Lycopodium

OreCorp Limited

Nyanzaga Project

Definitive Feasibility Study

1948-GREP-001

August 2022

ORECORP
LIMITED

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Nyanzaga Project

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APPENDICES

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OreCorp Limited

Nyanzaga Project DFS

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1.0 EXECUTIVE SUMMARY

1.1 Project Highlights

The Definitive Feasibility Study (DFS) on the Nyanzaga Gold Project (Nyanzaga or the Project) is based on processing ore at a rate of 4 million tonnes per annum (Mtpa) for 10.7 years. Ore is sourced from two open pits and an underground operation and processed in a conventional primary jaw crusher, semi autogenous grinding (SAG) mill, Ball mill and recycle Crusher (SABC) and Carbon in Leach (CIL) circuit to produce 2.50 Moz of gold doré over the Life of Mine (LOM).

Project highlights include:

- Maiden Probable Ore Reserve of 40.08 Mt @ 2.02 g/t gold for 2.60 Moz contained gold.
- Production target of 42.51 Mt @ 2.07 g/t gold for 2.83 Moz contained gold, comprising the Probable Ore Reserve plus Inferred Mineral Resources of 2.39 Mt at 2.98 g/t gold for 0.23 Moz contained gold, which were modified using the same factors as the Ore Reserve. Most of the inferred material is associated with the depth extension of the underground (below 700 mRL) and processed in the last three years of production.
- Peak gold production of 295 koz/pa; averaging 250 koz/pa for the first eight years; 242 koz/pa for the first ten years.
- Life of mine (LOM) average gold production of 234 koz/pa over 10.7 years.
- High margin project with low all-in sustaining cost (AISC) of USD954/oz.
- Robust pre-tax NPV5% of USD926 million and IRR of 31%; post-tax NPV5% of USD618 million and IRR of 25% based on a USD1,750/oz gold price.
- Pre-production capital cost of USD474 million includes underground development, open pit pre-strip, plant (including first fill inventory), all associated project infrastructure and USD36 million contingency.
- Payback period of 3.7 years (post-tax).
- DFS confirms a concurrent open pit and underground mine schedule delivers the optimal economic outcome for the Project.
- Open pits are expected to deliver approximately 1.2 Moz at 1.32 g/t gold and 3.7:1 (waste: ore) strip ratio using an average weighted cut-off grade of 0.48 g/t gold.
- Underground mining is expected to produce approximately 1.64 Moz (including underground development material) of contained gold at 3.55 g/t gold.

- Underground to be developed to a depth of 700m below surface, with the deposit remaining open at depth.

- Detailed metallurgical test work in the DFS has confirmed average LOM gold recovery of 88% through a conventional 4 Mtpa Carbon in Leach (CIL) processing plant.

- Most of the inferred material is associated with the depth extension of the underground (below 700 mRL) and processed in the last three years of production.

Key results and financial outcomes from the DFS are set out in Table 1.1.1 below.

Table 1.1.1 DFS Results (100% Basis)

Parameter	Value
Construction period (months)	21
Life of mine (years)	10.7
Total LOM mill throughput (Mt)	42.5
Annual mill throughput (Mtpa)	4
LOM open pit strip ratio (waste:ore)	3.7:1
Underground mining rate (Mtpa)	1.6
Average open pit grade (g/t gold)	1.32
Average underground grade (g/t gold)	3.55
Average mill feed grade LOM (g/t gold)	2.07
Average LOM gold recovery	88%
Recovered gold LOM (koz)	2,500
Average production first 10 years (koz pa gold)	242
Average production LOM (koz pa gold)	234
Open pit mining operating costs (USD/t total material moved)	3.78
Underground mining operating costs (USD/t ore)	57.35
Processing costs (USD/t milled)	11.37
General and administration costs (USD/t milled)	3.54
Pre-production capital (USD M) (including contingency)	474
Sustaining capital LOM (USD M)	145
Average cash cost (USD/oz gold)	896
AISC[1] LOM average (USD/oz gold)	954
AIC[2] (All-in Cost) LOM average (USD/oz gold)	1,154
$NPV_{5\%}$ (pre-tax) (USDM)[3]	926
$NPV_{5\%}$ (post-tax) (USDM)[3]	618
IRR (pre-tax) (%)[3]	31.2
IRR (post-tax) (%)[3]	24.6
Payback period (pre-tax) (years)[3]	3.0
Payback period (post-tax) (years)[3]	3.7

1.2 Project Overview

OreCorp has completed a DFS on the Project which comprises the Nyanzaga and Kilimani deposits. The DFS confirmed the production rate and concurrent mine development strategy as defined in the PFS and provides improved project definition and cost estimate accuracy to a level adequate to support a Project development decision.

The Study evaluated the technical and economic viability of various open pit and underground development scenarios and was optimised considering mining, processing and economic factors. The study delivered an optimal development scenario of 4 Mtpa with concurrent development of both the open pit and underground operations.

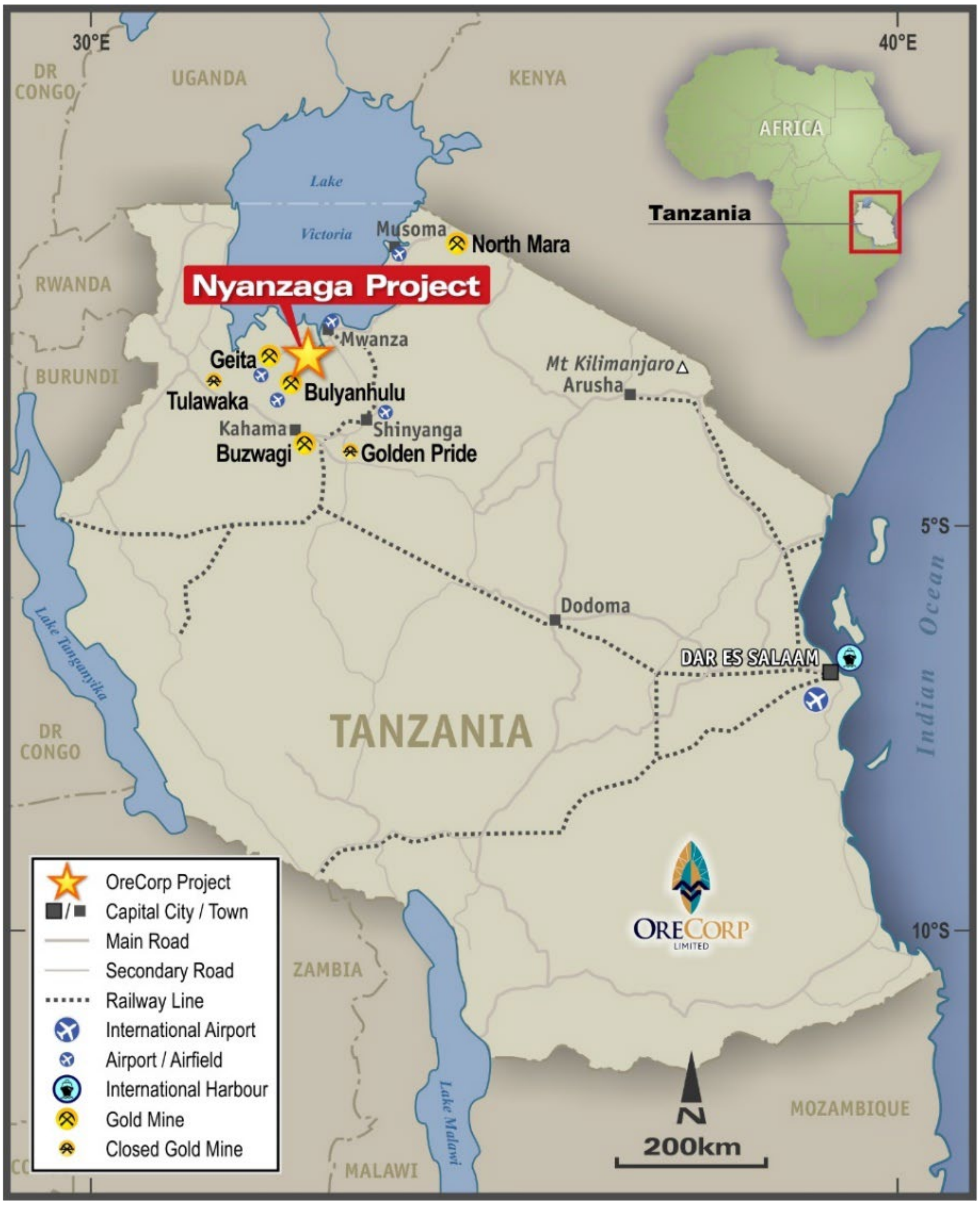
The Project is held by Sotta Mining Corporation Limited (SMCL or Owner) in which OreCorp holds an 84% interest through its wholly owned subsidiary, Nyanzaga Mining Company Limited (NMCL) and the Government of Tanzania (GoT) holds a 16% free carried interest.

The Project comprises the SML 653/2021 granted to SMCL on 13 December 2021 and a further 11 granted prospecting licences and one prospecting licence application. The SML is valid for 15 years.

A Framework Agreement and a Shareholder Agreement, each between NMCL and the GoT was signed on 13 December 2021 to confirm the key rights and obligations of the parties, as shareholders of SMCL, with respect to the development and management of the Project.

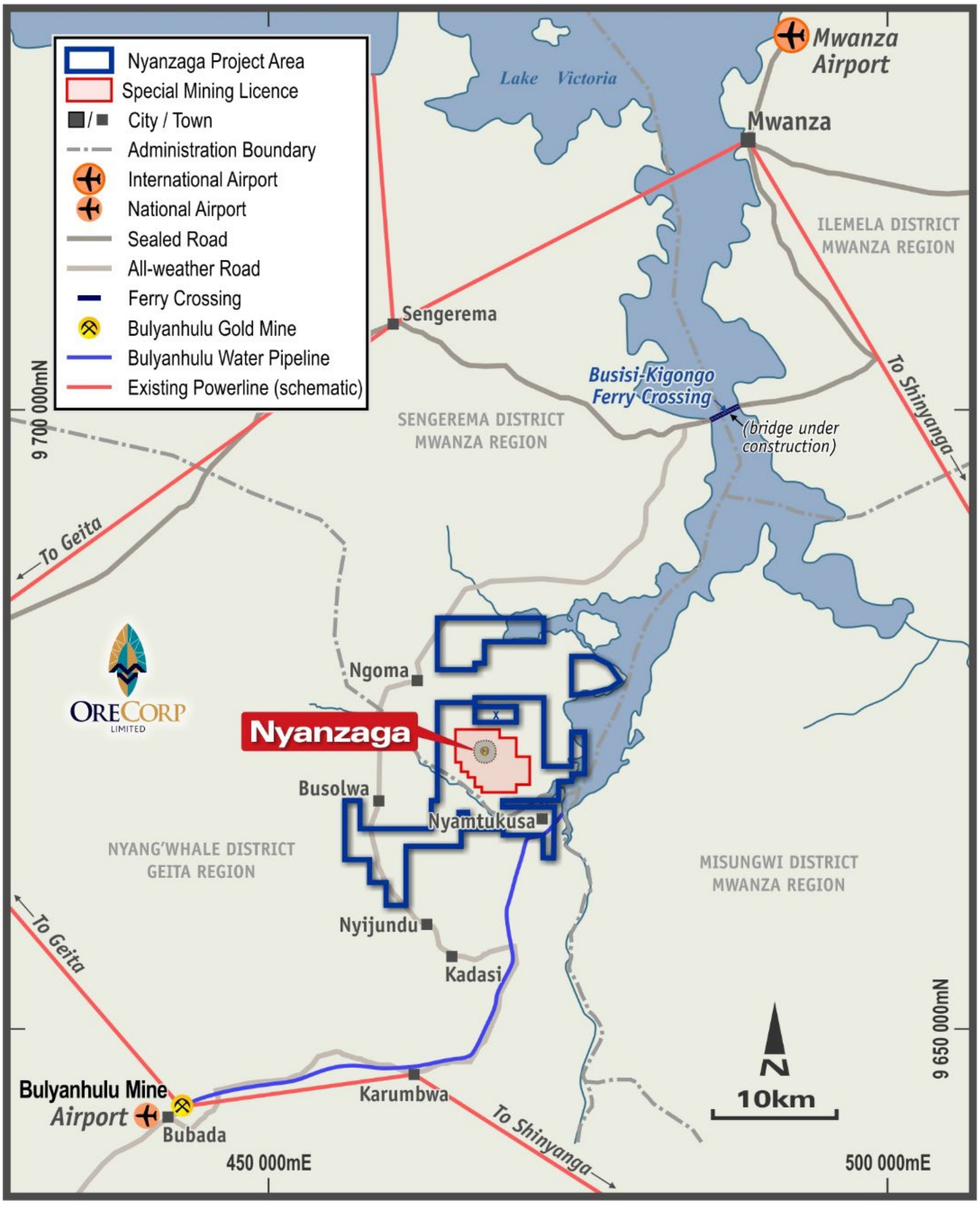
Nyanzaga is located in north-western Tanzania, south of Lake Victoria within the Sengerema District of the Mwanza Region, refer to Figure 1.2.1.

Figure 1.2.1 Nyanzaga Location Map, Northwest Tanzania



The Project is accessed from Mwanza via the sealed Mwanza-Geita highway, crossing Smith Sound by ferry at Busisi, then turning southwest to Ngoma Village, refer to Figure 1.2.2. A bridge crossing Smith Sound is currently under construction and due for completion in 2024 which will significantly improve access to the Project.

Figure 1.2.2 Nyanzaga Project Location and Access



The DFS was completed to approximately ±15% level of accuracy and the study team comprised well recognised independent specialist consultants as detailed in Table 1.2.1.

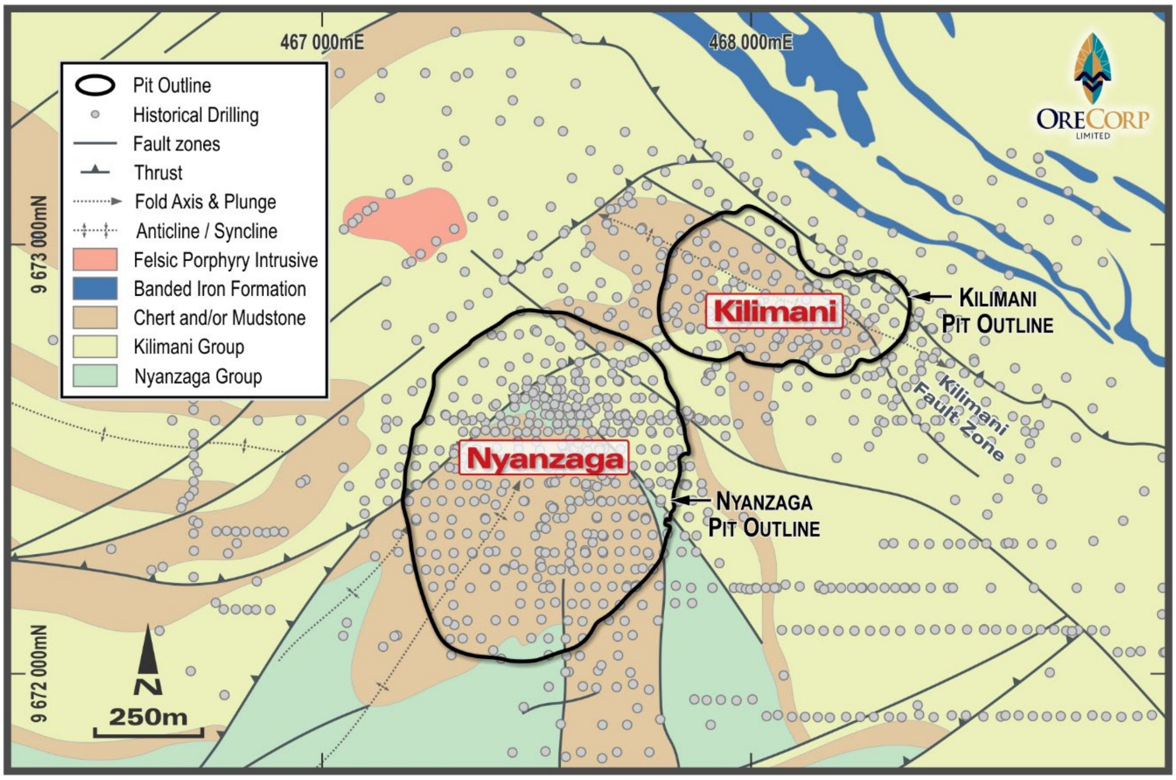
Table 1.2.1 DFS Study Team

Study Discipline	Industry Expert
Project Managers/Engineering Group	Lycopodium Minerals Pty Ltd
Geology and Resource Estimation	CSA Global (UK) Ltd
Mining Engineering	Datamine Australia Pty Ltd (Snowden)
Geotechnical	Peter O'Bryan & Associates (consulting to Snowden)
Metallurgy Testwork	SGS Minerals Metallurgy and ALS Metallurgy Pty Ltd
Metallurgy and Process Engineering	Lycopodium and MineScope Services Pty Ltd
Comminution	Orway Mineral Consultants (consulting to Lycopodium)
Tailings Management	Knight Piésold Pty Ltd
Hydrogeology/Hydrology	AQ2 Pty Ltd
Power Supply	ECG Engineering Pty Ltd
Environmental and Social	Dhamana Consulting Pty Ltd, PaulSam Geo-Engineering Company Limited, Digby Wells Environmental (Jersey) Limited (Digby Wells), SRK Consulting (South Africa) (Pty) Ltd (SRK), MTL Consulting Company Limited (MTL)
Mine Closure	Mine Earth Pty Ltd
Legal	ENSafrica Tanzania Limited

1.3 Geology

The Nyanzaga and Kilimani deposits occur within a sequence of folded Nyanzian sedimentary and volcanic rocks, refer to Figure 1.3.1. The current interpretation of the Nyanzaga deposit recognises a sequence of cyclic (C1, 2 etc.) mudstone, sandstone and chert units folded into a northerly plunging anticline. The Kilimani deposit, located 450 m northeast of Nyanzaga, is developed in the fold hinge of an interpreted west-northwest striking double plunging anticline. The bulk of the Kilimani deposit occurs in the heavily weathered zone, within 140 m from surface.

Figure 1.3.1 Nyanzaga - Kilimani Interpreted Geology



Gold mineralisation at Nyanzaga is concentrated at the intersection point of the north-west trending Nyanzaga Fault Zone (Far Eastern and Eastern Faults); the Axial and Central Faults; and the north-northwest plunging Nyanzaga Anticline. The higher-grade mineralisation occurs in lodes associated with mid to late stage, sub-vertical second order north-west to north-northwest structures and/or reactivated north to north-northwest structures (Axial Fault Zone) relating to the second phase of deformation (D2) deformation.

Preferential grade enhancement occurs in selected altered units such as the thick cherts, silica-dolomite altered medium grained sandstones, brecciated silica-carbonate altered mudstones; or along the margin of late quartz veins as free gold.

Mineralisation at the Kilimani deposit is currently mostly defined in the oxidised to partially oxidised profile and implies secondary enrichment. The mineralisation style at Kilimani appears similar to the Nyanzaga, fault-controlled mineralisation. The mineralisation has an Au-Mo-As-Sb-Mn-Ba geochemical association, which is characteristic of the fault-controlled early-stage carbonate replacement mineralisation observed at Nyanzaga. It is reasonable to assume that the fluids between Nyanzaga and Kilimani are interconnected. Kilimani may have been a higher-level development of the Nyanzaga system now structurally juxtaposed.

1.4 Mineral Resource Estimate

The Nyanzaga and Kilimani MRE's were reported by CSA Global in September 2017 and May 2022 respectively and included additional drilling undertaken by OreCorp, as well as historical drilling undertaken by Barrick gold and several other entities since the early 1990's. The total drilling database includes 2,027 drill holes, totalling 269,116 m. The two MRE's form the basis for the DFS and are supported by extensive interpretive geological and geostatistical work completed by OreCorp and CSA Global geologists. CSA Global considers the data collection techniques to be consistent with good industry practice and suitable for use in the preparation of the MRE's in accordance with The JORC Code (2012 Edition). Adequate quality assurance and quality control (QAQC) supports the integrity of the data used to prepare the MRE's.

The MRE for the Nyanzaga deposit is reported at a cut-off grade of 1.5 g/t gold and is classified in accordance with the JORC Code (2012 Edition), as reported in Table 1. Table 1.4.2 and Figure 1.4.1 present the grade tonnage tabulation and graph of the resource model based on a range of gold cut-off grades.

Table 1.4.1 Nyanzaga Deposit - Mineral Resource Estimate

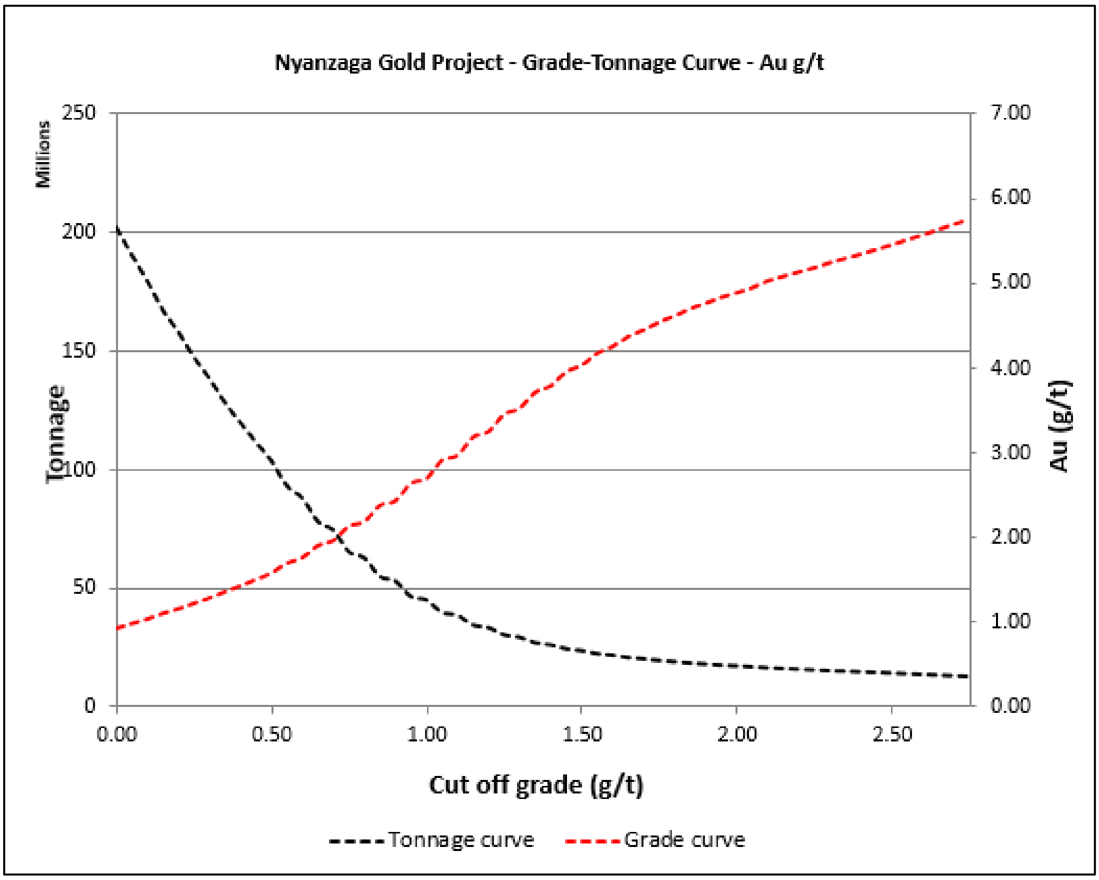
OreCorp Limited – Nyanzaga Deposit – Tanzania Mineral Resource Estimate as at 12 September, 2017					
JORC 2012 Classification	**Tonnes (Mt)**	**Gold Grade (g/t)**	**Gold Metal (koz)**	**Gold Metal (Tonne)**	**In Situ Dry BD (t/m^3)**
Measured	4.63	4.96	738	22.96	2.71
Indicated	16.17	3.80	1,977	61.48	2.84
Subtotal M&I	**20.80**	**4.06**	**2,715**	**84.44**	**2.81**
Inferred	2.90	3.84	358	11.12	2.86
Total	**23.70**	**4.03**	**3,072**	**95.56**	**2.82**

Reported at a 1.5 g/t cut-off grade. MRE defined by 3D wireframe interpretation with subcell block modelling. Gold grade for high grade portion estimated using Ordinary Kriging using a 10 x 10 x 10 m estimation panel. Gold grade for lower grade sedimentary cycle hosted resources estimated using Uniform Conditioning using a 2.5 x 2.5 x 2.5 m SMU. Totals may not add up due to appropriate rounding of the MRE. BD refers to Bulk Density.

Table 1.4.2 Nyanzaga Deposit – Grade and Tonnage

Grade and Tonnage Tabulation Nyanzaga Gold Project – 12 September 2017				
Gold g/t Cut-off	**Tonnage (Million)**	**Gold g/t**	**Gold koz**	**In Situ Dry Bulk Density**
2.75	12.9	5.75	2,389	2.83
2.50	14.3	5.46	2,504	2.82
2.25	15.7	5.18	2,609	2.82
2.00	17.3	4.89	2,723	2.81
1.75	19.6	4.54	2,858	2.81
1.50	23.7	4.03	3,072	2.82
1.25	30.3	3.45	3,366	2.82
1.00	45.0	2.69	3,897	2.82
0.75	65.3	2.13	4,469	2.83
0.50	103.7	1.57	5,246	2.83
0.45	111.5	1.50	5,366	2.83

Figure 1.4.1 Grade and Tonnage Curve - Nyanzaga Deposit



The highlights of the Nyanzaga MRE are:

- The orientation and continuity of mineralisation, coupled with the high gold grade, confirms potential for a combined open pit and underground operation.
- The thickness and grade of the resource model allows for the consideration of open pit and underground mining scenarios.
- Mineralisation is open at depth leaving scope for future additional resources to be delineated.
- The Nyanzaga MRE covers a strike length of approximately 600 m, with mineralised widths of individual mineralised zones ranging from 2 to 20 m.
- Sub-vertical faulting, fracturing and brecciation related to the folding and subsequent shearing along the north-east limb of the fold.
- Competency contrast near the sedimentary cycle boundaries.

The MRE for Kilimani is reported at a cut-off grade of 0.4 g/t gold and is classified in accordance with the JORC Code (2012 Edition), as shown in Table 1.4.3.

Table 1.4.3 Kilimani Deposit Mineral Resource Estimate.

OreCorp Limited - Kilimani Gold Deposit – Tanzania Mineral Resource Estimate as at 2 May 2022			
Mineral Resource Category	**Tonnes Mt**	**Au Grade g/t**	**Au koz**
Indicated	3.4	1.09	119
Inferred	2.9	1.02	94
Total	6.3	1.06	213

Reported at a cut-off grade of 0.40 g/t Au and classified in accordance with the JORC Code (2012 Edition). MRE defined by 3D wireframe interpretation with sub-cell block modelling to honour volumes. Gold grade estimated using Ordinary Kriging using a 5 x 5 x 2 m parent cell. Totals may not add up due to appropriate rounding of the MRE (nearest 5,000 t and 1,000 oz Au). Reasonable prospects for eventual economic extraction supported by a conceptual pit optimisation generated using a revenue factor of 1 and a gold price of USD1,500/oz.

The Kilimani MRE covers a strike length of approximately 1 km, 300 m in plan width and 240 m in depth and is open at depth.

1.5 Mining

Following completion of the PFS several options studies were undertaken, which included a very large open pit only scenario to mine Nyanzaga and Kilimani. All the studies indicated that the optimum development scenario was the concurrent open pit and underground mining of the Nyanzaga deposit, with the underground providing early access to the high-grade areas below 1,025 mRL. The HG area between 1,050 mRL and 975 mRL is referred to as the "heart of gold" (HOG).

A production rate study in 2020 indicated that with concurrent open pit and underground mining (that initially targets the HOG) and the inclusion of Kilimani, a production rate of 4.0 Mtpa maximised NPV and IRR and delivered the shortest payback period for the project. This option was selected for the DFS.

The key inputs for the DFS mining study were:

- CSA Global's Mineral Resource Estimate models for Nyanzaga and Kilimani.
- Peter O'Bryan & Associates (POB) geotechnical parameters to determine the configuration of the open pit walls; and the maximum underground stope spans and ground support requirements.
- AQ2's assessment of ground water and calculated inflows into the open pit and underground over the LOM which informed the open pit and underground dewatering design.
- CMQ provided designs and costs for a pastefill plant.
- Mining cost estimates (non-binding) from internationally recognised open pit and underground mining contractors, based on preliminary mine designs and schedules.

1.5.1 Open Pit Optimisation and Design

The final open pit limits and interim stages were identified using Whittle 4X software using the following parameters:

- A gold price of USD1,500/oz.
- Mining costs from the mid-price open pit mining contractor.
- Pit wall angles provided by POB and adjusted to account for ramps and safety berms.
- Processing costs and grade recoveries provided by Lycopodium.
- Owner's costs provided by OreCorp.
- A royalty of 6%, inspection fee of 1% and 0.3% service levy (total 7.3%).
- Refining and selling costs of USD4.00/oz.

The overall wall angle of the open pit varied depending on the weathering of the material. Wall angles of 36° and 47° were applied for the oxide and fresh material respectively in the pit optimisation based on the pit design parameters proved by POB. These include an allowance to account for ramps and slope estimation in the Whittle optimisations.

Processing recovery was applied based on the weathering / rock type using grade-recovery relationships developed by Lycopodium from the DFS and historical metallurgical testwork programs with a LOM average gold recovery of 88%.

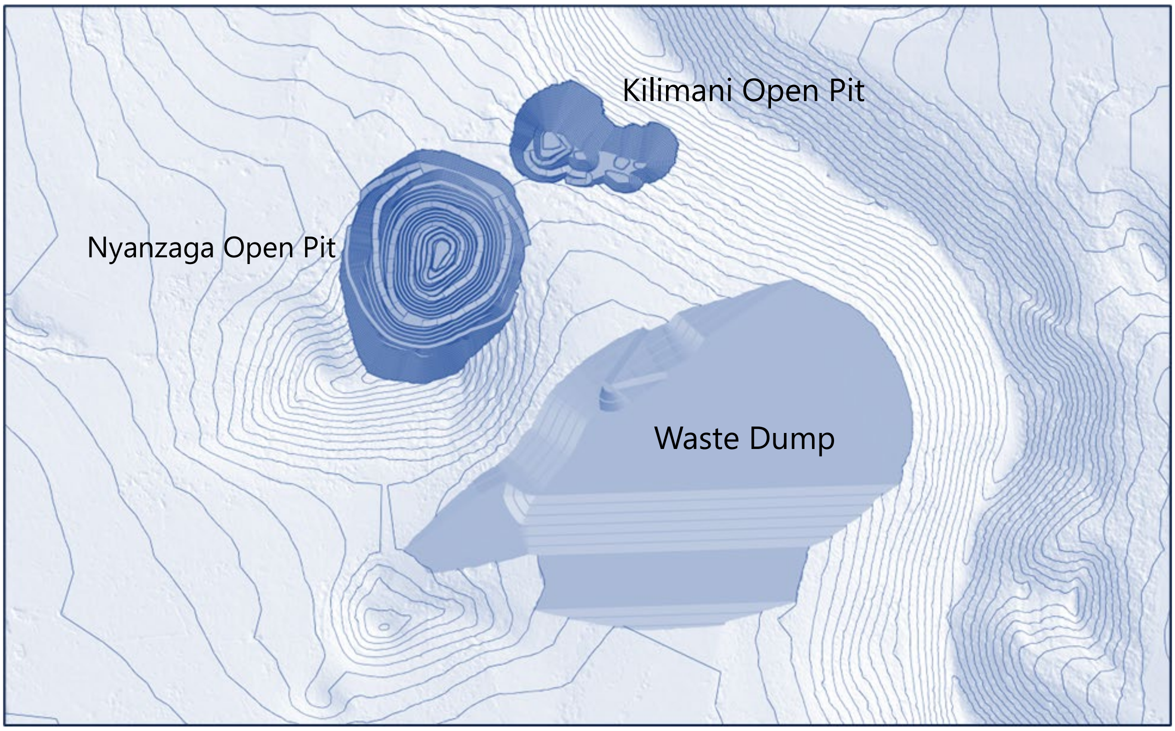
A mining model was developed for open pit optimisation and mine planning by removing stope voids and then re-blocking. The CSA Global model was modified by replacing the underground stopes with lower density pastefill at zero grade. The Nyanzaga model was re-blocked to a regular cell size of 5 mX x 5mY x 5 mZ. The Kilimani model was re-blocked to 5 mX x 5mY x 4 mZ to match its original cell size. A 95% mining recovery factor was applied to the Nyanzaga and Kilimani mining models. The re-blocking added 13% additional tonnes, at the same gold content and lower grade to the Nyanzaga open pit mining model.

The open pits comprise three mining stages at Nyanzaga and a single stage for Kilimani. The open pits physicals are summarised in Table 1.5.1, and the final pit designs are shown in Figure 1.5.1.

Table 1.5.1 Open Pit Physicals

Description	Stage 1	Stage 2	Stage 3	Total Nyanzaga	Kilimani	Total
Total tonnage (Mt)	20.2	36.7	65.5	122.3	9.0	**131.4**
Ore tonnage (Mt)	5.3	7.6	12.9	25.7	2.4	**28.1**
Au grade (g/t)	1.4	1.3	1.3	1.3	1.0	**1.3**
Au content (Moz)	0.24	0.32	0.54	1.10	0.10	**1.17**
Waste tonnage (Mt)	14.9	29.1	52.7	96.6	6.6	**103.3**
Strip ratio (wt:ot)	2.81	3.83	4.09	3.76	2.75	**3.68**

Figure 1.5.1 Ultimate Nyanzaga and Kilimani Pit and Waste Dump (Plan View)



The open pit dewatering system has been designed to handle a likely groundwater inflow rate of 21 L/s, a maximum of 31 L/s, as well as having excess capacity for the pumping of surface rain catchment. The underground pumping system is designed to manage inflows of 5 L/s to 20 L/s (30–40 L/s in Y1), as well as an emergency pumping system is designed for up to 60 L/s, with the pumping rising main designed for up to 120 L/s.

1.5.2 Underground Mine Optimisation and Design

The underground designs and schedules used the 2017 CSA Global model without additional modifications.

The underground mine will use conventional mechanised mining equipment such as jumbos, loaders (21-tonne capacity), underground trucks (63-tonne capacity) and longhole drills. The mine will be accessed by a decline. An area close to the process plant and ROM pad was identified as being suitable for the boxcut and decline.

Mining Shape optimisation (MSO) software was used to identify the potential stope outlines at a 2.0 g/t cut-off grade. The stopes in the HOG were manually designed to maximise resource recovery.

Minimum mining widths of 3.0 m and skin dilution of 0.5 m on the hangingwall and footwall were applied. Allowance was made for unplanned dilution and ore loss.

Any development material with a grade of 0.5 g/t or higher was treated as ore. The underground stope and development designs contain 14.39 Mt at 3.55 g/t for 1.64 Moz as summarised in Table 1.5.2

Table 1.5.2 Underground Production Schedule

Low Grade ore (<2.0 g/t_	Tonnes (Mt)	1.52
	Gold (g/t)	1.29
	Gold oz (Moz)	0.06
High Grade ore (>=2.0 g/t)	Tonnes (Mt)	12.87
	Gold (g/t)	3.83
	Gold oz (Moz)	1.58
Total Underground	**Tonnes (Mt)**	**14.39**
	Gold (g/t)	**3.55**
	Gold oz (Moz)	**1.64**
Waste mined in development	Tonnes (Mt)	1.41
Access development	m	10,650
Ore drive development	m	52,400

The underground mining method will be longhole stoping. A decline will be developed down from surface at a gradient of 1:7 to the top of the orebody at 1,050 mRL. The decline will continue down with levels developed at 25 vertical metre intervals.

Ore drives are developed on each level from a central crosscut to the extents of the orebody, with stopes mined progressively on retreat from the extremities back to the crosscut. Sequential stopes are mined on retreat following the filling and curing of the previous stope, with a slot raise developed from the ore drive to the level above to establish each individual stope.

All stope voids will be backfilled with cemented paste fill, except for the top stopes in each panel. These stopes may lack a top access (having been previously paste filled) for tight filling. Tight fill will be targeted for most of the orebody with loose fill achieved where an upper drive is not present for the stope.

The primary ventilation circuit will involve intake via the declines from the boxcut to the initial mining levels. Intake ventilation will continue via the decline and inter-level raises. Exhaust ventilation returns via inter-level raises connecting to the upper ventilation collection drives. Additional bypass raise bores are required later in the mine life (upside case) to minimise friction losses at depth. The mine will require 600 m3/sec of ventilation.

1.5.3 Production Schedule

The mining schedule targets a process throughput rate of 4.0 Mtpa, comprised of approximately 2.5 Mtpa of open pit ore and 1.5 Mtpa of underground ore. The mining strategy is to commence open pit boxcut in Month 9 Year -2 (M9Y-2), being 15 months prior commencement of commercial production (M1Y1), followed by underground development and then the open pit pre-strip (M3Y-1).

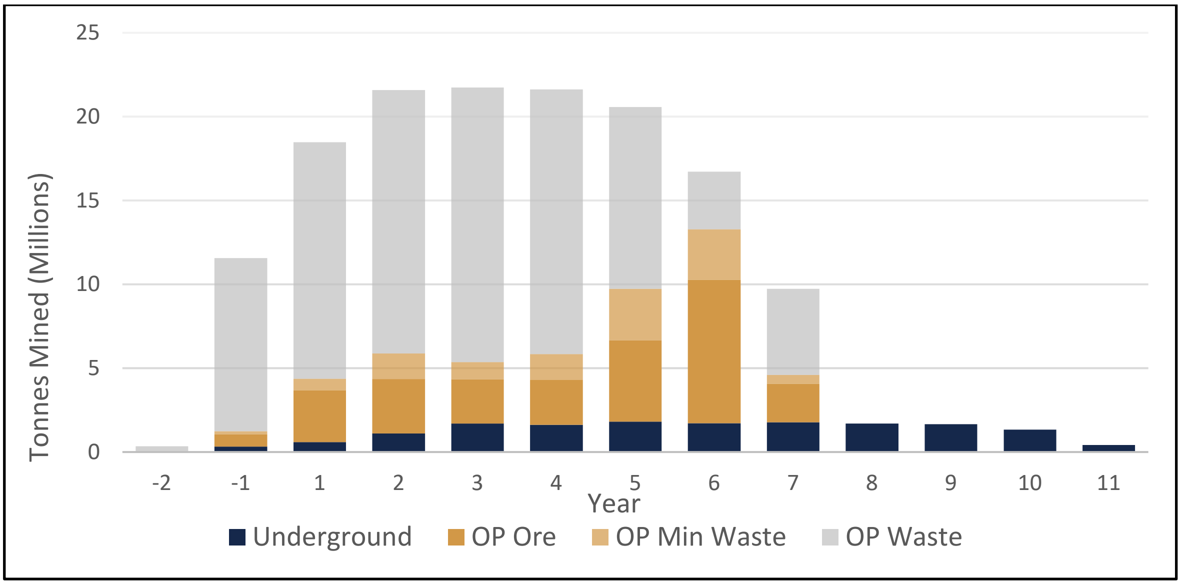
First open pit ore production is achieved in M4Y-1 and the first underground ore from development in M1Y1. A pre-production stockpile will be created from the open pit pre-strip which will minimise impediments to the process plant production ramp up.

The LOM schedule is developed from a practical mining schedule that maximises project value. A combined open pit and underground LOM plan was generated in Deswik.Sched schedule software. Open pit stages were scheduled on a bench-by-bench basis, constrained to a maximum vertical advance rate of 80 m per year. Priority in the open pit schedules was given to maintaining the mining rate to maximise the use of the contractor's fleet, and to demobilise the open pit contractor in Y7 to remove the open pit fixed costs.

Maintaining the open pit mining rates, despite not required to sustain plant feed, brings forward approximately 120 koz of gold that would otherwise been delayed to the last four years of the Project if a slower mining rate was used. The accelerated mining costs are offset by the benefit associated with early access to the gold and reduced open pit mining overheads.

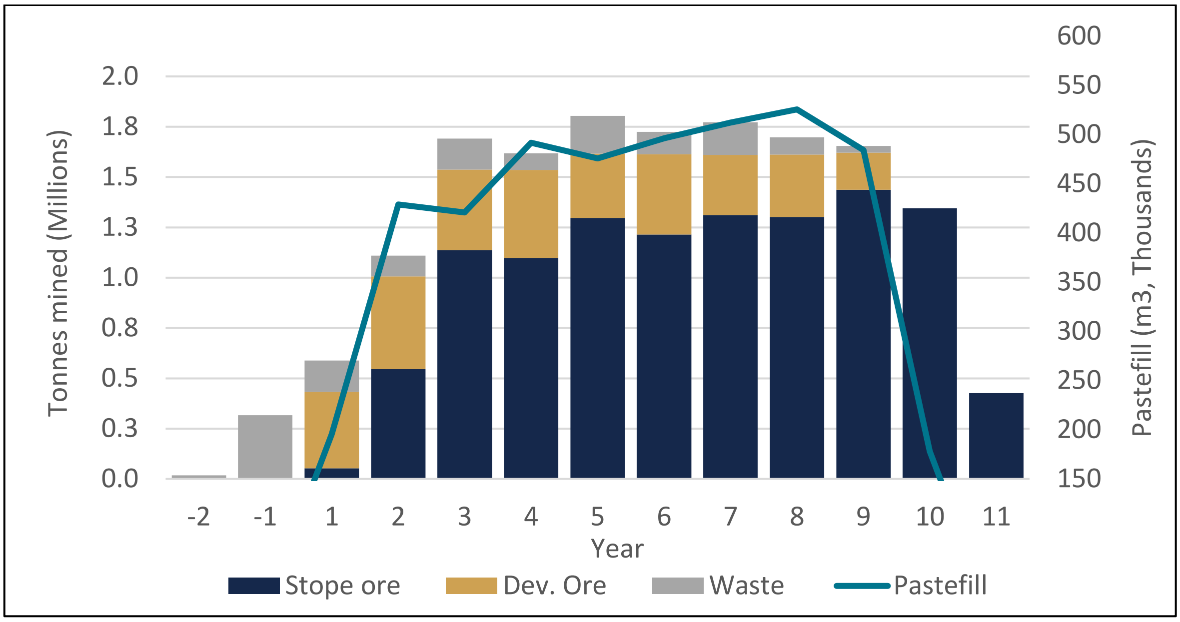
Open pit production ramps up over the initial three years as additional working areas are opened. Total material movements build up to 18 Mtpa in the first three years, reaching a maximum of 20 Mtpa for the LOM as shown in Figure 1.5.2.

Figure 1.5.2 Total Material Movement



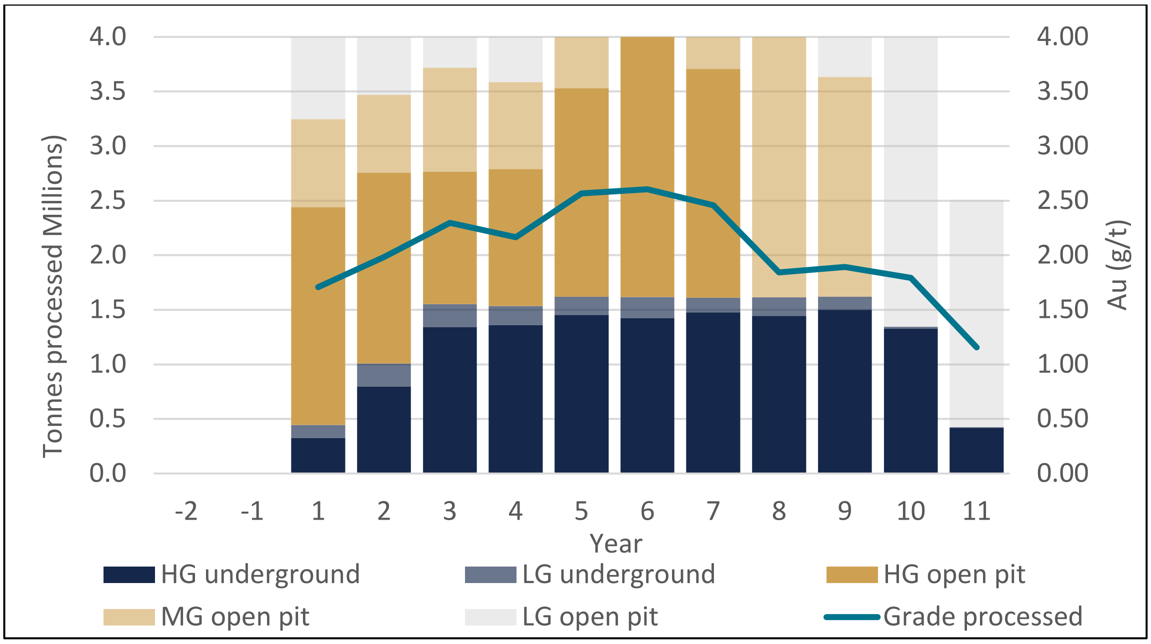
Underground production builds up over the initial three years to reach an ore production rate of 1.5 Mtpa, increasing to 1.6 Mtpa where possible as shown in Figure 1.5.3. Waste development is completed in Y9 with the remaining stoping completed by Y11. Underground jumbo development peaks in Y1 as the initial mining levels are developed, reducing over time as additional levels are opened. All underground development is completed by Y9.

Figure 1.5.3 Underground Material Movements



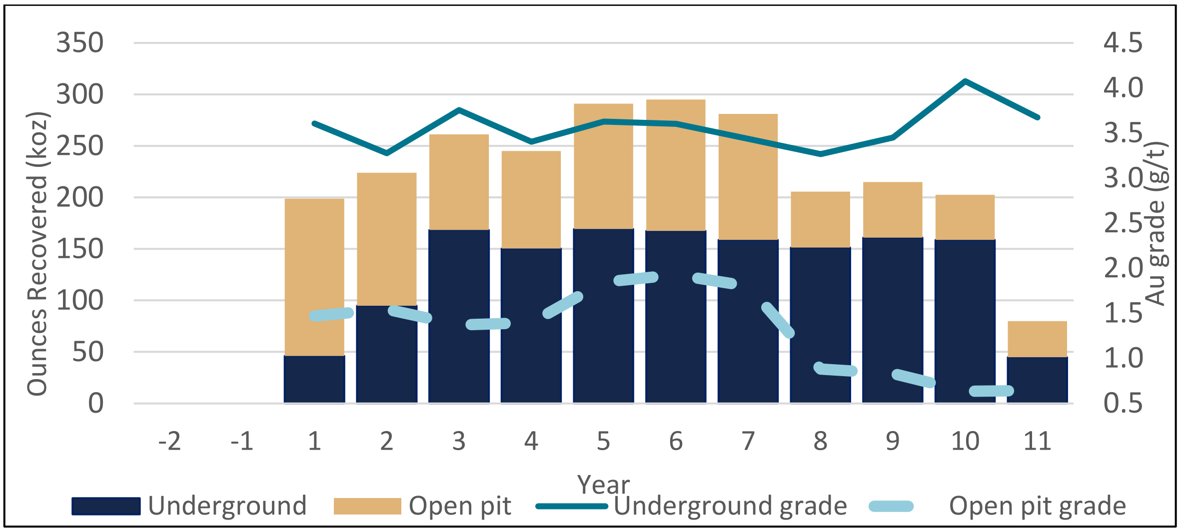
Processing commences in M1Y-1, at design capacity, with sufficient ore available on the ROM pad to supply pre-commissioning feed. A stockpiling strategy will be used, preferentially feeding high grade (HG) ore to the process plant, followed by medium grade (MG) ore whilst stockpiling low grade (LG) ore as shown in Figure 1.5.4. The ore stockpile is expected to reach a maximum size of approximately 10 Mt.

Figure 1.5.4 Processing Schedule



The production schedule, which includes Ore Reserves and Inferred Mineral Resources, delivers an average annual gold production of 242 koz (first 10 years) and LOM average annual gold production of 234 koz, refer to Figure 1.5.5.

Figure 1.5.5 Production Schedule



1.5.4 Ore Reserve

The classified Ore Reserve estimate for the Project comprises three distinct operations:

- Nyanzaga open pit.
- Nyanzaga underground.
- Kilimani open pit.

The combined Probable Ore Reserve is 40.08 Mt at 2.02 g/t Au for 2.60 Moz as reported in Table 1.5.3. The reference point for Ore Reserve is the ROM pad where ore is delivered to the process plant.

Table 1.5.3 Nyanzaga Ore Reserve by Classification (as of June 2022; 100% Basis)

Area	Probable Ore Reserve	Total Ore Reserve
Nyanzaga open pit		
Ore tonnes (Mt)	25.63	25.63
Gold grade (g/t)	1.35	1.35
Gold contained (Moz)	1.11	1.11
Kilimani open pit		
Ore tonnes (Mt)	2.04	2.04
Gold grade (g/t)	1.05	1.05
Gold contained (Moz)	0.07	0.07
Nyanzaga underground		
Ore tonnes (Mt)	12.42	12.42
Gold grade (g/t)	3.57	3.57
Gold contained (Moz)	1.42	1.42
Total*		
Ore tonnes (Mt)	40.08	40.08
Gold grade (g/t)	2.02	2.02
Gold contained (Moz)	2.60	2.60

***Note: Rounding may cause summation differences**

The cut-off grade of the open pits ranged from 0.44 g/t to 0.52 g/t gold, depending on rock type, and the cut-off grade for the underground is 2.0 g/t gold.

The Competent Person has classified all Measured Resource to a Probable Ore Reserve as no production reconciliation data is available to validate the technical modifying factors used in this study. There is 3.58 Mt of Measured Mineral Resource in the open pit stage designs and 1.59 Mt of Measured Mineral Resource within the underground mine designs that has been classified as a Probable Ore Reserve.

Inferred material from the open pit was not included in the pit optimisation used for selection of the economic shell. A total of 0.46 Mt at 0.8 g/t gold of Inferred material falls within the pit design. The Inferred material is not included in the Ore Reserve but is included within the production schedule.

Inferred material below the open pit was optimised, designed, and scheduled. Stopes have been classified on a dominant resource category basis, where the dominant category for the stope is reported as the resource category for the entire stope. This is judged as being a reasonable approach for classifying the Ore Reserve. Stopes that have a dominant resource category of Inferred are not reported as part of the Ore Reserve. There is 1.97 Mt at 3.5 g/t gold of Inferred Mineral Resource in the underground production schedule.

The DFS production schedule and financial model includes:

- A Probable Ore Reserve of 40.08 Mt at 2.02 g/t gold for 2.60 Moz plus Inferred Mineral Resources of 2.42 Mt at 2.95 g/t gold for 0.23 Moz, which were modified using the same factors as the Ore Reserve, refer Table 1.5.4. Most of the inferred material is associated with the depth extension of the underground (below 700 mRL) and processed in the last three years of production.

- A compressed underground mining schedule from Y11 onwards, which mines the remaining two years of production (at low tonnages) in a six-month period. There is a long production tail in the underground schedule where the mining rate is less than 50,000 t/m. This tail has been consolidated into the prior year. The tail is largely in areas of Inferred Resource and does not impact the Ore Reserve.

Table 1.5.4 Production Schedule Project Probable Ore Reserve plus Inferred Mineral Resource

Area	Probable Ore Reserve			Inferred Mineral Resource in Production Schedule			Total Production Schedule*		
	Mt	Au g/t	Au Moz	Mt	Au g/t	Au Moz	Mt	Au g/t	Au Moz
Nyanzaga open pit	25.63	1.35	1.11	0.08	0.88	0.00	25.71	1.35	1.11
Kilimani open pit	2.04	1.05	0.07	0.37	0.82	0.01	2.41	1.01	0.08
Nyanzaga underground	12.42	3.57	1.42	1.97	3.49	0.22	14.39	3.56	1.64
Totals	**40.08**	**2.02**	**2.60**	**2.42**	**2.95**	**0.23**	**42.51**	**2.07**	**2.83**

***Note – Rounding may cause summation differences**

1.6 Metallurgy

1.6.1 Testwork

Metallurgical testing of samples from the Nyanzaga deposit was conducted across two testwork programs. The first set was historical testwork on which the Project Scoping Study was based. The second set comprises the current detailed metallurgical and comminution testwork program to support the DFS.

The metallurgical testwork program undertaken for the DFS was completed between August 2016 to May 2017, under the direction of Lycopodium, on drill core samples from the Nyanzaga deposit. The various laboratories that performed the testwork are shown in Table 1.6.1.

Table 1.6.1 Laboratories and Testwork Performed

SGS Perth	ALS Perth	JK Tech
Comminution testwork. Bulk leach extractable gold (BLEG) testwork. Diagnostic leach testwork. Gravity and cyanidation testwork. Flotation testwork.	BLEG testwork. Tailings mineralogy and sizing. Bulk tailings preparation.	Interpretation of the results from the SAG Mill Comminution (SMC) tests conducted by SGS Perth.

The Kilimani testwork program was undertaken at ALS during 2022. The Kilimani testwork program was developed and managed directly by OreCorp.

A SABC comminution circuit was selected based on the processing requirements of a pure fresh ore feed and will be able to accommodate the wide spectrum of ore competencies. The grind sensitivity testwork indicates all four ore types are grind sensitive with gold extraction increasing with fineness of grind. The grind optimisation evaluations reported an optimum grind size of P_{80} 75 µm.

A gravity circuit has been included in the flowsheet to smooth out any spikes of high-grade material that may be fed to the process plant, thereby allowing more consistent operation of the CIL and elution circuits.

The historical testwork indicated several of the fresh ore types contain significant pyrrhotite which is a cyanide and oxygen consumer and may require pre-oxidation with air or oxygen prior to leaching. All testwork to date has been conducted with oxygen addition.

The Nyanzaga testwork showed cyanide leaching produced a range of extractions from 84% to 91% gold and 52% to 64% silver and initial leaching rates were high with little improvement in gold extraction beyond 8 - 12 hours residence time. Mudstone exhibited mild preg-robbing characteristics and these will be counteracted with the CIL circuit design. The Kilimani oxide testwork showed 96% gold recovery from cyanidation and gravity extraction.

The plant design includes a pre-oxidation tank, a leach tank and 6 CIL tanks with oxygen addition to all tanks and a residence time of 24 hours.

Mercury is present in all ore types with between 10% to 30% extraction during leaching. Mercury capture and handling equipment to ensure worker and environmental safety has been included in plant design.

Arsenic and antimony are present in all ore types with between 1% As and 15% Sb solubilised during leaching with about 14 mg/L As and 6 mg/L Sb present in the leach tails. An arsenic (and antimony) precipitation and stabilisation circuit will be included in the process plant flowsheet based on typical industry design data.

Anticipated lime and cyanide consumptions are typical of operations conducted with good quality water treating clean non refractory oxide and primary ores.

Metallurgical recovery over the LOM is expected to average 88% at a grind size of P_{80} 75µm. The ore is predominantly fresh rock and only 13% is oxide, refer Table 1.6.2.

Table 1.6.2 Summary of LOM Blend and Estimated Recoveries

Mineralisation Type	LOM	Plant Recovery LOM (Au)
Oxide	13%	91.8%
Fresh Chert	20%	89.9%
Fresh Sandstone	22%	86.8%
Fresh Mudstone	34%	86.6%
Fault Zones	11%	87.0%
LOM Blend	100%	88.2%

The production schedule metallurgical recovery is calculated on the grade recovery formulas per ore type as provided by Lycopodium.

1.7 Process Plant

1.7.1 Plant Design

The process has a nominal capacity of 4 Mtpa and is based on a conventional flow sheet. The flowsheet utilises proven technology that has been used globally for many years and comprises:

- Primary jaw crushing to produce a coarse crushed product.
- A crushed ore surge bin and dead stockpile.
- A SABC milling circuit comprising a SAG mill in closed circuit with a pebble crusher and a ball mill in closed circuit with hydrocyclones to produce a grind size of 80% passing (P_{80}) 75 µm (micron).
- Gravity concentration and removal of coarse gold from the milling circuit and treatment of gravity concentrate by intensive cyanidation and electrowinning to recover gold to doré.
- Trash screens to remove any wood trash or oversize material prior to cyanidation.
- Pre-leach thickening of the trash screen underflow to produce a higher solids concentration leach feed to reduce leach and adsorption tankage and reagent requirements.
- A pre-oxidation / Leach / CIL circuit to leach and adsorb gold and silver values from the milled mineralised material onto activated carbon in one pre-oxidation tank, one leach tank and six CIL tanks providing a total of 24 hours leach and adsorption time.

- A Zadra elution / electrowinning circuit and gold smelting to recover gold from the loaded carbon to produce doré.

- Mercury recovery from the electrowinning sludge and carbon reactivation kiln stack.

- Two stage counter current decantation (CCD) wash thickening of the CIL tails to meet the target plant tails cyanide discharge level and to recover process water and cyanide from the tails slurry.

- Pumping of a portion of the washed tails slurry (CCD2 underflow) to the mining paste plant.

- Tailings pumping to the tailings storage facility (TSF).

- An arsenic precipitation and stabilisation circuit that will minimise soluble arsenic and antimony in the tailings stream.

A simplified flow diagram depicting the unit operations incorporated in the selected process flowsheet is shown in Figure 1.7.1.

The comminution circuit design has been based on the 85th percentile results of the DFS comminution testwork for the fresh material and the mills have been sized to process 4 Mtpa of this feed material in 8,000 operating hours per year.

1.7.2 Plant Production Schedule

The plant feed schedule was developed from the mining schedule, while the estimated gold recoveries at the design plant operating conditions were derived from the metallurgical testwork results. The plant feed and recovered gold production schedule is summarised in Table 1.7.1.

Figure 1.7.1 Simplified Flowsheet

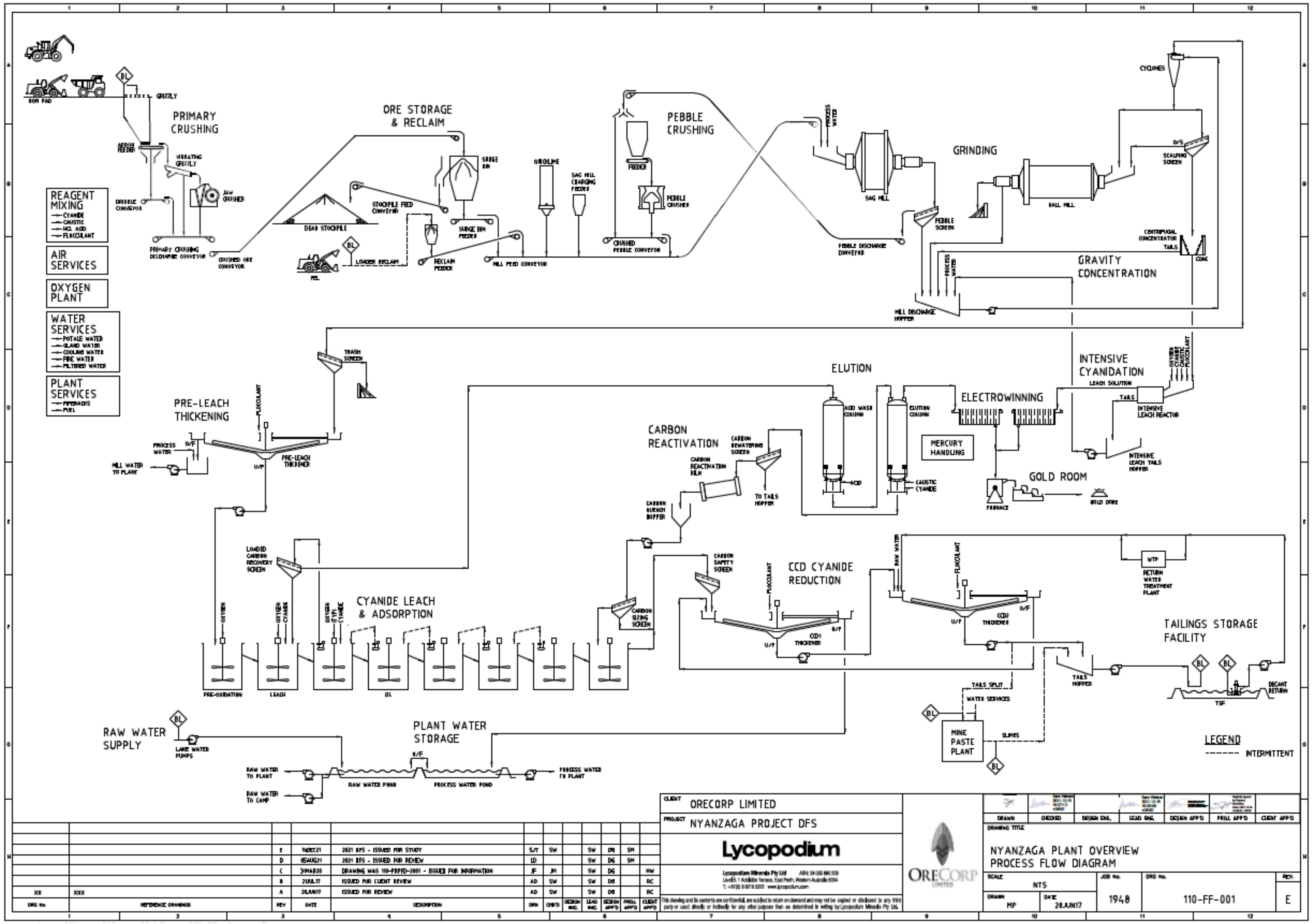


Table 1.7.1 Plant Feed and Recovered Gold Production Schedule

	Ore	Units	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	LOM
Mill Feed Tonnage	Open Pit	tonnes	3,555,754	2,992,877	2,448,699	2,465,347	2,381,017	2,383,820	2,390,166	2,385,300	2,380,475	2,655,306	2,083,236	**28,121,995**
	Underground	tonnes	444,246	1,007,123	1,551,301	1,534,653	1,618,983	1,616,180	1,609,834	1,614,700	1,619,525	1,344,694	424,782	**14,386,023**
	Total	tonnes	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	2,508,018	**42,508,018**
Mill Feed Tonnage	Oxide	tonnes	2,879,808	349,844	53,593	39,940	0	28,643	919,202	317,586	366,162	781,218	0	**5,735,996**
	Fresh	tonnes	1,120,192	3,650,156	3,946,407	3,960,060	4,000,000	3,971,357	3,080,798	3,682,414	3,633,838	3,218,782	2,508,018	**36,772,022**
	Total	tonnes	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	2,508,018	**42,508,018**
Mill Feed Gold Grade	Open Pit	Au g/t	1.47	1.55	1.37	1.39	1.85	1.93	1.80	0.88	0.83	0.63	0.64	**1.32**
	Underground	Au g/t	3.61	3.28	3.75	3.40	3.63	3.60	3.43	3.27	3.45	4.08	3.67	**3.55**
	Average	Au g/t	1.71	1.98	2.30	2.17	2.57	2.60	2.46	1.84	1.89	1.79	1.16	**2.07**
Gold Recovery	Open Pit	%	90.8%	86.8%	86.0%	85.9%	86.1%	86.3%	88.6%	80.6%	84.9%	81.2%	81.6%	**86.4**
	Underground	%	89.8%	89.4%	89.9%	89.5%	89.7%	89.6%	89.3%	89.2%	89.5%	90.0%	89.5%	**89.6**
	Average	%	90.5%	87.9%	88.5%	88.1%	88.1%	88.1%	89.0%	86.8%	88.3%	88.0%	85.9%	**88.2**
Gold Production	Open Pit	Au oz	152,535	129,085	92,925	94,886	121,613	127,478	122,460	54,379	54,151	43,982	35,120	**1,028,616**
	Underground	Au oz	46,224	94,866	168,325	150,337	169,251	167,604	158,710	151,291	160,851	158,651	44,890	**1,471,000**
	Total	**Au oz**	**198,760**	**223,952**	**261,250**	**245,223**	**290,864**	**295,082**	**281,170**	**205,670**	**215,002**	**202,632**	**80,010**	**2,499,616**

1.8 Infrastructure and Services

1.8.1 Roads

The Project will be accessed from Mwanza, Tanzania's second largest city, by the sealed Mwanza – Geita Highway, crossing Smith Sound (an arm of Lake Victoria) by ferry and then travelling on the gravel regional road network for 35 km to Ngoma. The Project area is approximately 9 km southeast of Ngoma via a gravel road. The DFS has made provision to upgrade the road to the mine site and bypass Ngoma.

A bridge crossing Smith Sound is currently under construction and due for completion in 2024 which will significantly improve access to the Project.

1.8.2 Power Supply

The Project will have an installed load of 40 MW including the underground mine, with a maximum demand of 32 MW and an average continuous load of 26 MW.

ECG has conducted a study of the power supply options for the Project, focussing on the ability of the national grid to meet the Project power demands. The study concluded that a grid connection is appropriate for the Project and offers a more environmentally friendly and cost-effective power supply option than on-site diesel or heavy fuel oil generation.

Power for the Project will be supplied from the Tanzania Electric Supply Company Limited (TANESCO) national gird at the Bulyanhulu substation and delivered via a new 53 km long 220 kV transmission line. A dedicated substation will be located adjacent to the CIL plant from where power is reticulated.

Three 2,000 kVA standby generators will be installed to supply emergency standby power to the underground operation and critical loads in the process plant, including infrastructure items such as offices and security systems.

1.8.3 Water Supply

Project water make-up supplies will be extracted from Lake Victoria, with the water balance indicating an average flow rate of 300 m^3/hr will be required, once the decant return water supply becomes available from the tailings storage facility. The raw water will be pumped to the plant site via a buried pipeline for use in the process plant and mine. Power and control for the extraction pumps will be via an overhead power line.

1.8.4 Tailings Storage

The Tailings Storage Facility (TSF) will comprise a paddock facility consisting of a zoned, downstream-constructed embankment with the design utilising natural ridges to reduce the volume of embankment construction materials required.

The TSF has been designed in accordance with the 2019 Australian National Committee on Large Dams (ANCOLD) Guidelines to store a total of 50 Mt of tailings with capacity to contain all supernatant and runoff from rainfall events and storm events. The embankment will be constructed in stages, and the design incorporates a composite lined basin area, consisting of 1.5 mm high-density polyethylene (HDPE) geomembrane liner overlying the compacted soil liner, and an underdrainage system. The factors of safety for the TSF, as designed, meet or exceed the required 1.5 factor of safety for drained and undrained loading conditions and 1.0 - 1.2 factor of safety for post-seismic loading conditions as set out in the 2019 ANCOLD Guidelines.

The TSF design storage capacity of 50 Mt is conservative as it exceeds the 42 Mt of tailings expected to be generated by the process schedule and does not consider the tailings which will be required for backfilling purposes.

1.8.5 Workforce Accommodation

Where possible, employment will be offered to suitably qualified and experienced Tanzanians. All unskilled and semi-skilled positions will be filled by residents of local towns and villages. A bus service will be provided to and from local population centres for workers and a permanent operations village will accommodate 200 personnel, mainly expatriates and skilled Tanzanians from outside the immediate area.

A construction camp will accommodate up to 200 people, including the Owner, EPCM contractor staff and senior contractor personnel subject to availability. Temporary construction accommodation will be provided by the respective construction contractors.

1.9 Environment and Social Studies

The Project area is located within Igalula Ward where the primary source of livelihood for most households is subsistence farming with approximately 12% depending on other sources, including artisanal mining, fishing, salaried employment, general labour, livestock keeping and small trading.

The current population living within the area of the SML (as per the household census completed in February 2022) is estimated to be 3,656 people and 467 households, with an average household size of 7.8 persons.

A resettlement policy framework has been developed by Digby Wells as part of the resettlement planning for the Project. Land delineation and asset valuations have already been completed in close consultation with the GoT and host community. A detailed resettlement action plan and livelihood restoration plan is under development.

An environmental and social impact assessment (ESIA) was undertaken and submitted to the National Environment Management Council (NEMC) for approval in late 2017. The ESIA was conducted in compliance with the NEMC requirements and prescribed format. NEMC granted an Environmental Certificate to NMCL for the Project in February 2018. This has subsequently been re-registered and transferred to SMCL.

To support the Project's potential application for funding from International Finance Institutions OreCorp engaged ERIAS Group to conduct a review of the ESIA against the Equator Principles and current, relevant, International Finance Corporation (IFC) Performance Standards on Environmental and Social Sustainability (IFC, 2012) and World Bank Group standards and guidelines. The gap analysis identified several areas for improvement, which are being addressed and results will be incorporated in a revised ESIA document.

1.9.1 Mine Closure

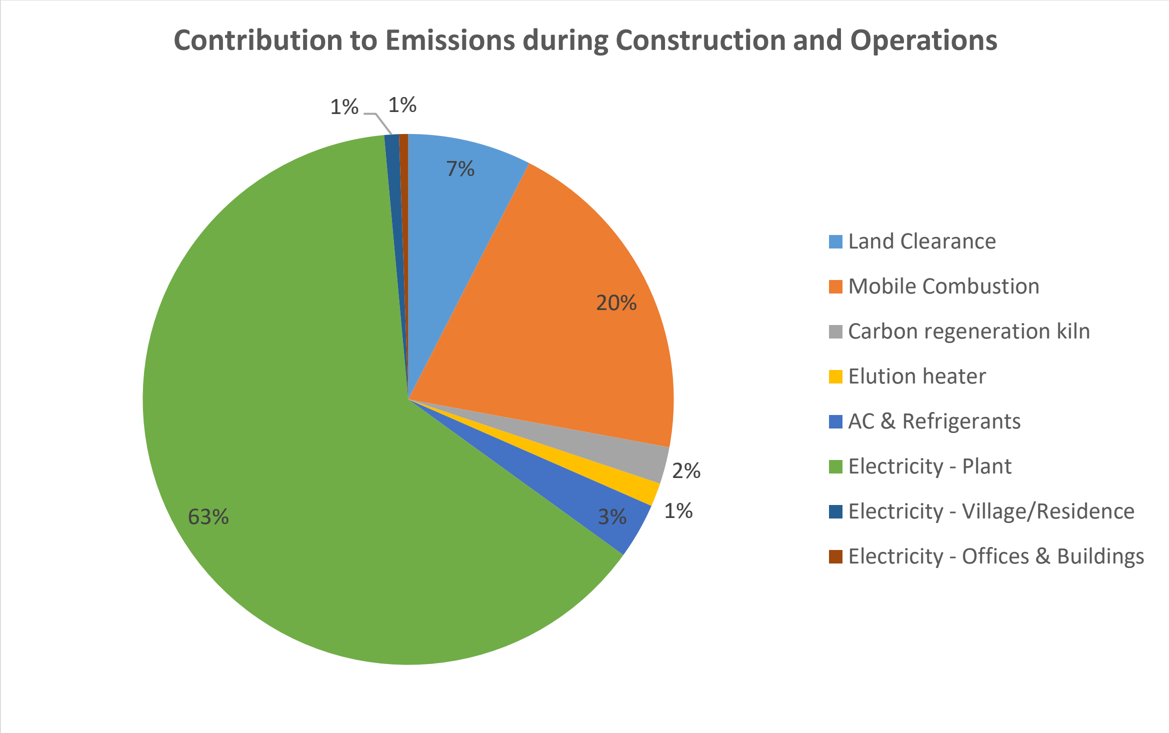
A draft mine closure plan (MCP) is being developed in accordance with the requirements of the Tanzanian Ministry of Minerals Mine Closure Guidelines (2019). Apart from fulfilling Tanzanian regulatory requirements, consideration of impacts associated with the closure and post-closure phases is also a requirement under the IFC Performance Standards (2020).

1.9.2 Greenhouse Gas Emissions

A Greenhouse Gas (GHG) assessment for the Project was undertaken by Umwelt Solutions and SRK Consulting South Africa (Pty) Ltd (SRK) (Umwelt, 2022). The assessment included the estimation of GHG emissions for Scope 1 and Scope 2 activities associated with the proposed Project for construction and operational phases. The GHGs evaluated in the study included carbon dioxide (CO_2), nitrous oxide (N_2O) and methane (CH_4), which were estimated using the GHG protocol, ISO 14064, and the Intergovernmental Panel on Climate Change (IPCC) emission estimation methodology, which is consistent with the 2006 IPCC Guidelines.

The Scope 1 and 2 emissions during construction is estimated to be 148,678 tCO_{2e}, while these emissions during operations amount to approximately 1,484,786 tCO_{2e}. Electricity consumption from the grid (Scope 2) remain the largest contributor over these two phases; while land clearance and mobile combustion of fossil fuels are the main sources of Scope 1 emissions. A breakdown of the total Scope 1 and Scope 2 emissions as shown in Figure 1.9.1.

Figure 1.9.1 Total Scope 1 and Scope 2 Emissions



Electricity (Scope 2) is significantly the largest source of CO_2e emissions by the Project. Electricity will be sourced from TANESCO, which is produced using a mix of hydropower, natural gas and fossil fuel power. Hydropower currently makes up approximately 31% of the installed 1,602 MW power supply capacity of Tanzania. Hydropower projects currently being developed will ultimately increase the contribution of hydropower to approximately 71%.

The electricity Scope 2 emissions are calculated based on the current grid emission factors and will reduce significantly following commissioning of the hydropower projects currently being developed.

The average operating emissions for the Project are 0.58 t CO_2e/ounce of gold. Emissions intensity averaged 0.7 t CO_2e/ounce of gold produced in 2020 by more than 90 leading gold mines globally (S&P Global Market Intelligence, September 2021). The project is 17% less emissions intensive. Decarbonisation

SRK conducted a decarbonisation study to identify decarbonisation opportunities. The options range from those which are easily implemented as part of the design phase, through to those requiring technology advancements to make them feasible. The opportunities identified were:

- Small-scale solar applications for offices and housing for lighting and water heating.
- Energy efficient lighting.
- Optimised ventilation systems.

- Replacement of diesel-operated process equipment with electric.
- Electric vehicles, or hybrid vehicles.
- Hydrogen vehicles and machinery.
- Onsite hydrogen generation.
- Automated and optimised drilling.
- Ore pre-treatment with Microwave or High Voltage Pulse (HVP).

The viable options will be further explored and incorporated in the design and over the life of the Project. The Company will continue to evaluate evolving technologies.

1.10 Project Implementation and Schedule

1.10.1 Project Implementation

The Project execution strategy is based on an engineering, procurement and construction management (EPCM) implementation approach. Specialist consultants will be contracted to address specific elements of the Project outside the core competency of the EPCM Engineer, including mining, geotechnical, environmental and the TSF and surface water management.

Mine development and operations are to be contracted to a suitably qualified mining contractor in sufficient time for mobilisation to site, establishment of support facilities, preparation of the mining fleet, training of operators, construction of haul roads, clearing of areas for the waste dump and other facilities and other activities necessary prior to mine operations commencing.

Key milestone dates in the Project implementation schedule are shown in Table 1.10.1.

Table 1.10.1 Development Schedule Key Milestone Dates

Activity Name	Month
Approval to Proceed with FEED and Long-Lead Procurement	M-30
Approval to Proceed with Detailed Engineering & Drafting and Procurement	M-27
Full Funding Approval (FID), EPCM Contract Award, Award Mills	M-27
Commence Plant Bulk Earthworks	M-21
Commence Plant Civil / Concrete Works	M-19
Commence Plant SMP Works	M-14
Commence Plant Tanks Works	M-14
Engineering, Design & Drafting Complete	M-13
Commence Plant Electrical Works	M-13
Permanent Power Supply Required (Start Plant Switch room Commissioning)	M-7
Plant & Administration Buildings Construction Complete	M-6
Commence Plant Wet Commissioning	M-4
First Gold Pour	M1

Note: Month 1 (M1) representing commencement of commercial production.

A permitting pathway has been generated that encompasses all necessary permits and approvals and the Company has commenced engagement with various Ministries and authorities to progress these permits.

The Project team is responsible for the Operational Readiness. These works will include operations team recruitment, maintenance systems establishment, establishment of procedures and site systems, procurement of first fills, procurement of insurance spares, operating spares and warehouse consumables and general site fit out.

1.11 Capital Cost Estimate

The LOM project capital cost estimate of USD645.5 million includes pre-production, sustaining, rehabilitation and closure costs required for the Project for a mine life of 10.7 years with a processing production rate of 4.0 Mtpa. Project capital costs are summarised in in Table 1.11.1

Table 1.11.1 Project Capital Cost Estimate Summary (USD, Q1, 2022, +15/-5%)

Main Area	USD M
Pre-Production Capital Costs	473.8
Sustaining Capital Costs	145.5
Rehabilitation & Closure Costs	26.2
Project Total	**645.5**

The pre-production capital cost of USD474 million includes all fixed infrastructure necessary to commence production including indirect costs such as Owners costs, spares, first fill of reagents / consumables, the initial stage of TSF, working capital and taxes (withholding and duties). Mining costs prior to commencement of production are also included as summarised in Table 1.11.2 The pre-production capital cost estimate, considered to have an accuracy of +15% / -5%, is based on information obtained during the first quarter, 2022 (Q1, 2022).

Table 1.11.2 Pre-production Capital Cost Estimate Summary (USD, Q1, 2022, +15/-5%)

Main Area	Pre-production Capital USD M
Treatment Plant	89.2
Reagents and Services	23.8
Infrastructure General	71.5
Mining	110.0
Contractor and Construction Indirects	42.4
Management Costs	31.2
Owner's Project Costs	39.9
Resettlement	22.1
Working Capital	3.9
Taxes and Duties	3.7
Contingency	36.1
Project Total	**473.8**

The sustaining capital cost estimate of USD145.5 million includes expenditure required during the life of the operations to maintain production at the specified capacity. Table 1.11.3 provides a summary of sustaining capital costs.

Table 1.11.3 Sustaining Capital Cost Estimate Summary (USD, 1Q22, +15/-5%)

Main Area	USD M
Mining	88.5
Process Plant	17.3
General Infrastructure	8.7
Tailings Storage Facility	31.0
Project Total	145.5

Rehabilitation and closure costs of USD26.2 million include costs to address the reclamation and rehabilitation of land and watercourses, support socio-economic activities for the local communities and provision of statutory and other benefits to employees.

Estimate pricing has been derived from a combination of the following sources:

- Budget pricing from vendors.
- Budget rates from mining contractors.
- Recent historical pricing for equipment and materials.
- Rates from recent historical data.
- Benchmarking for expat and local labour rates.
- Allowance.

Contingency is an integral part of the estimate and has been applied (after careful analysis) to all parts of the estimate, i.e. direct costs, indirect costs, services costs, etc.

1.12 Operating Cost Estimate

The LOM operating cost summarised in Table 1.12.1 has been estimated by utilising an operating cost model that incorporated the input costs derived from the mining schedule and costs developed by Snowden, the plant feed schedule developed by Snowden, the processing costs developed by Lycopodium and the general and administrative costs (G&A), selling and royalties costs developed by OreCorp.

Table 1.12.1 Overall LOM Operating Cost Estimate (USD, Q1, 2022, ±15%)

Item	Cost Centre	USD M	USD/t Ore	USD/oz
Operating Costs	Revenue Costs*	326.2	7.67	130.51
	Mining	1278.7	30.08	511.54
	Process Plant	483.3	11.37	193.33
	G&A	150.3	3.54	60.13
	Sub Total Operating Cost	**2,238.4**	**52.66**	**895.51**
Sustaining Capital	Mining	88.5	2.08	35.39
	Plant	17.3	0.41	6.93
	NPI	8.7	0.20	3.47
	Tailings	31.0	0.73	12.41
	Sub Total Sustaining Capital	**145.5**	**3.42**	**58.20**
AISC		**2,383.9**	**56.08**	**953.71**

*** Revenue Costs includes doré transport and refining costs, royalties, and levies.**

The costs have been developed from first principles using prices received from suppliers, quotations for mining operations, Lycopodium's database of operating costs from similar projects in Africa and data provided by OreCorp.

1.13 Financial Evaluation

The financial evaluation has been completed on a 100% project basis and is based on a long-term gold price of USD1,750/oz. Table 1.13.1 presents key economic inputs for the study.

Table 1.13.1 Key Economic Inputs

Item	Input
Gold price	USD1,750/oz
Fuel price	USD1.00/L
Grid power cost	USD0.08/kWh
Discount rate	5%
Tanzania government royalty	6%
Inspection fee	1%
Service levy	0.3%
Corporate tax rate	30%
VAT rate	18%

At the base case gold price of USD1,750/oz, pre-tax NPV5% is USD926 million with an IRR of 31% and a payback period of 3 years from the commencement of production. Post-tax NPV5% is USD618 million with an IRR of 25% and a payback post-tax of 3.7 years from commencement of production.

The Project generates average pre-tax cash flows of USD140 million p.a. over the 10.7 years processing life.

The pre-tax LOM operating margin (operating cash flow less sustaining capital divided by revenue) is 46%.

The average all in sustaining cost (AISC) of gold production is USDD954/oz and all in cost (AIC) is USD1,054/oz, which includes initial capital costs and mine closure costs.

Table 1.13.2 summarises the LOM Project financial evaluation.

Table 1.13.2 LOM Financial Summary

Category	Item	Unit	Base Case
Revenue		USD M	4,374
Capital	Pre-production	USD M	474
	Sustaining	USD M	145
	Rehabilitation	USD M	26
Cash flow	Net operating cash flow over LOM	USD M	2,135
	Net Project cash flow over LOM – pre-tax	USD M	1,490
	Net Project cash flow over LOM – post-tax	USD M	1,034
Return measures: pre-tax	NPV at 5% discount rate	USD M	926
	IRR	%	31
	Payback from start of production	Years	3.0
Return measures: post-tax	NPV at 5% discount rate	USD M	618
	IRR	%	25
	Payback from start of production	Years	3.7

Figure 1.13.1 Pre-Tax Cashflow

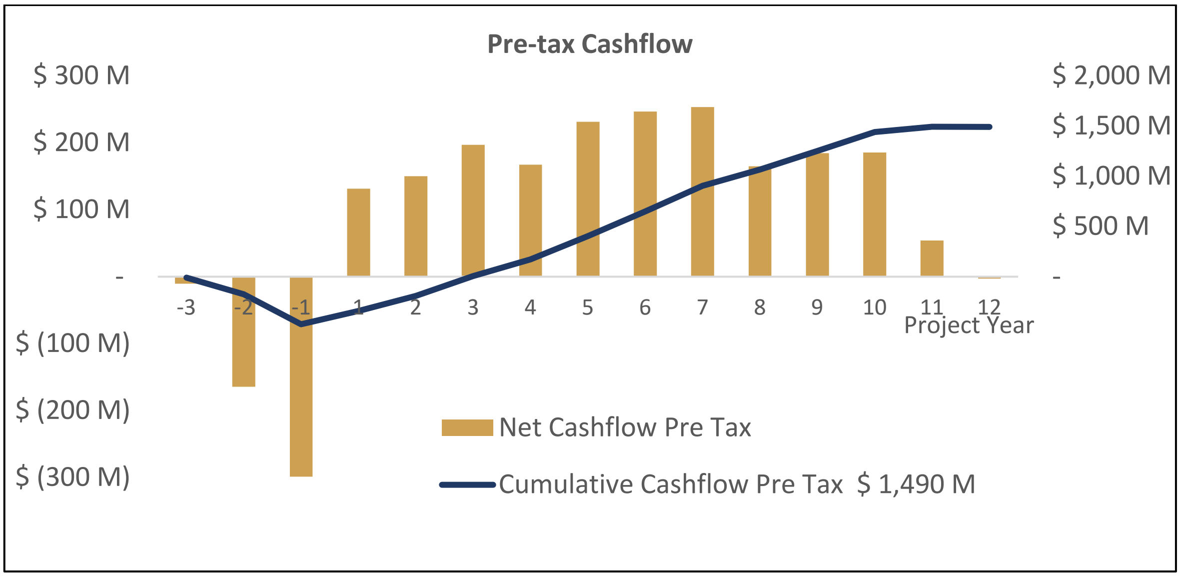


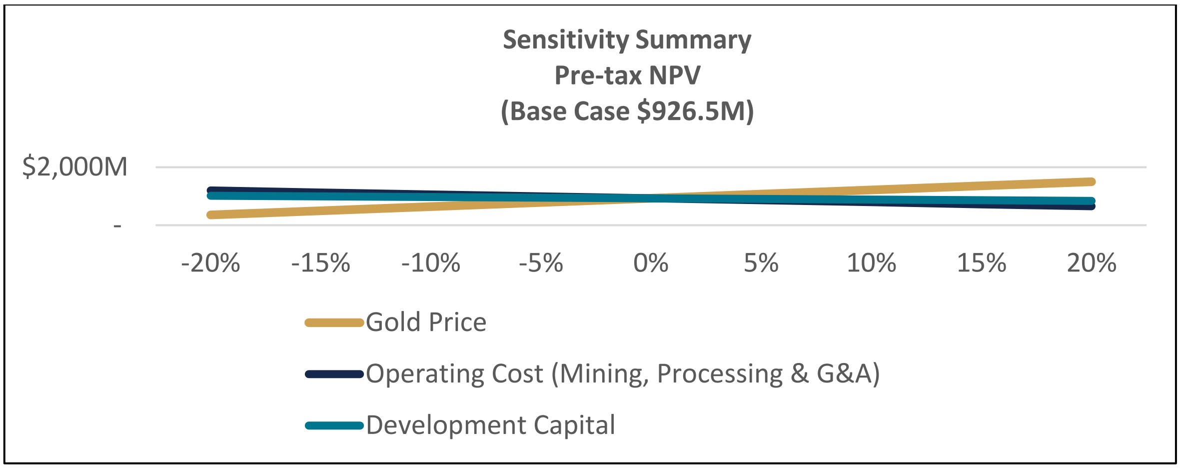
Table 1.13.3 provides a sensitivity analysis demonstrating that the project is robust under a range of gold price assumptions based on the forecast project economics.

Table 1.13.3 Sensitivity Analysis

			USD 1,500/oz	USD 1,625/oz	USD 1,750/oz	USD 1,875/oz	USD 2,000/oz
Pre-Tax	$NPV_{5\%}$	USD M	518	722	926	1,131	1,335
	IRR	%	21	26	31	36	40
	Payback	Years	4.3	3.7	3.0	2.7	2.4
	Opex	USD/oz	877	886	896	905	914
	AISC	USD/oz	935	945	954	963	972
Post-Tax	$NPV_{5\%}$	USD M	331	475	618	762	905
	IRR	%	16	21	25	28	32
	Payback	Years	4.5	4.0	3.7	3.2	2.8

Figure 1.13.2 shows the output of the sensitivity analysis conducted on the project economics by considering independent changes to the listed inputs.

Figure 1.13.2 Sensitivity Analysis (Pre-tax)



1.14 Project Risk Assessment

A detailed Risk Register was developed with input from consultants, corporate and local management. The various contributors were tasked with listing risks identified during the execution of the DFS for consolidation into a project risk register. The identified project risks were ranked using a project risk matrix which is based on the OreCorp corporate risk matrix.

In total 80 project risks covering construction and operations were identified and reviewed. As expected for a project at DFS stage no risks were identified as being unacceptable. With mitigating controls applied 33 risks are rated low and 39 risks were rated as moderate which are tolerable to the project but will require monitoring. A total of eight risks remained with a residual high risk ranking. These high risks are accepted by the project but require a high level of attention to ensure they are tightly managed.

The risk register will evolve and be updated periodically throughout the construction and operational phases. Formal HAZID and HAZOP exercises, as well as constructability reviews will be held during the engineering and design process.

1.15 Recommendations

This DFS study supports a decision to take the Project forward to the Front-End Engineering Design stage.

During this stage, the design of the process plant and infrastructure will be based on the completed metallurgical and physical testwork with metal recoveries and reagent consumption rates confirmed, the process flowsheet will be agreed and frozen, the site layout will be optimised and support facilities for mining operations will be finalised. The environmental impact assessment work will be completed, the operations plans will be firmed up and key elements of the capital and operating costs will be confirmed through binding competitive tenders.

OreCorp Limited

Nyanzaga Project DFS

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