable levels of copper and cobalt, with deleterious elements all below penalizable levels. The nickel grade is higher than most 'custom' concentrates, i.e., those that are traded between third parties as opposed to produced by the same company for processing themselves. In CRU's opinion the Kabanga product was considered a "...highly marketable concentrate that could be processed in several different smelters", and "The concentrate can be regarded as a "clean" product with low penalty elements such as magnesium, chloride, lead and arsenic content; CRU does not expect it to incur any pricing penalties due to excess impurities". The benchmarking is presented in Figure 16-7. This is the nickel only grade and does not consider the additional nickel-equivalent copper and cobalt content.



Source: CRU

Figure 16-7: Nickel Concentrate Grade Benchmarking

16.5 Concentrate Payability

Indicative non-binding concentrate payment and delivery terms have been provided by several potential customers. These terms have been considered and compared by normalizing the terms for differences in the derivation of concentrate payment, including differences in payability of each metal (Ni, Cu, Co) at different metal prices, consideration of other payable metals, and the assignment of costs such as treatment and refining charges. No penalties were assigned in any of the terms offered.

The FS uses a concentrate metal payability for nickel, copper and cobalt respectively based on Cost, Insurance and Freight (Incoterms® 2020) (CIF) delivery terms to the destination port as per the indicative terms provided by potential customers.

Concentrate payabilities used in the Project financial modeling are as per confidential commercial terms.

16.6 QP Opinion

There is a viable market for high-grade, low impurity nickel sulfide concentrates such as those that will be produced at Kabanga. This supports the conclusion that the Project will be able to sell the products produced. The QP defers data and assumptions on macroeconomic trends, taxes, royalties, interest rates, marketing information and plans to the registrant.

17 ENVIRONMENTAL STUDIES, PERMITTING, AND PLANS, NEGOTIATIONS, OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

17.1 Summary

The Project encompasses the Mine and Concentrator located at the Kabanga Site and the Kabanga Resettlement Sites. The Project will need to acquire 4,073 ha of land under the SML and implement a RAP to manage land acquisition and resettlement. The Kabanga Resettlement Sites provide new housing, infrastructure, compensation, and livelihood restoration programs for the physically displaced households. Economically displaced households receive compensation and targeted support to restore or improve their livelihoods. The Project is committed to responsible mining practices that protect and manage environmental resources, promote social welfare, and ensure transparent and accountable governance. By adhering to the ESG principles, the Project aims to achieve regulatory compliance while contributing positively to the local communities and the environment, ensuring the long-term sustainability of the Project.

The Project is committed to aligning with both Tanzanian regulatory requirements and internationally recognized ESG standards. The Project operates within the legal framework of the United Republic of Tanzania, complying with national laws related to environmental protection, social impact management, land access, resettlement, and permitting.

Regulatory approvals are required for the development and operation of the Project. These include permits for the Kabanga and the Resettlement Sites. The Project permitting team oversees the permitting process, maintaining a structured and efficient approach to meeting regulatory obligations.

Key internal policies guiding the Projects ESG strategy include a Code of Conduct and Human Rights Policy Statement (extending human rights commitments to third parties), Minimum Supplier Requirements (which includes the expectations for business conduct by third parties), a Corporate Social Responsibility Policy (emphasizing community development), and an Environmental Policy (focused on sustainable resource use and minimizing environmental impact).

In addition to national requirements, the Project seeks alignment with leading international ESG frameworks, including the International Finance Corporation Performance Standards (IFC PS), Equator Principles, GISTM, and guidelines issued by ANCOLD and International Council on Mining and Metals (ICMM), ensuring the adoption of sustainable and responsible mining practices.

17.2 Licensing Conditions

To uphold strict environmental and social standards, the SML holders must comply with a comprehensive set of stipulated licensing. Under the EIA Certificates, general conditions include the safe disposal of all waste types, adherence to environmental management plans, and the implementation of periodic audits, monitoring, and reporting. Facilities must continually improve these plans by incorporating new developments, engaging environmental experts for guidance, and ensuring compliance with all proposed mitigation measures. Specific conditions in the EIA Certificates mandate establishing a proper ecological management organization and effective liaison with key regulatory institutions.

For the SML, holders must comply with the Environmental Management Act of 2004 and all relevant safeguards, managing waste production, storage, transportation, treatment, and disposal per environmental principles. Regular ecological audits and evaluations are necessary to prevent degradation and minimize the release of hazardous substances. The ESIs for the Project specify requirements such as minimizing pollution, maintaining safe buffer zones, and ongoing site rehabilitation.

Additional licensing conditions include specific measures related to water management, such as compliance with the Culvert Construction Permit and Water Use Permits, which dictate pollution prevention, proper drainage, water abstraction limits, and regular reporting to the Lake Victoria Basin Water Board.

In addition to environmental compliance, social licensing conditions are critical to ensuring responsible interaction with affected communities. The EIA Certificates mandate continuous stakeholder engagement, compliance with national legislation, and preparation of emergency and contingency

plans. For the Project, these conditions also include addressing resettlement and compensation issues before the Project begins, conducting environmental quality monitoring in affected areas, and formalizing corporate social responsibility (CSR) commitments through memoranda of understanding with local communities and authorities. At the Resettlement Sites, the Project must ensure safe waste management, a smooth handover of the sites, and access to essential services for the relocated populations. The Project emphasizes health and safety management, road safety during material transport, and the ongoing implementation of CSR programs to support local development.

These conditions collectively ensure that the holder adheres to national and international standards, promote sustainable mining practices, and maintain transparency and accountability to stakeholders.

17.2.1 Permitting Requirements

The key environmental and social licenses and permits submitted for the Project include:

- Key permits obtained for the Kabanga and Resettlement Sites:
 - EIA Transfer Certificate (EC/EIS/824) – granted June 16, 2021.
 - Ruvubu River Water Use Permit (95100766) – granted September 19, 2024.
 - EIA Certificate (EC/EIA/2023/6288) for resettlement host sites – granted September 3, 2024.
- Key permits required to be obtained:
 - The approval of the amended ESMP with NEMC and further updates to align the ESMP with the international ESIA.
 - A standalone EIA certificate for the 220 kV OHL.
 - A standalone EIA certificate for the transportation of ore concentrate to the Port of Dar Es Salaam.
 - Concentrate export permit.

17.2.2 Mine Closure and Required Bonds

The Mining Act [Cap 123 R.E. 2019] requires that each mine has an environmental management plan and a closure plan, and that mineral wastes be managed as provided for in the environmental management plan and relevant regulations. It also requires that the abovementioned plans and license conditions are implemented. Furthermore, it provides for the posting of a rehabilitation bond to finance the costs of rehabilitating and making the mining area safe on termination of mining operations if the holder of the SML fails to meet obligations.

The Mining (Safety, Occupational Health, and Environmental Protection) Regulations 2010 (Mining Regulations 2010) require mine closure plans to be submitted by applicants for an SML, and for the posting of adequate financial assurance for mine closure by holders of an SML. Closure-related topics in the regulations include Land Productivity (Regulation 198), Physical Stability (Regulation 199), National Heritage (Regulation 200), Reclamation of Mine Facilities (Regulations 201 and 204), Monitoring (Regulation 205), Mine Closure Plan (Regulation 206), and Posting of a Rehabilitation Bond (Regulation 207).

The closure plan must be updated regularly, reviewed, deliberated, and approved by the National Mine Closure Committee. This committee, convened by the Ministry of Minerals, must include representatives of ministries responsible for the management of the environment, land use and natural resources. It must also include regional and district authorities.

Rehabilitation bonds can take the form of an escrow account, capital bond, insurance guarantee bond, or bank guarantee bond. They are coupled with an agreement between the mining license holder and the GoT.

17.3 Environmental, Social and Cultural Impact Assessments

17.3.1 Environmental, Social and Cultural Impact Assessment Background

ESIAs are critical tools for evaluating the potential environmental and social consequences of projects before they are implemented. A strategic commitment to sustainable development and risk management is fostered when guided by the IFC PS, the Equator Principles, and the Organization for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises. Sound environmental and social practices are promoted, and transparency and accountability are encouraged, positively impacting development. These frameworks collectively prioritize ESG considerations, advocating for practices that protect human rights, encourage economic development, and preserve the environment.

17.3.2 Project ESIAs and Baseline Studies

Several ESIAs have been completed for key components of the Project, including the Kabanga Site and the Resettlement Sites. These are summarized in Table 17-1, which outlines the relevant EIAs, ESIAs, ESMPs, socio-economic baseline data, and planned uplift measures for the Project.

Table 17-1: Summary of the Project EIAs, ESIAs, ESMPs

	Kabanga	Kabanga Resettlement Sites
Description and Background	Proposed Kabanga Nickel Mine, Ngara. Under previous ownership, ESIA study carried out between 2007 and 2013, EIA Certificate historically approved and certified by the NEMC in September 2013.	To address physical and economic displacement, a RAP has been developed and is currently in implementation. The RAP outlines seven Resettlement Sites located within Ngara District, situated outside the mining footprint area, to accommodate displaced households.
ESIA/ESMP	In 2022, the Project commissioned MTL Consulting Company Limited (MTL Consulting) to update the ESMP to capture changes between 2007 and 2022, and to reflect the current baseline conditions. The ESMP update was completed in May 2023.	In 2023, the Project commissioned RSK Environmental Ltd to undertake a combined ESIA for the planned developments within the seven Resettlement Sites. The ESIA to Tanzania national requirements was completed in July 2024.
EIA Certificate	Transfer of the EIA Certificate from historical owners to TNCL in June 2021.	EIA Certificate for Resettlement Sites to national standards was granted in September 2024.
Current Status	The 2022 updated ESMP to national standards was approved by the NEMC in June 2023. No new EIA certificate was issued as the original EIA certificate remains valid.	2024 ESIA (to national standards) was approved by the NEMC in September 2024 and EIA certificate granted.
Planned Changes	The following changes resulted from further optimization in 2024: - change in Project production throughput from 2.2 Mtpa to 3.4 Mtpa; - change in location and footprint of WRD and other facilities; and - rerouting of water pipeline from Ruvubu River to pass within the SML area.	N/A
Impact of Changes/Additional Work	Changes communicated to NEMC – response on June 12, 2024, from the NEMC required TNCL to update the ESMP to reflect the Project amendments, which will subsequently be reviewed and approved by the NEMC.	N/A
Timing of Changes	MTL Consulting was engaged to update the ESMP as guided by NEMC. Environmental management plan update process has completed, TNCL is awaiting final approval from NEMC. Final approval is anticipated in Q3 2025.	N/A

	Kabanga	Kabanga Resettlement Sites
Uplift to International Standards Performance Standards (IFC PS) and best practice	The Tanzanian Mining Commission granted approval to award a contract to a partnership between SLR Consulting (Africa) Proprietary Limited and City Engineering Company Limited (CECL), as required by the Mining Local Content Regulations of 2018, for the ESIA uplift scope. Supplementary studies and the ESIA uplift process were completed in June 2025 ¹ .	The uplift of ESIA to international standards for the planned developments within the Resettlement Sites completed in June 2025.
Socio-economic Data and Baseline	Socio-economic data collection, public consultation and participation formed part of the ESIA.	Socio-economic data collection, public consultation and participation formed part of the ESIA.

17.3.3 Environmental, Social and Cultural Baseline Assessment Summary

The physical, biological and social baseline assessments for the Kabanga Site and Resettlement Sites have been summarized below.

17.3.3.1 Kabanga Site Location and Baseline

Kabanga Site

The Kabanga Site is a greenfield site located in Northwest Tanzania. The site is approximately 1,300 km northwest of Dar es Salaam and about 130 km southwest of Lake Victoria. The site is located in the Ngara District, 42 km south of the town of Rulenge, 5 km southeast of the nearest village of Bugarama, and close to the border with Burundi and borders the Ruvubu National Park. The Ruvubu River originates in Burundi and defines the international boundary between Tanzania and Burundi to the southwest of the site.

The villages Rwinyana, Bugarama, Mukubu, Muganza, and Nyabihanga are located within the allocated SML area and will need to be relocated as part of the Project.

The Kabanga Site can be accessed through either the northern access road or southern access road. The northern access road is 93 km from Ngara via Rulenge, and the southern access road is 77 km from B3 turnoff at Muzani to the Kabanga Site. Both roads are unpaved and fall under TANROADS and the Ngara District as part of the public road network within the Kagera Region. These public roads will require regular improvements before being used to service the mine activities. The site infrastructure will predominantly be developed within the Nyamwongo River catchment area. The Nyamwongo River, a tributary of the Muruhamba River, flows through the center of the site. Meanwhile, the Muruhamba River, which runs along the southern boundary of the Project area, merges with the Ruvubu River. The Ruvubu River, forming the natural border between Tanzania and Burundi, continues its journey northeastward towards Lake Victoria.

¹ The Kabanga ESIA (June 2025) was completed based on respective studies and the design plan from 2024. Since completion of the ESIA, the Project has undergone several design modifications. Specifically, the current Project configuration no longer includes the development of quarries, the construction of an aerodrome, or the upgrading of the southern access road. These changes would reduce risk and mitigation measures identified in the ESIA, and the ESIA has not been updated for the respective changes.

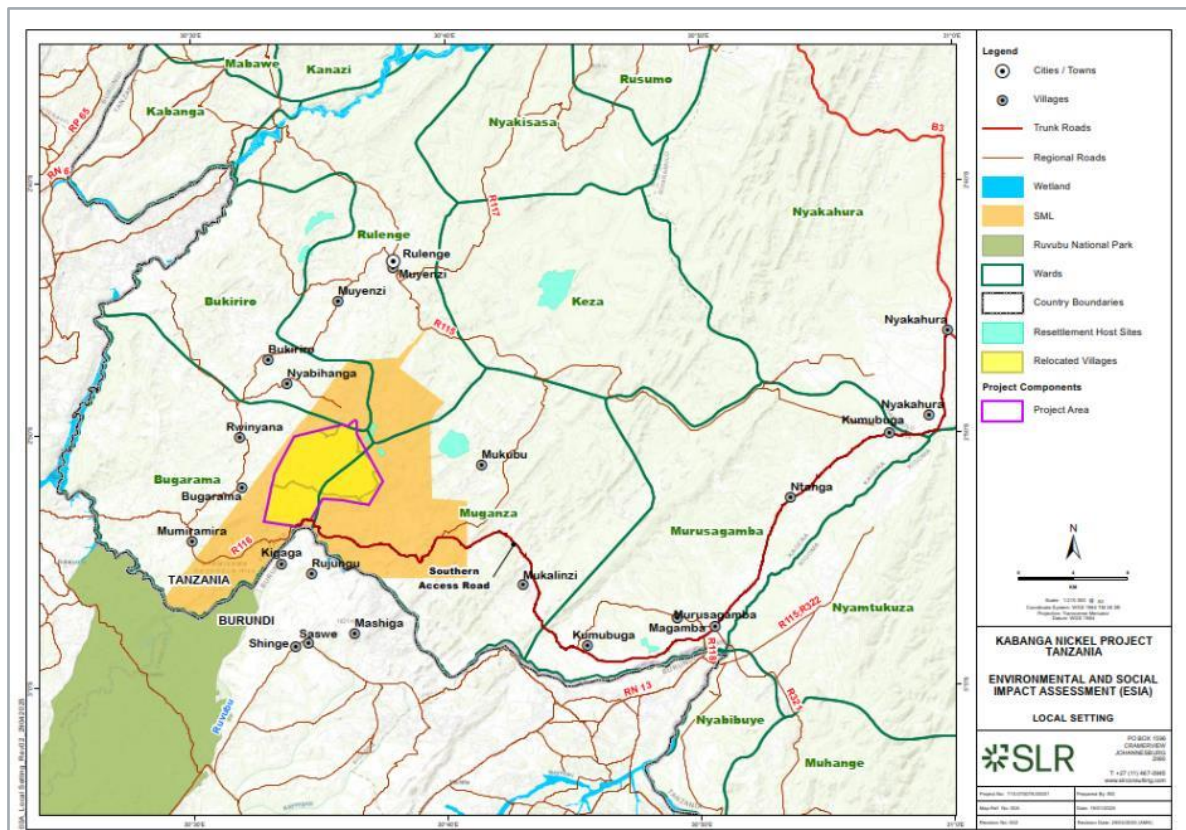


Figure 17-1: Kabanga Project Area and Affected Communities

Baseline Assessment Summary

Baseline Environment – Biophysical Environment

The Kabanga Site is located in a hilly, highland area of northwest Tanzania, within the Ruvubu River sub-catchment draining to Lake Victoria. The region features rocky ridges, steep valleys, and a bimodal rainfall pattern averaging 1,023 mm annually, which influences surface water and streamflow. Wetlands and tributaries support groundwater recharge, ecosystem health, and community water needs.

Both surface and groundwater are vital for domestic use, farming, and livestock. Water quality generally aligns with WHO standards, though natural fluoride and uranium levels occasionally exceed limits. Air quality is influenced by dust, vehicle emissions, and biomass burning; noise remains low due to the rural setting. Soils range from erosion-prone uplands to fertile valley soils used for agriculture.

The site falls within the Central Zambezian Miombo Woodlands ecoregion, comprising woodlands, grasslands, wetlands, and modified areas. IFC-aligned habitat assessments identified critical, natural, and modified habitats. The Ruvubu River riparian zone is a critical habitat due to species like the endangered Ashy Red Colobus. Other key fauna include the Grey Crowned Crane and Red-faced Barbet.

Surface water ecosystems have been impacted by small-scale agriculture but still perform essential functions such as flood control, streamflow regulation, and habitat connectivity. Notable plant species include the near-threatened African Blackwood and vulnerable Long-tubed aloe. Despite modification for agriculture, wetlands remain ecologically important for water-dependent species and community use.

Baseline Environment – Cultural Heritage

The Ngara District holds significant cultural and archaeological value, linked to the historic Bugufi and Bushubi chiefdoms. Key sites include sacred landscapes such as Shunga Mountain, and archaeological locations like Kirinzi, Goyagoya Hills, and Nyakafandi 2, reflecting Later Stone Age and Iron Age settlements. Although the Batwa no longer reside in the area, their historical presence is reflected through trade and pottery. Archaeological surveys recorded a number of archaeological sites, heritage sites, and 364 graves.

Community consultations in Bugarama, Rwinyana, and Nyabihanga wards revealed a strong sense of cultural identity, despite a decline in traditional rituals. Oral histories highlight transboundary links with the Batwa, including trade, intermarriage, and shared customs. Family burial grounds are marked by living tree monuments, a tradition still practiced today. Local heritage also includes harvest dances such as Ngoma wa Saba and spiritual healing practices, with local healers serving as custodians of ancestral knowledge. Several sacred trees and plants remain in the Project area but are under threat from expanding agriculture and development.

Baseline Environment – Current Land Uses

Primary land uses within the Project area are subsistence agriculture and livestock farming, with crop cultivation and grazing being the dominant land uses.

Staple crops like maize, beans, cassava, and permanent crops such as bananas and coffee (the only cash crop) are grown, while livestock including goats, pigs, cattle, and poultry are raised, often on hilltops and ridges. Wetlands support dry-season farming, and beekeeping is also practiced.

Villages are scattered, with houses built from local materials. Infrastructure is limited, with Bugarama as the nearest village to the Kabanga Site, and Rulenge (42 km away) as the closest urban center. Healthcare is basic, mostly provided by dispensaries and one main hospital, with some reliance on traditional healers. Education is relatively well developed, with primary and secondary schools in each village or ward, and vocational centers in larger towns.

Waste management is poorly organized, leading to random dumping or burning. Formal markets are rare, with most trade occurring in informal village centers. Christianity is the dominant religion, with a few mosques present. The natural environment is mainly savanna and grassland, with some woodland, and locals use a variety of plants for medicine, fuel, and building materials.

17.3.3.2 Impact Assessment

The Kabanga Sites key environmental, cultural, and social impacts were identified based on the nature of the development and the receiving environment, which have been assessed by the ESIA team or specialists.

The Kabanga Site, the site's ecological sensitivity, and the close proximity of surrounding communities have led to the identification of several key impacts. Notable among these are potential impacts on biodiversity, including habitat disturbance and species displacement, air quality degradation from dust and emissions, elevated noise levels from mining activities, and the disturbance or loss of cultural heritage (tangible and intangible) resources. In addition, the social fabric of nearby communities may be affected through increased traffic, in-migration, land use changes, and pressures on local infrastructure and services.

17.3.3.3 Mitigation, Management Plans and Monitoring

An ESMP has been developed for the Kabanga Site to address impacts identified in the ESIA. The ESMP serves as a practical framework for managing, mitigating (through detailed mitigation measures and management Plans), and monitoring the environmental and social impacts identified in the ESIA. It ensures that adverse effects are minimized and benefits maximized throughout the Project lifecycle. The ESMP serves as a foundational framework that informs the later development and implementation of the Environmental and Social Management System, ensuring that the Project's environmental and social management is robust and comprehensive.

17.3.3.4 Kabanga Resettlement Location and Baseline

Kabanga Resettlement Location

The seven Resettlement Sites are situated within five wards across four different villages and one hamlet within Ngara District as illustrated in Figure 17-2. Nyakafandi 1 and Nyakafandi 2 are located within the Kabanga SML area but lie outside of the Kabanga Site footprint, approximately 2 km away. The remaining five sites are situated outside the SML area.

The accessibility of all seven sites varies due to their different locations, however, all are accessible by both air and road.

The developments within the Resettlement Sites will include construction of new houses, infrastructure, and related services to ensure the physical and socio-economic wellbeing of individuals affected by the Project. However, after construction and commissioning of the Resettlement Sites, the planned Resettlement Sites will be handed over to Ngara District Council as ultimate owner and operator as detailed in the EIA certificate granted for the Kabanga Resettlement Sites. Therefore, operation and maintenance of the Resettlement Sites will be under the district authorities. The Project will not acquire the land in the Resettlement Sites; all land ownership shall remain within the respective village authority and Ngara District Council as the overall authority in charge of the villages.

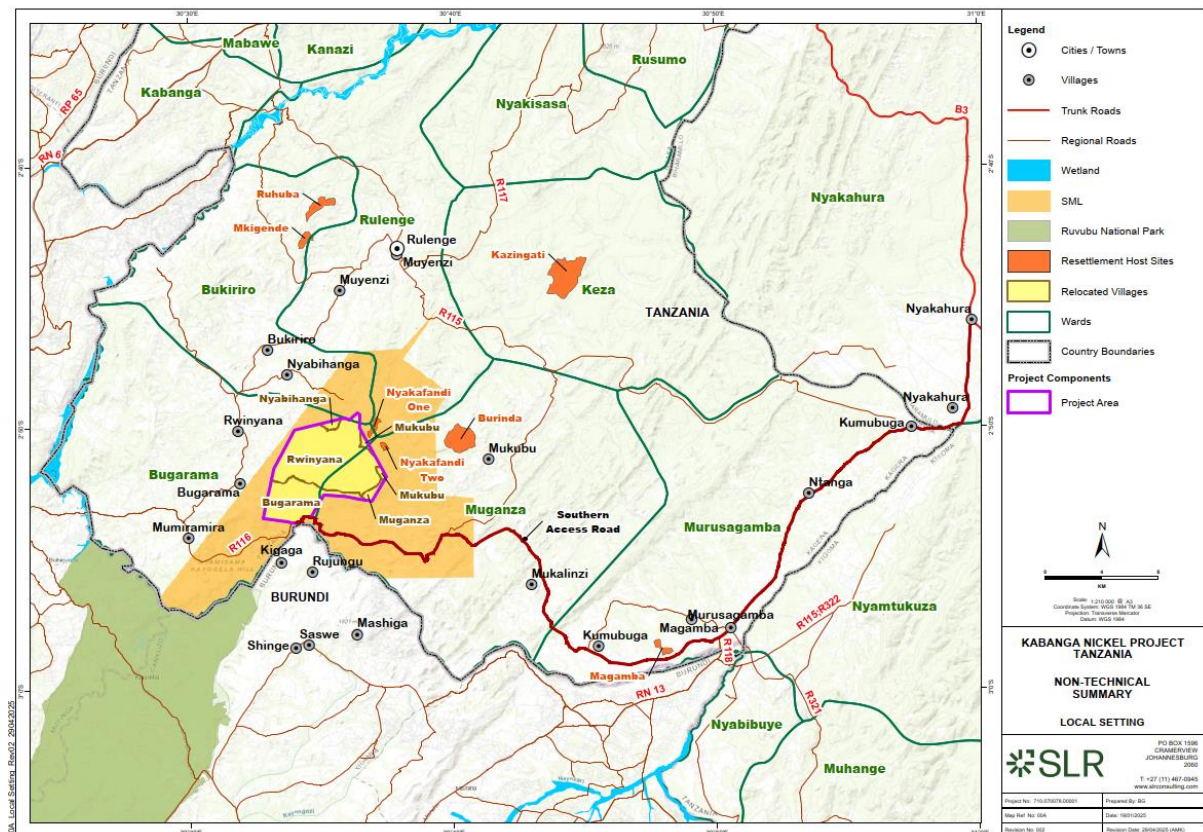


Figure 17-2: Kabanga Site Project Area and Resettlement Sites

Baseline Assessment Summary

A combined ESIA has been completed to both national and international standards, which assesses all seven Resettlement Sites individually. While all seven Resettlement Sites have relatively similar baseline characteristics to the Kabanga Site, detailed biophysical, cultural and land uses for each respective site have been assessed and detailed in the ESIA.

Impact Assessment, Mitigation and Monitoring

Key environmental and social impacts were identified based on the nature of the respective seven Resettlement Sites, because of the development and relocation of the Project Affected Persons (PAPs) from the Project footprint.

Several impacts were considered 'high' for the majority of the Resettlement Sites, including pressure on natural resources, strain on education and healthcare facilities, population influx, occupational health and safety risks, higher traffic accident rates, disease transmission, community safety and security concerns (including gender-based violence), social dislocation, elevated noise and nuisance during construction, introduction of invasive species, and greater habitat fragmentation and ecological disturbance. These impacts were reduced to medium or lower under a mitigated scenario.

Summary of Management Plans and Monitoring

Effective management and ongoing monitoring of environmental and social impacts are essential, with detailed management plans and monitoring required for each of the Resettlement Sites.

Several management plans have already been developed, and additional plans are recommended for development as part of the Kabanga Resettlement Sites ESIA in accordance with international standards, including a Health, Safety and Environment Management Plan throughout the construction phase, Traffic Management Plan, Project Induced In-migration Management Plan, and a Gender Based Violence Management Plan.

17.4 Stakeholder Engagement Considerations

Stakeholder Engagement Plans and Assessments have been considered as part of the Project ESIA's and ESMPs, and as part of the RAP. They aim to identify, analyze, and understand the perspectives, interests, and concerns of all stakeholders affected by or interested in the Project. This process ensures that stakeholder voices, including local communities, government agencies, non-governmental organizations (NGOs), and other relevant parties, are actively considered in project planning and decision-making. Engaging stakeholders early and continuously fosters transparency, builds trust, and enhances the Project's social license to operate. It also helps identify potential social, economic, and environmental impacts, ensuring that management plans are inclusive, responsive, and aligned with stakeholder needs and expectations.

Continuous monitoring and integration of feedback into project planning and updates for the FS ensure that the Project remains compliant with national and international guidelines.

17.5 Local Procurement and Hiring Practices

Local procurement and employment practices at the Project are governed by the Tanzania Mining (Local Content) Regulations, 2018, and related national labor and immigration laws, which requires the project to maximize the use of Tanzanian goods, services, and human resources. Compliance is monitored by the Mining Commission, with mandatory quarterly reporting.

The Project has committed to a tiered hiring approach, prioritizing:

- First: Candidates from the Primary Zone communities (including residents of the Ngara District, particularly from Bugarama and nearby villages).
- Second: Qualified Tanzanians from the broader Kagera Region and national pool.
- Third: International specialists where skills are not currently available locally.

At peak construction, total headcount is projected to reach approximately 2,015 personnel, of which approximately 96% is expected to be Tanzanian nationals. The operations workforce is expected to stabilize at around 1,090, with a target of 91% Tanzanian nationals.

The Project presents a long-term opportunity to develop local skills and expand employment within surrounding communities. A foundational skills assessment has already registered over 4,000 individuals from Primary Zone villages, forming the basis of a local labor database. While initial capacity is limited due to low levels of formal education and mining experience, the Project will address these gaps through structured training, including adult education, pre-apprenticeship programs and accredited technical instruction delivered onsite. As these initiatives take effect, the Mine's ability to recruit locally - particularly for skilled roles - is expected to grow steadily over time, reducing reliance on expatriate support and aligning with national localization goals.

A formal Local Content Plan will be developed as per the SML requirement. Key features include:

- Preference for Tanzanian-registered companies, where possible.
- Advance publication of procurement packages to allow local firms to prepare.
- Unbundling of contracts into packages suitable for small and medium enterprises.
- Targeted support and training workshops for potential local suppliers.

During construction, low-risk packages (e.g., catering, site security, transport, cleaning, and hospitality) are earmarked for 100% local procurement.

17.6 Land Access and Resettlement

17.6.1 Overview

To develop and construct the Kabanga Site, the Project will need to acquire 4,073 ha of land under the SML and implement a RAP to manage land acquisition and resettlement. The Kabanga RAP (May 2025) addresses the socio-economic impact on the project-affected households and is supported by the Resettlement Sites ESIA (June 2025), which focuses on the seven host sites where physically displaced households will be relocated. The Projects Social Performance Program encompasses several key plans, including the RAP, livelihood restoration plans, and stakeholder engagement plans, ensuring that the resettlement process is aligned with both national and international standards.

17.6.2 Resettlement Action Plan

The resettlement process for the Project commenced in early 2022, with a moratorium on new construction declared in July 2022. The RAP was originally prepared in 2013 under a previous joint venture but was paused in 2014. The Project reactivated the RAP in 2022. The initial RAP referred to as the Kabanga RAP (August 2023) outlines the resettlement framework, compensation strategies and stakeholder engagement processes, ensuring compliance with Tanzanian regulations. The plan was updated in July 2024, and then in May 2025 to align with international standards, particularly the IFC PS. This RAP is referred to as the Kabanga RAP (May 2025).

The primary goal of the RAP is to restore and, where possible, enhance the quality of life for project affected households, ensuring that livelihoods are restored to at least pre-displacement levels. Key elements include minimizing physical and economic displacement, ensuring fair and timely compensation, improving socio-economic conditions, and providing targeted support to vulnerable populations.

17.6.3 Stakeholder Engagement

Stakeholder engagement is a cornerstone of the resettlement process, ensuring that local communities and key stakeholders are actively involved in decision-making. A Resettlement Stakeholder Engagement Plan (RSEP) was prepared in July 2022 and has continuously been updated to guide all the resettlement-related consultation and engagement activities. As part of the engagement process, the Resettlement Working Group (RWG), previously established in 2012/2013, was reinstated in August 2022, with monthly meetings including representatives from the affected villages, local institutions, and district officials.

17.6.4 Compensation Agreements and Process

The RAP outlines two primary categories of displacement: physical and economic. Physical displacement involves the loss of dwellings, non-residential structures, and other assets due to land acquisition. Economic displacement refers to the loss of income or access to livelihoods caused by the acquisition of land or restrictions on natural resource use. A total of 353² households will be physically displaced, while 967 households will be economically displaced.

The RAP aims to mitigate these impacts by providing fair compensation and resettlement to Resettlement Sites with access to services and grazing land and addressing supplementary needs such as compensating tenants and conducting additional valuations for unidentified land parcels. The Resettlement Sites ESIA, completed in 2024 to national standards (referred to as the Resettlement Sites ESIA (July 2024), and in 2025 to international standards (referred to as the Resettlement Sites ESIA (June 2025), defines specific mitigation measures to minimize environmental and community impacts at the resettlement sites. Eligibility categories for compensation have been based on the findings of the socio-economic and asset surveys that commenced on July 22, 2022.

Project affected households are entitled to compensation under both Tanzanian law and international standards. Compensation schedules were prepared and approved by the Chief Valuer on May 6, 2023, with additional entitlements provided to meet international requirements. Individual compensation agreements, based on census and valuation data, were developed for each project affected household and signed by the project affected household, the Project, and village leaders, allowing households to choose their preferred compensation options, including in-kind options for those physically displaced.

The resettlement site selection was based on a review of sites identified during the previous RAP processes and the identification of potential new sites. The chosen Resettlement Sites were finalized based on hydrology, geotechnical studies, and soil assessments. The project affected households were involved in the site selection, leading to a comprehensive agreement on the chosen sites for resettlement. MOUs were signed in October 2023 between the Project, the Ngara District Council, and village councils, formalizing responsibilities and confirming that resettlement land remains under village and district authority, not project ownership.

17.6.5 Livelihood Restoration

The Project has committed to comply with the requirements of the IFC PS5 regarding the impact of the Project on the livelihoods of affected people (whether physically displaced or economically displaced). One of the objectives of IFC PS5 is “to improve, or restore, the livelihoods and standards of living of displaced persons”. The IFC also encourages resettlement as a sustainable development initiative, i.e., an initiative that leads to an improved standard of living for displaced people. The Project has developed a livelihood restoration plan (LRP) that will be implemented during project construction and development.

The Project has completed 96% of all cash compensation payments for project affected households, including interest payments for delayed compensation. As part of livelihood restoration planning, the project affected households will be engaged to co-design and consider their livelihood restoration program options before implementation of such programs.

While the underlying objectives of livelihood restoration given the displacement impacts (already addressed by the RAP) will not fundamentally change, the approach and programs will be continually evolved (both short and medium-term) by the Project team and supported by the Monitoring and Evaluation (M&E) Plan.

17.6.6 Land Acquisition and Management Strategy

The Land Access and Resettlement Project Execution Plan adopts a phased approach to land acquisition and relocation. This strategy, contingent on procurement, engineering and compensation processes, divides the resettlement process into priority areas to ensure a systematic and manageable transition for the affected households.

² As per the Kabanga RAP (May 2025).

Physical relocation will only begin once construction of the resettlement housing and essential services is complete. The Project will develop a detailed relocation schedule, outlining resource needs and providing regular progress updates through the RWG and community meetings. The LRP will be implemented alongside the relocation process, providing both immediate and long-term livelihood support. Initiatives under the LRP include agricultural improvements, vocational training and supplementary income-generating activities.

To support the needs of vulnerable groups, the Project has developed a Vulnerable Peoples Plan (VPP), which identifies individuals requiring additional assistance and ensures that they are provided with the resources and support necessary to make informed choices regarding their resettlement and livelihood restoration.

17.6.7 Relocation and Land Access Risk Assessment

Risk identification in relation to the Project and resettlement has been part of the ongoing risk management process. The Project has conducted ongoing risk register reviews, internal resettlement-focused risk workshops, and resettlement risks have been reviewed as part of the independent process by IBIS Consulting in 2024.

Resettlement implementation risks for the Project broadly center around project schedule and execution, regulatory, community and stakeholders. More specifically the following:

- Schedule relating to the project and RAP (e.g., project delays, priority areas)
- Land security and Resettlement Sites (e.g., in-migration)
- Livelihood restoration (e.g., agricultural improvement program)
- Governmental approvals (e.g., host site cadastral survey and issue of certificate of occupancy)
- Community acceptance, cohesion, and security (e.g., community integration at host sites)
- Compensation and unidentified PAPs (e.g., rejection of compensation)

Given the focus on the RAP process to date, various existing controls have been established through the Project CR and RAP teams through responsibilities, work plans, and workshops. Additionally, independent reviews have supported the identification of additional controls required.

17.7 Mine Closure, Remediation and Reclamation

The closure strategy and Conceptual Mine Closure Plan for the Kabanga Mine Site focuses on the closure of the mine infrastructure, concentrator and TSF and the decommissioning and closure of the plant and associated facilities. The strategy provides an outline for ensuring compliance with Tanzanian legislation, IFC PS, and global best practices, such as the ICMM Principles and the GISTM. The scope includes a phased approach to closure planning, execution and post-closure activities.

The Project will follow global best practices when carrying out mine closure activities for the Project, with a particular focus on responsible and sustainable tailings management and closure.

17.7.1 Mine Closure Strategy, Vision and Plan

The Project's closure strategy and the Conceptual Mine Closure Plan, developed as part of the Kabanga ESIA (June 2025) are aligned with the Tanzanian legislation governing environmental management, mining, water, land use, and societal considerations. To ensure that all the closure activities meet the legal obligations addressing environmental rehabilitation, financial provisioning and stakeholder engagement.

The closure strategy for the Project is focused on the closure of the Kabanga Mine infrastructure, Concentrator, and TSF at the Kabanga Site, all aligned to the closure vision. To ensure the progressive development of the closure strategy, the Project has drafted a conceptual closure vision, which focuses on developing an eco-enterprise solution with hospitality and training facilities by repurposing infrastructure and facilitating conservation through rehabilitation to establish regional biodiversity corridors to leave a positive legacy. The vision sets the foundation for how the overall strategy will be further progressed and ultimately lead to the development of a comprehensive closure plan with key objectives and targets being set to ensure the vision can be achieved.

17.7.2 Regulatory Requirements and International Compliance

The Project intends to adhere to the ICMM Principles to ensure that the Project is conducted responsibly and in alignment with global sustainability objectives. The Mining Principles will guide the Project's approach to determining responsible mine closure that also aligns with broader sustainability goals.

The Mining (Safety, Occupational Health, and Environmental Protection) Regulations 2010 (Mining Regulations 2010) require mine closure plans to be submitted by applicants for an SML, and for the posting of adequate financial assurance for mine closure by holders of SML. Closure related topics in the regulations include land productivity (Regulation 198), physical stability (Regulation 199), national heritage (Regulation 200), reclamation of mine facilities (Regulations 201 and 204), monitoring (Regulation 205), mine closure plan (Regulation 206), and posting of a rehabilitation bond (Regulation 207).

The Project commits to ensure that the closure plan is updated regularly and submitted to the National Mine Closure Committee for review, deliberation, and approval. This committee is convened by the Ministry of Minerals. It must include representatives of ministries responsible for the management of the environment, land use and natural resources. It must also include regional and district authorities. The Project will ensure that, as the closure strategy transitions towards a final closure plan, best practice guidelines and legislative requirements are incorporated, and ongoing stakeholder engagement is undertaken to ensure the positive legacy the Project has envisioned is achieved.

17.7.3 Tailings Management and Closure

Global best standards and principles will be applied by the Project during design, operation and closure of the Project tailings facilities, including the potential management of long-term impacts that could arise, such as ongoing post-closure water treatment. Several different options for this will be considered during the operational phase and will further be integrated into the operating philosophy of the Project. These include the GISTM and the ANCOLD guidelines.

Adherence to these standards and principles will ensure integration of social, environmental, and technical considerations into the design and monitoring of tailings facilities and establishment of robust emergency preparedness and response plans to mitigate the risks associated with potential tailings dam failures. Best practice tailings dam management will apply from design through closure. Post-

closure plans will comply with the guidelines to ensure the long-term safety and stability of the facilities, ultimately with the aim of protecting the environment and health and safety of the surrounding communities.

17.8 QP Opinion

It is the opinion of DRA, responsible and acting as the QP for the Kabanga Project ESG, that the Project has completed relevant studies and permitting processes to the level of assessment and design appropriate for an FS, representing good industry practice. Risks have been identified and mitigated. No fatal flaws were found. The QP believes permits can be obtained and that the Project aligns with ESG standards.

18 CAPITAL AND OPERATING COSTS

This section presents the capital cost estimate (Capex), operating cost estimate (Opex), and sustaining capital cost estimate (Sustaining Capex) prepared for the Project as part of the FS. The estimates are classified as being at an Association for the Advancement of Cost Engineering (AACE) Class 3 level, with an accuracy range of $\pm 15\%$, consistent with feasibility-stage evaluation standards under S-K 1300. These estimates support the economic analysis undertaken for the FS and demonstrate the reasonable prospects for economic extraction of the reported Mineral Reserves.

The cost estimates are directly underpinned by the technical inputs presented in preceding sections of this report. Specifically, the mining capital and operating costs are based on the schedules, equipment, and development metrics outlined in Section 13; the concentrator estimates reflect the flowsheets, recovery assumptions, and equipment specifications described in Section 14, and the infrastructure and utilities estimates are aligned with the project-wide infrastructure scope described in Section 15. These interdependencies are consistent across the technical and economic aspects of the FS, providing a coherent basis for the economic analysis presented in Section 19. All costs presented in this section are done so on a 100% Project basis.

18.1 Capital Cost Estimates

The Project Capex estimate base date is Q1 2025, and the estimate is presented in United States dollars (USD). The costs of items priced in currencies other than USD were converted to USD. Table 18-1 summarizes the total Project Capex. This includes the Pre-Production Capex, Sustaining Capex, Growth Capex, and Closure Capex.

Table 18-1: Project LoM Capital Cost Estimate Summary

Capex Areas	Total Cost (USD Million)
Pre-Production Capex	859.04
Pre-Production Capex - Mining	211.79
Pre-Production Capex - Concentrator	247.99
Pre-Production Capex - Infrastructure, Utilities and Ancillaries	227.95
Pre-Production Capex - Owners' Cost	87.41
Pre-Production Capex - Land Access and Resettlement	83.90
Growth Capex	41.62
Sustaining Capex	1,276.64
Sustaining Capex - Mining	1,115.86
Sustaining Capex - Concentrator	42.29
Sustaining Capex - Infrastructure, Utilities and Ancillaries	97.85
Sustaining Capex - Owners Cost	14.47
Sustaining Capex - Land Access and Resettlement	6.17
Closure Capex	63.11
Total Capex	2,240.42
Contingency (Pre-Production only)	83.43
Total Capex (incl. Contingency)	2,323.85

This Capex estimate was prepared as an AACE Class 3 estimate in accordance with AACE International 47R-11 Cost Estimate Classification System (for Mining and Mineral Processing Industries) guidelines. It represents a feasibility-level estimate with an anticipated accuracy of $\pm 15\%$, making it suitable for project appraisal and in line with S-K 1300 requirements. The estimates for each area are based on the mine, infrastructure, and processing facility designs described in the prevailing sections of this report and originate from a combination of estimates built on detailed and semi-detailed

unit costs backed up by market enquiries, internal data, historical benchmarks, and pricing from prior studies and prospective suppliers.

Vendor quotations not provided in the base currency have been converted to U.S. dollars using the exchange rates displayed in Table 18-2. This estimate excludes any escalation beyond the base date and does not account for future foreign-exchange fluctuations.

Table 18-2: Foreign Exchange Rates

Currency	Exchange Rate (USD)
AUD	1.59
EUR	0.95
USD	1.00
ZAR	18.50
TZS	2,577.12
CNY	7.27
GBP	0.79
JPY	152.54

18.1.1 Pre-Production Capex

The Pre-Production Capex incorporates all capital costs incurred prior to the commencement of commercial production. This includes direct and indirect costs associated with mine development, process plant and infrastructure construction, EPCM, and Owners' costs.

For the purposes of this study, Pre-Production Capex encompasses all Capex scheduled to occur before the end of Year 1, which marks the forecasted realization of the first revenue. A summary of the Pre-Production Capex is provided in Table 18-3.

Table 18-3: Project Pre-Production Capex Summary

Pre-Production Capex Areas	% of Total Pre-Production Capex	Total Cost (USD Million)
Direct Cost	79.51	683.05
Mining	24.65	211.79
Mining Surface Infrastructure	3.59	30.80
Underground Mining	21.07	181.00
Concentrator and Infrastructure	46.75	401.57
Concentrator	28.32	243.30
Infrastructure	16.27	139.79
Tailings Storage Facility (TSF)	2.15	18.48
External Infrastructure	8.11	69.69
220 kV Overhead Line	5.57	47.89
Concentrate Logistics Infrastructure	2.54	21.80
Indirect Cost	20.49	175.99
Construction Facilities and Services	0.54	4.68
EPCM	8.66	74.35
Owners' Cost	1.52	13.06
Land Access and Resettlement	9.77	83.90
Total Pre-Production Capex (excl. contingency)	100	859.04

Pre-Production Capex Areas	% of Total Pre-Production Capex	Total Cost (USD Million)
Contingency	9.7% of Pre-Production Capex	83.43
Total Pre-Production Capex (incl. Contingency)		942.47

18.1.1.1 A2000 – Mining

A summary of the A2000 – Mining Pre-Production Capex is presented in Table 18-4. All costs are presented excluding contingency.

Table 18-4: Mining Pre-Production Capex Summary

Capex Areas	% of Total Pre-Production Capex	Total Cost (USD Million)
2100 - North Mine	64.38	136.36
2110 - Box Cut and Portals	7.80	16.52
2120 - Main Declines	0.19	0.40
2130 - Secondary Declines	0.11	0.24
2140 - Connection Drifts	0.24	0.51
2150 - Ventilation, Raises and Cooling	5.93	12.55
2160 - Surface Infrastructure Facilities	11.56	24.49
2170 - Underground Infrastructure and Equipment	1.70	3.60
2180 - Mining	22.82	48.32
2190 - Backfill	14.03	29.71
2200 - Tembo Mine	35.62	75.44
2210 - Box Cut and Portals	5.22	11.05
2220 - Main Declines	0.30	0.63
2240 - Connection Drifts	0.36	0.76
2250 - Ventilation, Raises and Cooling	2.91	6.17
2260 - Surface Infrastructure Facilities	2.97	6.30
2270 - Underground Infrastructure and Equipment	0.39	0.83
2280 - Mining	13.14	27.82
2290 - Backfill	10.33	21.88
Total Pre-Production Capex	100	211.79

Mining Development

All underground development activities scheduled up to first revenue are classified as Pre-Production Capex. Development cost estimates were derived using a first-principles approach, incorporating unit rates for mining activities based on pricing from experienced mining contractors.

Underground and Surface Infrastructure

Underground and surface infrastructure, civil, structural, mechanical, platework and piping supply and installation were based on vendor quotations and contractor installation rates obtained in 2024, which were either revalidated or escalated to reflect the Q1 2025 cost base. Mechanical equipment, as per the mechanical equipment list (MEL), was provided as a free issue to the installation contractor. Detailed Bills of Quantities (BoQ) were developed based on optimized designs. Formal enquiries were

issued to construction contractors, along with preambles, BoQ, scopes of work, site-specific information, and relevant project schedules.

Underground and surface electrical, control, and instrumentation supply and installation were based on vendor quotations and contractor installation rates obtained in 2024, which were either revalidated or escalated to reflect the Q1 2025 cost base. BoQ were compiled based on the relevant, optimized designs. Relevant designs included motor lists, transformer sizing calculations, single-line diagrams (SLD), Deswik models, layouts, and MCC schematics.

Ventilation and Cooling

A specialist ventilation and cooling consultant was appointed to conduct the ventilation and cooling design based on the latest version of the mine plan. The ventilation and cooling consultant provided a Capex estimate for both the refrigeration plants and the surface exhaust fan stations in accordance with the ventilation and cooling design.

Backfill Plant

A specialist backfill consultant was appointed to complete the backfill plant design based on the backfill capacity requirements as defined by the latest mine production schedule. The backfill consultant derived equipment and construction costs in the Capex estimate largely from vendor quotations.

18.1.1.2 A3000 / A6000 – Concentrator and Infrastructure

All costs were developed based on vendor quotations obtained in 2024, which were either revalidated or escalated to reflect the Q1 2025 cost base.

A summary of the costs per discipline for A3000 – Concentrator and A6000 - Infrastructure, Utilities, and Ancillaries is presented in Table 18-5 and Table 18-6. All costs are presented excluding contingency.

Table 18-5: Concentrator Pre-Production Capex Discipline Summary

Concentrator Disciplines Breakdown	% of Total Pre-Production Capex	Total Cost (USD Million)
Building Works	3.70	8.99
Concentrate Transport	3.02	7.34
Concrete Works	9.82	23.89
Consumables / First Fills	0.58	1.42
Earthworks	4.15	10.09
Electrical, Control and Instrumentation	20.18	49.11
Mechanicals	24.37	59.29
Overland Pipeline	3.13	7.61
Piping and Valves	9.05	22.02
Platwork	3.22	7.84
Spares	2.03	4.94
Steelwork	6.11	14.86
Transport	8.62	20.97
Turnkey Packages	0.74	1.79
Vendor/Commissioning Services	1.29	3.15
Total Pre-Production Capex	100	243.30

Table 18-6: Infrastructure Pre-Production Capex Discipline Summary

Infrastructure Disciplines Breakdown	% of Total Pre-Production Capex	Total Cost (USD Million)
Building Works	5.37	12.25
Concentrate Transport	8.78	20.01
Concrete Works	3.59	8.18
Consumables / First Fills	0.07	0.17
Earthworks	22.33	50.9
Electrical, Control and Instrumentation	15.24	34.73
Infrastructure	2.43	5.54
Mechanicals	8.48	19.34
Off-site Infrastructure – 220kV Overhead Line	21.01	47.89
Overland Pipeline	2.80	6.38
Spares	0.86	1.96
Steelwork	0.02	0.05
TSF* (Earthworks and liner cost only)	7.37	16.8
Transport	1.40	3.19
Vendor/Commissioning Services	0.25	0.58
Total Pre-Production Capex	100	227.95

Bulk Earthworks

Detailed BoQ were compiled based on the FS designs. The designs included 3D terrace models, layout drawings, and block plans. Formal enquiries were issued to local and regional construction contractors. These formal enquiries were supported by preambles, BoQ, scopes of work, site-specific information, and relevant project schedules.

Multiple quotations were received from these industry-relevant contractors, which were subsequently adjudicated by DRA. These associated bulk earthworks rates and preliminary and general items (P&Gs) were then incorporated into the Capex estimate. Multiple contractor costs were selected where the scope was considered to exceed the capabilities of (or increase the risk of using) a single contractor.

Civils Works

Detailed BoQ were compiled based on preliminary civil designs, which included the area 3D models and layout drawings. Formal enquiries were sent to local and regional civil works contractors, which were supplemented by preambles, BoQ, scopes of work, site-specific information, and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated civil rates and P&Gs were then utilized to develop the Capex estimate. Multiple contractor costs were selected where the scope was considered to exceed the capabilities of (or increase the risk of using) a single contractor.

Mechanical Equipment

Formal enquiries were generated for the processing facility's mechanical equipment, which was supported by data sheets and project-specific data. Multiple quotations were received from industry-relevant vendors, which the project team subsequently adjudicated in a tender evaluation process.

Structural Steel

Detailed BoQ were compiled based on the FS designs. Relevant designs included the Area 3D structural models, associated large/critical member structural designs, and layout drawings. The

Project's contracting philosophy applicable to the structural steel was that steel would be fabricated and supplied by a specialist global fabricator, and the structural steel would be free issued to an installation contractor. Formal enquiries were issued to applicable fabricators and contractors, which were supplemented with preambles, BoQ, scopes of work, site-specific information, and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated structural steel supply rates, installation rates, and P&Gs were then used to develop the Capex costs.

Platework

Detailed BoQ were compiled based on FS designs. Relevant designs included the Area 3D platework models and layout drawings. The project's contracting philosophy was that the platework would be fabricated and supplied by a specialist global fabricator, and the platework would be free issued to a construction contractor. Formal enquiries were issued to applicable fabricators and contractors, which were supplemented with preambles, BoQ, scopes of work, site-specific information, and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated structural steel supply rates, installation rates, and P&Gs were then utilized to develop the Capex costs.

Electrical, Control, and Instrumentation

Detailed BoQ were compiled based on the relevant designs. Relevant designs included motor lists, transformer sizing calculations, SLDs, preliminary piping and instrumentation diagrams (P&IDs), layouts, and MCC schematics. The project's contracting philosophy regarding the electrical control and instrumentation (EC&I) was that the bulk electrical items would be supplied by specialist global vendors, and the EC&I installation would be conducted by a regional construction contractor. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated installation rates and P&Gs were then used to develop the Capex costs.

Infrastructure Buildings

Detailed BoQ were compiled based on the FS designs, which included architectural models and layout drawings. Formal enquiries were issued to local and regional building works contractors, which were supplemented by preambles, BoQ, scopes of work, site-specific information, and relevant project schedules.

Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated building rates and P&Gs were then utilized to develop the Capex costs.

Multiple quotations were obtained for the supply and construction of the buildings. Multiple contractor costs were selected where the scope was considered to exceed the capabilities of (or increase the risk of using) a single contractor.

Tailings Storage Facility

A specialist tailings design consultant developed the detailed BoQ for the TSF, and the associated costs were subsequently developed by applying the adjudicated earthworks and civil works rates to the quantities in the respective BoQ for the TSF.

Vendor Commissioning

Commissioning costs were obtained from the vendor quotations for major equipment packages. Where formal quotations have not been obtained, a factor has been applied as per estimating norms.

Spares (2-year Operational and Critical Spares)

Spares costs were obtained from vendor quotations for equipment packages. Where formal quotations have not been obtained, a factor has been applied as per estimating norms.

Commissioning Spares

Spares costs were obtained from vendor quotations for equipment packages. Where formal quotations have not been obtained, a factor has been applied as per estimating norms.

Consumables

Detailed consumables requirements were compiled based on the project's selected mechanical equipment and the associated consumption rates as supplied by vendors. Quotations were obtained for these consumables or included in the equipment cost and were then utilized to develop the Capex costs.

Reagent First Fills

The first fill for reagents was calculated by identifying all relevant systems or equipment requiring the reagent or material. Additional volumes were accounted for to meet onsite storage needs, ensuring sufficient quantities for continuous operation. Multiple quotes were sourced from regional and international suppliers, and the selected reagent prices were applied to the total quantity needed.

Transport

A specialist Logistics Service Provider (LSP) was appointed to provide ocean, air and road freight rates. Rates for in-gauge equipment were applied directly to the quantities in the Capex estimate. Abnormal loads were quoted by a specialist freight forwarder. An allowance was made for the overweight fines associated with abnormal loads.

18.1.1.3 A8000 – Owners' Cost, Administration and Overheads

A summary of the Owners' Cost, Administration and Overheads Pre-Production Capex is presented in Table 18-7. All costs are presented excluding contingency.

Table 18-7: Owners' Cost, Administration and Overheads Pre-Production Capex Summary

Pre-Production Capex Areas	Total Cost (USD Million)
8100 - Project Services	78.04
8110 - EPCM Consultants	74.35
8120 - Consulting Services	3.69
8200 – Owners' Team	7.33
8210 - Salaries	4.04
8220 - Travel	1.11
8240 - Information Technology (IT)	1.03
8280 - Financial Fees and Insurances	1.15
8400 - Pre-Production Operation Cost	2.04
8420 - Kabanga Phase 1 Operational Readiness Capex Items	2.04
Total Pre-Production Capex	87.41

Pre-Production Capex for the Owners' Costs, Administration and Overheads were developed using a first-principles approach, based on organizational charts and time-phased resource planning aligned with the Project schedule. These costs encompass EPCM services, specialist consulting, the Owners' execution team, general administrative functions, and operational readiness. Insurance estimates were derived from standard industry benchmarks, while closure costs were estimated using adjudicated market rates applied to quantities provided by specialist consultants.

EPCM and Consultants

The EPCM Consultant's cost was developed from first principles, based on the development of detailed organograms that reflect both the engineering and procurement and construction management services for the Project. The resources reflected in the organograms were time-phased in various resource plans according to the agreed project schedule phasing. These project resource plans were populated with current rates, inclusive of the fee for the respective discipline resources, and thus, a total EPCM manhour effort was derived. The EPCM services cost estimate includes head office support and site staffing, office consumables, equipment, and associated project travel. The cost of a fully equipped home design office and all project computing requirements is included under management costs. Furthermore, various disbursements, such as flight costs, were calculated and incorporated into the total EPCM cost reflected in the Capex estimate.

Owners' Costs

The Owners' costs were developed based on the expected organizational chart, execution facilitation requirements, site sundries, and in-country operational requirements. This includes the following:

- Owners' team and general and administrative (G&A) salaries
- Travel and vehicle rentals
- IT hardware and software
- Insurances
- Rehabilitation and closure
- Consultants and studies
- Site investigations
- Compliance and governance
- Security

The costs were developed from first principles, quotations, and inputs from specialist consultants.

18.1.1.4 A10000 – Land Access and Resettlement

A summary of the land access and resettlement pre-production Capex is presented in Table 18-8. All costs are presented excluding contingency.

Table 18-8: Land Access and Resettlement Pre-Production Capex Summary

Pre-Production Capex Areas	Total Cost (USD Million)
10100 - Host Site Construction	46.01
10110 - Site 1 Nyakafandi 1	3.48
10120 - Site 2 Nyakafandi 2	1.91
10130 - Site 3 Burinda	6.26
10130 - Site 3 Burundi	0.31
10140 - Site 4 Ruhuba	8.01
10150 - Site 5 Mukigende	4.64
10160 - Site 6 Kazingati	19.30
10170 - Site 7 Magamba	0.80
10180 - Infill Houses	1.30
10200 - Host Site Social Facilities	4.55
10210 - Education Facilities	4.31

Pre-Production Capex Areas	Total Cost (USD Million)
10230 - Healthcare Facilities	0.24
10300 - Host Site Land Acquisition, Resettlement and Livelihood Restoration	0.87
10320 - Host Site Land Securing	0.86
10330 - Host Site Grave Relocation	0.01
10400 - Host Site Governmental Approvals, Survey, Licensing and Permits	0.30
10430 - Governmental Approvals and Permitting	0.15
10440 - Survey and Land Registration	0.16
10500 - Kabanga Footprint Land Acquisition, Resettlement and Livelihood Restoration	28.27
10530 - Grave Relocation	0.34
10540 - Kabanga Compensation and Relocation	2.06
10560 - Livelihood Restoration	25.87
10600 - Kabanga Footprint Governmental Approvals, Survey, Licensing and Permits	3.89
10610 - Specialist Studies, Surveys and Consultancy Support	3.77
10630 - Governmental Approvals, Permitting and Licensing	0.08
10640 - Survey and Land Registration	0.04
Total Pre-Production Capex	83.90

Enquiries were issued to regional contractors for housing, infrastructure, stormwater control, water systems, and site works. Costs for resettlement, livelihood restoration, and government permitting were based on historical site-specific data, benchmarks, and contractor proposals reviewed by the Project team.

Roads, Earthworks, Infrastructure and Stormwater Control

Detailed BoQ were compiled based on the preliminary designs. Relevant designs included the 3D terrace models, layout drawings and block plan. Formal enquiries were issued to local and regional construction works contractors. These formal enquiries were supplemented by preambles, BoQ, scopes of work, site-specific information and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated bulk earthworks rates and P&Gs were then utilized to develop the Capex costs.

Housing

Detailed BoQ were compiled based on the relevant designs, which included architectural models and layout drawings. Formal enquiries were issued to local and regional building works contractors. These formal enquiries were supplemented by preambles, BoQ, scopes of work, site-specific information, and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which the project team subsequently adjudicated. These associated building rates and P&Gs were then used to develop the Capex costs.

Water Infrastructure: Borehole Equipment, Piping and Valves (Supply and Install)

Detailed BoQ were compiled based on the preliminary designs, including the block plan and layout drawings. Formal enquiries were issued to local and regional building works contractors. These formal enquiries were supplemented by preambles, BoQ, scopes of work, site-specific information, and relevant project schedules. Multiple quotations were received from industry-relevant contractors, which were subsequently adjudicated by the project team. These associated material and construction rates and P&Gs were then used to develop the Capex costs.

Host Site Land Acquisition, Resettlement and Livelihood Restoration

A quotation was received from an industry-relevant contractor for the LRP scope of works. This quotation was reviewed by the project team and the cost was then utilized to develop the Capex costs. Land acquisition costs were calculated from previous cost data, benchmarks and quotations from previous work performed on-site with previous contractors and consultants.

Host Site Governmental Approvals, Survey, Licensing and Permits

Government approvals and permit costs were calculated based on quotations from previous work performed on-site with government institutions.

Kabanga Footprint Land Acquisition, Resettlement and Livelihood Restoration

A quotation was received from an industry-relevant contractor for the LRP scope of works. This quotation was reviewed by the project team and the cost was then utilized to develop the Capex costs. Land acquisition costs were calculated from previous cost data, benchmarks and quotations from previous work performed on-site with previous contractors and consultants.

Kabanga Footprint Governmental Approvals, Survey, Licensing and Permits

Government approvals and permit costs were calculated based on quotations from previous work performed on-site with government institutions.

18.1.2 Growth Capital

Growth Capex refers to Capex invested beyond the scope of sustaining operations or maintaining initial production levels.

The Project Growth Capex made provisions for:

- Exploration drilling and geophysical surveys across five priority targets: Rubona Hill, Safari Link, Safari Extension, Block 1 South, and regional geophysics. These programs aim to delineate additional Mineral Resources beyond the current mine plan and support potential future expansions.
- Future phase project development, which includes provisions for future project beneficiation phases.

The total Growth Capex for the Project is summarized in Table 18-9.

Table 18-9: Growth Capex Summary

Growth Capex Areas	Total Cost (USD Million)
Growth Capex - Exploration	18.82
Growth Capex - Future Phase project development	22.80
Total Growth Capex	41.62

18.1.3 Sustaining Capex

Sustaining Capex is defined as all Capex incurred following the commencement of revenue-generating operations. It is required to maintain nameplate production capacity and ensure ongoing legal and regulatory compliance. It includes underground mine development, Concentrator and infrastructure sustaining costs, TSF raises, general administrative and Owners' Costs, and additional land access and resettlement after operations commence. The total Sustaining Capex is summarized in Table 18-10.

Table 18-10: Sustaining Capex Summary

Sustaining Capex Areas	LoM Total Cost (USD Million)
2000 - Mining	1,115.86
3000 - Concentrator	42.29
6000 - Infrastructure, Utilities and Ancillaries	97.85
8000 - Owners Costs, Administration and Overheads	14.47
10000 - Land Access and Resettlement	6.17
Total Sustaining Capex	1,276.64

18.1.3.1 A2000 – Mining

Following the commencement of Project revenue, any subsequent equipment acquisitions and underground capital development required to support ongoing mining activities are categorized as Sustaining Capex.

18.1.3.2 A3000/A6000 – Kabanga Concentrator and Infrastructure

Kabanga Concentrator and Infrastructure Sustaining Capex were developed using vendor-quoted replacement costs and assigned a service life for key mechanical equipment. The estimate reflects the likelihood of replacement for major plant systems and includes the phased development of supporting infrastructure. This was then benchmarked against other comparable operations and assessed against typical unit costs per tonne of feed treated. The Concentrator Sustaining Capex is tapered in the final years of operation in the economic model.

The TSF raises beyond the initial starter embankment are classified as Sustaining Capex, with quantities and costs derived from engineered designs and adjudicated contractor rates. These provisions ensure the ongoing operational integrity, compliance, and capacity of the facility throughout the mine life.

18.1.4 Contingency

Contingency percentages were developed through a combination of expert judgment and a quantitative risk assessment (QRA), which served as a statistical analysis of uncertainty.

The QRA analysis process consists of four elements:

- Estimate Range Analysis process, which analyzes the level of engineering and design, method of quantification, method of pricing, and contracting strategy to determine the variation in the capital estimate.
- Schedule Range Analysis process, which analyzes the variation in the Project Execution Schedule (PES) effort and durations.
- Event Risk Quantification, in which each risk in the Project Risk Register was analyzed to determine whether it had a direct impact on the Capex and PES. The probability and quantum of each risk were determined and translated into a probabilistic model.
- Systemic Risk Assessment, in which a probabilistic systemic risk result was derived from the Project Definition Rating Index (PDRI) developed by the Construction Industry Institute to assess the level of Project definition.

Expert judgement was applied to the mining workstream to develop varying contingencies on work breakdown structure (WBS) Level 4 items. The systemic risk applied to mining aligns with the QRA outcomes, as the systemic risks were deemed to be similar.

The ranges produced by expert judgement and the QRA process were directly applied to the estimate to produce a cost contingency. The overall contingency applied to the Project as a result is USD 83.43 million, representing 9.7% of the Pre-Production Capex base estimate of USD 859.04 million.

The contingency allowances are consistent with the AACE Class 3 estimate classification, reflect industry norms for FS-level studies, and meet S-K 1300 requirements.

18.1.5 Capex Cash Flow

The yearly summarized Capex cash flow, including sustaining and closure capital, is provided in Table 18-11. The cash flow is based on the Capex footprint and key timelines displayed in Figure 18-1.

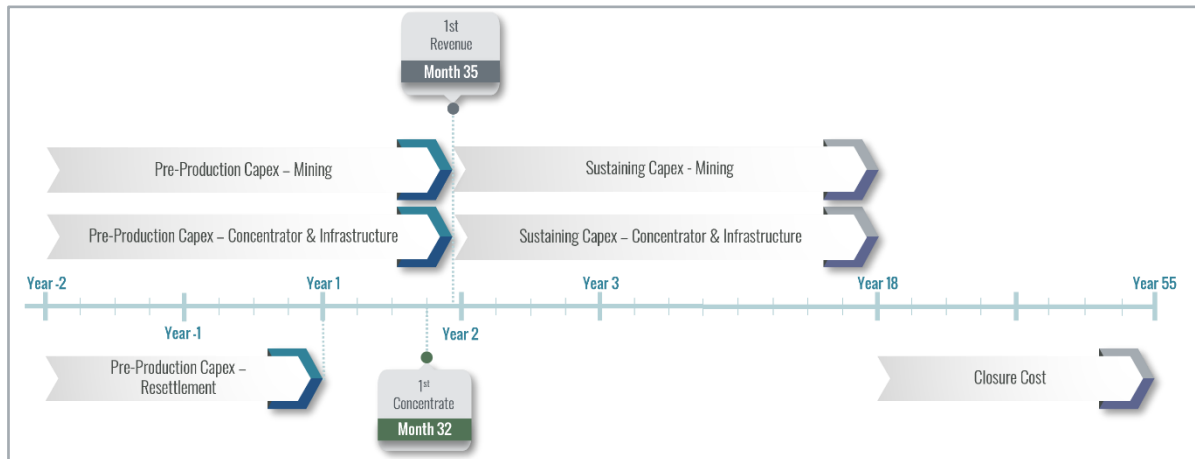


Figure 18-1: Capex Footprint

Table 18-11: Capex Cashflow

	Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21-55	Total USD Millions
Pre-Production Capex	178.24	453.90	226.90																					859.04
2000 - Mining	16.91	88.54	106.34																					211.79
3000 - Concentrator	32.81	152.66	57.83																					243.30
6000 - Infrastructure, Utilities and Ancillaries	50.51	143.78	33.66																					227.95
7000 - Site Cost	2.70	1.42	0.56																					4.68
8000 - Owners' Cost, Admin and Overheads	21.33	46.67	19.41																					87.41
10000 - Land Access and Resettlement	53.97	20.82	9.10																					83.90
Growth Capex	1.20	7.20	9.60	4.80				0.36		6.26			5.62			5.62			0.97					41.62
2000 - Mining								0.36		6.26			5.62			5.62			0.97					18.82
5000 - Future Project Beneficiation Phase	1.20	7.20	9.60	4.80																				22.80
Sustaining Capex			11.93	120.33	139.95	107.48	207.88	80.33	62.26	97.79	122.55	57.82	48.93	41.58	58.38	36.92	25.82	25.49	15.31	15.89				1,276.64
2000 - Mining			10.32	103.45	114.07	102.39	188.51	76.73	54.17	68.96	112.74	54.43	44.29	38.48	36.31	36.55	25.71	24.77	15.31	8.68				1,115.86
3000 - Concentrator			0.49	7.14	2.51	2.51	2.02	2.02	6.69	6.69	6.69	2.02	2.02	1.01	0.50									42.29
6000 - Infrastructure, Utilities and Ancillaries			0.60	4.85	21.58	0.99	17.09	0.74	1.38	22.1	1.68	0.82	2.62	1.53	21.54	0.25	0.08							97.85
8000 - Owners Cost, Admin and Overheads			0.23	1.95	0.35	0.43	0.05	0.71	0.03	0.05	1.45	0.55		0.57	0.03	0.12	0.03	0.72		7.21				14.47
10000 - Land Access and Resettlement			0.29	2.95	1.45	1.16	0.2	0.12																6.17
Closure Cost	0.06	0.02	0.02	0.06	0.02	0.02	0.06	0.87	0.02	0.06	0.02	0.02	0.06	0.02	0.02	0.06	0.42	0.42	0.47	17.62	17.62	17.62	7.44	63.11
8000 - Owners Cost, Admin and Overheads	0.06	0.02	0.02	0.06	0.02	0.02	0.06	0.87	0.02	0.06	0.02	0.02	0.06	0.02	0.02	0.06	0.42	0.42	0.47	17.62	17.62	17.62	7.44	63.11
Total	179.50	461.12	248.45	125.19	139.97	107.50	207.94	81.56	62.27	104.12	122.57	57.83	54.61	41.60	58.40	42.60	26.24	25.92	16.75	33.51	17.62	17.62	7.44	2,240.42

18.1.6 Capital Estimate Exclusions

The following items are expressly excluded from the capital cost estimate:

18.1.6.1 Commercial, Financial, and Corporate Costs

Commercial, financial and corporate costs include:

- Financing charges (e.g., interest during construction).
- Working capital (addressed in Section 19).
- Corporate overheads and administrative expenses.
- Vendor price escalation or opportunistic pricing not covered by quotations.
- Taxes, duties, royalties, and statutory levies unless explicitly stated (incorporated directly into the economic modeling).

18.1.6.2 Technical Scope and Economic Adjustments

- Forward escalation or inflation beyond the study base date.
- Salvage or residual value of temporary construction assets.
- Disruptions in global supply chains or logistics beyond vendor-quoted terms.
- Currency fluctuations beyond fixed exchange assumptions.

These exclusions are consistent with the classification and level of accuracy appropriate for this stage of study.

18.2 Operating Costs

An operating cost estimate (Opex) has been developed for the Kabanga Mine, Concentrator, Infrastructure, General Administrative and Owners' costs. The cost estimates were determined by LZM (General Administrative and Owners' costs) and DRA (Mining, Concentrator and Infrastructure).

Table 18-12 summarizes the total Project Opex over the LoM.

Table 18-12: Average Project Operating Cost Estimate Summary

Area	LoM Cost (USD Million)	LoM Opex Summary (USD/t milled)
Mining	2,725.05	52.18
Processing ¹	634.46	12.15
Owners Cost	280.86	5.38
Mining Licence Fee ²	20.39	0.39
Total Site Opex	3,660.76	70.10
Concentrate Transport and Insurance	860.32	16.47
Total Opex	4,521.08	86.57

Notes:

1. The processing costs reflect the combined concentrator (A3000) and infrastructure (A6000) costs (USD 12.07/t) in combination with provision for pre-production costs (USD 0.07/t).
2. The Mining Licence Fee is an annual rent due to the GoT based on the SML area as per the Tanzanian Mining (Mineral Rights) Regulations 2018. It was excluded from the Project Opex estimate and has been accounted for directly in the Economic Model.

18.2.1 General Inputs, Assumptions and Basis

18.2.1.1 Basis and Level of Accuracy

The overall operating cost estimate has been developed to match the requirements of a typical industry standard Class 3 (feasibility-study level) estimate as defined by the AACE with an accuracy range of $\pm 15\%$. The Opex base date is Q1 2025 and is presented in USD.

18.2.1.2 Project Labor Model

Labor requirements for the operational phase of the Kabanga Nickel Project have been developed from a detailed labor model across all functional areas: mining, concentrator, G&A support, and Owners' project team functions. The labor costs were based on the following:

- Operational roles work on a 7-day shift/7-night shift/7 days off rotation, delivering a 67% on-site utilization rate.
- Maintenance roles follow a 14/7 model, while local administrative employees work a standard 5-day week.
- Expatriates are modeled on a 6 weeks on/3 weeks off roster, which is consistent with international mining norms and included in labor cost assumptions.
- The labor model includes allowances for planned and unplanned absenteeism to ensure consistent coverage across shifts.
- Labor costs are based on the Paterson grading system, benchmarked at the 50th percentile of 2022/23 Tanzanian mining sector remuneration data. Monthly base salaries range from USD 331 for entry-level laborers to over USD 27,000 for executive management, with expatriate roles receiving an average 30% premium based on region of origin.
- All base salaries are modeled inclusive of 50 hours/month overtime, in line with Tanzanian labor law and the Project's 12-hour shift system.
- Additional employer costs, such as statutory contributions to the National Social Security Fund, the Workers' Compensation Fund, and the Skills Development Levy (3.5%) are included across all salaries.
- Fixed and conditional allowances applied to relevant roles include provision for allowances to cater for working underground (10%), night shift (5%), housing (15%) (where company accommodation is not provided) and acting, standby, and call-out allowances (5–10%).
- An across-the-board 10% performance incentive has also been provisioned for all employees.
- Due to Kabanga's remote location, rotational employees will be housed in a managed accommodation camp. Camp services include accommodation, meals and laundry. A daily cost of USD 17.84 per accommodated employee has been allowed.
- Return travel for national employees is costed at USD 503/year for the first year, decreasing to USD 95/year thereafter with the introduction of the Standard Gauge Railway (SGR). Expatriate international travel costs are included based on point-of-hire assumptions and the 6/3 rotation cycle.

Table 18-13 summarizes the steady-state operational headcount per area by function, which was used in combination with the all-inclusive annual project labor rates as the basis for the labor cost presented in each respective cost area.

Table 18-13: Steady-state Operational Headcount

Area	Labor Complement		
	National	Expatriates	Total
Mining	706	83	789
Concentrator	188	11	199
G&A	82	2	84
Corporate (Dar es Salaam)	17	1	18
Total	993	97	1,090

The workforce composition reflects Tanzania's national localization regulations and the Project's commitment to building a predominantly Tanzanian workforce. At steady state, approximately 91% of employees will be Tanzanian nationals. A total of 97 expatriate roles (mainly technical) are included during early operations.

18.2.1.3 Project Power Cost

The operating cost estimate for each project area is based on a variable unit power cost of USD 0.06/kWh, reflecting an electricity tariff derived from TANESCO grid power supply pricing. Additionally, an annual fixed power cost of USD 4.74 million for power supply to the entire Kabanga site aligned to the TANESCO rates is catered for in the Area 6000 Infrastructure costs.

18.2.1.4 Operating Cost Exclusions

The following are not included in the Opex estimate:

- Escalation, inflation, value added tax (VAT), customs, excise, duties, sales, or other import taxes, federal or local sales taxes on permanent materials or services, insurance and export credit financing.
- All royalties, commissions, lease payments, rentals, and other payments to landowners, title holders, mineral rights holders, surface right holders, and/or any other third parties not mentioned in this section.
- Working capital, bridging finance, and the costs associated with raising the necessary finance to develop the project and finance and interest charges.
- Costs associated with obtaining titles, title insurance, legal services, and surveying to evaluate, negotiate for, and purchase land for development of the mines.
- All licenses, permits, and maintenance of same, including, but not limited to requirements for environment, construction, explosive purchase transport and usage, mining operations, water and air discharge, equipment and supplies importation.
- Site closure and rehabilitation, land acquisition and rights-of-way, disposal of hazardous materials and employee housing.
- Events that would be considered force majeure and any provision for project risks outside those related to design and estimating confidence levels.

18.2.2 A2000 - Mining

Mining operating cost estimate was based on pricing received from internationally recognized mining contractors with relevant experience relating to the mining methods and African experience. These contractor-supplied unit rates were then applied to mining physicals from the mine plan, which were subsequently annualized and updated based on the Production Schedule used in this FS. The operating costs are the costs associated with direct access, extraction, and handling of tonnes. Sections 18.2.2.1 to 18.2.2.7 provide a description of the mining operating costs.

18.2.2.1 Power

The power consumption for the mining infrastructure was calculated on the basis of the average continuous power demand for each duty drive. The mechanical equipment list was used to identify all duty drives from equipment sizing calculations to which the utilization and mechanical efficiency factors were applied. Power consumption is estimated based on the mechanical equipment list, which is arranged by facility. The infrastructure, ventilation, and cooling power cost was calculated to be USD 2.11/t of ore.

18.2.2.2 Labor

The mining labor costs are based on the labor model supplied by LZM. The annual, all-inclusive labor cost amounts to USD 18.4 million. The mining labor complement and annual cost are shown in Table 18-14.

Table 18-14: Annual Mining Labor Cost at Steady-state Production

Description	Mining Labor Cost (3.4 Mtpa)	
	Complement No.	Annual Cost USD/Annum
Management	24	2,360,421
Maintenance Supervision	4	207,300
Mine Technical Services	30	1,096,205
Engineering/Maintenance	171	3,929,820
Mining Operations	560	10,812,759
Total	789	18,406,506

18.2.2.3 Mining Consumables

Mining costs for the first 5 years are based on the quantities calculated in the mine plan and the unit rates of the preferred contractor which had been selected based on a tendering process.

Post the 5-year contracting period mining rates are built up from mining quantities from the production schedule and unit rates calculated from first principles and mining consumable costs.

Explosive quantities and drilling meters were calculated with the cost of drilling and blasting included in the costs for both development and stoping activities.

Support elements were calculated in the mine plan and the cost thereof included in the mining activities.

18.2.2.4 Backfill

The backfill quantities calculated and the unit rates determined by MineFill were applied to determine the cost of backfill operations. The unit cost as supplied by MineFill is shown in Table 18-15.

Table 18-15: Paste Backfill Unit Rates by Area

Area	USD/m ³
North	47.97
Tembo	49.42
Main	51.61

18.2.2.5 Mining Fleet

A detailed tender process was followed to select the preferred mobile equipment fleet and determine its operating costs. The selected equipment for the mining fleet is shown in Table 13-18.

Maintenance costs are based on the expected lifespan of machine components. The lifespans of components are obtained from the preferred supplier's database and received through the tendering process.

Fuel cost is based on a diesel price of USD 1.37/L, estimated operating hours, and fuel consumption supplied by the various equipment manufacturers.

18.2.2.6 Ventilation and Cooling

A specialist ventilation and cooling consultant conducted the ventilation and cooling engineering design and determined the Opex. The Opex cost for both ventilation and cooling for the LoM cashflow was provided by the specialist consultant.

Ventilation simulation models were used to determine fan efficiencies, fan pressures, and absorbed power. The electrical unit rate was applied to the absorbed power requirement to determine the electrical operating cost. An allowance was added to this operating cost for the maintenance of equipment.

18.2.2.7 Grade Control

An allowance was made for ongoing grade control and additional drilling to improve resource definition for short-term planning. This allowance of USD 0.6/t ore was applied as a unit rate over the entire LoM.

18.2.3 A3000 - Concentrator

The Concentrator and Infrastructure operating cost estimate was developed from a zero base, using first principles. The cost estimate includes all labor, power, reagents, materials, utilities and consumables and has been derived based on testwork, mass balances, engineering, as well as other discipline inputs and vendor pricing. They are a combination of fixed and variable costs and are adjusted in the economic model on an annualized basis.

Fixed costs would typically include labor costs, environmental costs, power for lighting, and the fixed portion of the plant maintenance costs. They benefit from economies of scale at higher throughput, resulting in a lower unit cost per tonne milled as throughput increases. Variable costs are defined as overall costs that vary depending on the level of production, but on a unit per tonne rate, remain constant. These costs are based on unit consumption rates and are the costs that are incrementally incurred as production rates vary. The variable costs would typically include reagents, most electrical power, water, variable consumable costs (e.g., mill and crusher liners), some elements of the laboratory cost and concentrate transport costs.

Sections 18.2.3.1 to 18.2.3.9 provide a description of the Concentrator operating costs.

18.2.3.1 Labor

The Concentrator labor schedule, included in the overall project labor model, was developed from first principles based on the flowsheet, layout and operational requirements. The labor schedule was developed by the KNL Owners' team in consultation with DRA and the operational readiness consultant (Minopex). The labor plan includes the laboratory operational staff in combination with staff on each shift to cater for sample collection and preparation.

The Concentrator labor costs have been based the cost provisions previously detailed in Section 18.2.1.2 and reflect an annual cost USD 5.28 million catering for 199 staff, comprising 188 locals and 11 expatriates. The labor costs contribute to the fixed portion of the operating cost.

18.2.3.2 Power

The expected mill power draw was based on the average ore hardness data for the MSSX and UMAF_1a samples utilizing the ore hardness correlations as a function of the Ni feed grade as derived from testwork and characterized by the relative milling derate factor.

The power draw estimates were calculated based on the ore blend and Ni grade profile as detailed in the mine production schedule, i.e. mill power draw varies as a function of the blend. Milling power requirements are lower at approximately 10.0 kWh/t when treating high-grade MSSX material (~2% Ni in feed) increasing to approximately 15.7 kWh/t when treating low-grade UMIN material (~1.3% Ni in feed). The effect of harder waste dilution was evaluated in testwork and has been incorporated into the comminution circuit modeling via the ore hardness correlations as a function of nickel (Ni) feed grade for each ore type.

The power consumption for the remaining processing equipment (excluding the mill power) was calculated on the basis of the average continuous power demand for each duty drive. The mechanical equipment list was used to identify all duty drives from equipment sizing calculations to which the utilization and mechanical efficiency factors were applied. A provision of 550 kW was also made for plant lighting. Based on these calculations, the individual unit power consumption ranges from 39 to 45 kWh/t for the main feed types, MSSX and UMIN. The average continuous power demand for the Concentrator is expected to be approximately 16.7 MW reflecting an annual cost of USD 8 million per annum at the full 3.4 Mtpa production rate.

18.2.3.3 Water

Raw/freshwater consumption figures are based on the Concentrator water balance in combination with the overall Kabanga site water balance as developed for the project by WSP.

Based on the water balances, the average concentrator raw water consumption was estimated to be 0.74 m³ per tonne milled. The majority of the raw water make-up reflects treated water from underground mine dewatering. Fresh/raw water is also supplied to the Concentrator reflecting water from Ruvubu River in combination with treated water product from the Kabanga WTP, which is included within the infrastructure scope.

Water supply costs have been based on Tanzanian rates as detailed in "Water fees and Charges, July 2020 and Water Resources Management Act, 2009" and pumping costs for the water supply systems are included within the overall absorbed power estimate.

In addition to the water supply costs, provision has been made for water treatment, storage and discharge costs which are included separately within the infrastructure Opex as detailed in Section 18.2.4.3.

18.2.3.4 Consumables

The consumables category costs consist of operating costs for reagents, crusher liners, mill liners and mill grinding media as detailed below.

Reagents

The reagent consumption figures used in determining the operating cost estimate are based on the concentrator mass balance in combination with average consumption rates derived from the testwork.

A summary of the expected reagent consumptions and supply cost basis is presented in Table 18-16.

Table 18-16: Concentrator Reagent Consumptions and Supply Costs Basis

Reagent	Consumption (g/t Mill Feed)		Opex Cost Basis
	MSSX	UMIN	USD/t
Lime (> 85% CaO)	2,054	2,091	270
PEX Collector - 90% Activity	141	179	2,777
A3477 Promoter	56	106	4,067

Reagent	Consumption (g/t Mill Feed)		Opex Cost Basis
	MSSX	UMIN	USD/t
3418A Promoter	26	12	13,697
Sodium Sulfite	231	-	752
CMC Depressant	-	550	3,327
Copper Sulfate	41	41	3,877
Sulfuric Acid	294	283	447
Frother MIBC	34	27	2,827
Flocculant	25	25	2,027

The reagent suite as presented, was found to provide optimal metallurgical performance with regard to grade and recovery. All reagents, with the exception of lime, are sourced from outside Tanzania and will be delivered CFR (cost and freight) Dar es Salaam. The lime is expected to be supplied from a local in country source, and the quoted costs include delivery to Project Areas. The Opex costs make provision to transport reagents from port to site at a rate USD 127/t.

The quotes used in the Opex are from large, reputable reagent suppliers to the African minerals processing operations and there is minimal risk with regard to reagent availability. However, considering that the reagents are predominantly sourced from outside of Tanzania, KNL will need to engage in negotiations with these suppliers to secure long-term supply and pricing contracts.

Liners and Grinding Media

The crusher and mill liner wear rates were estimated based on the average (P_{50}) abrasion index of 0.075 for MSSX material and 0.104 for UMAF_1a material, which was used to calculate the expected life span of the crusher and mill liners. The mill and crusher liner costs were based on supply rates obtained from reputable equipment vendors.

Grinding media consumption was also based on the P_{50} Ai obtained from testwork, for the average ore hardness and nominal throughput rates. Grinding media costs reflect a supply rate of USD 1,183/t for steel grinding media and USD 2,527/t for ceramic grinding media based on supply rates from reputable suppliers and include a provision of USD 127/t for transport from the port to the Project Area.

The estimated mill liner wear life is relatively long, and the estimated ball grinding media consumption is on the lower end of typical operating ranges. This can be attributed to the testwork findings where samples have consistently been found to have a low abrasion tendency with an Ai ranging from 0.05–0.16 in both the current and historical testwork. When normalized for Ai, the ball mill grinding media and liner wear life estimates were found to be aligned to ball milling operational benchmarks, that operate at a similar volumetric ball loading.

18.2.3.5 Maintenance

The maintenance costs are based on the annual operating spares estimates from reputable vendors for the major mechanical equipment in combination with suitable factors applied to the smaller equipment items, conveyors, EC&I, platework and piping capital supply rates.

Based on this methodology, an annual maintenance cost provision of USD 4.6 million has been allowed for. A 30% fixed component was assumed based on typical industry benchmarks. The maintenance costs do not include crusher and mill liners, which have been calculated and costed separately in the consumables cost estimate.

18.2.3.6 Materials Handling

The materials handling costs make provision for UMIN feed ore blending on the RoM pad, scats handling (loading and trucking) and final concentrate loading costs. The volume of material for each application was derived from the Concentrator production schedule.

A loader operational cost of USD0.64 /t and a scats trucking cost of USD 0.60 /t/km was applied with provision to truck the scats to the nearest waste rock dump, a distance of 1.68 km from the Concentrator.

18.2.3.7 Laboratory

The FS incorporates an owner operated laboratory, located at the Kabanga Site to cater for the mining, concentrator, and environmental analysis requirements. The laboratory analysis requirements were derived based on the sample schedule and caters for a sample loading of approximately 4,370 samples per month.

The laboratory management and operational staff have been catered for within the concentrator plant labor costs previously presented in Section 18.2.3.1 and an annual laboratory cost provision of USD 0.51 million was made to account for the analysis costs.

18.2.3.8 Concentrate Transport

A concentrate transport cost of USD 144/t wet concentrate has not been included in the concentrator direct costs but has been incorporated separately in the financial model to cater for transporting and shipping concentrate to international customers via the Port of Dar es Salaam. The rate was provided by KNL and includes provision for transport, agency charges, wharfage, stevedoring, handling fees, shipping and sea freight costs based on cost information from established and reputable providers in combination with comparable rates from regional providers. The rates were obtained as part of a comprehensive logistics study which included engagement with key providers and contractors, including the TRC and TPA.

This is converted to a unit cost per tonne of concentrator mill feed based on the mass pull to the concentrate.

The expected concentrate mass has been determined based on the calculated mass pull derived from the concentrator plant production schedule which ranges from 6.5–11.0% w/w and averages 9.9% w/w over the LoM at a nominal moisture content of 9% (w/w) as derived in vendor testing.

18.2.3.9 Area 3000 Concentrator Operating Cost Summary

The steady-state MSSX, UMIN and average LoM Concentrator Opex based on a 3.4 Mtpa throughput rate is summarized in Table 18-17.

Table 18-17: Area 3000 Concentrator Opex Summary

Description	Concentrator Opex Summary (USD/t milled)		
	MSSX	UMIN	LoM (52 Mt) 87% MSSX: 13% UMIN
Labor	1.62	1.62	1.68
Power	2.29	2.65	2.37
Liners and Grinding Media	0.54	0.73	0.56
Reagents	2.03	3.45	2.25
Water	0.00	0.00	0.00
Maintenance	1.35	1.35	1.38
Laboratory Analysis	0.15	0.15	0.16
Materials Handling	0.17	0.51	0.21
General	0.01	0.01	0.01
Total Concentrator	8.16	10.47	8.63

The average LoM operating cost for the Concentrator is estimated to be USD 8.63 /t_{milled} for a feed blend comprising 87% MSSX and 13% UMIN. The fixed cost includes labor, a portion of the maintenance costs, power costs for plant lighting and licensing fees.

The annual fixed cost was estimated to be USD 6.95 million, equivalent to USD 2.0/t_{milled} at the nominal 3.4 Mtpa steady-state production rate making up 26% of the overall concentrator processing costs over the LoM. The differentiation of the fixed cost component allows the Opex estimate to accurately reflect the differences in throughput.

The Concentrator operating costs in Table 18-17 exclude the fixed component of the power supply cost (which is included separately in Area 6000) and the concentrate transport costs which are accounted for separately directly in the financial model.

18.2.4 A6000 - Infrastructure, Utilities and Ancillaries

The Kabanga infrastructure operating cost estimate was developed from a zero base and has been derived based on engineering input. The estimate reflects the costs associated with the supporting infrastructure and services for the Kabanga concentrator operations, which include: fixed power costs, TSF operational costs, raw water supply costs, water treatment costs, water abstraction, impoundment and discharge fees, potable and sewerage water treatment, vehicles for maintenance of the terrace, roads, landfill and stormwater systems and camp building maintenance costs.

Fixed costs would typically include labor costs, environmental costs, power for lighting, and the fixed portion of the plant maintenance costs. They benefit from economies of scale at higher throughput, resulting in a lower unit cost per tonne milled as throughput increases. Variable costs are defined as overall costs that vary depending on the level of production, but on a unit per tonne rate, remain constant. These costs are based on unit consumption rates and are the costs that are incrementally incurred as production rates vary. The variable costs include water (treatment, abstraction, discharge and impoundment fees that increase incrementally based on the volumes stored), power, and variable maintenance costs.

The Section 18.2.4.1 to 18.2.4.7 provides a description of the Kabanga infrastructure operating costs.

18.2.4.1 Labor

No labor costs have been allowed for in the Kabanga infrastructure as the infrastructure operations will be serviced by the Concentrator engineering and maintenance staff where provision has already been made in the Concentrator labor schedule for the required staff and costs.

18.2.4.2 Power

The power consumption for the infrastructure processing equipment was calculated on the basis of the average continuous power demand for each duty drive. The infrastructure area mechanical equipment list was used to identify all duty drives from equipment sizing calculations to which the utilization and mechanical efficiency factors were applied.

Based on these calculations, the averaged continuous power demand for the Kabanga infrastructure equipment, which predominantly reflects power provision for water supply and treatment is expected 10,510 MWh per annum reflecting an annual cost of USD 0.64 million per annum.

In addition to the power usage for infrastructure processing equipment the infrastructure operating costs also include the TANESCO annual fixed power cost of USD 4.74 million for power supply to the Kabanga site.

18.2.4.3 Water

The infrastructure water costs reflect costs associated with raw/freshwater consumption as derived from the overall Kabanga site wide water balance developed by WSP in combination with fees for impoundment, water treatment and discharge. The water treatment volumes were also derived from the overall site water balance outputs.

Water supply, impoundment and discharge costs have been based on Tanzanian rates as detailed in "Water fees and Charges, July 2020 and Water Resources Management Act, 2009" and reflect a cost of USD 0.02 /m³ for abstraction and discharge and USD 0.6/m² for impoundment.

Provision has been made for water treatment at a rate of USD 0.05/m³ for potable water treatment, USD 0.05/m³ sewerage water treatment, USD 0.05/m³ for HDS water treatment and USD 0.58/m³ for the RO plant based on typical benchmarks for other similar projects.

Pumping costs for the Ruvubu River and treated water supply systems are included within the overall absorbed power estimate.

18.2.4.4 Maintenance

The maintenance costs are based on suitable factors applied to the equipment items, EC&I, platework and piping and valves capital supply rates resulting in an annual provision of USD 0.55 million. Additionally, an annual allowance of USD 0.18 million has been made for camp building maintenance. A 30% fixed component was assumed based on typical industry benchmarks.

18.2.4.5 Vehicles

An annual provision of USD 0.44–0.87 million and averaging USD 0.55 million over the LoM has been made to cater for maintenance of the terrace, roads, landfill and stormwater systems based on a scheduled cost estimate provided by KNL.

18.2.4.6 Kabanga Tailings Facility Operation

The operating cost includes provision for operation of the Kabanga TSF based on budget pricing provided by a reputable TSF consultant and reflects an annual cost USD 1.12 million.

18.2.4.7 Area 6000 Kabanga Infrastructure Operating Cost Summary

The average LoM A6000 infrastructure Opex based on a 3.4 Mtpa concentrator throughput rate is summarized in Table 18-18.

Table 18-18: Area 6000 Infrastructure Opex Summary

Description	LoM Infrastructure Opex Summary (USD/t _{milled})
Power	1.72
Water	0.85
Maintenance	0.22
Vehicles	0.30
TSF Operation	0.36
Total Infrastructure	3.44

The average LoM operating cost for the Kabanga Infrastructure area is estimated to be USD 3.44/t_{milled}. The annual fixed cost was estimated to be USD 3.6 million making up 32% of the overall costs over the LoM. The costs reflect the TSF operational costs, water impoundment feed and the fixed cost component of the power and maintenance costs.

18.2.5 A8000 - Owners' Cost, Administration and Overheads

The owners, administration and overheads operating costs include provision for the G&A and corporate labor, light vehicles operating and maintenance costs, IT software, Dar es Salaam office rental, Corporate Social Responsibility costs, specialist environmental and social studies, environmental and water monitoring and testwork, licenses, human resource systems, media costs, security, waste handling services and compliance costs.

The labor allocation for the G&A and corporate costs was developed by LHM from first principles. The costs have been based on the cost provisions previously detailed in Section 18.2.1.2 catering for 102 staff, comprised of 99 nationals and three expatriates.

The light vehicle costs were estimated based on monthly operating, fuel and maintenance costs. The majority of the other costs were estimated based on quotations, current rates and input from specialist consultants.

19 ECONOMIC ANALYSIS

19.1 General Description

LZM has developed an Economic Model (the Model) to evaluate the Project on a real basis. The analysis assumes the Project is 100% equity funded. The Model was prepared on an annual basis, from the projected start of project execution, and continuing through the LoM and closure. The Model has been audited by SLR Consulting (Canada) Ltd. This section outlines the principal assumptions that underpin the Model, along with the resulting indicative Project economics. Unless otherwise stated, all monetary values are presented in United States dollars (USD).

This analysis assesses a Reserve Case, which includes:

- Production profiles from three underground mines, namely North, Tembo and Main, that were developed in accordance with the methodologies described in preceding sections
- Concentrator processing facilities
- Associated infrastructure
- Associated capital and operating costs.

The Reserve Case schedules 52.2 Mt of ore, to be mined at an average grade of 1.98% nickel, producing 5.2 Mt of high-grade nickel concentrate at an average grade of 17.5% nickel. This equates to 902 kt of contained nickel metal in concentrate over a mine life of 18 years.

The pre-production capital cost is estimated to be USD 943 million including contingency. The estimated total capital cost (pre-production, capitalized Operational Expenditure (Opex), growth, sustaining and closure) over the LoM) including contingency is USD 2,491 million with a peak funding amount of USD 1,049 million.

The economic analysis was prepared on a 100% project basis using the Reserve Case production schedule, operating, and capital assumptions on an annual basis. The assumptions for taxes and royalties were provided by Clyde & Co Tanzania.

Capital and operating cost estimates, including cost build-ups, contingency allowances, and estimate classification, are detailed in previous sections of this report. All economic results and associated technical and cost data are reported on a 100% Project ownership basis, reflecting the interests held by TNCL, unless otherwise stated. The GoT has a 16% free carry on the Project, through its 16% ownership of TNCL with LZM owning 84.0% on a look-through basis.

As with all economic evaluations of this nature, the analysis presented herein is forward-looking and inherently subject to uncertainty. The outcomes are dependent on a range of assumptions, including forecast macroeconomic conditions, project execution strategies, and future technical and operational data, which may evolve as additional studies are completed.

19.2 Forward-looking Statements

This document contains "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. These statements, referred to herein as "forward-looking statements," are provided as of the date of this document and relate to future events or performance. They reflect current estimates, expectations, projections, or beliefs regarding such future events. Forward-looking statements include, but are not limited to, statements with respect to:

- The estimated quantity and grade of Proven and Probable Mineral Reserves estimates, which have been modified from Measured and Indicated Mineral Resource estimates.
- Capital cost estimates related to mining and processing, infrastructure construction, production commencement, ongoing operations, sustaining capital requirements, and projected payback periods.
- Operating costs are related to mining, processing and transport of concentrate.

- Forecasts of future production volumes, including tonnes of material processed and contained nickel (and associated by-products) recovered.
- Assumed commodity prices and concentrate payabilities.
- The overall estimates of revenues, operating costs, Project costs, projected net cash flows, net present value (NPV), and anticipated economic returns from operations.
- The underlying assumptions supporting the various technical and economic estimates.

All forward-looking statements are based on the QP's current understanding, a range of assumptions, and information available as of the date of this report. These assumptions, which are described throughout this TRS, include, but are not limited to:

- The presence, continuity, and estimated grade of nickel mineralization within the defined geological domains.
- The geotechnical, hydrogeological, and metallurgical characteristics of the deposit conforming to results obtained from sampling and testing programs.
- The quantity and quality of water resources available during mining and processing operations.
- The reliability, performance, and availability of mining and processing equipment and associated infrastructure.
- Anticipated levels of mining dilution and recovery.
- Achieved metallurgical recoveries and concentrate grades based on representative tests.
- Reasonable contingency amounts.

Readers are cautioned that forward-looking statements are inherently subject to various risks and uncertainties, many of which are beyond the control of the issuer. Actual results may differ materially from those expressed or implied by such statements, depending on future events and circumstances, changes in assumptions, and availability of additional technical and economic data.

19.3 Assumptions and Inputs

19.3.1 Model Parameters

The following parameters were used during the analysis:

- The Model is unlevered and assumes the project is 100% equity funded.
- The Model commences from the expected start of construction, at Year -2 and extends to Year 19. The final year of production is expected to be in Year 18. Construction is expected to take 2.6 years to complete. Costs that are expected to occur post Year 19, namely ongoing closure and G&A costs, have been appropriately adjusted in the cash flow analysis to align with the model end date.
- The economic analysis was prepared on a 100% project basis using the Reserve Case production schedule, operating, and capital assumptions on an annual basis.
- All monetary figures expressed in the analysis are in USD unless otherwise stated and all costs and revenue are presented in 2025 real USD.
- Cash flows are assumed to occur evenly during each year, with discounting starting in Year -2.
- The cash flows are discounted using mid-year convention.
- Carry balances such as tax and working capital calculations are based on real dollars for use in the integrated cash flow calculation.

19.3.2 Metal Pricing

Metal prices for the economic analysis were estimated using consensus industry metal price forecasts and compared to those used in other published studies and forecasts by independent research organizations. The metal prices used for the economic analysis are representative of industry forecasts.

The selected prices follow the expected Project commencement date. This means that except for Year 1 (i.e., first production year), price assumptions follow a single, long-term price, expressed in 2025 real terms. The long-term nickel, copper and cobalt price assumptions are shown in Table 19-1.

Table 19-1: Metal Prices

Metal	Year 1	Year 2 – Year 18 Long-term price (USD/lb)
Nickel	8.37	8.49
Copper	4.64	4.30
Cobalt	19.91	18.31

19.3.3 Discounting

A real discount rate of 8% is used for calculating NPV.

19.3.4 General

In the analysis, carry balances such as tax calculations are based on real dollars for use in the integrated cash flow calculation.

19.3.5 Taxation

Assumptions for taxation were provided by Clyde & Co Tanzania. Tanzanian legislation provides for all taxes, levies, duties and royalties. The key taxes, levies, duties and royalties that the Project will be required to pay the Tanzanian Government are outlined in the following sections.

19.3.5.1 General Corporate Taxation

Tanzanian companies are subject to corporate income tax (CIT) which is calculated at a rate of 30% of net income.

19.3.5.2 Withholding Tax

Withholding tax (WHT) is applied at the rate of:

- 15% of services supplied by offshore non-resident companies to local resident companies
- 5% of services supplied by local resident companies to local resident companies
- 10% of dividends paid to non-resident shareholders
- 10% of interest payments

19.3.5.3 Customs and Import Duties

Import Duties

Tanzania is a member of the East African Community (EAC), a customs union. The EAC currently implements a four-band Common External Tariff structure on imports as follows:

- 0% - raw materials and capital goods
- 10% - semi-finished goods
- 25% - finished consumer goods

- 35% - specified products

The base for calculating import duty is the total cost, insurance and freight (CIF) value of the imported goods. Machinery and spare parts imported by a licensed mining company and used in mining activities are exempt from import duty, which is relevant to the Project.

Inspection Fee

A 1% inspection fee on mineral concentrates is applied to the gross value of the concentrate at the point of sale.

Rail Development Levy

Railway Development Levy (RDL) applies at a rate of 2% on the CIF value of imported goods. Goods that are exempt from import duty are also exempt from RDL. More specifically, machinery and spare parts imported by the Project and used in mining activities that qualify for import duty exemption are also exempt from RDL.

19.3.5.4 Levies

Fuel Levy

Fuel levy is charged on petroleum and diesel at a rate of TZS 513 per liter, included in the delivered fuel price as an operational expenditure.

Petroleum Levy

Petroleum levy is charged on petroleum, diesel, and kerosene at TZS 100 per liter, included in the delivered fuel price as an operational expenditure.

City Service Levy

The Local Government Authorities are entitled to charge up to a maximum of 0.3% City Service Levy (CSL) based on turnover generated by corporate bodies in the relevant district.

Skills Development Levy

Skills Development Levy (SDL) is a tax on the employer calculated as 3.5% of gross cash benefits of employees and has been included in labor costs as an operational expenditure.

19.3.5.5 Depreciation

As per the Framework Agreement, the application of straight-line pooled asset depreciation at a rate of 20% per annum is permitted. Capital that has not had sufficient time to fully depreciate before the end of the project's life is written off in the final year. The amount written off is added to the depreciation amount in the final year.

19.3.5.6 Tax Losses

For a mining company in a loss-making position, there is the ability to carry-forward losses indefinitely, offsetting these losses against taxable income in any given tax year subject to a cap of 70% of the taxable income in a given tax year.

19.3.6 Royalties

19.3.6.1 Government Mineral Royalty

The Tanzanian Government royalty is applied to the sale of concentrate from the Project.

The Tanzanian Government Mineral Royalty is applied at a rate of 6% and applied to gross revenue received by MineCo. MineCo's sole source of revenue is derived from the sale of nickel sulfide concentrate, containing copper and cobalt.

The concentrate sale and purchase terms are based on indicative, non-binding term sheets as part of the market study.

19.3.6.2 Mining Licence Fee

The Tanzanian Government also charges a Mining Licence Fee that is an annual operating fee payable for the Kabanga mine site.

19.4 Economic Analysis Results

The projected economic results include:

- Post-tax NPV at an 8% real discount rate is USD 1,579 million.
- Post-tax Internal Rate of Return (IRR) is 23.3%.
- Post-tax payback period is 7.1 years from first investment and 4.5 years from first production.

The key results of the Kabanga Nickel Project Feasibility Study are summarized in Table 19-2.

Table 19-2: Summary of Economic Results

Description	Units	Value
Discount Rate	%	8
NPV _{8%}	USD million	1,579
IRR	%	23.3
Capital Efficiency (Pre-production and Capitalized Opex)	-	1.4
Total Capital (Pre-production incl. contingency, Capitalized Opex, Growth, Sustaining and Closure,)	USD million	2,491
Pre-production Capital	USD million	942
Capitalized Opex	USD million	168
Sustaining Capital	USD million	1,277
Peak Funding	USD million	1,049
Total AISC (net of by-product credits)	USD/lb Payable Ni	3.36
Site Operating Costs	USD/t Milled	70
Project Life	Years	20
Payback Period (from first production)	Years	4.5
Payback Period (from first investment)	Years	7.1

19.4.1 Processing and Metal Production

The Reserve Case schedules 52.2 Mt of ore, to be mined at an average grade of 1.98% nickel, producing 5.2 Mt of high-grade nickel concentrate (dry) at an average grade of 17.5% nickel. This equates to 902 kt of contained nickel metal in concentrate over a mine life of 18 years.

The production statistics are shown in Table 19-3. Processing tonnes, concentrate output and contained metal production are summarized in Figure 19-1 to Figure 19-3.

Table 19-3: Production Statistics

Description	Unit	Total LOM	Annual Average Year 1-5	Annual Average LoM
Feed				
Tonnes Processed	kt	52,225	2,602	2,901
Nickel Feed Grade	%Ni	1.98	1.86	1.98
Copper Feed Grade	%Cu	0.27	0.25	0.27
Cobalt Feed Grade	%Co	0.15	0.15	0.15
Recoveries				
Nickel Recovery	%	87.3	86.82	87.3
Copper Recovery	%	95.6	94.41	95.6
Cobalt Recovery	%	89.6	89.18	89.6
Concentrate Produced				
Nickel Concentrate Produced	kt (dry)	5,170	246	287
Nickel Concentrate Grade	%Ni	17.5	17.1	17.5
Copper Concentrate Grade	%Cu	2.6	2.5	2.6
Cobalt Concentrate Grade	%Co	1.3	1.4	1.3
Contained Metal in Concentrate				
Nickel	kt	902	42	50
Copper	kt	134	6	7
Cobalt	kt	69	3	4

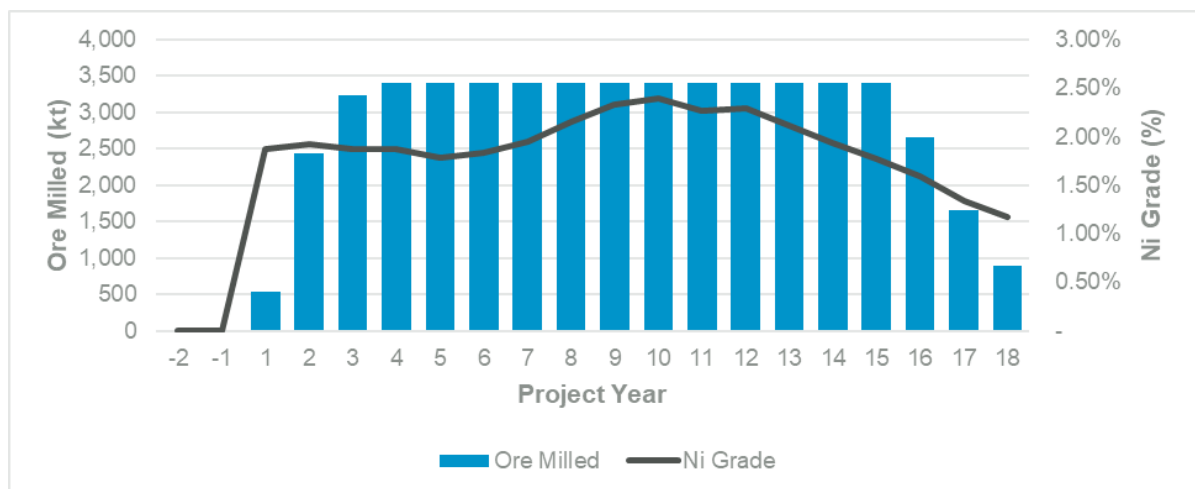


Figure 19-1: Annual Ore Milled

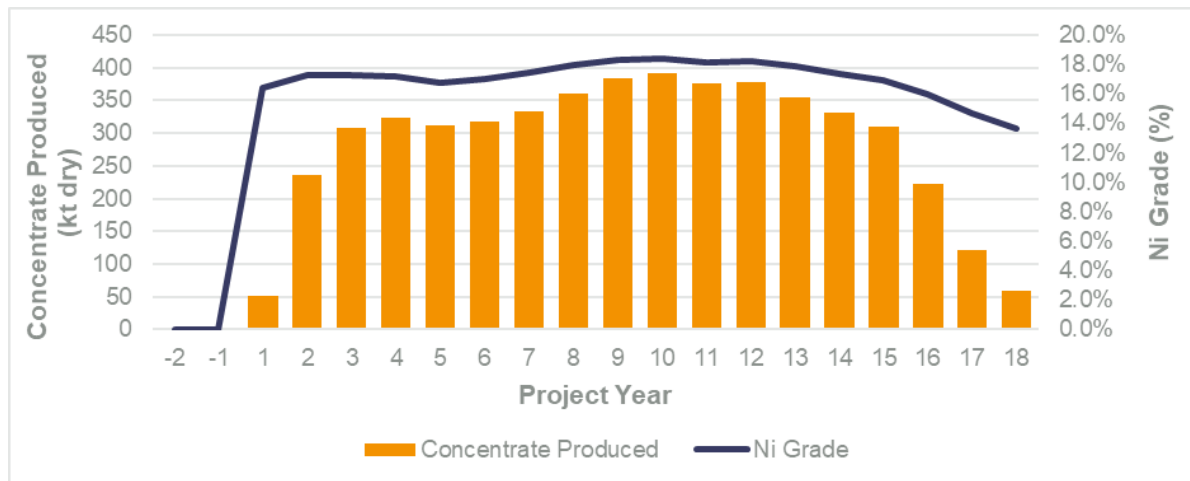


Figure 19-2: Annual Nickel Concentrate Produced

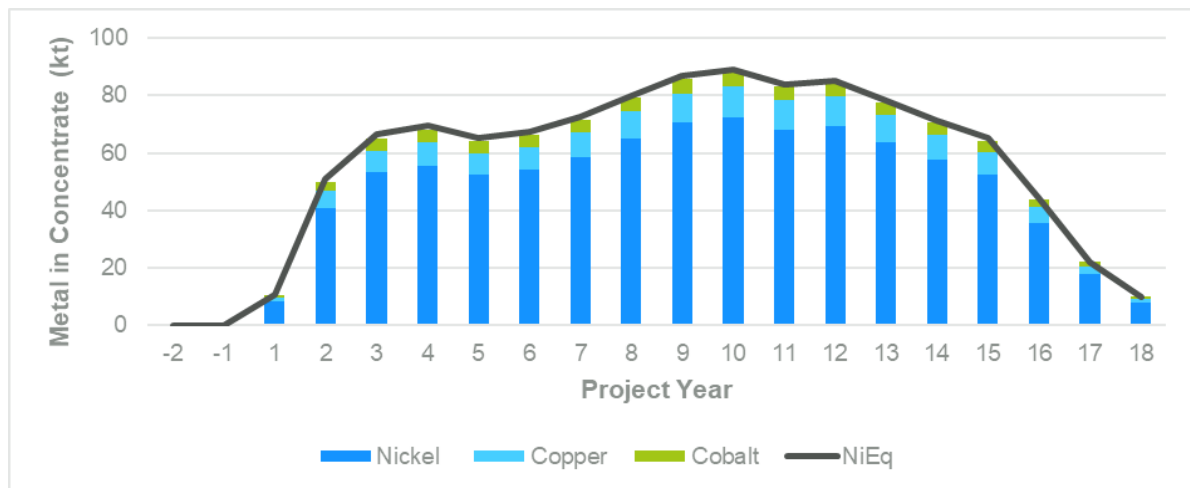


Figure 19-3: Annual Metal in Concentrate

19.4.2 Revenues

The estimated Project revenues are presented in Table 19-4. The analysis uses price assumptions detailed in Table 19-1.

Revenue is derived from the sale of nickel concentrate, which contains copper and cobalt. All three metals are expected to be payable. The realization costs are made up of transport and insurance costs to deliver the concentrate from the Project site to global customers on a Cost Insurance and Freight (CIF Incoterms® 2020) basis.

Table 19-4: Revenues

Description	Total LOM	Annual Average Years 1–5	Annual Average LOM
	USD Million	USD/t ore Milled	
Revenues			
Gross Revenue for Ni, Cu and Co	14,989	270	287
Realization Costs	(860)	(16)	(16)
Net Revenue for Ni, Cu and Co	14,128	254	271

19.4.3 Capital and Operating Costs

Capital and operating costs used in the economic analysis are aligned to those presented in Section 18.

19.4.3.1 Capital Costs

The Project capital is defined as follows:

Pre-production Capex: All capital costs incurred prior to the commencement of commercial production. This includes direct and indirect costs associated with mine development, process plant and infrastructure construction, EPCM, and Owners' costs. It also includes the capitalization of applicable operating costs up to the point of commercial production.

Growth Capex: Capital costs incurred to further study the beneficiation facility and to extend the mine life through the conversion of Inferred Mineral Resources to Minerals Resources into higher confidence categories.

Sustaining Capex: All capital costs incurred during production, to ensure existing assets and operations continue running at their expected capacity and to maintain condition. This includes ongoing underground development capital incurred throughput operations and TSF embankment raises.

Closure Capex: Capital allocated to Project closure and rehabilitation.

The estimated total Project capital costs are shown in Table 19-5.

Table 19-5: Total Project Capital Cost

Description	Unit	Total LoM USD M
Direct Pre-Production Capex		
Mining		
Mining Infrastructure (Underground and Surface)	USD million	35
Underground Mining	USD million	177
Sub-total Mining	USD million	212
Process and Infrastructure		
Concentrator	USD million	243
Site Infrastructure	USD million	140
Tailings	USD million	18
Sub-total Processing	USD million	402
Off-site		
Concentrate Logistics	USD million	22
Electrical – 220 kV Overhead Line	USD million	48
Sub-total Offsite	USD million	70
Indirect Pre-Production Capex		
Site and Off-site Indirect		
EPCM	USD million	74
Owners	USD million	13
Site Costs	USD million	5
Resettlement	USD million	84
Sub-total Indirect	USD million	176
Total Pre-Production Capex	USD million	859

Description	Unit	Total LoM USD M
Pre-Production Contingency	USD million	83
Pre-Production Capex After Contingency	USD million	942
Capitalized Opex	USD million	168
Growth Capex	USD million	42
Sustaining Capital	USD million	1,277
Closure	USD million	63
Total Capital Cost After Contingency	USD million	2,491

Note: Capital includes only direct Project costs and does not include non-cash shareholder interest, management payments, foreign exchange gains or losses, foreign exchange movements, tax pre-payments, or exploration phase expenditure.

19.4.3.2 Operating Costs

The estimated Project LoM average AISCs are shown in Table 19-6.

The estimated AISC for the first five years of production is USD 5.50/lb payable nickel and the average for the LoM is USD 3.36/lb payable nickel. Although nickel provides most of the revenue included in the analysis, there are meaningful credits from copper and cobalt included in the AISC. Unit costs related to the ore tonnages are shown in Table 19-7 and Table 19-8.

Table 19-6: All-in Sustaining Costs

Item	Unit	Annual Average	Annual Average
		Year 1 - 5	LoM
Mining	USD/lb Payable Ni	2.89	1.75
Processing	USD/lb Payable Ni	0.52	0.41
G&A	USD/lb Payable Ni	0.31	0.19
Concentrate Transport	USD/lb Payable Ni	0.54	0.52
Concentrate Freight Insurance	USD/lb Payable Ni	0.03	0.03
Total Cash Cost (Pre By-Product Credits)	USD/lb Payable Ni	4.28	2.90
Royalties	USD/lb Payable Ni	0.91	0.76
Sustaining Capex	USD/lb Payable Ni	1.49	0.82
Total AISC (Pre By-Product Credits)	USD/lb Payable Ni	6.68	4.48
Cu By-Product Credit	USD/lb Payable Ni	(0.40)	(0.41)
Co By-Product Credit	USD/lb Payable Ni	(0.78)	(0.71)
Total AISC	USD/lb Payable Ni	5.50	3.36

Table 19-7: Mine and Concentrator - Kabanga Site Unit Costs

Item	Unit	Annual Average	Annual Average
		Year 1–5	LoM
Site Operating Costs			
Mining	USD/t Milled	65.65	52.18
Processing	USD/t Milled	12.53	12.15
G&A	USD/t Milled	4.64	5.38
Mining Licence Fee	USD/t Milled	0.39	0.39
Total Site Costs	USD/t Milled	83.22	70.10
Concentrate Logistics			
Concentrate Transport and Insurance	USD/t Milled	15.72	16.47
Total Site Costs & Concentrate Logistics	USD/t Milled	98.94	86.57

Table 19-8: Royalties and Sustaining Capital Unit Costs

Item	Unit	Annual Average	Annual Average
		Year 1-5	LoM
Royalties	USD/t Milled	22.85	22.76
Sustaining Capex	USD/t Milled	45.16	24.44

19.4.4 Project Cash Flow

The estimated net Project cash flow is depicted in Figure 19-4 and a detailed Project cash flow is provided in Table 19-9.

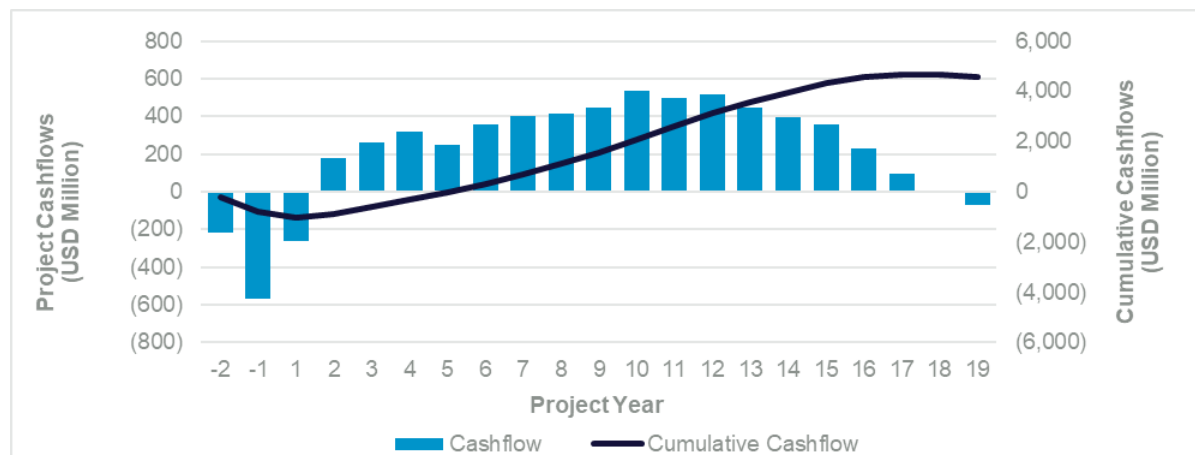


Figure 19-4: Project Cash Flow

Table 19-9: Summary of Project LoM Annual Cash Flow

Description	Unit	LoM	-2	-1	1	2	3	4	5	6	7	8	9	10	11 +
Gross Revenue															
Gross Revenue on Payable Metal	USD million	14,989	-	-	141	682	888	927	871	901	972	1,075	1,166	1,195	6,170
Realization Costs (net of capitalized Opex)															
Concentrate Transport	USD million	(818)	-	-	(8)	(37)	(49)	(51)	(49)	(50)	(53)	(57)	(61)	(62)	(341)
Concentrate Freight Insurance	USD million	(42)	-	-	(0)	(2)	(2)	(3)	(2)	(3)	(3)	(3)	(3)	(3)	(17)
Net Revenue															
Net Revenue	USD million	14,128	-	-	133	643	837	873	819	848	916	1,015	1,102	1,130	5,812
Operating Costs															
Mining	USD million	(2,725)	(1)	(35)	(81)	(174)	(212)	(231)	(156)	(160)	(155)	(156)	(161)	(152)	(1,051)
	USD/t Milled	52.2	0.0	0.0	149.3	71.5	65.5	68.0	45.8	47.0	45.6	46.0	47.3	44.8	47.3
Processing and Infrastructure	USD million	(634)	(0)	(1)	(13)	(31)	(38)	(40)	(41)	(40)	(39)	(39)	(39)	(39)	(275)
	USD/t Milled	12.1	0.0	0.0	23.4	12.9	11.9	11.7	12.0	11.7	11.5	11.5	11.4	11.4	12.4
Owners Costs, Admin and Overheads	USD million	(281)	(14)	(12)	(13)	(13)	(11)	(12)	(12)	(11)	(11)	(12)	(12)	(12)	(136)
	USD/t Milled	5.4	0.0	0.0	23.0	5.4	3.3	3.5	3.6	3.4	3.4	3.4	3.6	3.4	6.1
Mining Licence Fees	USD million	(20)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(8)
Power Line Rebate	USD million	18	-	-	7	12	-	-	-	-	-	-	-	-	-
Owners' Costs, Admin and Overheads - Adjustment	USD million	9	-	-	-	-	-	-	-	-	-	-	-	-	9

Description	Unit	LoM	-2	-1	1	2	3	4	5	6	7	8	9	10	11 +
Total Opex	USD million	(3,633)	(16)	(48)	(101)	(208)	(262)	(284)	(210)	(212)	(207)	(208)	(213)	(204)	(1,461)
Capitalized Opex Adjustment - Site	USD million	160	16	48	95	-	-	-	-	-	-	-	-	-	-
Capitalized Opex Adjustment - Logistics	USD million	7	-	-	7	-	-	-	-	-	-	-	-	-	-
Royalties, Fees, Levies and Duties	USD million	(1,189)	(7)	(15)	(20)	(58)	(75)	(78)	(66)	(68)	(73)	(82)	(88)	(90)	(469)
EBITDA	USD million	9,474	(7)	(15)	114	377	500	512	543	568	636	726	801	837	3,883
Pre-production Capital Costs															
Mining	USD million	(212)	(17)	(89)	(106)	-	-	-	-	-	-	-	-	-	-
Processing & Infrastructure	USD million	(471)	(83)	(296)	(91)	-	-	-	-	-	-	-	-	-	-
Site Cost	USD million	(5)	(3)	(1)	(1)	-	-	-	-	-	-	-	-	-	-
Owners Costs, Admin and Overheads	USD million	(87)	(21)	(47)	(19)	-	-	-	-	-	-	-	-	-	-
Resettlement	USD million	(84)	(54)	(21)	(9)	-	-	-	-	-	-	-	-	-	-
Contingency	USD million	(83)	(16)	(45)	(22)	-	-	-	-	-	-	-	-	-	-
Total Pre-Production Capex	USD million	(942)	(194)	(499)	(249)	-	-	-	-	-	-	-	-	-	-
Capitalized Opex															
Mining	USD million	(109)	(1)	(35)	(73)	-	-	-	-	-	-	-	-	-	-
Processing and Infrastructure	USD million	(12)	(0)	(1)	(11)	-	-	-	-	-	-	-	-	-	-
Owners' Costs, Admin and Overheads	USD million	(40)	(15)	(13)	(12)	-	-	-	-	-	-	-	-	-	-

Description	Unit	LoM	-2	-1	1	2	3	4	5	6	7	8	9	10	11 +
Concentrate Logistics	USD million	(7)	-	-	(7)	-	-	-	-	-	-	-	-	-	-
Total Capitalized Opex	USD million	(168)	(16)	(48)	(103)	-	-	-	-	-	-	-	-	-	-
Growth Capex															
Future Beneficiation Studies	USD million	(23)	(1)	(7)	(10)	(5)	-	-	-	-	-	-	-	-	-
Exploration Drilling	USD million	(19)	-	-	-	-	-	-	-	(0)	-	(6)	-	-	(12)
Total Growth Capex	USD million	(42)	(1)	(7)	(10)	(5)	-	-	-	(0)	-	(6)	-	-	(12)
Sustaining															
Mining	USD million	(1,116)	-	-	(10)	(103)	(114)	(102)	(189)	(77)	(54)	(69)	(113)	(54)	(230)
Processing and Infrastructure	USD million	(42)	-	-	(0)	(7)	(3)	(3)	(2)	(2)	(7)	(7)	(7)	(2)	(4)
Surface Infrastructure	USD million	(98)	-	-	(1)	(5)	(22)	(1)	(17)	(1)	(1)	(22)	(2)	(1)	(26)
Owners Costs, Admin and Overheads	USD million	(14)	-	-	(0)	(2)	(0)	(0)	(0)	(1)	(0)	(0)	(1)	(1)	(9)
Resettlement	USD million	(6)	-	-	(0)	(3)	(1)	(1)	(0)	(0)	-	-	-	-	-
Total Sustaining Capex	USD million	(1,277)	-	-	(12)	(120)	(140)	(107)	(208)	(80)	(62)	(98)	(123)	(58)	(268)
Closure (adjusted)*	USD million	(57)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(0)	(0)	(0)	(0)	(56)
Working Capital															
Change to Net Working Capital	USD million	(2)	-	-	(1)	(30)	(12)	(1)	(2)	(2)	(6)	(8)	(6)	(3)	68
Pre-Tax Free Cash Flow															
Undiscounted	USD million	6,986	(219)	(570)	(260)	221	349	403	333	485	568	614	672	776	3,615

Description	Unit	LoM	-2	-1	1	2	3	4	5	6	7	8	9	10	11 +
Discounted at 8%	USD million	2,611	(211)	(508)	(214)	169	247	264	202	272	295	296	300	320	1,180
Tax															
Corporate Income Tax	USD million	(2,411)	-	-	-	(41)	(90)	(86)	(88)	(129)	(169)	(201)	(228)	(238)	(1,142)
Post-Tax Free Cash Flow															
Undiscounted	USD million	4,575	(219)	(570)	(260)	180	259	317	246	356	399	413	445	538	2,473
Discounted at 8%	USD million	1,579	(211)	(508)	(214)	138	183	208	149	200	208	199	198	222	809

Note: G&A and Closure costs are incurred until Year 27 and Year 54, respectively. To fully present these costs in the Model, which ends in Year 19, they have been discounted back to Year 19.

19.4.5 Sensitivity Analysis

To measure the sensitivity of Project economics to changes in key parameters, a sensitivity analysis was carried out using a range of key parameters. These included:

- Metal prices
- Nickel payability
- Nickel recovery
- Discount rate
- Capital costs
- Operating costs

The projected Project financial results for undiscounted and discounted cash flows at a range of discount rates, IRR, and payback are shown in Table 19-10.

Table 19-10: Project Net Present Value and Discount Rate

Description	Discount Rate	Project	Project
	%	Pre-Tax	Post-Tax
Net Present Value (USD MILLION)	Undiscounted	6,986	4,575
	5.00%	3,761	2,366
	8.00%	2,611	1,579
	10.00%	2,046	1,192
Internal Rate of Return (%)		29.5%	23.3%
Post-Tax Payback Period – from first production (years)		3.6	4.5
Post-Tax Payback Period - from first investment (years)		6.2	7.1

The results of the sensitivity analysis for the Project NPV and IRR to a range of metal prices, payability, recovery, discount rates, capital and operating costs are shown in the spider charts presented in Figure 19-5 and Figure 19-6.

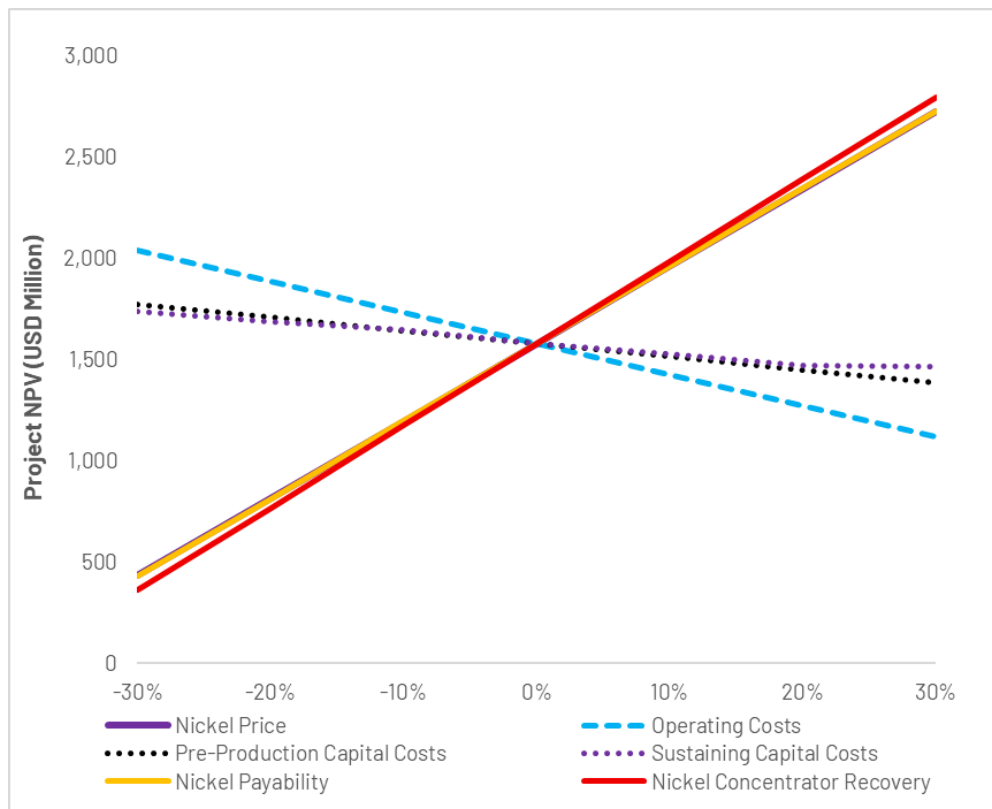


Figure 19-5: Sensitivity Analysis of Post-Tax NPV

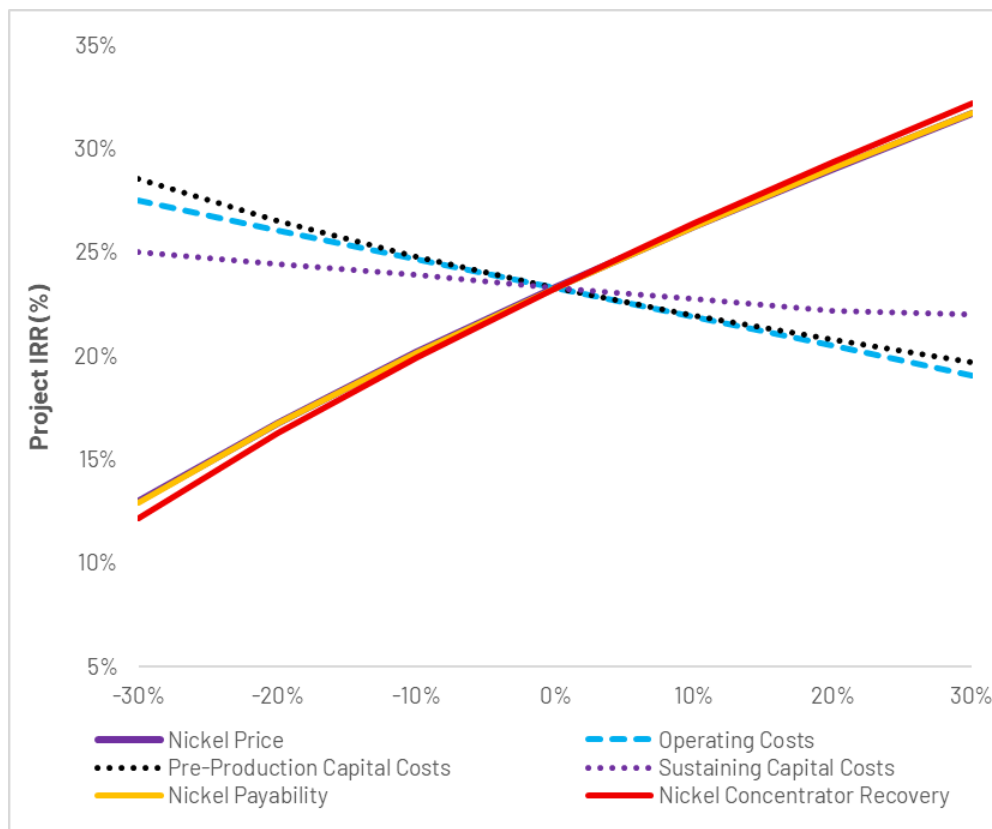


Figure 19-6: Sensitivity Analysis of Post-Tax IRR

19.4.5.1 Metal Price Sensitivity

The results of the metal sensitivity analysis for nickel, copper and cobalt are shown in Table 19-11 to Table 19-13 respectively.

Table 19-11: Nickel Metal Price Sensitivity

Nickel Price	USD/lb	8.49	5.00	6.00	7.00	8.00	7.00	10.00	11.00	13.00
Post-Tax NPV _{8%}	USD million	1,579	(2)	459	909	1,359	1,808	2,256	2,705	3,603
Post-Tax IRR	%	23.3%	8.0%	13.2%	17.6%	21.5%	25.1%	28.4%	31.6%	37.5%

Table 19-12: Copper Metal Price Sensitivity

Copper Price	USD/lb	4.30	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00
Post-Tax NPV _{8%}	USD million	1,579	1,482	1,524	1,566	1,608	1,650	1,692	1,735	1,777
Post-Tax IRR	%	23.3%	22.5%	22.8%	23.2%	23.5%	23.8%	24.2%	24.5%	24.8%

Table 19-13: Cobalt Metal Price Sensitivity

Cobalt Price	USD/lb	18.31	15.00	16.00	17.00	18.00	19.00	20.00	25.00	30.00
Post-Tax NPV _{8%}	USD million	1,579	1,520	1,538	1,556	1,573	1,591	1,608	1,696	1,784
Post-Tax IRR	%	23.3%	22.8%	23.0%	23.1%	23.2%	23.4%	23.5%	24.2%	24.9%

19.5 Interpretation and Conclusions

Based on the assumptions and parameters presented, the FS shows positive economics supported by a post-tax NPV of USD 1,579 million using an 8% discount rate, and a post-tax IRR of 23.3%.

A summary of the LoM cash flow is presented in Table 19-14.

Table 19-14: Summary of LoM Project Cashflow

Description	LoM (USD Million)
Gross Revenue	14,989
Realization Costs (net of capitalized Opex)	(853)
Net Revenue	14,136
Royalties, Fees and Levies	(1,189)
Operating Costs* (net of capitalized Opex)	(3,473)
EBITDA	9,474
Pre-production Capex	(942)
Capitalized Opex	(168)
Growth Capex	(42)
Sustaining Capital	(1,277)
Closure – Adjusted*	(57)
Working Capital Adjustment	(2)
Pre-tax Cash Flow (Undiscounted)	6,986
Corporate Tax	(2,411)
Post-tax Cash Flow (Undiscounted)	4,575

*Note: * G&A and Closure costs are incurred until Year 27 and Year 54, respectively. To fully present these costs in the Model. They have been discounted back to Year 19.*

The economic results indicate that the Project:

- Has positive economic metrics, such as NPV, IRR, payback and capital efficiency
- Is most sensitive to nickel price, nickel recovery, nickel payability; and
- Has a relatively low AISC of USD 3.36/lb payable Ni, with meaningful credits from copper and cobalt.

19.6 Recommendations

The results of the economic analysis should be considered in conjunction with the rest of the FS, to determine if the outcome is acceptable by LZM, and whether the Project shall continue toward financing and construction.

20 ADJACENT PROPERTIES

In addition to SML 651/2021, TNCL holds six prospecting licenses (101.44 km²) in the surrounding area, which were granted in 2022. Five of these licenses are considered to cover ground prospective for nickel sulfide mineralization, whereas the sixth license was staked to cover a back-up potential granite aggregate source.

The SML is also surrounded by nine prospecting licenses fully or jointly held by Adavale Resources Limited, with most of these licenses originally held by previous owners of the Project. These license areas were relinquished primarily due to their perceived low potential to host economic nickel sulfide mineralization at the time.

Northwest Tanzania is an established mining region, hosting several major mines, with gold mining being predominant. Notable operations have included Golden Pride and the Williamson Diamond Mine; Bulyanhulu, North Mara, and Buzwagi Gold Mines operated by Barrick and the Geita Gold Mine operated by AngloGold Ashanti.

21 OTHER RELEVANT DATA AND INFORMATION

21.1 Project Execution Plan

21.1.1 Execution Approach and Project Scope

The Kabanga Mine and Concentrator will be executed in a single, integrated phase using an EPCM methodology.

The project execution plan (PEP) is designed to deliver a safe, timely, cost-effective, and high-quality development that complies with Tanzanian regulatory requirements and international standards. The Project execution model is structured around a collaborative framework involving:

- Project Owners' Team, providing strategic oversight and project direction.
- Operations Team, responsible for compliance, permitting, engagement with stakeholders, and oversight of mining.
- EPCM Consultant Team, responsible for day-to-day engineering, procurement, construction, and project management.

The integrated EPCM framework establishes clear roles, responsibilities, and separation between owner oversight and EPCM execution functions, ensuring efficient decision-making, quality control, and compliance.

21.1.1.1 Project Scope and Components

The Project comprises a coordinated program of developments, structured under a six-level hierarchical WBS (Figure 21-1), encompassing the following WBS Level 2 areas:

- Mining Operations: Development of North and Tembo underground mines at the Kabanga Site.
- Mineral Processing: Construction of a concentrator facility with a design throughput capacity of 3.4 Mtpa RoM.
- Infrastructure: Development of key supporting infrastructure including accommodation villages, 220 kV grid power supply from TANESCO grid, roads, TSF and other required utilities.
- Resettlement and Land Access: Execution of a RAP aligned with Tanzanian laws and IFC performance standards, involving the relocation and livelihood restoration of affected communities across seven host sites.

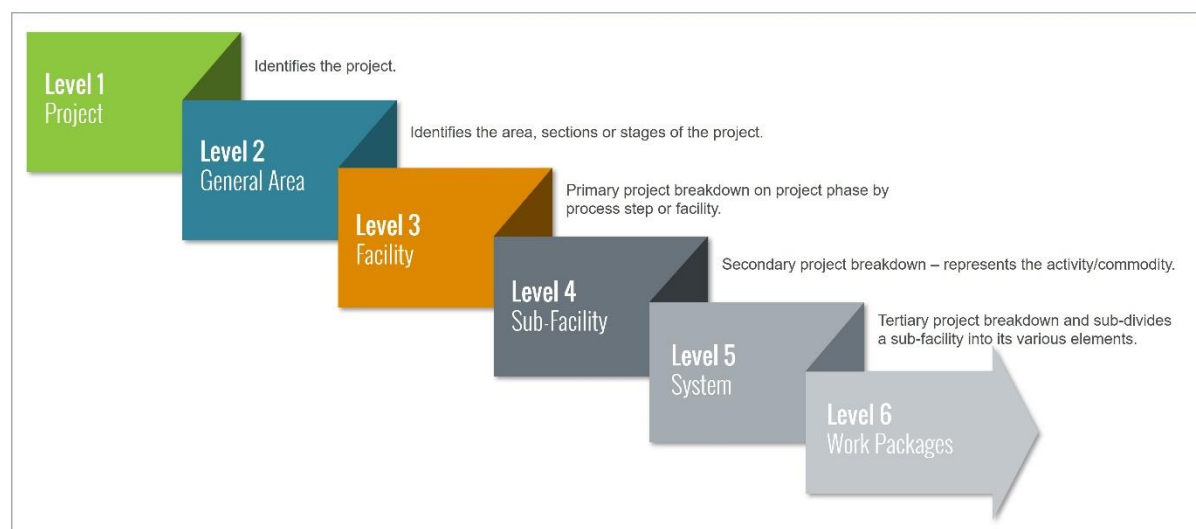


Figure 21-1: Work Breakdown Structure Hierarchy

21.1.1.2 Execution Planning

Project delivery will commence with alignment to the PES, prioritizing engineering and procurement. Detailed design and issued-for-construction drawings will be finalized, with early procurement adhering to localization policies. Construction activities at the Kabanga Site will run concurrently across workstreams, supported by logistics management from a regional project management hub.

Mine development is planned to begin 19 months ahead of first concentrate production to allow adequate time for mine ramp-up, and construction and commissioning of the Concentrator.

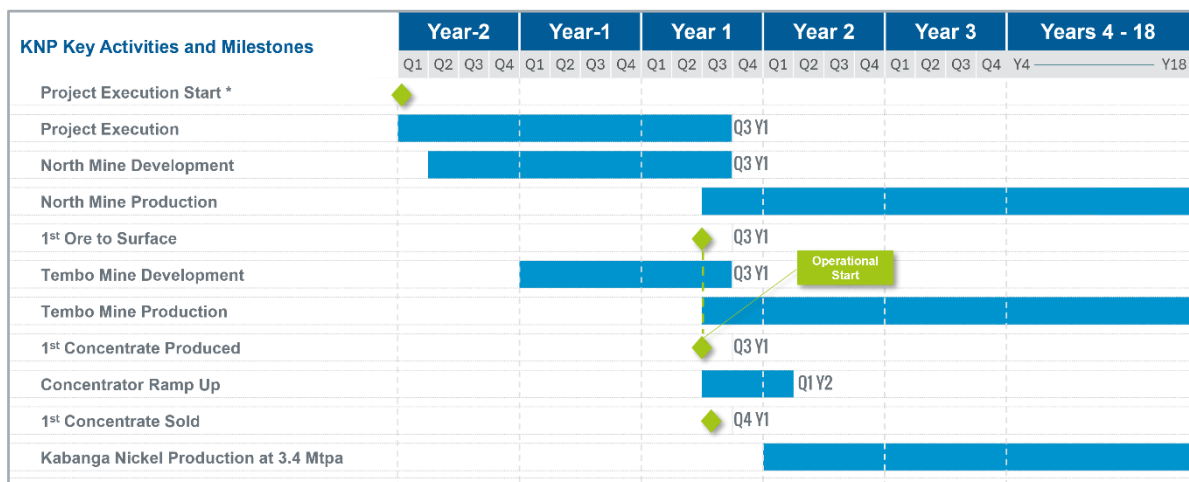
21.1.1.3 Project Objectives

The execution plan aims to establish project goals and meet key health, safety, environmental, social, technical, and financial objectives, including:

- Zero fatalities and a Lost Time Injury Frequency Rate (LTIFR) of ≤ 0.3 .
- Full compliance with Tanzanian and international legal frameworks.
- On-schedule first production of concentrate with flexibility to adjust plans.
- Cost discipline aligned with capital budgets.
- High standards of quality, documentation, and continuous improvement.

21.1.2 Project Schedule

As seen in Figure 21-2, the PES has been developed, incorporating input from stakeholders, including Tanzania's Ministry of Minerals and aligning with Tanzanian localization and regulatory frameworks. It reflects the integration of vendor and contractor lead times and provides a coordinated timeline for all major Project components. The schedule considers the mining commission review and approval cycle for all procurement packages greater than USD 100,000. This process should be reviewed with the relevant stakeholders to reduce the schedule risk.



Note: *The Project commencement is contingent on FID and completion of permitting, financing, and execution readiness.

Figure 21-2: Project Execution Schedule

21.1.2.1 Key Project Milestones

Resettlement Activities:

Resettlement activities are key drivers to the Project construction sequence, with priority areas defined to allow staged construction access only once all PAPs have been relocated from the individual priority areas to ensure the safety of and minimize the impact of construction activities on the local community.

The resettlement construction activities to commence by month 5 post FID. This enables all priority resettlement areas at the Kabanga Site to be made available by month 10 to the Project for construction.

Mine and Concentrator Development:

- Site construction commences in Project month 7 with initial works at the North boxcut and supporting infrastructure.
- Underground mine development begins in Project month 14, with first production in month 32.
- Concentrator construction commences in month 7. Commissioning of the Concentrator commences in month 25, with first concentrate production in month 32.

The Project development timeline assumes pre FID execution readiness works for Resettlement, North boxcut and certain long lead items in the period preceding Project month 1. These activities include design and tendering and do not require major contract commitments.

21.1.2.2 Critical Path Overview

The primary critical path begins with the resettlement of physically displaced persons, followed by mine development and first concentrate production.

The Concentrator's critical path starts with the procurement and fabrication of the ball mill and the TSF development, progressing through installation, commissioning (C2–C4), and ramp-up to achieve nameplate throughput and recovery with the TSF available to discharge tailings.

21.1.2.3 Key Project Durations

The key Project durations based on the PES are shown in Table 21-1.

Table 21-1: Key Project Durations

Activity	Duration
Land Access and Resettlement	32 months
Livelihood Restoration Plan	89 months
Mine Development (to first production)	19 months
Concentrator Development	28 months
Concentrator Ramp-Up	9 months

The PES accounts for regional weather patterns and calendar considerations to optimize productivity. Engineering and procurement schedules are aligned with the WBS and have been benchmarked against historical data from regional projects. Procurement timelines comply with Tanzanian content regulations and Tanzanian Ministry of Minerals approval processes. Construction sequencing and workforce planning have been developed to optimize labor efficiency and logistics. Commissioning follows a structured C1 to C5 framework, ensuring system readiness and integrated handover.

All Project components are scheduled in alignment with the mine plan, infrastructure availability, and concentrate feed targets.

21.1.3 Project Setup and Execution

The Project begins with a detailed setup phase to ensure all teams are aligned. Key documents such as design criteria and schedules are at a mature level, and management plans are developed to guide execution, procurement, budgeting, and risk control. Lessons from past projects are integrated to improve outcomes.

21.1.4 Communication and Documentation

Monthly progress reports will cover health, safety, planning, costs, and engineering updates. A digital document management system will handle records and approvals, while a clear communications process will ensure accountability and transparency.

21.1.5 Cost and Change Management

A cost control system will track budgets and expenditures, with payments made only after formal approval. Changes to scope or design must be authorized by the Project Owners' team, and all cost impacts are managed through a structured process.

21.1.6 Risk Management

A risk plan will identify and track Project risks. Regular reviews will address site-specific risks like resettlement delays, infrastructure dependencies, and logistics challenges, with mitigation plans in place.

21.1.7 Procurement

The EPCM team will lead procurement, supported by the Owners' and Operations teams. Contracts will be awarded through a formal process based on technical and commercial evaluations. All vendor documentation will be managed digitally and subject to strict oversight.

21.1.8 Engineering and Design

Designs will follow defined criteria and standards, using 3D modeling and HAZOP (hazard and operability) studies to minimize errors. The EPCM and specialist consultants will handle engineering, supported by a central document system to track deliverables.

21.1.9 Quality and Logistics

A quality management system will enforce standards across all work. Logistics coordinators and service providers will manage material transport, customs, and delivery. Controlled storage areas will be established on-site to handle incoming goods.

21.1.10 Health, Safety and Environment

The Project commits to international HSE (health, safety, and environment) standards through training, leadership, and "Zero Harm" principles. Environmental controls will manage dust, noise, traffic, spills, and waste. Site security will be coordinated by the Operations Team, ensuring safe access and operations.

21.1.11 Resettlement

The 353 physically displaced and 967 economically displaced households will be supported through a structured resettlement program. New homes, infrastructure, and community facilities will be built, with long-term livelihood support extending past 2033.

21.1.12 Construction

Construction will be phased, starting with resettlement and critical site infrastructure. The selected mining contractor will be engaged to commence with mine development, as soon access is provided to meet the concentrator commissioning dates. The Concentrator will follow a similar approach, built using multiple contractors with carefully sequenced work and labor planning. Camps and accommodation will support workforce needs at both sites.

21.1.13 Commissioning and Handover

Commissioning will roll out in five stages (C1–C5), starting in month 24. Key milestones include first ore in month 31, first concentrate in month 32. TNCL will take full control during hot commissioning, with EPCM support until final performance testing.

21.1.14 Project Closeout

Closeout includes handing over as-built drawings, finalizing contracts, documenting lessons learned, and compiling a full project report. This report will summarize outcomes across all phases, including safety, finance, and performance.

21.2 Health, Safety and Security

This section presents the Occupational Health and Safety (OHS) and Security framework for the Project, led by TNCL. The framework ensures compliance with Tanzanian legislation, including the Occupational Health and Safety Act, 2003; the Mining Act, 2010; and the Mining (Safety, Occupational Health, and Environmental Protection) Regulations, 2010. Additionally, it aligns with international standards such as ISO 45001:2018, underscoring the Project's commitment to maintaining high standards in health, safety and security for all stakeholders throughout the Project's lifecycle.

21.2.1 Occupational Health

Key occupational health risks, including malaria, exposure to hazardous chemicals, biological agents, ionizing radiation, high thermal environments, noise, psychosocial factors, ergonomic challenges, vibration, and issues related to the use of Personal Protective Equipment (PPE), have been identified. To manage these risks, the Project has implemented a comprehensive health management strategy, which includes:

- **Baseline and periodic health assessments:** In line with Tanzanian guidelines, regular health evaluations will monitor employee health across the Project's lifecycle.
- **Provision and enforcement of PPE (personal protective equipment):** Tailored to specific risks in mining and processing operations, PPE will be provided and its use strictly enforced.
- **Health awareness and education programs:** Focused on hygiene, occupational diseases, and first aid, these programs will meet both Tanzanian health standards and IFC Performance Standard 4, which emphasizes health impacts on workers and surrounding communities.

To support these efforts, the Project will establish a medical clinic at the Kabanga Site to provide both primary and emergency medical care, as well as comprehensive occupational health services. The Project will engage in ongoing collaboration with government agencies to manage community health risks, including the control of communicable diseases.

21.2.2 Occupational Safety

The Project identifies several critical safety risks during the construction, operation and closure phases, which include isolation and tagout procedures, ground falls, working at heights, mobile equipment operations, fire hazards, explosives and blasting, lifting operations, aviation risks, and equipment safeguarding. To address these, the Project's safety strategy includes:

- **Implementation of the developed Occupational Health Management System:** This system, compliant with ISO 45001:2018, will guide safety practices throughout the Project's lifecycle, with plans for certification in the near future.
- **Enforcement of the Project's Occupational Health Policy:** Management's commitment to safety will be demonstrated through the implementation of various Safe Operating Procedures, policies, and guidelines designed to address specific risks. These will include, but not be limited to, working at height protocols, isolation and tagout procedures, explosive and blasting safety measures, vehicle management, journey management, and fire control procedures.
- **Performance evaluation:** Performance evaluations as a constructive process aim to improve the organization's operation, and it is crucial to the "Plan-Do-Check-Act" model prescribed by ISO 45001. This involves monitoring, measurement, analysis, and evaluation of our OHS (occupational

health and safety) performance. Measurements include accident rates and workers' competence. Moreover, internal audits will be implemented along with regular management reviews, to monitor the progress made towards the achievement of OHS objectives and fulfilment of the ISO 45001 requirements.

21.2.3 Construction Health and Safety

During the construction phase, several risks and challenges will arise, such as operating heavy machinery, working at heights, handling hazardous materials, and managing a large workforce. To mitigate these risks, the Project will implement a structured approach to safety management under an EPCM strategy, supported by the Project Owners' and Operations Teams. This approach will ensure continuous oversight and compliance with safety protocols across all operations.

Key roles in the Occupational Health, Safety, and Environmental (OHSE) management framework include the EPCM Safety Manager and the Project Owners' Team, Safety Manager and Operations Safety Manager. These roles will ensure the following:

- **Safety strategy implementation:** Overseeing the execution of safety protocols across Project sites.
- **Compliance monitoring:** Ensuring adherence to the TNCL OHSE Management Plan and Tanzanian regulations, particularly the Occupational Health and Safety Act (2003) and the Mine Act Environmental and Health Regulations (2010).
- **Community and workforce protection:** Ensuring construction activities do not pose risks to either workers or nearby communities.

Compliance with Tanzanian OHS regulations, including the Occupational Health and Safety Act (2003) and Mine Act Environmental and Health Regulations (2010), is mandatory. These regulations require the use of appropriate PPE, safety training contractors and subcontractors will follow the Project's safety protocols, such as the Contractor Management Procedure, ensuring consistency across all projects.

All personnel will undergo safety induction and training programs, covering PPE use, site-specific hazards, and emergency response procedures. Ongoing risk assessments and hazard identification will be conducted using the Field Level Risk Assessment (FLRA) process, in accordance with the Field Level Risk Assessment Declaration Form. These risk assessments will comply with the Mining (Safety, Occupational Health, and Environmental Protection) Regulations (2010), addressing specific hazards such as working at height, lifting operations, and handling hazardous chemicals.

Regular safety audits and inspections will be conducted by the EPCM Safety Team, documented through the Audit Report and Incident Reporting and Investigation Procedure.

Emergency response and preparedness are outlined in the Emergency Response and Preparedness Plan and the Medical Emergency Evacuation Procedure. Regular drills will be conducted to ensure that personnel are familiar with emergency protocols.

Community safety is equally prioritized, especially during construction activities near inhabited areas. Measures such as traffic management, access control, dust suppression, and noise reduction will be implemented. Barricades, fencing, and signage will prevent unauthorized access to construction zones, while regular communication and community engagement will ensure transparency and address concerns.

Baseline risk assessments were conducted for the Kabanga and the Resettlement Sites to identify potential hazards and implement tailored safety measures. The findings from these assessments inform the Project's safety strategies.

A comprehensive set of SOPs, Checklists, Registers, and Critical Risk Control Standards has been developed to guide safe construction practices for the Project. These documents will be implemented throughout the construction phases and regularly updated to address evolving risks and changing regulatory requirements.

21.2.4 Security

The Security Management Plan (SMP) for the Project outlines how security will be managed throughout the Project, serving as the primary document for all related procedures and policies. The purpose of the SMP is to provide plans to protect employees, facilities, host communities, while mitigating security and human rights risks. Key elements of the SMP include:

- **Defining security functions, responsibilities, and management structure:** The SMP provides a clear outline of the roles and responsibilities of the security department to ensure coordinated and effective security operations.
- **Risk-based security strategy:** It addresses identified risks with a proportional strategy, progressively enhancing security infrastructure across different zones of the Project.
- **Systems and community impact:** The SMP details the security systems that will be used throughout the Project's lifecycle at the respective sites and considers potential community risks and impacts arising from the Project's security measures.
- **Compliance:** The SMP ensures alignment with national legislation, international best practices, and human rights standards, including the Voluntary Principles on Security and Human Rights and IFC PS 1 and 4.

The SMP adopts a 'four-tiered' security approach, focusing on regional security and narrowing down to the most vulnerable infrastructure at Project locations. Security measures will be progressively enhanced through each tier, which includes regional security, security of the local area, and security of the Project. The Tanzanian Police Force (TPF) will oversee regional security, ensuring the safety of host communities and managing project-induced in-migration through community-based policing. A private security team will handle physical protection within the Project facilities, operating without lethal weapons. Any criminal incidents will be escalated to the TPF for further action.

The SMP is a live document that will be reviewed and updated in response to changes in the security environment, with a full review scheduled every two years. It applies to all security-related activities throughout the Project cycle and includes all parties involved in, or working on behalf of, the Project.

21.2.5 Summary

The sustainability of the Project hinges on effectively managing occupational health, safety, and security risks. These risks span various Project phases from exploration, resettlement, construction, mining and mineral processing up to mine closure and monitoring. While some risks, such as explosives and blasting or ionizing radiation, are not currently present, they are anticipated in future phases. Therefore, it is essential that procedures be continuously reviewed and updated as the Project cycle progresses. The Project has already implemented the necessary systems in place to commence Project development, which will be expanded to accommodate future phases of the Project, and ongoing evaluation will be crucial to maintaining a safe and secure working environment.

21.3 Human Resources

Labor costs and shift-related assumptions are detailed in Section 18. This section provides supporting information relevant to workforce readiness, localization strategy, skills availability and regulatory compliance.

21.3.1 Skills Availability and Workforce Readiness

The Project is located in a remote region of northwest Tanzania with limited existing mining employment. A foundational skills assessment conducted in 2023 registered 4,266 individuals from the Primary Zone communities into a local database, forming the core of the Project's local labor pool.

Initial findings highlight key challenges:

- Limited mining-related experience
- Low formal education levels (particularly below O-level, i.e., the ordinary level of post-primary education in Tanzania)
- Minimal exposure to structured work environments

To address this, the Project will implement targeted training, mentorship and educational bridging programs, including:

- Adult Education and Training (AET) for literacy and numeracy.
- Pre-apprenticeship 'bridge-to-work' training for youth.
- Structured apprenticeships and learnerships in critical trades
- Internationally accredited training delivered on-site through a NACTVET (Tanzania's National Council for Technical and Vocational Education and Training)-accredited training center.

21.3.2 Localization and Expatriate Succession

The Project is governed by several Tanzanian labor and immigration laws, including:

- Mining (Local Content) Regulations, 2018
- Non-Citizens (Employment Regulation) Act, 2015

All expatriate roles are subject to formal succession plans. Each non-national must have an identified Tanzanian understudy and a documented four-year localization timeline. Expatriate employment in any one role is limited to four years, extendable to eight with Labor Commissioner approval.

At steady-state operations, expatriates will make up 9% of the workforce, primarily in technical support and mentorship roles..

21.3.3 Hard-to-Fill Roles and Skills Development Strategy

Certain roles have been identified as hard-to-fill, particularly those requiring underground mechanized mining or specialized process plant experience. These include:

- Jumbo and long-hole drill rig operators
- Pastefill engineers and supervisors
- High-voltage electricians
- GIS (Geographic Information Systems) specialists
- Mine planners
- Instrumentation technicians

To build capacity, the Project will implement a multi-tiered pipeline of development, including:

- Bursaries for tertiary students (with local and gender targets)
- Graduate programs and internships
- Mentorship and technical exchange partnerships
- Study-aid for employees and on-the-job certification

The training center will also provide community-based upskilling, aligned with Tanzania's National Development Vision 2025.

21.4 Risk Analysis

21.4.1 Risk Management Strategy

The Project has adopted a risk management approach in line with ISO 31000 and international mining industry best practices. This framework has been systematically applied to identify, assess, and manage all material risks that may impact the project's technical, financial, regulatory, social, and environmental performance.

Risk management is embedded as a core discipline within the FS workstreams, with a live risk register maintained through cross-functional collaboration, facilitated workshops, and subject matter expert

reviews. The register includes detailed risk descriptions, likelihood and impact scoring, control ownership, and mitigation strategies. Risks are categorized by theme—such as governance, security, environment, stakeholder relations, logistics, and financial exposure—and assessed using both qualitative and quantitative criteria. High and very high risks have been prioritized for intensive mitigation, monitoring, and ongoing review.

To complement qualitative assessments, a Monte Carlo quantitative simulation was conducted on both the capital estimate and project schedule. This probabilistic risk analysis modeled the combined effect of uncertainty across key inputs (e.g. permitting timelines, procurement delays, productivity factors, capital escalation) and enabled definition of P50 and P80 outcomes. These outputs have been used to inform the project's contingency allowances, underpin stakeholder confidence, and support financing decisions. The analysis confirms that, with mitigations implemented, residual risk exposure remains within tolerable thresholds for cost and schedule.

21.4.2 Key Project Risks and Mitigation Highlights

The FS process has identified several top-priority risks that may materially affect project outcomes. These are summarized below, along with the corresponding mitigations that have been embedded into the execution strategy.

- **Phased Project Development and Government Support for Concentrate Export**

Risk: Requirement to secure a concentrate export permit.

Mitigations:

- Government engagement strategy
- Amendment to the Framework Agreement
- Further study of future project beneficiation facility

- **Underground Mining Development and Production Ramp-Up**

Risk: Planned underground mining development and production ramp-up rates not achieved.

Mitigations:

- Early engagement of an internationally recognized mining contractor.
- Benchmarking of development rates against similar African operations are reflected in the mine production schedule.
- Multiple mining fronts (North and Tembo) with the option to bring forward Tembo production.

- **Community Unrest related to Resettlement**

Risk: Community unrest related to resettlement timeline or process resulting in delayed site access, reputational damage and consequential disruption in project execution schedule.

Mitigations:

- IFC PS5-compliant RAP
- Construction of Resettlement Sites and community infrastructure
- Stakeholder engagement and grievance audits
- Implement vulnerable and transitional support for PAPs

- **Delay in 220kV OHL and Power Delivery**

Risk: Late delivery of permanent power infrastructure resulting in project delays.

Mitigations:

- Early engagement with TANESCO and contractor identification
- Finalization of Implementation and Power Supply Agreements

- EPCM-led design, procurement and construction

- **Potential TSF Dam Breach Event**

Risk: TSF dam breach that leads to contamination of groundwater, river systems, impact to downstream communities, and potential loss of life.

Mitigations:

- Engineered and designed TSF with liner to prevent groundwater contamination.
- Design, construction and management in accordance with GISTM, with independent oversight.
- Supporting geophysical, geotechnical investigations to address foundation designs.
- Controls in place to mitigate potential impacts to affected parties via early warning systems and emergency response plan to be developed and shared with all parties.

- **Groundwater Contamination**

Risk: Potential for sulfide-related contamination of aquifers.

Mitigations:

- Lined TSF and WRD with PCDs
- Groundwater modelling and ongoing monitoring
- Water treatment through HDS and RO plants

- **Lack of In-country Skills**

Risk: Limited availability of in-country skills resulting in construction delays and reduced mine productivity.

Mitigations:

- GoT engagement to establish local content strategy.
- Early investment in skills audits, gap analysis and training readiness.
- Localization targets embedded in contractor agreements and tracked quarterly.
- Mentorship and succession plans for all expatriate roles to support skills transfer.
- Centralized labor desk managing standardized recruitment and contractor compliance.

- **Extended Closure Period or Higher Closure Costs**

Risk: Closure duration and cost increase due to regulatory changes or environmental legacy issues.

Mitigations:

- Progressive rehabilitation, closure planning, and financial provisioning
- Regulatory engagement and contingency planning

21.4.3 Summary

The Project's approach to risk management during the FS phase has been comprehensive, adaptive, and embedded within the wider project controls environment. Through planning, stakeholder engagement, and continuous assessment, the Project is positioned to manage uncertainties. The application of both qualitative tools and quantitative modeling ensures that risks are understood, mitigated, and reflected in the Project's financial and execution planning, providing confidence to sponsors, stakeholders, and investors as the Project moves toward execution. To strengthen risk governance and support effective execution, the following actions are proposed following the study conclusion:

Finalize and Operationalize the Risk Management Plan

- Define roles, responsibilities, escalation thresholds, and frequency of reviews
- Establish standard reporting templates and dashboard integration
- Formalize risk audit protocols to assess compliance and mitigation performance

Maintain and Update Quantitative Risk Analysis

- Refresh Monte Carlo models quarterly or when major scope changes occur
- Use outputs to adjust contingency allocations and scenario planning

Implement Project- and Issue-Based Risk Assessments

- Conduct structured risk assessments for all major scope changes, mobilization activities, or critical incidents.
- Use findings to update the risk register and Project Execution Plan.

Institutionalize Routine Task-Based and DSTI Risk Practices

- Apply routine risk assessments to inform SOPs and operating standards.
- Embed Daily Safety Task Investigations (DSTIs) at all operational levels to promote risk awareness and frontline accountability.

Integrate Risk Key Performance Indicators into Project Governance

- Include risk metrics in monthly reporting to the Steering Committee and TNCL Board.
- Track mitigation progress, residual risk trends, and lead indicators of emerging risks.

Strengthen Stakeholder Risk Engagement

- Maintain structured engagement with government, host communities, and regulators on high-sensitivity risks (e.g., permitting, resettlement, closure).
- Include risk communication as a standing item in community and intergovernmental coordination platforms.

Implementation of the above will ensure a proactive, transparent, and accountable risk management approach as a continuous discipline, ensuring that the Project remains resilient and responsibly managed throughout execution, operations and closure phases.

22 INTERPRETATION AND CONCLUSIONS

22.1 Geology and Mineral Resources

The Mineral Resource estimates in this report are based on resource modeling completed and published in December 2024. The QP has prepared the modeling and reviewed supplied data and considers the Mineral Resource estimate to be acceptable. Mineral Resource estimates in the FS TRS are reported in accordance with S-K 1300.

The FS TRS Mineral Resource estimates were shown to meet reasonable prospects for economic extraction.

The QP believes that the level of uncertainty has been adequately reflected in the classification of Mineral Resources for the Project. Notwithstanding this, the Mineral Resource estimate presented in Section 11 may be materially impacted by any future changes in the break-even cut-off grade, which may result from changes in mining method selection, mining costs, processing recoveries and costs, metal price fluctuations, or significant changes in geological knowledge.

22.2 Mineral Reserves

The Mineral Reserve estimation for the Project is reported using the definitions in S-K 1300 and conforms to industry-accepted practices. The QP is not aware of any mining, metallurgical, infrastructure, logistics, permitting or other relevant factors not discussed in this Report that could materially affect the Mineral Reserve estimate.

22.3 Mining

The work on the mining section meets the requirements of an S-K 1300 FS. The FS was completed assuming two decline systems would be suitable to access North, Tembo, and Main zones, with the mining method being longhole stoping with paste backfill. The mining rate ramps up to a sustained 3.4 Mtpa of mill feed being hauled to the Concentrator. Indicative pricing was received from suitably experienced and qualified mining contractors, which has been used as both the basis for costing and mine scheduling. The mining costs in the economic analysis are informed by an FS level of mine design.

22.4 Hydrogeology and Groundwater Modeling

Hydrogeological investigations confirm limited groundwater use in the area, primarily for domestic and agricultural purposes. Groundwater ingress to the underground mine is expected to be relatively low due to the low permeability of the surrounding rock, and it is not considered a 'wet mine'. The mine dewatering will provide the bulk of raw water required for the Kabanga Mine and Concentrator operations. Dewatering will induce a drawdown cone, potentially affecting springs in the Project Area; however, no direct impact on human receptors is anticipated due to the planned community relocation. Groundwater baseflow reduction is predicted to be minor (< 7%) and unlikely to impact surface water significantly. Groundwater recovery post-closure is expected within 15 years, with spring flow resuming. Mine void decant may occur 17 years post-closure, necessitating active decant water management.

22.5 Geochemistry

Geochemical testing has been undertaken on waste rock, feed, tailings and paste samples. Both pyrrhotite and non-pyrrhotite tailings are acid-generating. Kinetic and subaqueous leach tests demonstrate ongoing potential for acid and metal release under weathering and submerged conditions, though subaqueous conditions significantly reduce contaminant concentrations over time. Process water quality modeling from both tailings types indicates risks of contamination and thus the need for robust tailings and water management strategies to mitigate long-term environmental impacts. This is considered and incorporated in the TSF design.

Waste rock will largely be used in mine backfill, and the remainder for TSF closure, reducing geochemical impacts post LoM.

22.6 Metallurgy and Processing

22.6.1 Metallurgical Testing

The FS is supported by an extensive metallurgical testwork program and supplemented by historical concentrator testing. Metallurgical testwork for the FS was conducted at independent, accredited laboratories using samples representative of expected lithologies, ore blends, and grades from North and Tembo zones, incorporating anticipated waste dilution. Main Zone, contributing approximately 10% of future feed from Year 10 onwards, was not included in current FS testing but is assumed to have similar metallurgical performance based on historical data.

The FS testwork program encompassed mineralogy, comminution, flotation (bench-scale, locked-cycle, and mini pilot plant), vendor filtration, settling, pumping and rheology assessments, oxidation and regrind studies, and concentrate characterization. The results aligned well with historical data and supported process flowsheet confirmation, variability analysis, and comminution modeling.

Flotation performance varied by lithology, with blends containing $\leq 20\%$ UMAF_1a achieving targeted recoveries, while blends $> 35\%$ UMAF_1a showed reduced performance. Mining strategies should therefore limit UMAF_1a to a maximum of 30% in the feed blend.

Feed oxidation tests indicated reduced flotation recovery under warm, humid conditions for fine-crushed MSSX and UMAF_1a samples. To mitigate this, coarse blast fragmentation and minimal lag between mining and milling are recommended, supported by covered ore storage.

Overall, the testwork provided sufficient data for process design, cost estimation, recovery modeling, and production forecasting. A conventional crushing, grinding, and flotation circuit is suitable for the ore types, yielding a concentrate with average Life of Mine grades of 17.5% Ni, 2.6% Cu, 1.3% Co, 32% S, and 0.6% MgO. Expected average recoveries are 87.3% for nickel, 95.6% for copper, and 89.6% for cobalt.

All of the required testwork is completed for this FS and no additional work is necessary for this level of study.

22.6.2 Kabanga Concentrator

The Concentrator is designed to process 3.4 Mtpa of Run of Mine (RoM) feed, aligned with the steady-state underground mining rate. It covers the full processing chain from RoM stockpile to final Ni-Cu-Co concentrate load-out and tailings pumping to the TSF and backfill plants. The flowsheet comprises conventional crushing, grinding, flotation, dewatering, and a pyrrhotite flotation circuit, producing both pyrrhotite and non-pyrrhotite tailings, the latter suitable for backfill.

The process design is based on comprehensive testwork, historical data, trade-off studies, and standard engineering practice. It utilizes industry-standard unit operations—including two-stage crushing, ball milling, flotation, and conventional reagents—proven effective for processing base metal sulfide ores. The flowsheet is established, robust, and does not pose technical risk.

The plant is configured as a single-phase development comprising two 1.7 Mtpa modules with shared crushing, tailings, concentrate handling circuits, and utilities. This modular approach supports ramp-up flexibility and operational redundancy, as identified in comminution trade-off studies.

Design and engineering comply with international and national standards and have considered environmental and social impacts, incorporating measures to minimize noise, dust, light, and visual pollution. The Concentrator design is considered technically sound, meets FS standards, and reflects accepted industry practice. The Concentrator process and engineering is considered to be at a level that meets that typically required for an FS and represents good industry practice.

22.7 Infrastructure

Kabanga Site is partially developed with existing infrastructure will be augmented in the FS to support full-scale construction and operations. The planned infrastructure includes upgraded site access and internal roads, earthworks, power supply and distribution, water systems, accommodation, site

facilities, waste management, tailings storage, fuel services, laydowns, security, laboratory, and surface infrastructure.

Detailed construction and operational logistics plans have been developed, including a robust concentrate transport strategy from site to port, with built-in contingencies for potential disruptions.

Regionally, Tanzania has an established mining sector supported by national infrastructure. Ongoing government investments are enhancing power, rail, water, and port capacity, which directly benefit the Kabanga Project. Key projects include:

- The Julius Nyerere Hydropower Project (2,100 MW), now 99.8% complete.
- The Standard Gauge Railway (SGR), with cargo services already running between Dar es Salaam and Dodoma.
- DP World's USD 250 million investment into the Port of Dar es Salaam, which has significantly reduced vessel docking times and enhanced cargo handling efficiency.

These national infrastructure developments are expected to play a critical role in supporting Kabanga's logistics and long-term operations.

22.7.1 Water

The Kabanga Site's water demand is expected to be met primarily through underground mine inflows, surface run-off, and recycled process water, with supplementary supply available from the Ruvubu River and tested boreholes. The water system design includes provision for raw, process, potable, fire, gland seal, and other operational needs.

Excess water can be treated and safely discharged to the river when necessary. Acidic mine water and seepage from waste rock dumps will be captured in pollution control dams (PCDs), treated, and reused. Post-closure water treatment has been included in the closure cost estimates to ensure long-term environmental compliance and alignment with best practice.

22.7.2 Tailings Storage Facility

The Project includes a purpose-built TSF at the Kabanga Site, designed in accordance with Tanzanian regulations and the GISTM. Located in a tributary valley of the Nyamwongo River, the TSF will be constructed with an initial starter embankment and up to five raises, providing a total capacity of 50 Mt—well above the FS requirement of 32.5 Mt—to allow for Inferred Mineral Resource potential conversion and future expansion.

Given the geochemical properties of the pyrrhotite-rich tailings, subaqueous deposition is planned to minimize oxidation. The TSF will be fully lined, with a liner leakage collection system (LLCS) and seepage containment measures in place to mitigate environmental risk. A spring water diversion system will maintain downstream flow conditions.

Design development has been supported by extensive technical assessments, including dam breach, geochemical, water balance, seepage, stability, seismic hazard, and tailings consolidation studies. Based on the dam breach analysis, the TSF has been classified as an 'Extreme' consequence dam under GISTM and rated 'Very High "A"' under Tanzanian guidelines, primarily due to potential environmental and safety impacts. The design incorporates seismic resilience, emergency spillways, and sufficient freeboard and safety factors.

Supplementary geophysical and geotechnical investigations were completed in 2023 to support foundation design and construction material selection. A Safety in Design (SiD) process and quantitative risk assessment confirmed that TSF risks remain within tolerable limits as per ANCOLD guidelines, contingent on design execution and ongoing performance monitoring.

The TSF is a critical element of the Project, subject to continuous review by an ITRB, an APP, and external experts. GISTM principles are being followed and will be implemented through detailed design and operations.

22.8 Environmental

The Project's approach to ESG reflects a comprehensive strategy that ensures compliance, fosters transparency, and promotes sustainable development. Through strong governance policies, continuous stakeholder engagement, and alignment with international standards, the Project is well-positioned to achieve its environmental and social objectives while contributing to Tanzania's economic growth. The Project is set to demonstrate responsible mining, ensuring long-term, positive contributions to the local communities and the environment.

22.9 Market Studies

Markets for nickel, copper, and cobalt are well established and demand for these metals is expected to grow in the long term, given the global trend of decarbonization and electrification. All three metals are key components in batteries, consumer electronics, energy storage and renewable energy capacity, and the outlook for these sectors remains robust.

A nickel-rich sulfide concentrate containing payable levels of copper and cobalt and levels of impurities below penalty limits will be produced at the Kabanga Site. Concentrate will be sold to the export market. The Project has received indicative, non-binding offtake terms for 100% of the concentrate.

The metal prices used in the FS are based on an assessment by LZM, in collaboration with the QP, of recent market prices, long-term forward curve prices, and consensus prices from analysts and institutions. The values used in the economic analysis undertaken for the FS are taken from Q2 2025 consensus pricing for nickel, copper, and cobalt.

The assessment of the long-term metal prices has been made using industry-standard practices and is suitable for use in the FS.

22.10 Economic Analysis

The Project has been evaluated using long-term consensus nickel pricing of USD 8.49/lb. The post-tax cash flows for the Project result in an NPV of USD 1,579 million at an 8% discount rate, with an after-tax IRR of 23.3%, AISC of USD 3.36/lb payable Ni, and a payback period of 4.5 years from first production and payback of 7.1 years from first investment.

The economic analysis is supported by advanced study data for the Kabanga Site, detailed tax and royalty calculations, and concentrate payabilities based on indicative, non-binding agreements.

22.11 Risks and Uncertainties

- Tanzania is a constitutional multi-party democracy with political dominance by the governing CCM (Chama Cha Mapinduzi) party. National elections are upcoming in October 2025 and the regulatory environment is expected to remain stable. Tanzania has low unemployment and a fast-growing economy supported by ongoing infrastructure development.
- Recent negotiated settlements and policy clarifications have improved investor sentiment; however, risks around regulatory predictability and resource nationalism remain.
- A Framework Agreement signed between the GoT and KNL in 2021, followed by an SML for the development and operation of the Project, will require amendment to include concentrate export.
- The initial phase for the Project requires an export permit for concentrate. Tanzania prioritizes in-country beneficiation and the Project will continue to develop a plan for a downstream beneficiation facility.
- An equitable EBSF is outlined in the Framework Agreement and describes the requirement for a Joint Financial Model (JFM) to guide the management and operations and how and when the GoT will derive income from taxes, royalties, duties, levies, and dividends from its 16% interest in the Project. The JFM currently exists in draft between KNL and the GoT, and LZM will continue to engage with the GoT to ensure that this is finalized and signed by the parties, giving investors certainty on the quantum of taxes, royalties, duties, etc. Finalization of the JFM is a condition precedent for Project Final Investment Decision (FID) and therefore any delays could impact on the overall Project execution timeline.

- The Project should expedite the finalization of the Implementation Agreement with TANESCO relating to the development of the 88 km, 220 kV OHL to the Kabanga Site. This would include progressing with permitting and planning to ensure timeous completion. In addition, since the Project has committed to the implementation of IFC Performance Standards and Equator Principles, the existing TANESCO ESIA and future RAP required for construction need to be reviewed and uplifted.
- Underground development and production ramp-up rates may not be achieved as planned, which could impact early revenue generation and overall project schedule. While planned rates have been benchmarked against other underground operations in Africa, actual performance may vary due to factors such as contractor productivity, ground conditions, equipment availability, workforce readiness, and logistical constraints. These uncertainties may result in slower-than-anticipated development or stope access delays during early years of production.
- For the Project to proceed, the resettlement of PAPs will need to be completed to provide access to the Project construction areas. A RAP aligned with both national and international standards has been developed to address the socio-economic impact on the Project Affected Households (PAHs). Approximately 96% of cash compensation has been completed. to be followed by the building of houses and relocation of PAHs. Any delays in resettlement could impact land access for the Project development.
- Based on the dam breach analysis, the TSF has been classified as an 'Extreme' consequence dam under GISTM and rated 'Very High "A"' under Tanzanian guidelines, due to potential environmental and safety impacts. The TSF will be designed and operated in line with GISTM guidelines including independent third-party oversight.
- The availability of skilled labor presents a moderate risk to early Project execution and operations. Limited education levels in local communities will necessitate significant training investment to build local capacity, while shortages in specialist skills may require increased reliance on expatriate personnel, subject to Labor Commissioner work permit approvals.

23 RECOMMENDATIONS

The QPs recommend advancing the Project as described in the FS TRS by completing all technical and commercial FID enabling workstreams. Furthermore, it is recommended to continue with GoT engagement, especially in relation to the Framework Agreement and a concentrate export permit.

23.1 Permitting and Licenses

- Advance all key permits and licenses, especially those associated with the Project's critical path.
- Amend the Framework Agreement to incorporate the provision to export concentrate.
- Obtain a concentrate export permit from the Tanzania Mining Commission.
- Advance the application for TSF construction permit.

23.2 Geology and Mineral Resources

Key recommendations regarding Geology and Mineral Resources, to be implemented over the life of operations include:

- Update and evaluate the Mineral Resources as additional information becomes available.
- Test for further extensions of mineralization, such as at Safari Link, and develop a regional exploration program to test other identified geophysical anomalies, such as Rubona Hill.
- Complete additional infill drilling and interpretation to convert Inferred Mineral Resources to Indicated and Measured Mineral Resources.

23.3 Mining

The following activities are recommended to further de-risk the mine plan and advance execution readiness for the underground mining contract:

- Complete a competitive tender process for contract mining to support FID, including commercial, technical, and contractual evaluations to select a preferred mining contractor to establish execution certainty and final pricing.
- Advance detailed underground mine design, including stope optimization, and refinement of the ventilation system to de-risk underground stoping and production ramp-up.

23.4 Hydrogeology and Surface Water

- The hydrogeological model should be updated to reflect any future changes in the mine plan, tailings deposition and WRD dump size, and continually validated using ongoing independent monitoring data to maintain its reliability.
- A site-wide, independent quarterly monitoring program for groundwater quality has already commenced and should continue, both pre- and post-operationally, to verify modeling assumptions.
- The overall water and salt balance should be revalidated upon finalization of the detailed mine plan, WRD and TSF designs, which will likely result in a reduction in planned water treatment, both during operations and at closure.

23.5 Metallurgy and Processing

23.5.1 Kabanga Concentrator

- Additional feed oxidation assessments should be conducted once ore is available from mining operations, to better characterize the feed oxidation potential of both the coarse uncrushed RoM and crushed feeds.
- Additional concentrate characterization testing should be conducted to support the preparation of the required concentrate logistics documentation.
- Bulk material handling testwork for feed and concentrate should be considered. The current design uses industry benchmarks and design allowances.

- Comminution and flotation characterization testwork is required to confirm the comminution parameters and recovery potential of Main Zone prior to the inclusion in the concentrator feed blend in the later years of mining (Year 10 onwards). There is sufficient time for this to occur.

23.6 Infrastructure

23.6.1 Kabanga Site

- Continue engagement with TANESCO to finalize the implementation agreement, power supply agreement (including the rebate calculation), and early works streams including ESIA's, RAP, and permitting for the 220 kV OHL.
- Conduct additional geotechnical investigations to support detailed design of the North boxcut, WRDs and concentrator heavy structures.
- Verify and advance activities to prepare for the North boxcut commencement.
- Complete a competitive tender process for earthworks contractor prior to FID, including commercial, technical, and contractual evaluations to select a preferred contractor to establish execution certainty for the critical path facilities.
- Continue engagement with TANROADS regarding upgrades to the southern access road.

23.6.2 Tailings Storage Facility

The following recommendations for the TSF are intended to de-risk the execution phase of the Project from both a schedule and regulatory perspective:

- Appoint an internationally recognized TSF design engineer consultant for detailed design and execution as early as possible.
- Advance the TSF detailed design with continued adherence to national and international guidelines including the Tanzanian Dam Safety Guidelines requirements and the GISTM standards, with ongoing reviews of the TSF design by an ITRB, a Tanzanian Ministry of Water APP, and other subject matter experts.
- Finalize Emergency Response and Preparedness Plans for the TSF to support permit application for construction of the TSF.
- Carry out the second phase of the site-specific seismic hazard analysis (time history development) to support a numerical deformation modeling.
- Conduct an additional geotechnical investigation and cone penetration testing on site to improve knowledge of the foundation conditions and refine the geological model, as well as intrusive investigation of anomalies identified in the geophysical investigation.
- Undertake additional construction material laboratory testing to improve the quantification of material strengths and characterization.
- Conduct a periodic dam breach analysis over the LoM.

23.6.3 Logistics

- Continue engagement with the TRC regarding the completion of the SGR line between Tabora and Isaka and to secure the required rolling stock, capacity on the line and access to the sidings to facilitate the stockpiling and management of concentrate en-route to the Port of Dar es Salaam.
- Investigate opportunities to utilize the SGR line for the construction execution phase of the Project.
- Further engagement with the Tanzania Ports Authority and DP World relating to concentrate management and export logistics.
- Commission a dynamic simulation to evaluate Project operational logistics.

23.7 Environmental and Social Studies, Resettlement and Closure

23.7.1 Environmental and Social Studies, Plans and Resettlement

- Finalize the remaining ESIA's to IFC standards and action recommendations.
- Secure Resettlement Sites and complete compensation agreements and payments.
- Prioritize effective and internationally compliant resettlement and livelihood restoration. The LRP requires further definition to provide a comprehensive framework for planning, scoping, scheduling, and costing. The Project should provide a detailed LRP that has considered the affected community co-design input. Identify implementation partners and start the livelihood restoration projects.
- Continue with regular, transparent communication channels with all Project stakeholders.
- Obtain final NEMC approval following the updates to the national ESMP for the Kabanga Site, incorporating the changes related to the WRD, increased plant throughput, and the TSF.
- Complete a RAP for the Ruvubu Water Pipeline to be undertaken to an international standards compliant level and submit it to the NEMC to obtain the relevant approvals and permits.
- Commence hardship and in-migration studies, vulnerability survey and project health impact assessments. The LRP requires further definition to provide a comprehensive framework for planning, scoping, scheduling, and costing. The Project should provide a detailed LRP that has considered the affected community co-design input. Once this has been completed, implementation partners need to be identified and the livelihood restoration projects need to start.

23.7.2 Mine Closure

- Update the Conceptual Closure Plan that has been compiled as part of the Kabanga ESIA (May 2025), into a Preliminary Mine Closure Plan (PMCP), prior to construction.
- Progressive rehabilitation plans must be developed to ensure that land rehabilitation occurs continuously throughout the mining and facility operations.
- Further review of the TSF closure capping and cover designs.
- Investigate active and passive water treatment options for post-closure water management.
- Establish financial assurance mechanisms to secure mine closure and rehabilitation funds.

23.8 Economic Analysis

- Negotiate and finalize the JFM, including taxes, royalties, duties, levies, dividends, and terms of the financing of the GoT's 16% free carry, as outlined in the Framework Agreement.
- Finalize concentrate offtake agreements.
- Negotiate and finalize shipping rates, port charges, and freight forwarding handling fees.

23.9 Human Resources

23.9.1 Engagement with Department of Labour on Expatriates

- Engage proactively with the Department of Labour to ensure compliance with the Non-Citizens (Employment Regulation) Act, 2015 and Mining (Local Content) Regulations, 2018.
- Submit formal succession plans for all expatriate roles, each with a Tanzanian understudy and a four-year localization timeline.
- Discuss extension pathways for hard-to-fill technical positions requiring longer-term expatriate support.
- Emphasize the transitional mentorship and technical capacity-building roles of expatriates in submissions and dialogue.

23.9.2 Skills Survey and Workforce Planning

- Finalize and expand national and local skills surveys to inform recruitment, training, and localization strategies.
- Conduct a full skills gap analysis and literacy/numeracy testing to guide pre-employment preparation.
- Establish a live, regularly updated skills audit framework across labor-sending areas.
- Use survey data to shape Adult Education and Training (AET), bridge-to-work, and apprenticeship programs focused on Primary Zone communities and priority skills gaps.

23.10 Execution Readiness

- Initiate key project setup activities, including advancing contracting and procurement processes, obtaining quotations for long-lead items, completing the EPCM tender process, and appointing quantity surveyors.
- Engage with the Mining Commission on the strategy for procurement packages not available in Tanzania.

23.11 Future Project Development Phase

- Continue to investigate the future downstream beneficiation facility by commissioning a PFS.

23.12 The Project Work Plan and Costs for Recommended Work

The estimated costs associated with the Project Work Plan are provided in Table 23-1.

Table 23-1: Summary of Costs for Recommended Work

Discipline	Description	(USD '000)
Mining	Tender for mine development contract.	265
TSF	Detailed design of TSF facility, application for TSF construction permit, ITRB, and APP.	1,500
Geotechnical Drill Program	Consolidated drill program to support box cuts, ventilation raises, concentrator, TSF, and surface infrastructure.	1,840
Infrastructure and Logistics	Engagement with TANESCO for 220kV OHL. Engineering design, ESIA and RAP. Engagements for trucking, rail and port logistics. Dynamic simulation for project logistics.	2,955
Environmental and permitting	ESIA uplift to IFC, concentrate transport.	924
Resettlement	Social studies, Pipeline RAP, M&E, host site land acquisition, finalize compensation payments, LRP co-design.	4,101
Skills Survey Update	Local skills survey and gap analysis.	270
Execution Readiness	Project setup, establish contracting and procurement processes, quotations for long lead items, EPCM tender and appointing quantity surveyors.	5,730
TOTAL		17,585

The FS also includes a USD 1.07 million allowance to progress a prefeasibility study for a future downstream beneficiation facility.

23.12.1 QP Opinion – Geology and Mineral Resources

The QP is of the opinion that the recommendations made regarding geology and the Mineral Resource are suitable for advancing the Project into the next phase.

23.12.2 QP Opinion – Other

It is the opinion of DRA, responsible and acting as the QP for the Project, that the recommendations made are appropriate and that the Project should proceed with execution readiness activities and government engagement.

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25 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

In preparing this report, the Qualified Persons (QPs) have relied entirely on information provided by the Registrant in certain key areas that fall outside the QPs' direct expertise. These include:

- Assumptions related to macroeconomic conditions, including inflation, interest rates, and broader economic trends (Sections 18 and 19).
- Market outlook and commercial strategies that are under the Registrant's control (Sections 16, 18, and 19) specifically providing the long-term commodity price forecast information included in this report (Section 16).
- Guidance from the Registrants and their tax advisors on applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Project as presented in Section 3 and Section 19 and used in Section 11 for establishing reasonable prospects of economic extraction (RPEE), Section 12 for establishing the Mineral Reserve cut-off grade, and Section 19 to support the sub-section on tax information and tax inputs to the economic model that provides an after-tax model. The rates comply with the tax regime at the Project location.
- The TSF design and compliance to GISTM guidelines (Section 15)
- Legal interpretations, statutory and regulatory frameworks that influence the mine plan but are beyond the QPs' expertise (Section 3).
- Environmental matters that require specialist expertise
 - Planned community accommodations and social commitments related to mine development (Section 17).
 - Government policies, relationships, and other external factors outside the QPs' control (Section 17).
 - The status and maintenance of all permits, licenses, and regulatory approvals necessary for current and future operations, including mining, processing, and waste management (Section 3).
 - The Registrant's ability and commitment to managing stakeholder relationships in a way that supports ongoing operations (Section 17).

Following a review of the information supplied, the opinion of the QPs is that it is reasonable to rely on the information provided by the Registrant as outlined above because a significant amount of work has been conducted for the Project by the Registrant over an extended period, the Registrant and its related entities employ professionals with responsibility in the areas identified and these personnel have the best understanding in these areas.

EFFECTIVE DATE AND QP SIGNATURE PAGE

Project Name:	Kabanga Nickel Project
Title:	Feasibility Study - Technical Report Summary
Effective Date of Mineral Resource Estimate:	December 4, 2024
Effective Date of Technical Report Summary:	July 18, 2025

/s/ Sharron Sylvester

Date of Signing: July 18, 2025

Sharron Sylvester, Technical Director – Geology

OreWin Pty Ltd, BSc (Geol), RPGeo AIG (10125)

Project Name:	Kabanga Nickel Project
Title:	Feasibility Study - Technical Report Summary
Effective Date of Mineral Reserve Estimate:	July 18, 2025
Effective Date of Technical Report Summary:	July 18, 2025

/s/ Alistair Hodgkinson

Date of Signing: July 18, 2025

Alistair Hodgkinson, Chief Operating Officer

DRA Projects (Pty) Ltd

GLOSSARY

Defined Terms

Term	Definition
Annum	A period of one calendar year.
Brownfield	Type of project constrained by existing works and operations. Project constructed within an existing operation.
Capex	Capital Expenditure - funds spent on acquisition, construction, upgrading and periodic maintenance of physical assets. See also Capital Cost Estimate, Pre-production Capital and Sustaining Capital.
Capitalized Opex	All Opex incurred before month 35 of the Project.
Community	A group of individuals broader than the household, who identify themselves as a common unit due to recognized social, religious, economic, or traditional government ties, or through a shared locality
Compensation	Payment in cash or in kind for an asset or a resource that is acquired or affected by a Project at the time the asset needs to be replaced.
Concentrate	The final product of the flotation process, which contains a higher concentration of valuable minerals
Contractors	Company or firm providing materials, labor and services to perform construction work on the Project sites.
Deadweight tonnage (DWT)	Deadweight Tonnage (often abbreviated as DWT) is a measure of the maximum weight that a ship can carry without risking its safety. This includes the mass of everything on board — from cargo, fuel, passengers, crew, to provisions and freshwater.
Displacement	The physical, economic, social and / or cultural uprooting of a person, household, social group or community as a result of the Project.
DRA	DRA Projects (Pty) Ltd, a private company owned by DRA Global Ltd.
Economic displacement	Loss of assets (including land), or loss of access to assets, leading to loss of income or means of livelihood as a result of Project related land acquisition or restriction of access to natural resources. People or enterprises that may be economically displaced with or without experiencing physical displacement.
Economically displaced household (EDH)	A household whose livelihoods are impacted by the Project. This includes both PDH as well as households living outside the Project area but who maintain livelihood activities (e.g., land, non-residential structures, businesses, or other usage rights) within the footprint.
Electrowinning	Electrochemical process used to extract metal ions from aqueous solutions
EPCM	Refers to the EPCM contractor, which will work together with the KNL Owners' team, installation Contractors / Suppliers to design, construct and commission a project area and/or phase of the KNL Project
Final Investment Decision	Refers to the formal commitment by the project sponsors to proceed with the full-scale development of the Kabanga Nickel Project, typically following the satisfaction of conditions precedent to financing. In the context of project finance, FID represents the point at which binding agreements are executed with lenders and equity providers, enabling drawdown of funds for construction. It marks the transition from planning to implementation and is contingent upon completion of due diligence, permitting, finalization of offtake arrangements, and financial close.
Flotation	A process for separating valuable minerals from the feed based on their differences in hydrophobic properties
FS TRS	Feasibility Study Technical Report Summary (this report, titled "Kabanga Nickel Project– Feasibility Study - Technical Report Summary" with the effective date July 18, 2025)
Greenfield	A project initiated on undeveloped land, where no previous construction or infrastructure exists.
Household	A group of people who may or may not be related, but who share a home or living space, who aggregate and share their incomes, and evidenced by the fact that they regularly take meals together.
Hydrogeology	Branch of geology that investigates the distribution, movement, and quality of groundwater within the Earth's crust, examining how water interacts with geological formations, influences natural and human-made environments, and contributes to the hydrological cycle.

Term	Definition
Hydrology	The comprehensive study of the movement, distribution, and quality of water across the Earth's surface, including its interactions with the atmosphere, land, and living organisms, and how these processes influence and are influenced by the natural and human-altered environment over time.
Kabanga Concentrate	Concentrate produced by the Kabanga Concentrator, after processing of the Kabanga feed.
Kabanga Concentrator	Concentrator facility developed as part of the Kabanga Site Project. Also defined as "Concentrator"
Kabanga Nickel Company Limited	Previous company developed by Sutton Resources between 1990 and 1999.
Kabanga Nickel Limited	Kabanga Nickel Limited, a private company owned by Lifezone Metals Limited and BHP Billiton (UK) DDS Ltd and incorporated in accordance with the company laws of the United Kingdom.
Kabanga Nickel Mine	The nickel mine located and operated within the boundaries described by Special Mining Licence (SML), No. SML 651/2021.
Kabanga Nickel Project	The initial development phase of a minerals project in Tanzania, comprising a 3.4 Mtpa underground Mine and Concentrator, TSF, surface infrastructure and Resettlement activities. The Project will produce a nickel-copper-cobalt rich concentrate for export via the Port of Dar es Salaam. Also referred to as "the Project."
Kabanga Site	The site location, in the Ngara region, for the Kabanga Nickel Project's mine, concentrator and associated infrastructure development. The area is outlined in the Special Mining Licence No SML 651/2021.
Kahama Site	The proposed location for a potential future phase of project development at the Buzwagi Special Economic Zone in Kahama, designated for the construction of a downstream beneficiation facility under Refining License No. RFL 066/2024. This phase is not assessed within the scope of this Feasibility Study (FS).
Land acquisition	Land acquisition includes both outright purchases of property and purchases of access rights, such as rights-of-way (easement).
Life of Mine (LoM)	The number of years that an operation is scheduled to mine and process feed and is based on the current mine plan.
Lifezone Metals Limited (LZM)	Lifezone Metals Limited, a public company listed on the New York Stock Exchange (NYSE) and incorporated in accordance with the company laws of the Isle of Man.
Livelihood	A livelihood comprises the capabilities, assets and activities required for a person to make a living such as: wages from employment; cash income earned through an enterprise or through sale of produce, goods, handicrafts or services; rental income from land or premises; income from a harvest or animal husbandry; share of a harvest (such as various sharecropping arrangements) or livestock production; self-produced goods or produce used for exchange or barter; self-consumed goods or produce, food, materials, fuel and goods for personal or household use or trade derived from natural or common resources; pensions; various types of government allowances (child allowances, special assistance for the very poor); and remittances from family or relatives.
Livelihood Restoration Plan (LRP)	A plan intended to set out how to replace or restore livelihoods lost or reduced as a result of a Project. The plan aims to restore, or if possible, improve the quality of life and standard of living of affected parties and ensure food security through the provision of economic opportunities and income-generating activities of affected property owners and their households.
Locked-Cycle Test (LCT)	A laboratory test that simulates the continuous flotation circuit to determine the overall metallurgical performance
Mine	The North, Tembo and Main Mine operations located within the SML. Also used collectively to describe the Kabanga Mine comprising all three mines at the Kabanga Site.
MineCo	Tembo Nickel Corporation Ltd, also known as MineCo, a private company owned by Kabanga Nickel Limited and the Tanzanian Government., Holder of Special Mining Licence SML 651 / 2021. Also defined as "Tembo Nickel" or "TNCL."
Mini Pilot Plant (MPP)	A scaled-down pilot plant historically used to conduct metallurgical testwork on drill samples to optimize the process before full-scale production
Operating Expenditure (Opex)	The costs incurred while operating a company. Opex includes costs related to the direct cost of production, marketing, maintenance, administration and overhead costs of the business on a day-to-day basis. Operating costs exclude non-operating expenses such as financing costs, forward cover or foreign currency translation, but would include the cost of labor, consumables, raw materials, utilities etc. required to operate an asset and provide a product or service to the market.

Term	Definition
Operational Readiness	Ensuring that all systems, personnel, and processes are fully prepared for efficient and risk-minimized operation from the first day of service
Operational Readiness Plan	A strategy to ensure that all systems, processes, and personnel are fully prepared for operation. It involves testing, risk mitigation, and training to confirm readiness before full-scale deployment.
Physical Displacement	Loss of permanently occupied house/apartment, dwelling or shelter as a result of Project-related land acquisition that requires the affected person(s) to move to another location.
Physically Displaced Household (PDH)	A household occupying a house in the Project area built on or before the Entitlement Cut-off Date as the primary or sole residence.
Pollution Control Dam	A dam designed to capture and contain pollutants from runoff or wastewater, preventing them from contaminating natural water sources and mitigating environmental damage.
Precursor cathode active material	A material used in the manufacturing of battery cathodes, typically containing metals like nickel, cobalt, and manganese
Pre-production Capex	All capital costs incurred prior to the commencement of commercial production. This includes direct and indirect costs associated with mine development, process plant and infrastructure construction, EPCM, and Owners' costs.
Primary Zone	Residents of the directly affected or doorstep communities
Priority Area	Designated areas on the Kabanga Site footprint that require resettlement to enable land access and commence project development activities
Production Schedule	Also known as the mine plan, this refers to the Mine production schedule developed for the FS.
Project Affected Household (PAH)	All members of a household, whether related or not, operating as a single economic unit, who are affected as a result of the land acquisition required for the Project.
Project Affected Person (PAP)	Any person who, as a result of the implementation of a Project, loses the right to own, use, or otherwise benefit from a built structure, land (residential, agricultural, or pasture), annual or perennial crops and trees, or any other fixed or moveable asset, either in full or in part, permanently or temporarily. Since this RAP was initiated strictly following Tanzanian legislation for land acquisition, Project-affected persons were initially only registered if they held land ownership (customary or formal tenure). The RAP (May 2025) identifies this term as a unit for quantification and data management purposes. The RAP also makes provisions to extend livelihood restoration efforts to all persons impacted by displacement, these are household members identified during the socioeconomic survey.
RACI	R – People or stakeholders who do the work. They must complete the task or objective or make the decision. Several people can be jointly Responsible A – Person or stakeholder who is the “owner” of the work. He or she must sign off or approve when the task, objective or decision is complete. This person must make sure that responsibilities are assigned in the matrix for all related activities. Success requires that there is only one person Accountable, which means that “the buck stops there C – People or stakeholders who need to give input before the work can be done and signed-off on. These people are “in the loop” and active participants I – People or stakeholders who need to be kept “in the picture.” They need updates on progress or decisions, but they do not need to be formally consulted, nor do they contribute directly to the task or decision
Ramp-up	The period from the commencement of operation to the attainment of steady-state operations.
Region	The highest administrative division of Tanzania. Tanzania is divided into thirty-one regions (2016), each of which is further subdivided into districts.
Rehabilitation	The process of restoring land disturbed by mining to support appropriate post-mining use. Governed by country-specific laws, it addresses key aspects such as water protection, topsoil management, slope gradients, waste handling, and revegetation to minimize environmental impact and ensure sustainable land use.
Reserve Case	Refers to the base-case development scenario of the FS that is underpinned by declared Mineral Reserves. It includes the production schedule, infrastructure, and financial estimates derived from mining areas that have been converted to Mineral Reserves using appropriate modifying factors. It encompasses the planned extraction of 52.2 Mt of ore from three underground mines (North, Tembo, and Main), processed through a concentrator to produce 5.2 Mt of high-grade nickel concentrate, containing 902 kt of nickel metal over an 18-year mine life. It reflects associated capital and operating costs and serves as the basis for project evaluation.

Term	Definition
Resettlement Action Plan (RAP)	A plan detailing the process a project will take if the project has impacts of physical displacement in line with IFC PS5 requirements. This includes detailing a plan of the relocation activities, measures to mitigate the negative impacts of displacement, developing a resettlement budget and schedule, and determining compensation measures.
Resettlement Sites	Refers to a designated areas where Physically Displaced Households are resettled/relocated due to the development of the Project. These sites are developed to provide adequate housing and infrastructure ensuring the displaced populations have access to essential services such as water, sanitation, education, and healthcare.
Rheology	The study of the flow and deformation of matter, particularly how materials respond to applied forces
Risk Register	Documented tool used to identify, assess, and manage qualitative risks throughout the Project.
Ruvubu River	Main river passing the Kabanga Site 14 km to the southwest and serves as primary water source to the Kabanga Site and forms the border between Tanzania and Burundi in the region.
Scoping Study	A preliminary evaluation of a mining project to determine its potential economic viability
Socio-economic Baseline	A baseline record of land use activities within the Project footprint, as well as the socioeconomic characteristics of individuals and communities dependent on the land prior to the commencement of the land acquisition process, as well as host communities that will potentially be impacted by the Project.
Solids Concentration	The percentage of solid material in a slurry.
Special Mining Licence (SML)	Special Mining Licence in terms of the Mining Act, Revised Edition 2019, SML 651/2021 issued to Tembo Nickel Corporation Ltd (TNCL) on 25 October 2021, which confers to TNCL the exclusive right to search for, mine, dig, mill, process, transport, use, and/or market nickel, or other minerals found to occur in association with that mineral, in and vertically under the SML area, and execute such other work works as are necessary for that purpose.
Stakeholder	Individuals or groups of people who are directly or indirectly affected by a Project, as well as those who may have an interest in a Project.
Surface Infrastructure	The term refers collectively to the site roads, earthworks, drainage, water supply and storage dams, power supply and distribution, buildings, stores, workshops, services and other operational enabling infrastructure developed as part of the Project.
Tailings	The material left over after the valuable minerals have been separated from the feed. Tailings is typically stored in a tailings storage facility (TSF).
Tailings Storage Facility (TSF)	An engineered structure designed to store the waste materials, known as tailings, which remain after the extraction of valuable minerals from ore during mineral processing
TANESCO	Tanzania Electric Supply Company Limited. State-owned utility company responsible for the generation, transmission, and distribution of electricity in Tanzania.
TANROADS	Tanzania National Roads Agency. Government agency responsible for the development, maintenance, and management of the national road network in Tanzania.
Tanzanian Railways Corporation (TRC)	Tanzania Railways Corporation (TRC), a State-owned company responsible for operating and managing the railway infrastructure and services in Tanzania. Previously known as Tanzania Railways Limited (TANRAIL).
Tembo Nickel Corporation Limited (TNCL)	Tembo Nickel Corporation Ltd, a private company owned by Kabanga Nickel Limited and the Tanzanian Government., Holder of Special Mining Licence SML 651 / 2021 (MineCo). Also defined as "Tembo Nickel" or "TNCL."
Tenant	Tenants are recognized as having an interest in, but not ownership of land under The Valuation and Valuers (General) Regulations, 2018. A tenant is referred to as a person who is cultivating or occupying developments on communal land or land belonging to another individual. Tenants are ineligible for compensation for the land they occupy or cultivate, but are eligible for compensation for any improvements or developments that they have made on the land. No formal tenants with lease agreements were identified during the asset survey. All tenants are therefore considered to be informal for the purposes of this study.
The Mining Act	The Mining Act [CAP. 123 R.E. 2019], The United Republic of Tanzania. Revised Edition of the Principal Legislation, incorporating amendments up to 30 November 2019. Printed under the authority of Section 4 of the Laws Revision Act, Chapter 4. Government Printer, Dar es Salaam.
Thickening	Thickening is a process used in mining and mineral processing to increase the solid content of a slurry by removing excess water.

Term	Definition
UMAF	A generic abbreviation historically used for any ultramafic lithological unit (could be mineralized or unmineralized)
UMAF_1a	Applies to logged geology in the drillhole data showing ultramafic-hosted mineralization ("mineralized" refers to the presence of valuable ore minerals (ie nickel, copper, cobalt) within the rock)
UMAF_KAB	Applies to logged geology in the drillhole data showing unmineralized ultramafic ("unmineralized" indicates the absence of economically significant concentrations of valuable ore minerals (nickel, copper, cobalt) within the rock)
UMIN	Used as a coding field in the Mineral Resource modeling work - in particular, a domain field name in the cell model and drillhole files to denote the presence of ultramafic mineralization. When used outside of the geological data section, UMIN refers to all mineralized ultramafic material or ultramafic ore (it is equivalent to UMAF_1a which is only used in drillhole logging)
Variability Testwork	Tests conducted to assess how variations in feed composition impact the performance of the processing plant.
Ward	A lower-level administrative subdivision of Tanzania. In urban areas, each ward generally comprises several villages.