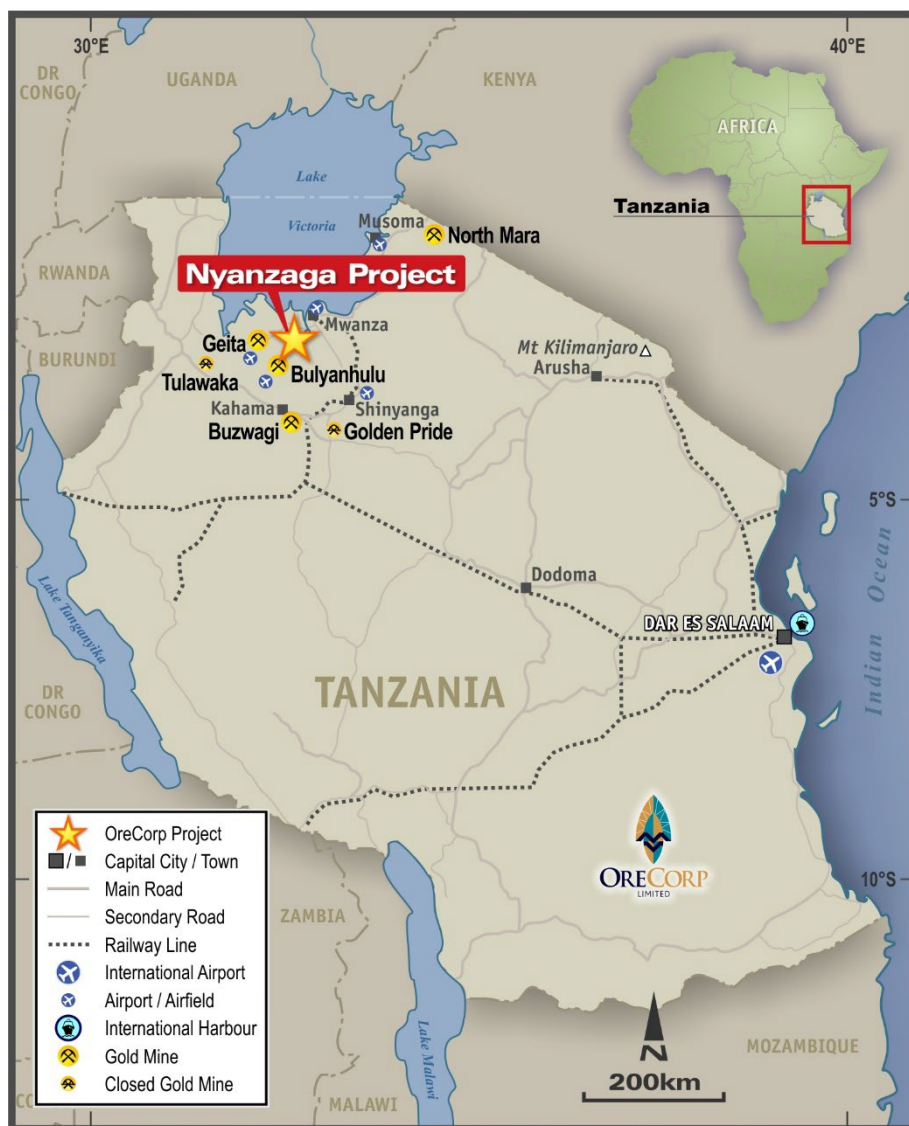


2.0 PROJECT DESCRIPTION

2.1 Project Location

The Nyanzaga Gold Project (Nyanzaga or Project) is located in north-western Tanzania, south of Lake Victoria within the Sengerema District of the Mwanza Region. The Project is approximately 60 km southwest of Mwanza (Tanzania’s second largest city) and 7 km southeast of Ngoma. Nyanzaga is approximately 60 km east of the Geita Gold Mine and 35 km northeast of the Bulyanhulu Gold Mine, at 2° 58’S Latitude and 32° 42’E Longitude as shown in Figure 2.1.1.

Figure 2.1.1 Nyanzaga Project Location, Northwest Tanzania



2.2 Project Overview

The development proposed for Nyanzaga consists of concurrent open pit and underground mining at a combined ore production rate of 4 million tonnes per annum. The underground development is below the open pit and accessed via a boxcut, portal and decline. The ore is processed in a conventional milling and carbon-in leach (CIL) plant adjacent to the open pit and underground portal.

A portion of the tailings from the CIL plant, after cyanide recovery, is deslimed and used for cemented paste-fill in the underground stopes. The balance of the CIL tailings will be deposited in a conventional, lined, tailings storage facility (TSF) from which the recovered water will be returned to the CIL plant.

Power for the mine will be drawn from the Tanzania Electric Supply Company Limited (TANESCO) national grid at the Bulyanhulu substation and delivered to Nyanzaga via a new 220 kV transmission line. A dedicated mine substation will be located adjacent to the CIL plant from where power is reticulated throughout the Nyanzaga mine site.

Raw water for the mine site will be drawn from the nearby Smith Sound at the southern end of Lake Victoria and pumped to a raw water pond at the CIL plant. Water run-off from Project activities will be collected, desilted and pumped to the CIL plant and will be used as a priority over the raw water.

The mine features the usual infrastructure including bulk fuel storage, explosives magazine, workshops, stores offices etc.

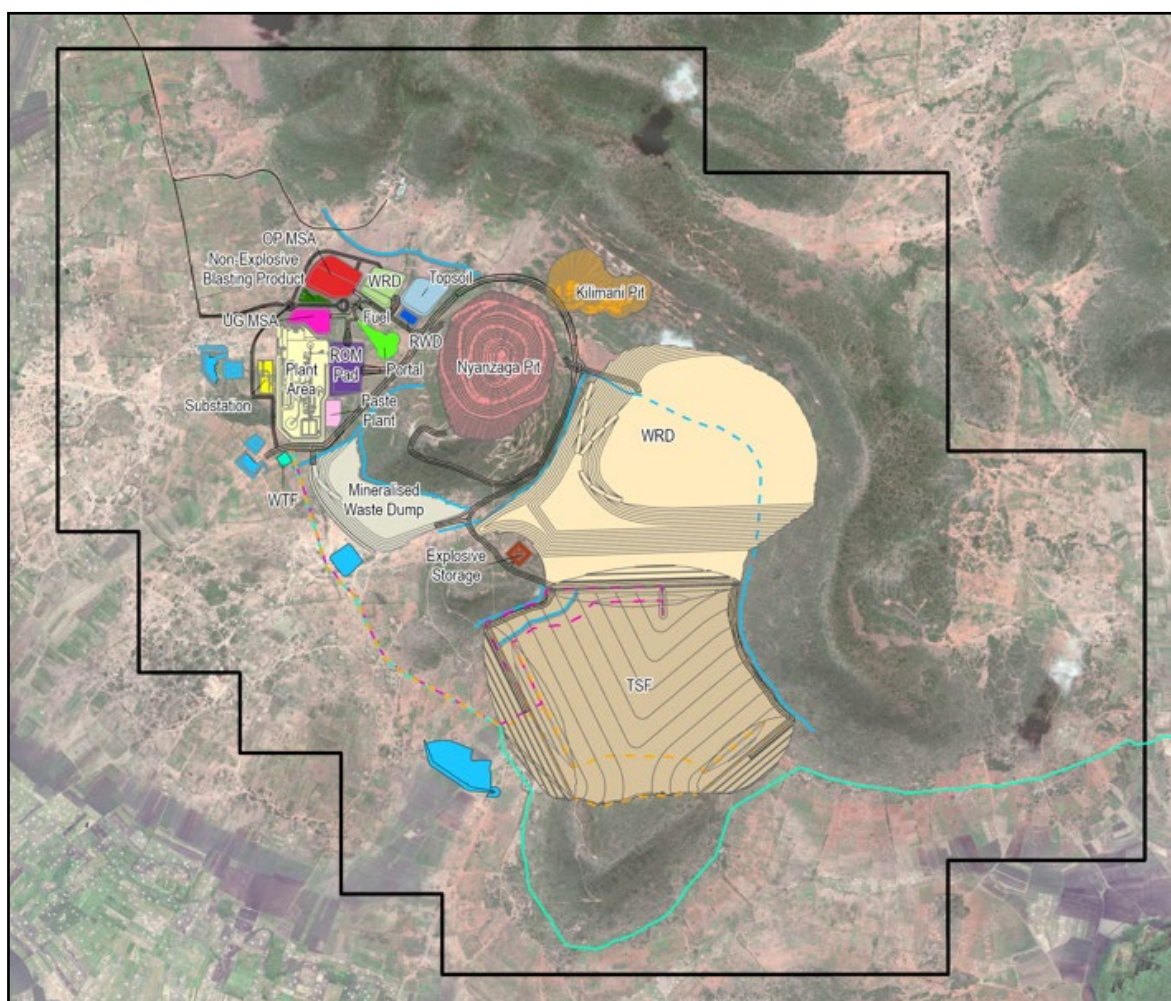
A fully serviced accommodation village, with a capacity to accommodate 200 senior personnel, will be situated near the mine to house senior staff from outside of the immediate vicinity of the mine. Junior staff, drawn from the nearby town of Ngoma and the smaller villages will reside in their homes. The local community will be prioritised for employment at Nyanzaga.

The access road to Nyanzaga, from the national road at Ngoma, follows the rural road under the management of the Tanzania Rural and Urban Roads Authority (TARURA). An upgrade to this road is proposed for the Project in accordance with TARURA standards and a bypass for Ngoma, from the national road to the rural road, is planned to avoid heavy mine traffic passing through Ngoma.

2.3 Project Layout

The Project infrastructure general arrangement is shown in Figure 2.3.1.

Figure 2.3.1 Nyanzaga Project Special Mining Licence Area and Infrastructure Layout



2.4 Project History

Nyanzaga was first discovered in the mid-1930s with modern exploration commencing in the mid-1990s by Sub-Sahara Resources. Over the next 18 years, subsequent phases of drill testing were undertaken by a suite of mining and exploration companies which included; Sub-Sahara Resources, Western Metals, Placer Dome, Anglo American, African Barrick Gold (ABG). By 2014, the former owners envisaged the Project as a large-scale, large-capex, low-grade bulk tonnage operation which boasted a NI43-101 resource estimate of 4.19 Moz Au at 1.3g/t in 100 Mt. This resource was bound within a pit that would be over 600 m deep and would require a plant to process 10 - 12 Mt per annum and substantial capex. By late 2015, gold was \$1,080 per ounce and Nyanzaga required a fresh approach.

In September 2015, OreCorp entered a joint venture (JV) on the Project. For OreCorp, the Project presented the opportunity to identify mineable higher-grade zones within a very large auriferous stockwork system. OreCorp earned its 51% interest in Nyanzaga in July 2018 and moved to 100% ownership in October 2019.

The Project currently comprises a Special Mining Licence (SML) and 12 prospecting licences and applications (refer to Section 13 for further information on licence tenure). The SML was granted on 13 December 2021 to Sotta Mining Corporation Limited (SMCL). SMCL is a JV between the Government of Tanzania (16%) and OreCorp (84%), through its wholly owned subsidiary Nyanzaga Mining Company Limited (NMCL). OreCorp is managing and undertaking the feasibility studies for the Project.

2.5 Geological Setting

Nyanzaga is located on the north-eastern flank of the Sukumaland Archaean Greenstone Belt of the Lake Victoria Goldfield. The Project area covers Nyanzian greenstone volcanic rocks and sediments typical of the greenstone belts of the central craton.

Both the Nyanzaga and Kilimani deposits are orogenic gold deposits, hosted by a sequence of chemical and volcanoclastic sediments. The two mineralisation systems show similar alteration and mineralisation styles, though the Kilimani deposit is interpreted to have been emplaced at shallower levels than at Nyanzaga.

The Nyanzaga and Kilimani deposits occur within a sequence of folded Nyanzian sedimentary and volcanic rocks. The current interpretation of the Nyanzaga deposit has recognised a sequence of mudstone, sandstone and chert that are folded into a northerly plunging anticline.

Typical alteration features include pervasive carbonate alteration, varying from distal ferroan-calcite to proximal ankerite-sericite dominated and quartz-pyrite alteration. The current interpretation indicates that there is a distinct lithological control on mineralisation and most of the gold appears to be hosted by iron rich sediments in the form of an extensive stock-work of carbonate, quartz veins, and quartz-carbonate breccias.

Higher grade gold mineralisation at Nyanzaga occurs both in lodes associated with later stage sub-vertical faults and breccias and within preferentially altered, strata-bound mineralisation.

2.6 Site Topography

The central part of the Project is dominated by ranges of hills which run roughly northwest–southeast, see Figure 2.6.1. The ranges rise from a height of approximately 1,100 m above sea level to 1,450 m. The hilly ground is covered by light to medium miombo woodland, surrounded by gently sloping ground, proximal to the hills often covered by indurated laterite, rock boulders and gravels. The mineralised zone in the Nyanzaga hill area forms the basis of the DFS, and regional exploration is ongoing to identify potential further mineralised zones that may in future augment the Nyanzaga and Kilimani deposits.

Most of the areas to the south and to the east towards Lake Victoria are relatively flat-lying and are covered by old lake sediments of black cotton soil (mbuga), parts of which are waterlogged during the rainy season and are mainly used as farmland. There are few seasonal rivers, the main one being the Wingi River which drains water from the Project area to Lake Victoria.

Figure 2.6.1 Aerial View of the Project Site (looking West)



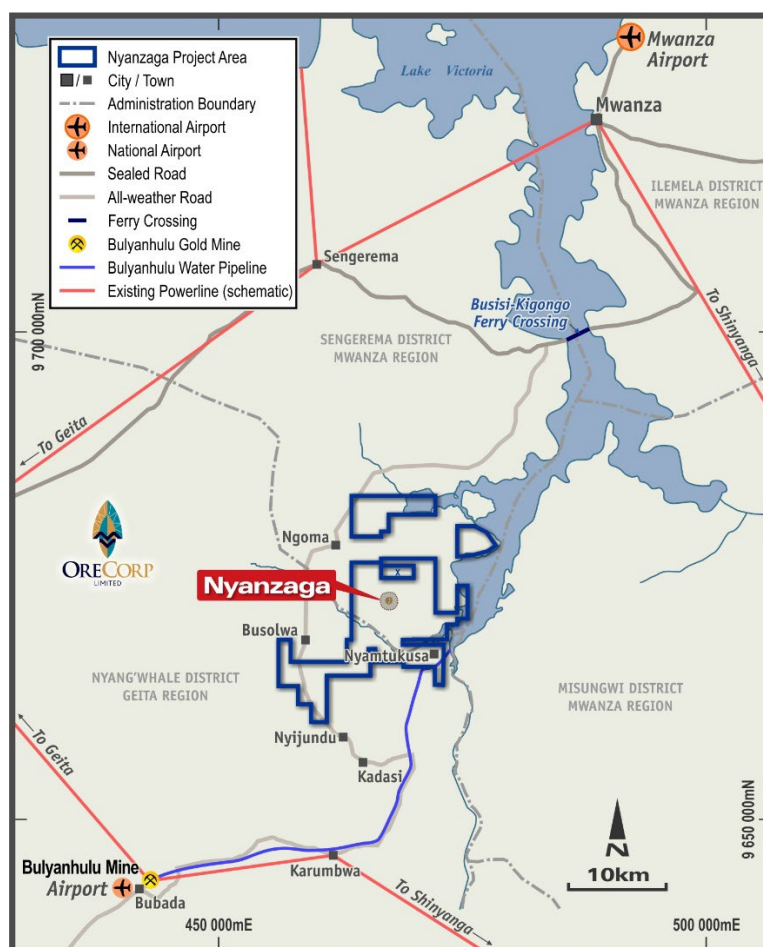
2.7 Site Access

Many international airlines fly into Tanzania from Europe, the Middle East and elsewhere in Africa. Regular domestic flights, supplemented by charter airlines, provide connections to Mwanza Airport.

Alternatively, the road route between Dar es Salaam and Mwanza is just over 1,100 km.

Road access to the Project from Mwanza is via the sealed Mwanza-Geita Highway, crossing the Smith Sound by ferry, with a turn-off to Ngoma Village (approximately 35 km gravel road) finishing with 7 km gravel road to Nyanzaga camp, see Figure 2.7.1 below. Alternative road access is from Bulyanhulu Gold Mine on approximately 65 km of gravel road via Karumbwa, Nyundu and Ngoma. A new road bridge, crossing Smith Sound at Busisi, is currently under construction and due for completion in 2024. This will significantly improve access from Mwanza to Nyanzaga.

Figure 2.7.1 Nyanzaga Project Location and Access



The national road network is generally well maintained by the Tanzania National Roads Agency (TANROADS) as far as Ngoma. The rural roads managed by TARURA are not well maintained and an upgrade to the rural road from Ngoma is planned for this Project with TARURA agreement.

Regional access is also available from Nairobi and the port of Mombasa in Kenya.

2.8 Climate

The climate of Tanzania ranges from tropical, along the coast, to temperate, in the highlands, due mainly to the widely varying topography of the country. The central, northern and western regions (e.g., Mwanza, Kagera, Kigoma, Shinyanga and Tabora), including the area in which the Project is located, have a climate moderated by the highland plateau.

Monthly precipitation data, collected at the Mwanza Meteorological Station (MMS) operated by the Tanzania Meteorological Agency (TMA), for the period 2011 to 2020 indicated that the mean monthly rainfall over the period varied between 12 mm in July to 172 mm in April. The mean annual total precipitation recorded at MMS was 1,051 mm.

The rainfall pattern suggests a bimodal rainy season comprised of the long rains of Masika between March and May and short rains of Vuli between October and December (which is typical for the Lake Victoria basin). The dry season occurs between June and September when the average monthly rainfall is 0 to 38 mm per month.

The temperature records for the MMS (10-year average) indicate that the mean monthly maximum temperature varies between 24°C and 29°C. The minimum temperature varied between 15°C and 19°C. Temperatures exhibit daily and seasonal temperature variation, ranging between 20°C to 27°C during the cooler months of June through August, and reaching 30°C between the months of December and March.

2.9 Social Context

The SML is located within Igalula Ward and overlays the village areas of Sotta and Nyabila. The SML surface area is estimated to be 23.36 km² in size.

The population of Igalula Ward (as per the 2012 Census¹) is estimated to be 24,096 people and 3,777 households, with an average household size of 6.3 persons. The population growth rate is 6.9%, which is above the district average growth of 3.5% in the same estimated period. About 11,715 out of the total population are males, while 12,381 are females.

The current population living within 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. In addition to the 467 households living in the SML area. About 49% of the total Project-affected population are females.

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. For most subsistence farmers, crop sales are their main source of income. Other supplementary sources of income are sale of livestock, firewood, charcoal, medicinal plants, processed food products and grass/reeds.

Approximately 7.7 km² (33%) of the total SML area is uncultivated, being the hilly areas of Kilimani Ridge, Nyanzaga Hill and Nyamtukuza Hill. Most of the remaining land is used for food and cash crops. The main food and cash crops grown are maize and rice, and to a lesser extent crops such as lentils, beans, ground nuts, sweet potatoes, cassava, chickpeas and sorghum. Cash crops include cotton, sisal and aloe vera. Mango trees are the main fruit tree in the area. Most households have a land size of 1 to 10 acres.

¹ The last census in Tanzania was undertaken in 2012, with the next census planned for August 2022.

Health facilities in the Project area are unequally distributed with three dispensaries, one each at Sotta, Ngoma and Lubungo villages. The quality of health services in the local study area is constrained by the lack of health professionals and medical facilities. The most prevalent diseases in the area are malaria, acute respiratory infection, diarrhoea, intestinal worms, eye infection, pneumonia, sexual transmitted infection, skin infection, AIDS and schistosomiasis.

2.10 Tanzania Overview

Tanzania is located on the east coast of Africa, 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 (with an all-water boundary in Lake Tanganyika), and to the south by Zambia, Malawi and Mozambique. To the east, it borders the Indian Ocean. It has almost 4,000 km of land boundaries and almost 1,500 km of coastline. Its total land area is about 945,000 km² (including the islands of Zanzibar, Mafia and Pemba).

The United Republic of Tanzania was formed in April 1964 from the union of Tanganyika and Zanzibar, which were granted independence in 1961 and 1963, respectively. Tanganyika had been a German colony, a British administered League of Nations Mandate, and a United Nations Trust Territory under British Administration. Zanzibar was a British colony until 1963.

Tanzania is a member of the United Nations, the Commonwealth, the African Union and a number of other international organisations. It is also a member of a number of regional organisations, most notably the East African Community, which oversees subsidiary bodies such as the Lake Victoria Basin Commission (LVBC).

Tanzania has enjoyed relative political stability since its independence from the British, avoiding the turmoil experienced by many other African countries. Although there has been political turbulence in the region, Tanzania has often acted as a stabilising force in East Africa.

Tanzania is a constitutional multi-party democracy comprising two governments: the Union Government, which doubles as the mainland (Tanganyika) government, and the Zanzibar Government. The First Schedule to the Union Constitution lists 22 Union matters. These include the Constitution and the Government of the United Republic, foreign affairs, defence and security, police, citizenship, immigration, emergency powers, external borrowing and trade, service in the Union Government, certain types of taxation, harbours, air transport, posts and telecommunication, currency, industrial licensing, higher education, minerals, oil and gas, civil aviation, statistics, the Court of Appeal and registration of political parties. Zanzibar retains, among other things, the management of its internal economy.

Before 1999, the only mining of any significant scale in Tanzania was the Williamson Diamond operation in Mwadui. The opening of Resolute's Golden Pride mine in 1999 marked the beginning of a new era of mining development in the country. The start of production from Golden Pride was followed closely by the opening of the Geita Gold Mine and then by Bulyanhulu, the first modern underground mine in the country. The minerals sector continues to show growth and provides significant export value. Gold has become the country's largest export in recent years and is dominated by three mines. The contribution of the mining industry to the Tanzanian economy has grown significantly since the first of the modern gold mines opened. Mining and quarrying reportedly added 9.9 Trillion Tanzanian shillings (4.3 Billion

US dollars) to Tanzania's Gross Domestic Product in 2020. The industry contributes significantly to government revenues in the form of royalties, duties and taxes.

2.11 Study Contributors

OreCorp engaged the services of Lycopodium Minerals Pty Ltd (Lycopodium) to compile a full scope DFS document for the development and operation of the Nyanzaga mine. Contributions to this document have been provided to Lycopodium by OreCorp and other specialist consultants contracted by OreCorp.

The contributors to the DFS document are shown in Table 2.11.1.

Table 2.11.1 List of Study Contributors

Chapter	Title	Contributor
1.	Executive Summary	OreCorp
2.	Background	OreCorp
3.	Project Ownership	OreCorp
4.	Geology & Resource	OreCorp + CSA Global
5.	Mining & Reserves	Snowden
6.	Metallurgy	Lycopodium + Minescope
7.	Process Plant	Lycopodium
8.	Surface Water Management and Tailings Storage Facility	Knight Piésold
9.	Infrastructure and Services	Lycopodium
10.	Environment, Social and Heritage	Dhamana + Consultants
11.	Mine Closure	Dhamana + Mine Earth
12.	Carbon Footprint	Dhamana + SRK
13.	Legal & Land Tenure	OreCorp
14.	Logistics	Lycopodium
15.	Operations Management	OreCorp
16.	Project Implementation	Lycopodium
17.	Capital Cost Estimate	Lycopodium + Consultants
18.	Operating Cost Estimate	Lycopodium + Consultants
19.	Financial Evaluation	OreCorp
20.	Risk Management	Lycopodium + Consultants

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3.0 PROJECT OWNERSHIP

3.1 Project Ownership and Operation

The Project currently comprises a SML, 11 granted prospecting licences and one prospecting licence application (refer to Section 13 for further information on licence tenure). The SML was granted on 13 December 2021 to SMCL for an initial period of 15 years. OreCorp holds an 84% interest in SMCL through its subsidiary, NMCL. The Treasury Registrar holds the 16% free carried interest of the Government of Tanzania (GoT) in accordance with the Mining Act [CAP. 123 R.E. 2019] (Mining Act).

Framework and Shareholder Agreements between NMCL and the GoT were signed on 13 December 2021. The Agreements specify the key rights and obligations of the parties, as shareholders of SMCL, with respect to the development and management of the Project. The Company now has tenure under the Mining Act to develop and operate the Project and is pleased to be working with the GoT on the development of Nyanzaga.

Pursuant to the Framework Agreement, the GoT has agreed to facilitate the procurement of the rights, permits and approvals necessary for the establishment, development and operation of the Project, subject to SMCL's compliance with Tanzanian procedural and statutory requirements. Fiscal and taxation assumptions and arrangements reflect prevailing Tanzanian legislative and regulatory requirements.

The Shareholders Agreement outlines the relationship between NMCL and the GoT, confirming the parties' shareholding in SMCL, as well as the board structure. The board of SMCL will consist of five directors nominated by NMCL (including the chair) and two directors nominated by the GoT. The Shareholders Agreement also contains standard provisions relating to:

- Board and shareholder meetings, operation and management of SMCL.
- Pre-emption in respect of any proposed transfer of NMCL's shares in SMCL to a third party.
- Reserved matters which will require the approval of the GoT, including in respect of the conduct of business outside approved business plans, other actions outside the ordinary course of business, and winding up and dissolution of SMCL.

The Agreements provide for any disputes to be resolved by reference to international arbitration under the UNCITRAL Arbitration Rules and also contain other customary terms which are typical for an incorporated joint venture.

3.2 Mining in Tanzania

In July 2017 Tanzania Parliament introduced new mining laws. These were:

- The Written Laws (Miscellaneous Amendments) Act, 2017 amending the Mining Act 2010 (Amendment Act).
- The Natural Wealth and Resources (Permanent Sovereignty) Act, 2017 (Sovereignty Act).
- The Natural Wealth and Resources Contracts (Review and Renegotiation of Unconscionable Terms) Act, 2017 (Unconscionable Terms Act).

The introduction of these laws formed the basis for the introduction of a number of mining regulations, including the:

- The Mining (Mineral Rights) Regulations, 2018.
- The Mining (Local Content) Regulations, 2018.
- The Mining (State Participation) Regulations, 2020.
- The Mining (Government Minerals Warehouse) Regulations, 2021.

Key points from these are summarised Table 3.2.1

Table 3.2.1 Summary of Tanzanian Mining Legislation

Mining Legislation	Rate/Compliance
<p>Government Free Carried Interest</p> <p>Free carry</p> <p>Acquisition entitlement</p> <p>Taxes / charges on gross income</p> <p>Mineral royalties</p> <p>Inspection fee</p> <p>Service levy</p> <p>Tax on Profit</p>	<p>16%</p> <p>Ability to acquire up to 50%</p> <p>6% for metallic minerals (includes gold), reduced to 4% in the case of gold sold at refinery centres in Tanzania</p> <p>1% of gross value</p> <p>0.3% of turnover</p> <p>30%</p>
<p>Local Content Regulations</p> <p>Maintain minimum level of Tanzanian employees</p> <p>Use Tanzanian licence service providers or joint venture entities</p> <p>Ownership by indigenous Tanzanian company</p> <p>Use of Tanzanian banks and financial institutions</p> <p>Prepare and submit a local content plan</p>	<p>at least 20% equity participation by Tanzanian citizens</p> <p>At least 20% local shareholding</p> <p>At least 20% local shareholding</p> <p>Submit and report annually, report employment and training quarterly</p>
<p>Corporate Social Responsibility</p> <p>Prepare and submit a corporate social responsibility plan</p> <p>Integrity pledge</p> <p>Government minerals warehouse</p> <p>Establish mineral warehouses</p> <p>Transportation of minerals</p>	<p>Submit annually</p> <p>Comply with Integrity pledge</p> <p>At head office and branches of the bank</p> <p>Requires a permit</p>

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Appendix 4.2	Kilimani Mineral Resource Estimate as at 2 May 2022, Report No R169.2022, CSA Global

4.0 GEOLOGY AND RESOURCES

4.1 Introduction

CSA Global was engaged by OreCorp to produce a JORC 2012 compliant MRE for the Nyanzaga and Kilimani deposits within the Project. Refer Appendices 4.1 and 4.2 for the full reports.

The Nyanzaga MRE was updated in September 2017 as part of the PFS and DFS, following the completion of the 2016 / 2017 drilling program. The updated MRE incorporated an additional 158 drillholes (Diamond, Aircore, Reverse Circulation) for 22,654 m and 12,191 assays.

The Kilimani MRE was updated in May 2022 following the completion of the 2021/2022 drilling campaign. This incorporated a further 68 drillholes (Diamond, Reverse Circulation) for 9,802.3 m.

CSA 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 highlights of the September 2017 Nyanzaga MRE compared to the March 2017 MRE are as follows:

- Mineral Resource grade has increased to 4.03 g/t gold (an increase of 16%).
- 88% of the MRE (both tonnage and metal) is in the Measured and Indicated Mineral Resource categories, an increase of 5%.
- The amount of contained gold in the Measured Mineral Resource category has doubled to 738 koz gold (up from 371 koz gold).
- The Mineral Resource maintains significant scale with 3.07 Moz at the cut-off grade of 1.5 g/t gold.
- This MRE covers a strike length of approximately 600 m, with mineralised widths of individual mineralised zones ranging from 2 to 20 m.
- Mineralisation is open at depth leaving scope for future additional resources to be delineated.
- The orientation and continuity of mineralisation, coupled with the high gold grade, confirms potential for a combined open pit ('OP') and underground operation ('UG').

The September 2017 Nyanzaga MRE was used as the basis of the DFS. Work on the MRE has been supported by extensive interpretive geological and geostatistical work completed by OreCorp and CSA geologists. The September 2017 Nyanzaga MRE is reported at a cut-off grade of 1.5 g/t Au and is classified in accordance with The JORC Code (2012 Edition), as shown in Table 4.1.1 and Table 4.1.2.

Table 4.1.1 Nyanzaga Deposit – Mineral Estimate, Reported at 1.5 g/t Cut-off

JORC 2012 Classification	Tonnes (Mt)	Gold Grade (g/t)	Gold Metal (koz)	Gold Metal (Ton)	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
Total¹	23.70	4.03	3,072	95.56	2.82

Ordinary Kriging ('OK') was used to estimate gold into 10 m x 10 m x 10 m parent cell panels for high grade mineralisation. Uniform Conditioning ('UC') was used to estimate gold into 10 m x 10 m x 10 m parent cell panels for low grade mineralisation. High grade mineralisation was defined using wireframes interpreted at sedimentary cycles, nominal grade cut-off of 2 g/t gold over 3 m downhole length constrained within sedimentary cycles and fault zones. Low grade mineralisation was defined outside the constrained wireframes within the sedimentary cycles. Hard boundaries based on interpreted geological contacts were used to constrain the mineralisation.

The resource model has been created specifically for use in Mine Planning optimisation to define the interface between open pit and underground mining of the resource for the purposes of a definitive feasibility study.

Table 4.1.2 Nyanzaga - Grade and Tonnage Tabulation Sub-celled Model

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

¹ 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.

The highlights of the May 2022 Kilimani MRE compared to the June 2020 MRE are as follows:

- A significant increase in the confidence in the bulk density analysis, increasing confidence in the tonnage estimate.
- The Kilimani MRE comprises 3.4 Mt at a grade of 1.09 g/t for 119 koz contained gold in the Indicated Mineral Resource category; and an Inferred Mineral Resource of 2.9 Mt at a grade of 1.02 g/t for 94 koz contained gold.
- The Kilimani MRE is now classified as Indicated Mineral Resource (55%) and Inferred Mineral Resource (45%), compared to the previous Inferred only.

The May 2022 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 Table 4.1.3 and Table 4.1.4.

**Table 4.1.3 Kilimani Deposit Mineral Resource Estimate
Reported at a 0.4 g/t Gold Cut-off**

OreCorp Limited - Kilimani Gold Deposit – Tanzania Mineral Resource Estimate as at 2 May 2022			
Mineral Resource Category	Tonnes Mt	Gold Grade g/t	Gold Koz
Indicated	3.4	1.09	119
Inferred	2.9	1.02	94
Total¹	6.3	1.06	213

**Table 4.1.4 Kilimani Deposit Grade and Tonnage Tabulation for
Indicated Mineral Resources Subcelled Model**

Cut-off Grade	Tonnage	Grade	Contained Metal
0	3,570	1.05	121
0.1	3,570	1.05	121
0.2	3,570	1.05	121
0.3	3,540	1.06	121
0.4	3,420	1.09	119
0.5	3,140	1.14	115
0.6	2,715	1.23	108
0.7	2,245	1.36	98
0.8	1,820	1.50	88
0.9	1,460	1.66	78
1	1,185	1.82	69

¹ Reported at a cut-off grade of 0.40 g/t gold 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 m x 5 m 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 gold). Reasonable prospects for eventual economic extraction supported by a conceptual pit optimisation generated using a revenue factor of 1 and a gold price of US\$1500.

4.2 Project Geology

The Nyanzaga Project is located on the north-eastern flank of the Sukumaland Archaean Greenstone Belt of the Lake Victoria Goldfield. The Project area covers Nyanzian greenstone volcanic rocks and sediments typical of the greenstone belts of the central craton, refer to Figure 4.2.1

Both the Nyanzaga and Kilimani deposits are higher level of emplacement, orogenic gold deposits, hosted by a sequence of chemical and volcanoclastic sediments. The two mineralisation systems show similar alteration and mineralisation styles, though the Kilimani deposit is interpreted to have been emplaced at shallower levels than at Nyanzaga.

The Nyanzaga and Kilimani deposits occur within a sequence of folded Nyanzian sedimentary and volcanic rocks. The current interpretation of the Nyanzaga deposit has recognised a sequence of mudstone, sandstone and chert that are folded into a northerly plunging anticline, refer to Figure 4.2.2 for the interpreted geology of the Project.

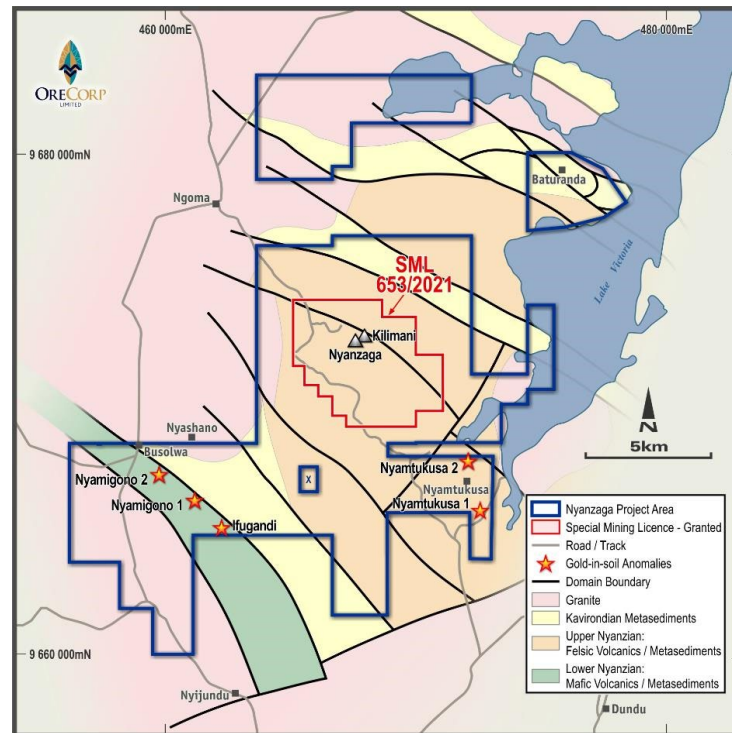
Typical alteration features include pervasive carbonate alteration, varying from distal ferroan-calcite to proximal ankerite - sericite dominated and quartz-pyrite alteration. The current interpretation indicates that there is a distinct lithological control and most the gold appears to be hosted by iron rich sediments in the form of an extensive stock-work of carbonate, quartz veins, and quartz-carbonate breccias. Higher grade gold mineralisation at Nyanzaga occurs both in lodes associated with later stage sub-vertical faults and breccias and within preferentially altered, stratabound mineralisation.

The Kilimani deposit, located 450 m northeast of Nyanzaga, is developed in the fold hinge of an interpreted double plunging anticline. The bulk of the defined deposit occurs in the heavily weathered, upper 140 m from surface.

Figure 4.2.1 Geology of the Sukumaland Greenstone Belt, Tanzania



Figure 4.2.2 Interpreted Geology, 1:25,000 Scale - Nyanzaga Project



Nyanzian mafic and felsic volcanic suites with associated volcanogenic metasediments and banded-iron-formations generally outcrop as prominent strike ridges. The ridges are commonly flanked by broad colluvial scree slopes.

The Nyanzaga deposit occurs within a sequence of folded Nyanzian sedimentary and volcanic rocks. A sequence of three mappable units has been recognised from drill core and outcrop mapping and are in stratigraphical order:

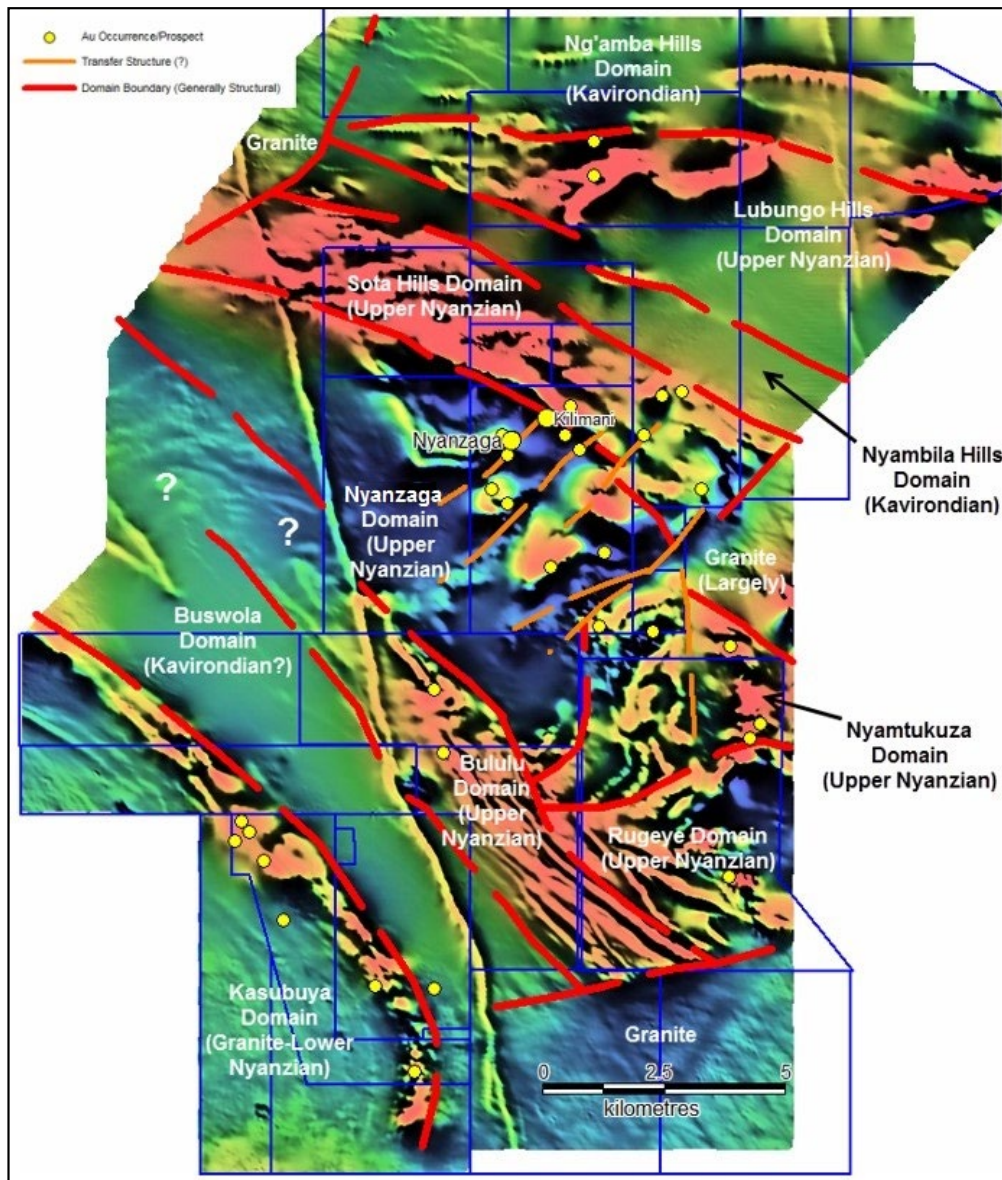
- Nyanzaga Upper Volcaniclastic Formation.
- Nyanzaga Central Formation (formerly Mine Formation).
- Nyanzaga Lower Volcaniclastic Formation.

These three units are folded into the north-northwest plunging Nyanzaga Anticline.

Distinctive structural domains are evident in the regional aeromagnetics and are highlighted in Figure 4.2.3. These domains preserve distinct structural characteristics, and there is a particularly large contrast between intensely deformed domains and relative flat-signature low-intensity deformed domains. These structural boundaries are also likely to locate changes in metamorphic grade between different domains with different structural and metamorphic histories.

The Nyanzaga Domain has a unique signature in terms of folds and magnetic units, and may represent a distinct sub-basin with fault bound compartments. This working interpretation is based on the evidence of local facies and thickness variations (which are observed in the field and in drill core) and the presence of massive sulphides which are likely fault controlled. The basin-bounding extensional faults are likely later reactivated in inversion during compression, and are an important aspect of the local scale architecture of the Nyanzaga Domain.

Figure 4.2.3 Geophysical Interpretation - Nyanzaga Project Area



4.2.1 Stratigraphy

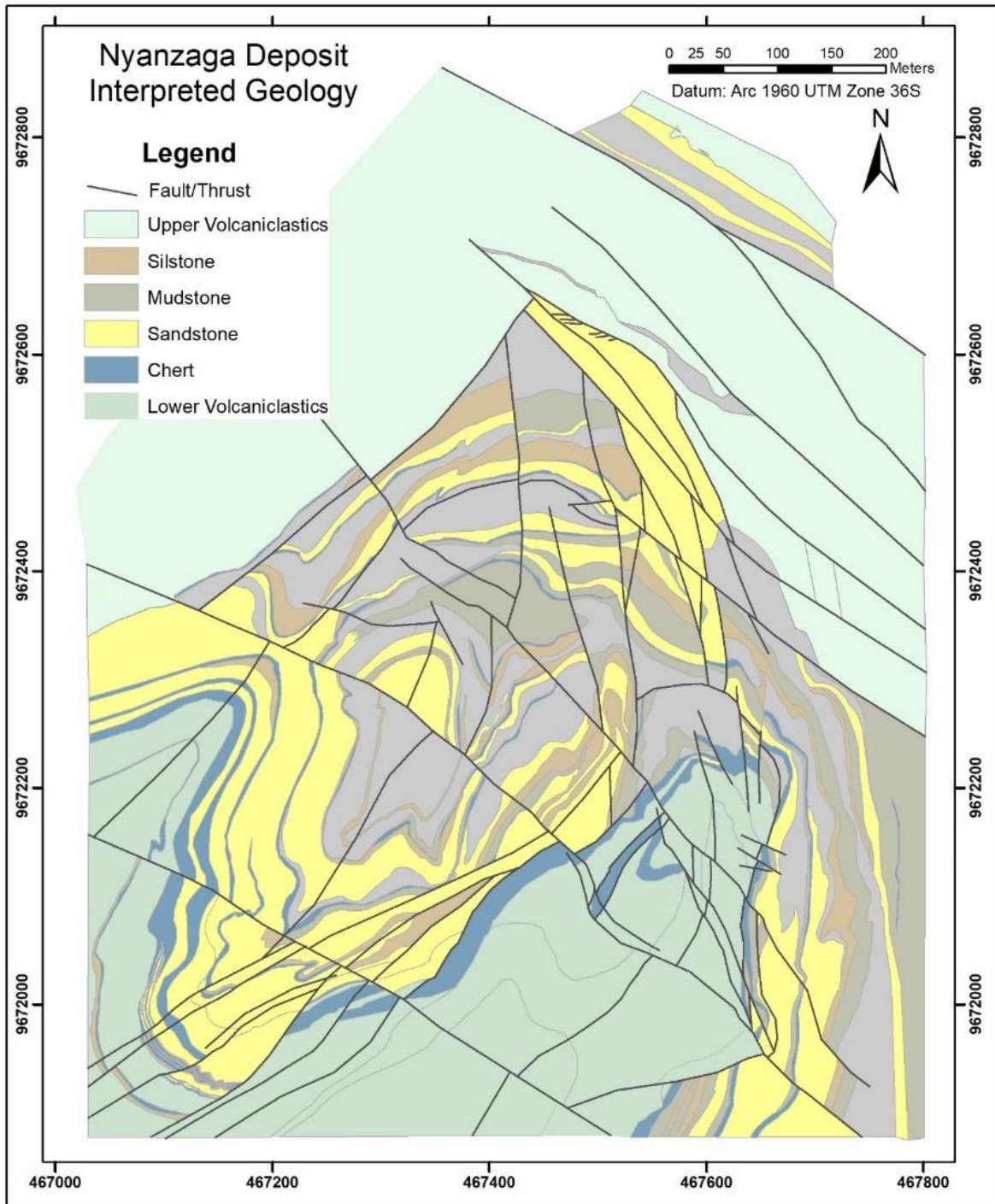
The OreCorp re-logging exercise in 2015 and 2016 identified nine distinctive sedimentary and silica flooding cycle events in the Nyanzaga Central and Nyanzaga Lower Volcaniclastic Formations, refer to Figure 4.2.4. These nine cycles are numbered C1-9.

In summary, the following applies:

- C9 defines the top of the Nyanzaga Central Formation. Chlorite-magnetite mudstone, haematitic chert.
- C4-9. Mudstone Member of the Nyanzaga Central Formation. Chlorite-magnetite mudstone, siltstone, spherulite nodules and minor chert bands at the top.
- C2-4. Sandstone Member of the Nyanzaga Central Formation. Sandstones, siltstones and minor chlorite (+/-) magnetite mudstone and chert bands some syngenetic sulphidic siltstone.
- C1 Chert Member divided into Upper and Lower units. Defines the top of the Nyanzaga Lower Volcaniclastic Formation. Thick, non-magnetic, banded light grey cherts, minor sandstones, sulphidic siltstone and massive sulphide lenses.

The stratigraphic sequence has been modified with some name changes and re-designation of units into different members. Changes made to the Barrick 2012 stratigraphic table included the renaming of the Nyanzaga Mine Formation to read instead as the Nyanzaga Central Formation. The Chert Member was reassigned to the top of the Nyanzaga Lower Volcaniclastic Formation. The Sandstone Member was defined as between Cycle 2 and 4, and the Mudstone Member between Cycles 5 and 9. The revised stratigraphy is shown in Figure 4.2.5 and examples from drill core are presented in Figure 4.2.6.

Figure 4.2.4 Nyanzaga Interpreted Geology



**Figure 4.2.5 Detailed Stratigraphy – Nyanzaga and Kilimani
(after ABG and modified by OreCorp)**

NYANZAGA / KILIMANI DEPOSIT STRATIGRAPHY (update) - January 2019									
Formation		Member		Units			Min.	Description	
Name	Thickness	Name	Thickness	Cycle	Proposed Name	Nom.	Thickness		
Kavirondian					undiff. sandstones basal conglomerates				
Felsic and Interm.Porphry Intrusions		<1-2m				FIY			feldspar-quartz porphyritic dykes
Kilimani Iron Fm.	250-300m	Unassigned			banded-iron-formation	SIS	5-10m		banded-iron-formation silica facies
							10-20m		mudstones and siltstone
Kilimani Mudstone and Sandstone Fm.	60-120m	Kilimani Mb.	60-120m		chert, mudstone, siltstone, sandstone	SCT	1-5m		6-6 cycles chert and banded-iron-formation
							5-15m		mudstones and siltstone
							10-30m		sandstone and grits
Kilimani Volcaniclastic Fm.	250-350m	Unassigned			volcaniclastics				intermediate to felsic volcaniclastics
Nyanzaga Upper Volcaniclastic Fm.	250-350m	Unassigned			Intermediate epiclastic units				dactitic, grits, vc sandstones, massive
Nyanzaga Central Fm.	270-290m	Mudstone Mb.	250m	9	C 9 mudstone and red chert		1-2m		deformed red chert, tuff, mudstone; laminated and sheared.
					C9 Basal Sandstone		5-10m		vc sandstones, grits, pebble beds; massive to weakly bedded.
				8	C8 Mudstone (thin chert)		1-3m		red chert, tuff, mudstone
					C8 Siltstone		15-20m		dark gry, magnetic siltstone, minor sandstone
				7	C7 Mudstone (thin chert)		2-5m		magnetite-spherulite-minor chert
					C7 Siltstone / Sandstone				dark grey siltstone, magnetic siltstone
				6	C6 Mudstone (thin chert)		2-5m		magnetite-spherulite-minor chert
				C6 Siltstone / Sandstone		5-10m		magnetic siltstone; and f sandstone, bedded	
				C5 Mudstone (thin chert)		2-5m		magnetite-spherulite-minor chert	
				C5 Siltstone / Sandstone		10-35m		dark grey, weakly magnetic siltstone; and f sandstone, bedded	
				C4 Mudstone (thin chert)		2-5m		siltstone, laminated thin chert, bedded	
				C4 Sandstone		10-25m		light grey, m-f. sandstone, and sulphidic mudstone, bedded	
				C3 Chert		3-10m		siltstone, laminated thin chert, bedded	
				C3 Sandstone		10-15m		light grey, c-m. sandstone, bedded	
	C2 Chert	SCT	1-8m		siltstone, laminated thin chert, bedded				
	C2 Sandstone	SGR SST SGR	40-50m		c-vc. sandstone and 2 grit beds; sulphidic siltstones				
Nyanzaga Lower Volcanoclastic Fm.	>350m	Chert Mb.	20-50m	1	C1U Upper Main Chert	SCT	0-5m		laminated cherts; sulphidic siltstones.
					C1 Sandstone	SST	5-20m		m-c, minor vc feldspathic sandstone; massive
					C1L Lower Main Chert	SCT	15-25m		laminated cherts; rare semi to massive sulphide lenses, banded.
		Unassigned		>300m		Grits, sandstone	SGR	0-15m	
					Felsic Epilastic Units	IVE	>300m		andestitic epiclastics, cobble beds; minor fine to med. Grained sandstones; massive to weakly bedded.

Figure 4.2.6 Nyanzaga Silica Cycle Groupings and Examples of Textures in Drill Core

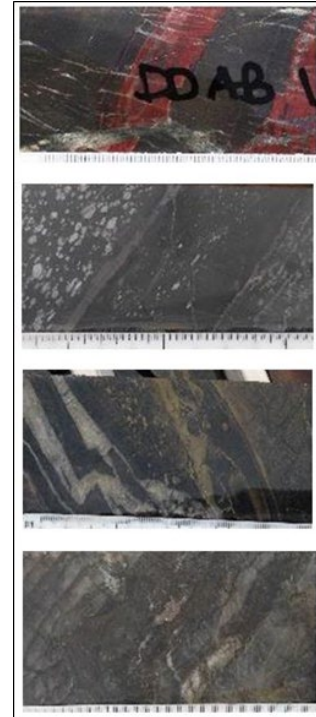
C 5-9. Mudstone Member

C9 – Top of the Nyanzaga Central Formation made up of chlorite-magnetite mudstone, tuff, minor sandstone and haematitic red chert. Exhibits a strong magnetic response.

C 5-8 – Chlorite-magnetite mudstone, siltstone, spherulite nodule texture and minor chert bands and sandstone. Multiple magnetic responses. Demagnetised about the Nyanzaga Anticline hinge zone.

C 2-4 – Sandstone Member, Sandstones, siltstones, minor chlorite (+/-) magnetite mudstone, thin but pronounced chert horizons and minor syngenetic sulphidic siltstone. Strong dolomitisation occurs in part.

C1 – Chert Member (Upper and Lower beds) Defines the top of the Lower Volcanogenic Fm. Thick, non to weakly magnetic, banded light grey chert, minor sandstone, gritstone, sulphidic siltstone and massive sulphide lenses.



4.2.2 Faulting

The following lists the features of the fault zones recognised at Nyanzaga during the study:

- Faults Zones are steeply dipping and expressed as local intense foliation development, and in some instances localised silica-goethite replacement. The faults are arranged as discontinuous disruptions and not as a single deformation sheet, and are best described as zones of faulting rather than a single discrete plane.
- The Axial (AF), Central (CF), East (EF) and Far East Fault (FEF) zones have been located in outcrop. The EF and FEF appear to have a sinistral sense of displacement.
- Two of the four West Fault (WF) zones (WF2 and WF3) have been located in outcrop and the observed sense of movement on these faults is dextral in contrast to EF and FEF.
- Outcrop exposures of three further fault types were recorded during mapping:
 - Steep faults sub-parallel to bedding.
 - Low-angle thrust faults.
 - A set of previously unrecognised east-west orientated normal faults, with minor displacement.

- The surface expression of the Chert Member is typified by crackle brecciation textures with fractures overprinted by intense silicification. Localised shearing and brittle / ductile deformation is commonly developed along the chert-clastic sediment contacts. This field observation confirms observations made on drill core.

At Kilimani, mapping and revised sectional interpretations by OTL indicate several important late-stage structures offsetting the mineralisation. There are two groups of structures related to or offsetting the mineralisation:

- a) Late stage, barren, truncating faults, and thrusts (possibly reactivated) including:
The west-northwest striking, moderate to steep southerly dipping late stage Bunto Toba Shear Zone that is historically believed to separate the Kilimani Group sediments to the north; and Nyanzaga Group suites to the south. Foliation in core suggests 60° SW dip of the schistosity (NYZDD0025) between 260 m and 332 m depth). Deep weathering to over 180 m is recognised about this late shear. (This shear has not been wire-framed).

Apparent, reactivated reverse faults (thrusts) terminating, overriding and offsetting the mineralisation trends. The major one of these is the northeast striking, westerly dipping thrust that runs from the western flank of Nyanzaga Hill in a northeast direction and appears to correlate with the Kilimani T2 thrust on the top of Kilimani Ridge.

Another important structure is the Water Bore FZ. This appears to be a marked disruption associated with brecciation and carbonate – sericite alteration between the Kilimani and Nyanzaga host sequences.

- b) Earlier, mineralising structures that interplay with folding of preferential host stratigraphy. These include:
The documented 330° trending Far East and East Faults along the northern end of Nyanzaga; and the interpreted 290-310° Kilimani Fault Zone (KFZ), a 900m long zone that clearly separates the Domain 3 sequences from Domains 1 and 2 at Kilimani. The structure is up to 50 m wide and sub-vertical. The KFZ appears to in part act as a conduit to mineralising fluids.

Interpretation of the grade distribution at Kilimani indicate a series of sub-vertical lenses that are interpreted as being associated with small scale faults within the Kilimani mineralised zone.

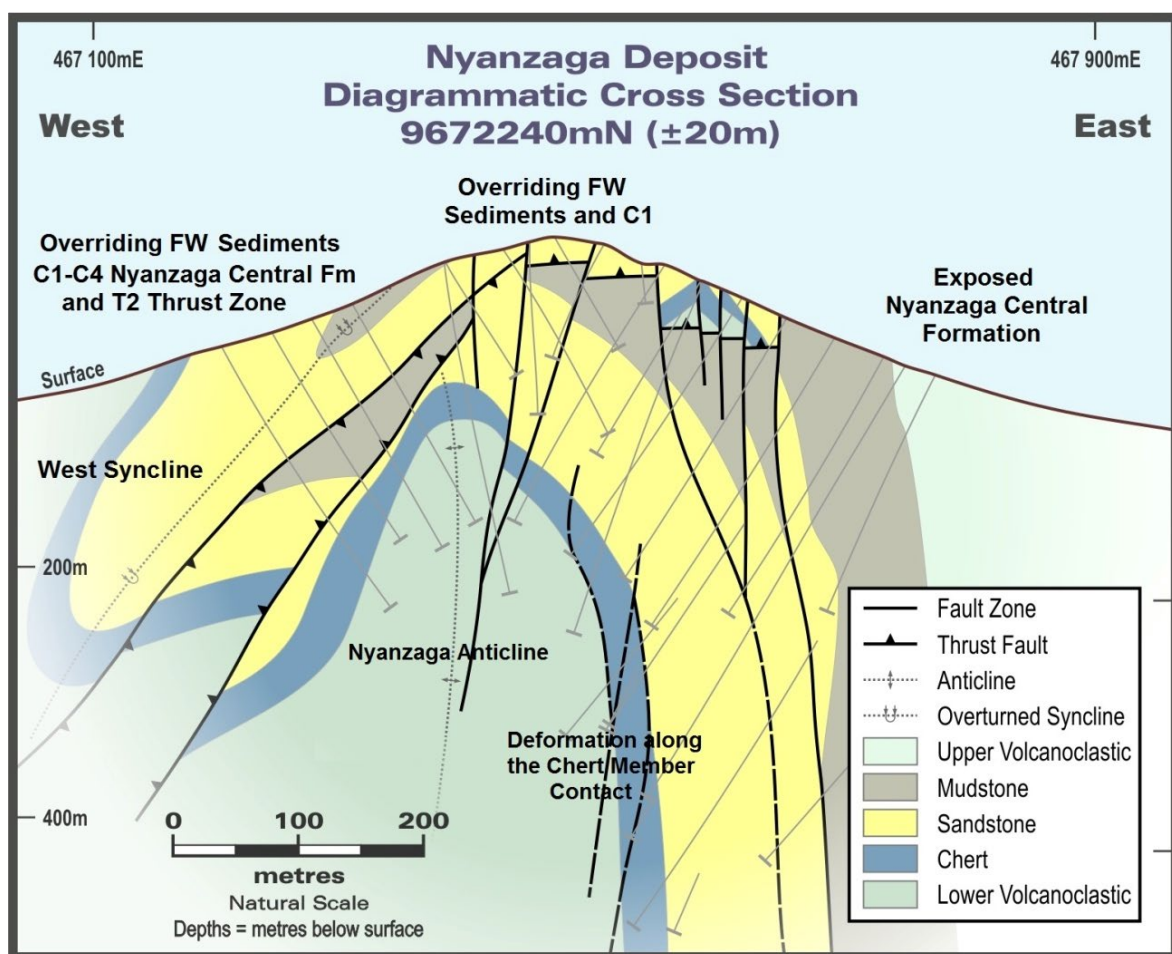
4.2.3 Thrusts

Detailed mapping and enlargement of the mapping area has greatly improved the understanding of the initial thrust development on Nyanzaga Hill. Observations of reverse faults have been identified in several places at surface which support the early sectional interpretations. The following features have been recognised:

- The T2 Thrust Zone offsets units within the western limb of the Nyanzaga Anticline and has been interpreted to have emplaced a wedge of Mudstone Member units, adjacent to Chert Member sediments. This results in a locally structurally condensed sequence.

- The T2 Thrust Zone is evident along the western edge of the Chert Member; with a second thrust developed immediately westwards that appears to then roll over the top of the Nyanzaga Antiform, where it is offset by sub vertical faults. Figure 4.2.7 presents Section 9,672,240 mN, which shows the relationship between the Nyanzaga Anticline, host sequences to the mineralisation, and the overriding thrust, demonstrating the blind nature of the anticline on the southern end of the Nyanzaga Hill.
- The mapped surface position of the hinge in the C1 Chert Member, lies approximately 150 to 200 m to north-east of the hinge 1,200 mRL level plan. This observation gives a vector of transport and this clearly demonstrates the direction and amount of transport of this overlying thrust sheet.

Figure 4.2.7 9,672,240 mN Cross-Section and Structural Domains – Nyanzaga Hill



4.2.4 Structure

At a prospect scale the Nyanzaga Central Formation hosting the Nyanzaga mineralisation has been separated into four distinct structural domains. The domains are described as follows:

- Domain 1: West of the T2 Thrust Zone, there is a cohesive stratigraphic sequence of Sandstone, Mudstone Member and Lower Volcaniclastic Formation units.

- Domain 2: North of West Fault 2 (WF2) the stratigraphy of the Mudstone Member is disrupted and repeated.
- Domain 3: East of the Axial Fault zone and occurring beneath the upper thrust surface, there is a cohesive stratigraphic sequence of Mudstone, Sandstone Member and Lower Volcaniclastic Formation.
- Domain 4: Comprises a klippe of Lower Volcaniclastic Formation and C1 Chert that has overridden the Nyanzaga Central Formation.
- T2 Thrust Zone: Thrust bound slices have emplaced a wedge of Mudstone Member stratigraphy adjacent to Footwall Volcaniclastic and C1 Chert Member.

At Kilimani, earlier work indicated two (a southern and northern) geological domains that were interpreted to be separated by the Bunto Toba FZ. A look at the stratigraphy, bedding and lithology variation suggests that there could be three domains separated by the Kilimani Fault Zone (KFZ) (rather than the Bunto Toba FZ) and by the interpreted extensions of inferred thrusts KT1 and KT2.

Domain 1 (= Southern Domain) – south of the KFZ and comprising steeply overturned to upright folded sequences of KVF and KF. The southern domain is in turn separated from the Nyanzaga stratigraphy and immediate overlying Kilimani volcanics by the west-northwest striking Water Bore FZ. Domain 1 is the hosts the Kilimani mineralisation.

Domain 2 can be subdivided into Domain 2a (= Upper Northern Domain) – north of the KFZ and above KT2 thrust. Comprising unmineralised, overturned sequences of Banded Iron Formation units. And Domain 2b (= Lower Northern Domain) – north of the KFZ but below the KT2 thrust. Comprising unmineralised, open folded sequences of KMS and KVF units.

4.2.5 Mineralisation

Overview

Gold mineralisation at the Nyanzaga deposit is focused 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 and/or reactivated north to north-northwest structures (Axial Fault Zone) relating to 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.

The study has identified nine sedimentary cycles within the mineralised interbedded sequence of mudstone and siltstone with minor sandstone and chert. The sequence has been strongly folded and constrained below the upper thrust faults.

The distribution of the gold mineralisation at Nyanzaga is related to dilation associated with:

- Competency contrast near the sedimentary cycle boundaries.
- Sub-vertical faulting, fracturing and brecciation related to the folding and subsequent shearing along the north-east limb of the fold.

High gold grades occur in narrow 5 to 20 mm tensional quartz veins that developed as conjugate sets and dip moderately to the south-west and south-east. These veins may have developed along the axis of plunging parasitic folds in the cherts; or with an apparent preference for developing in dolomitised and silicified, medium to coarse grained sandstone host rocks.

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 are in some way interconnected.

The Kilimani mineralisation occurs within two preferred locations:

- Within an antiformal, potentially double plunging fold closure of the preferential host sequence (KF) of altered coarse grained sandstones, siltstones, mudstones and cherts.
- The other in a potential, series of lensoidal, sub-vertical zones; or potentially in the sub-vertical feeder fault controlled of the Kilimani Fault Zone. The likely controls on the mineralisation are a combination of the two. Overall gold tenor at Kilimani is low in all the potential structural zones.

Petrographic Studies

Petrographic studies at Nyanzaga describe generally fine grained and completely recrystallised pyroclastic / volcanoclastic, mudstone and chert lithologies. These suites have been metamorphosed to mid-greenschist facies and the presence of the fine grained, non-aligned micas along with recrystallised biotite, magnetite and pyrrhotite are considered to be indicative of contact metamorphism.

The mineralogy of the Nyanzaga suites includes dominant quartz, K-feldspar, plagioclase, muscovite, apatite, sericite, chlorite, biotite, magnetite, tourmaline, barite, barium feldspar, ilmenite, haematite, monazite, ankerite, dolomite, pyrite, pyrrhotite, arsenopyrite, minor chalcopyrite and sphalerite mineral assemblages. Other reported sulphide minerals identified include minor to trace amounts of molybdenite, galena, scheelite, stibnite, lead, antimony, sulphosalts and marcasite.

Gold occurs as fine grained (3 to >100 micron sized) grains in carbonate, sulphide matrix in the form of free gold, electrum and aurostibite.

Alteration

Three key alteration assemblages have been identified:

- Stage 1: Crustiform carbonate stockwork. An initial, distinctive broad zone of crustiform carbonate veining and disseminated sulphide associated with low grade gold mineralisation.
- Stage 2: Silica – sericite – dolomite breccia replacement overprint. An overprinting breccia, dolomitisation and silica / sericite. Fine grained disseminated and minor veinlet pyrite / pyrrhotite disseminated moderate grade gold mineralisation. This stage is likely related to localised demagnetisation.
- Stage 3: Silica-sulphide-gold veins. A late, silica sulphide remobilisation event incorporating pyrrhotite veinlets, quartz-free gold tensional veinlets and late, subhedral coarser pyrite and in some instances, increased arsenopyrite concentration.

The Far East and East Fault mineralisation is defined by strong alteration, which is zoned from proximal silica-sericite to more distal carbonate alteration. En-echelon arrays of sub-vertical quartz veins occur immediately adjacent to the silica-core and indicate a sinistral sense of movement of the Far East and East Fault zones.

This alteration occurs at the intersection of the Far East, East and Axial, and Central Faults. A second, smaller zone of silica and carbonate occurs to the north along the Bore Fault. The detailed mapping also identified a NE striking zone of weak carbonate alteration immediately along strike of a low-angle bedding parallel thrust.

The presence of molybdenite, scheelite, tourmaline and the massive carbonate influx into the alteration system supports the potential of an intrusive body in proximity to Nyanzaga.

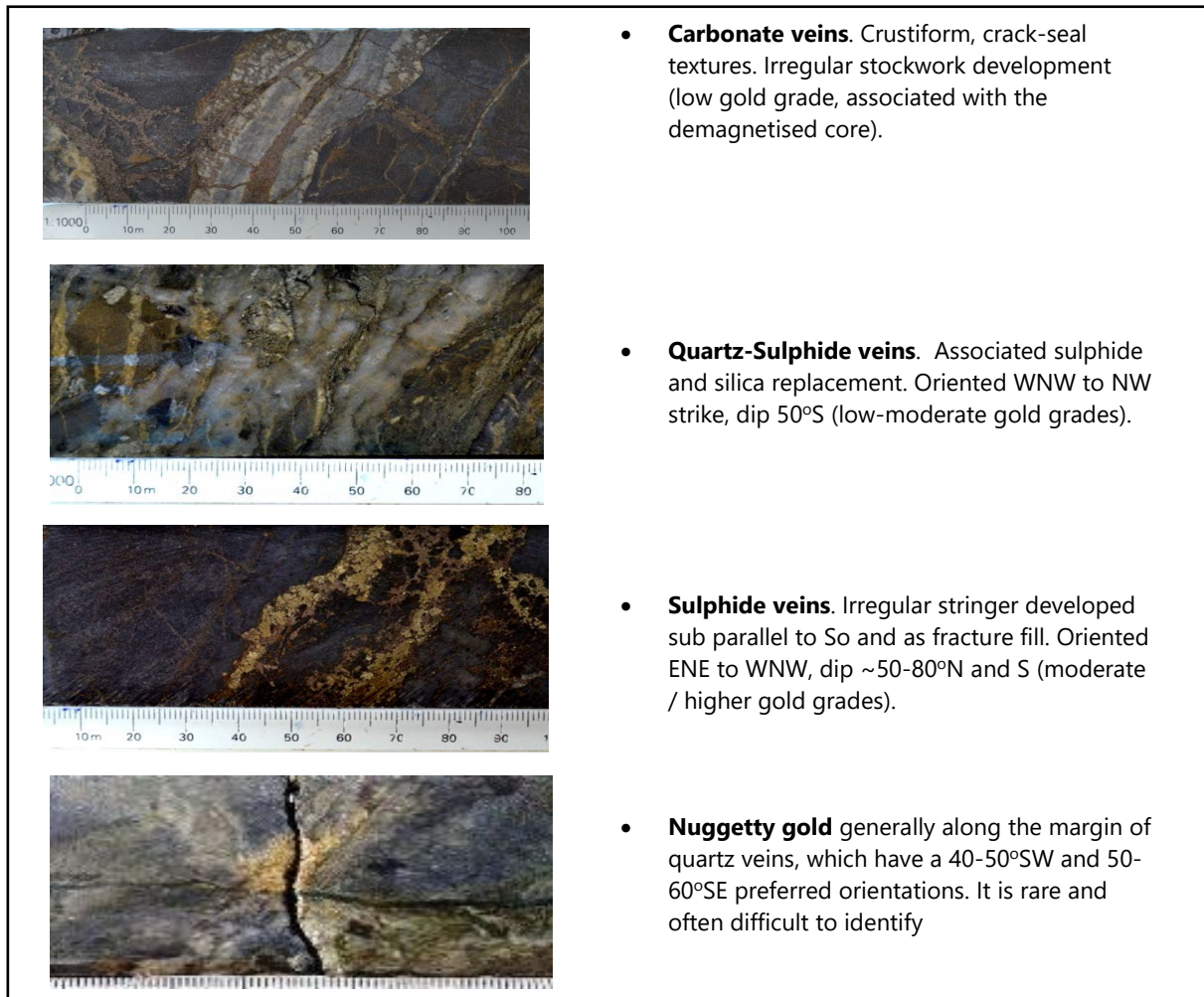
4.2.6 Veining

Structural measurements for veins were collected by ABG (3,166 readings) and OreCorp (67 readings). OreCorp focussed on sulphide bearing veins while ABG focussed on the more abundant carbonate hosted veins.

Three vein clusters were identified. Cluster A1 and A2 are a conjugate set dominated by carbonate veins. They have an average strike of 100° and dip around 50° to the 40 - 50° south-southwest (A1) and north-northeast (A2). These veins developed in relation to D2 deformation late in the structural history. Cluster B veins strike 140° and dip at between 70 to 90° to the north-east. Cluster B is defined by the sulphide bearing veins, which are variably well-mineralised. The principal stress field orientation that existed during development of these veins is likely orientated with a 140° strike and angled to the south-west. Examples of core showing veining are presented in Figure 4.2.8.

A subset of veining associated with D2 (Late) deformation carries visible gold and the few measurements recorded suggest a conjugate set of veins striking 140° and 230° and dipping between 40° to 60° south-west and south-east respectively. This aspect was not previously described in the data.

Figure 4.2.8 Veining Types - Nyanzaga



4.3 Geological Model

Summary

The geological setting at Nyanzaga is structurally and lithologically complex. Mineralisation is hosted within stratigraphic layers and later stage faulting. Both must be well understood to ensure that the mineralisation model is robust. OreCorp identified a need for a 3D geological model to be generated prior to the mineralisation model to ensure that the geology was understood and honoured.

Modelling at Nyanzaga posed another problem. The interaction between erratic drillhole deviation and complex folded and plunging lithologies result in lithologies that are not orthogonal to drilling. Complex faulting compounded this issue, as lithologies were often offset at low angles to the cross sectional 2D views. The geology was initially visualised in 2D north looking sections and level plans (40 m and 100 m slices, respectively) however it became clear that this over-stated thickness and geological complexity.

Due to the complex geology of the deposit it is important that it is interrogated in 3D, as a 2D review will result in misleading representation of the data.

It should be noted that hand drawn level plans and cross sections, produced by Jim Brigden (Leader Geological Services), have been used extensively to create the Nyanzaga 3D model. These provided the overall geological framework, including fault traces, lithology contact orientation and major lithology contacts.

4.3.1 Nyanzaga 3D Geological Model

The Nyanzaga 3D model was built on the basis of fault blocks which were used to separate faulted portions of the model.

Faults were built from level plans provided by Jim Brigden. They were reviewed in 3D and section before finalisation.

Major faults, those with a clear offset that extended more than half way through the model in 3D were used to create fault blocks. Minor faults: CF, EF2 and FEF2 were not used to create fault blocks. Note that the minor faults including the AF, are not linear features, but define zones of fault brecciation which are host to gold mineralisation.

The major faults were extrapolated along strike and down dip, where no data was available, to the model extents, Table 4.3.1.

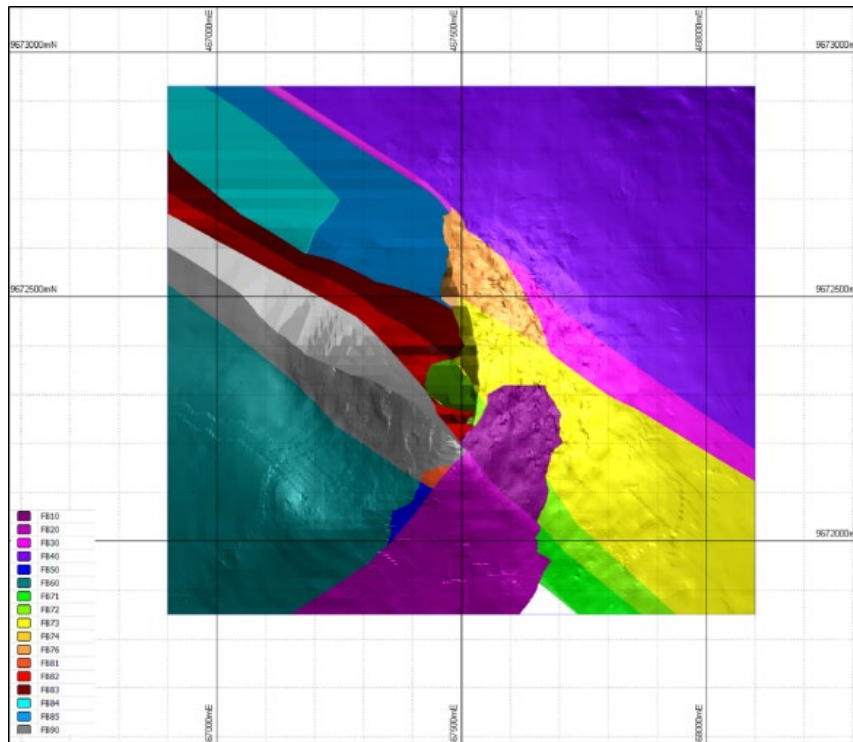
Table 4.3.1 Nyanzaga 3D Geological Model Limits

	Easting	Northing	mRL
Minimum	468,100	9,671,700	470
Maximum	466,900	9,673,150	1,400

Surface mapping was digitised in Micromine software, overlain on topography and used to extend faults through topography where necessary. Only EF2 and EF3 did not extend through topography. Three lithology zones were defined at Nyanzaga, based on grouping one or more sedimentary cycles namely: Chert rich member (Cycle 1); Sandstone rich member (Cycles 2 to 4); and Siltstone / Mudstone rich member (Cycles 5 to 9).

The fault blocks (FAULTB), as shown in Figure 4.3.1 were created from the extended fault surfaces.

Figure 4.3.1 Nyanzaga Fault Blocks in Plan View



Within each of the major fault blocks (excluding 10, 20, 50, 60 and 90) the major lithological surfaces were defined from downhole logging and hand drawn cross sections provided by Jim Brigden.

The model was viewed as 20 m north facing sections (± 10 m slice either side). 2D interpretation of the following boundaries was completed:

- Base of chert rich member.
- Top of chert rich member.
- Top of sandstone rich member.
- Top of siltstone / mudstone rich member.

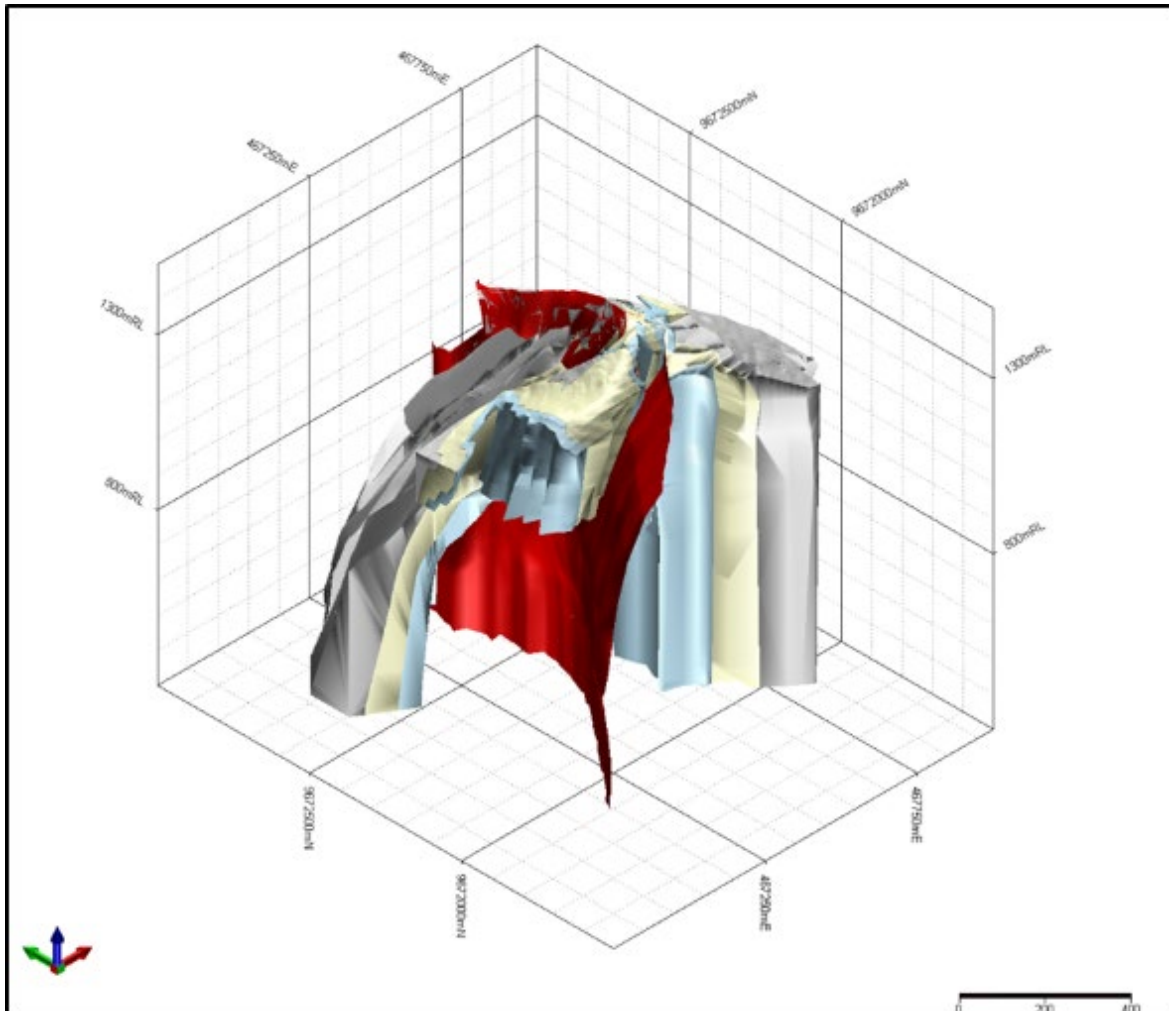
Strings were digitised from north to south, within fault blocks, with each previous string being copied from the previous section, before being snapped to lithology logging in drillholes, to retain continuity. Strings were edited on a hole by hole basis, where new drilling was encountered in 2017.

Each 2D interpretation was used to create a wireframe surface.

The four wireframe surfaces in each fault block were trimmed to fit inside the fault block, so no overlaps across bounding faults occurred. Surfaces were joined together to make 3D solids of each member, Figure 4.3.2.

Some areas of the 3D model are poorly supported by drilling. Geological interpretation was used to extrapolate the geological units in these areas.

Figure 4.3.2 Nyanzaga 3D Geology Model - Chert Rich Member (light blue), Sandstone Rich Member (yellow), Siltstone Rich Member (grey), Axial Fault (red)

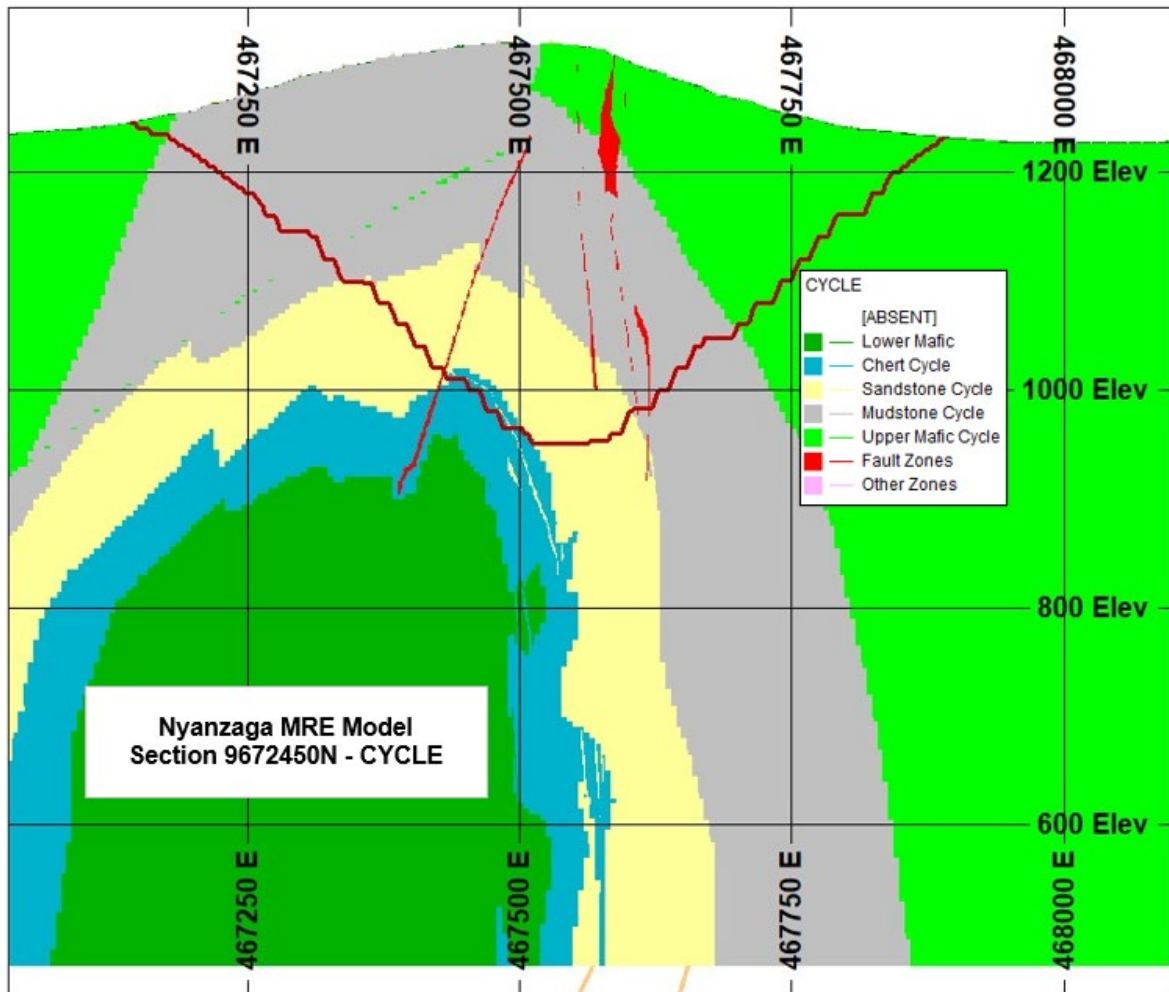


The 3D geology model for Nyanzaga was used to code the block model CYCLE Field, with seven numerical codes used as shown in Table 4.3.2 and Figure 4.3.3.

Table 4.3.2 Code Values for Nyanzaga Model Field CYCLE

Code	Cycle
0	Lower Mafic Volcanoclastics
1	Chert
4	Sandstone
9	Mudstone
10	Upper Mafic Volcanoclastics
20	Fault Zones
999	Other

Figure 4.3.3 Nyanzaga MRE Model – CYCLE Field



4.3.2 Nyanzaga Mineralisation Model

In 2016, a conceptual Nyanzaga MRE model was produced, including internal dilution to a minimum horizontal thickness of 4 m, which limited its use in detailed mine planning. In 2017, following discussion with Mining Plus, engineering consultants working on the Nyanzaga Project, CSA created a mineralised model with no minimum horizontal thickness. This would allow for more detailed mine planning studies.

For the High Grade (HG) mineralisation, wireframe volumes defining gold mineralisation were interpreted using drillhole composites with a grade of at least 2 g/t gold over 3 m downhole thickness. Mineralisation was defined as either cycle lithology or fault / breccia hosted. Fault / breccia hosted mineralisation occurred after cycle lithology hosted mineralisation and therefore overprints it in areas where they both occur.

For the LG mineralisation, a wireframe was constructed to model the broad zone of Low Grade (LG) mineralisation based on intercepts where gold exceeds a cut-off of approximately 0.8 g/t with a true thickness ≥ 4 m.

4.3.3 Nyanzaga Cycle Mineralisation

The ESTZON Field, refer to Table 4.3.3, was coded according to the CYCLE and into high and low grade mineralisation, as well as the individual fault zones.

The 3D geology model was used to guide the cycle mineralisation orientation in 3D, as mineralisation is believed to be deposited / re-mobilised into dilation zones formed at lithology contacts due to competency contrast during folding. Cycle mineralisation was grouped into Chert, Sandstone and Mudstone depending upon the dominant host lithology, Figure 4.3.4 and Figure 4.3.5.

Table 4.3.3 Code Values for Model Field ESTZON

ESTZON Code	Zone
High Grade Mineralisation	
10	Axial Fault Zone
20	Central Fault Zone
30	Eastern Fault Zone
40	Far Eastern Fault Zone
100	Lower Mafic Volcanoclastics
101	Chert
104	Sandstone
109	Mudstone
110	Upper Mafic Volcanoclastics
Low Grade Mineralisation	
200	Lower Mafic Volcanoclastics
201	Chert
204	Sandstone
209	Mudstone
210	Upper Mafic Volcanoclastics
999	Waste

Figure 4.3.4 Nyanzaga Diagrammatic Cross-section 9,672,560 mN showing Cycle and Fault Mineralisation

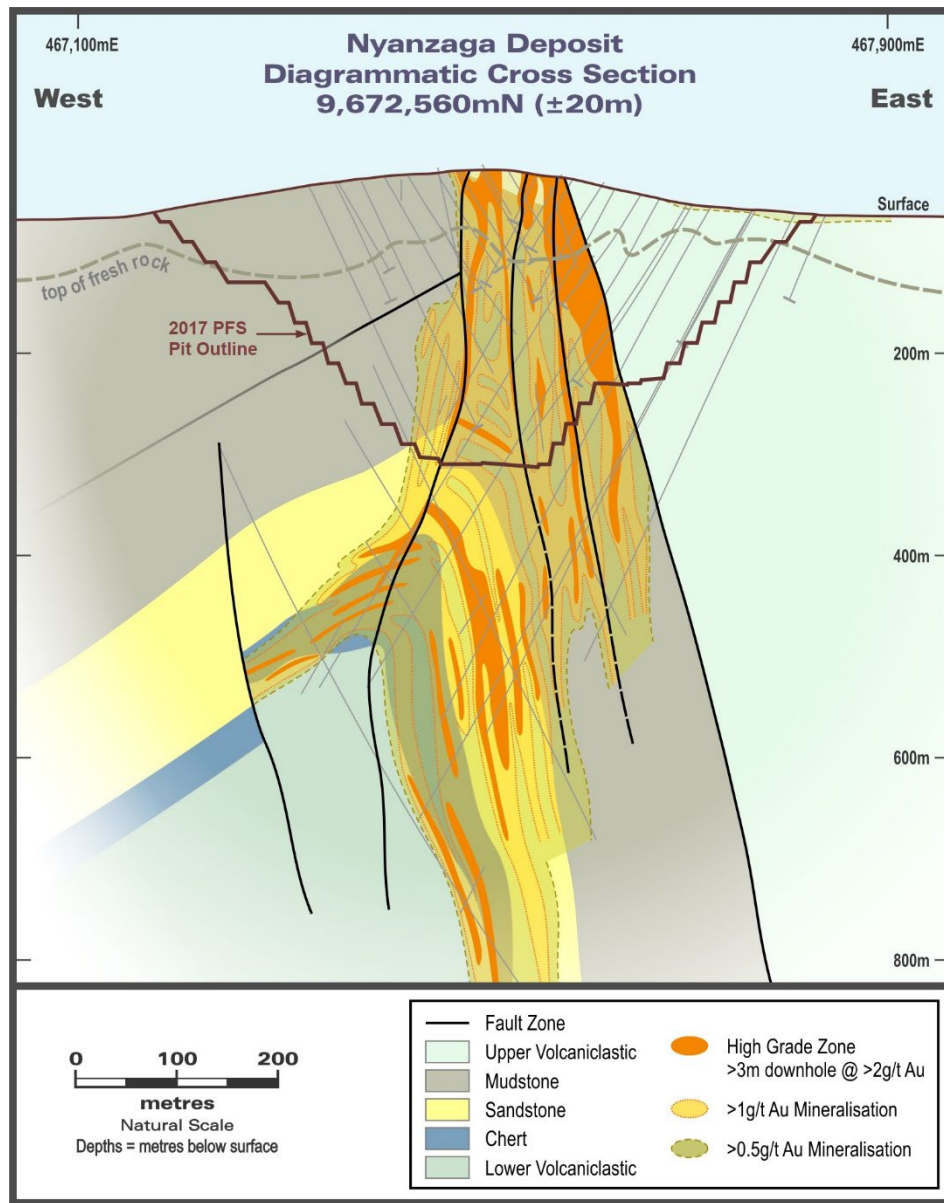
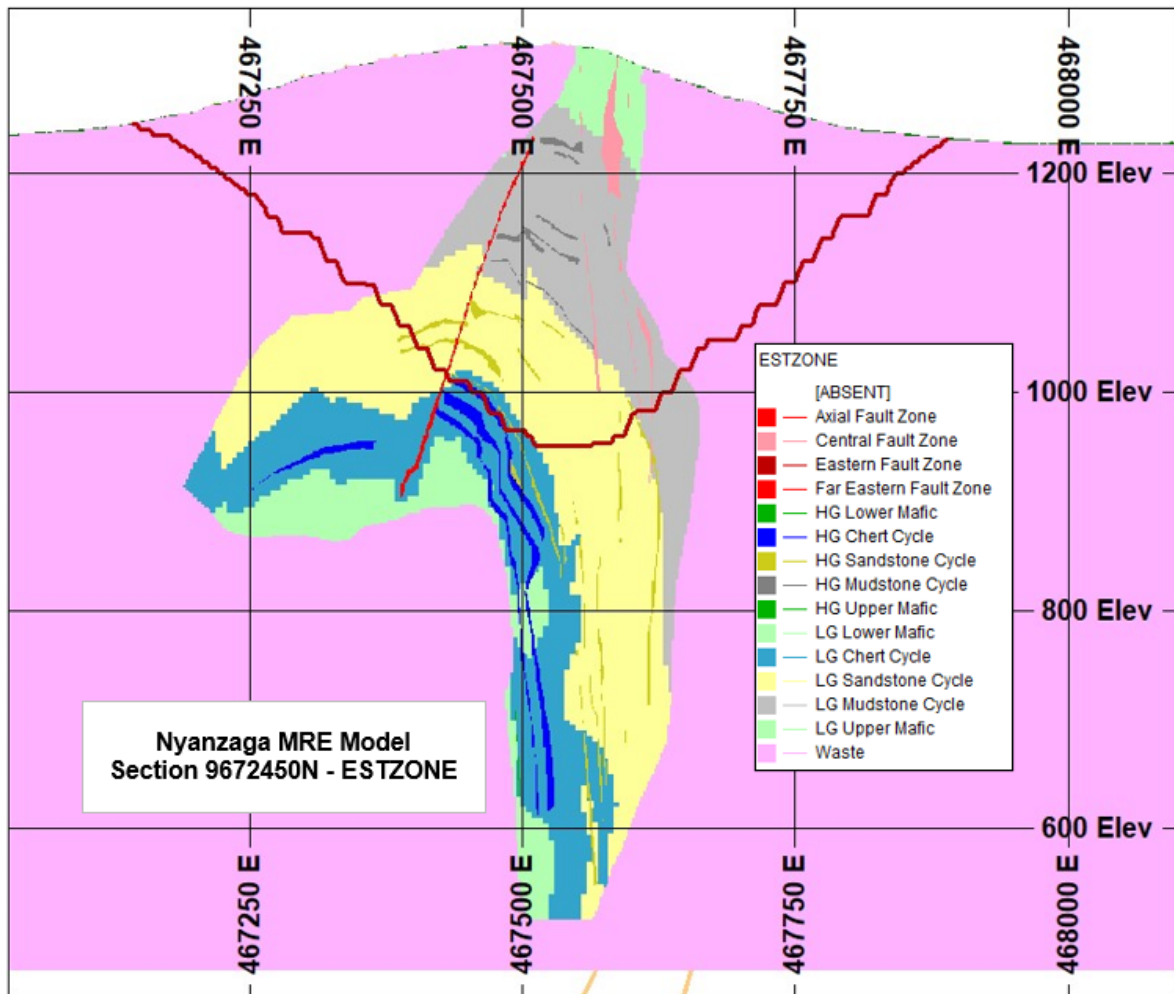


Figure 4.3.5 Nyanzaga MRE Model Cross-section 9,672,450 mN showing Cycle and Fault Mineralisation from Field ESTZON



4.3.4 Nyanzaga Fault Mineralisation

Fault / breccia mineralisation is focussed around the Axial, Central, Eastern and Far Eastern Fault Zones. Especially towards the north where the faults converge. The fault traces were displayed as a guide during interpretation. The axial fault mineralisation is focussed along the fault trace. The central, eastern and far eastern fault mineralisation relate to possible dilational structures that formed due to strike slip interactions between these three faults. As a result, mineralisation doesn't always spatially honour the mapped fault trace.

4.3.5 Nyanzaga Mineralisation Extensions

Mineralisation was interpreted on 2D sections looking north, spaced at 20 m intervals. Drill data was grade composited downhole to intervals achieving 2 g/t gold over 3 m downhole. Intercepts of mineralisation with gold grades less than 2 g/t over 3 m were included where necessary to ensure mineralisation continuity. Wireframes were extended half way between drillholes in both elevation and between sections where mineralisation terminated. This equates to approximately 20 m extensions, however due to the variable drill spacing some zones were terminated at shorter distances to honour drilling data.

Cycle mineralisation was extended approximately 10 m through fault block boundaries, using drillhole spacing as a guide. As discussed earlier, fault planes represent 'fault zones' rather than planar structures, so it is CSA's opinion that mineralisation will persist into these zones. Fault mineralisation, with the exception of the Axial fault, was not constrained to fault blocks. The general trend of mineralisation supported the offset of the Axial fault by the Western faults.

4.3.6 Nyanzaga Low Grade Mineralisation

CSA digitised a wireframe volume defined around mineralisation that captured all samples based on a 0.8 g/t gold cut-off grade.

Drillholes samples and model blocks within the nominal 0.8 and 0.4 g/t gold mineralisation volume were selected and assigned the geological cycle code based on the geological interpretation discussed in previous sections of this report. An example section is presented in Figure 4.3.6.

- The 3D geology model has focused on macro scale features, CSA and OreCorp expect further small-scale complexities within the model. Geology will be subjected to additional minor faulting and folding that is not predicted in the current model.
- A 'dislocation zone' is interpreted to be present at around 450 m depth below surface based on displacement in the western faults. The 'dislocation zone' has been reviewed in drill core, however; no supporting evidence has been found.

4.3.7 Kilimani Geological Model

The Kilimani MRE model update used the OreCorp sectional interpretations, but a lithological model was not constructed. The weathering profile was incorporated in order to also apply density values.

4.3.8 Kilimani Mineralisation Model

For Kilimani, CSA Global used the CompSE function in Datamine Studio RM software to guide the mineralisation modelling. CompSE, is a process that generates grade intercepts on the basis of a minimum grade and a minimum thickness assumption. This is useful in assessing grade continuity to inform levels of continuity and reasonable mineable thicknesses. Although CompSE was used to guide the interpretation, raw assay data were snapped to and edge dilution identified by CompSE was not included.

A statistical and visual analysis was performed on the Kilimani data to determine the most appropriate threshold for the CompSE criteria. The global gold histogram presented a significant increase in mineralised samples around the 0.4 g/t gold threshold and visually 0.4 g/t gold showed continuity between drillholes to allow for appropriate correlation of mineralised intersections. Criteria of 0.4 g/t gold and minimum 2 m down hole were used in the CompSE function. The wireframes were constructed where continuous mineralisation was defined by two or more drillholes. Isolated mineralised intersections were not modelled but may be targeted by infill drilling to identify continuity. The mineralised wireframes were extended halfway between drillholes along strike and 50 m down dip (Figure 4.3.7 and Figure 4.3.8).

Figure 4.3.7 Kilimani Oblique View Showing Modelled Mineralisation Zones

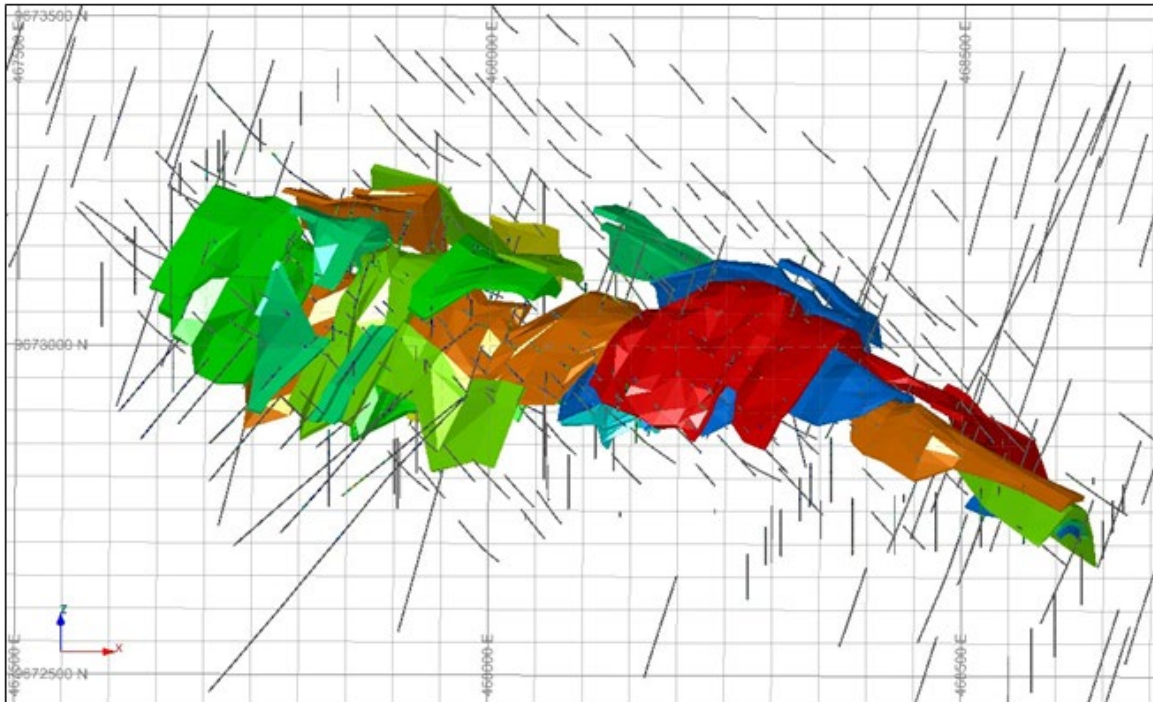
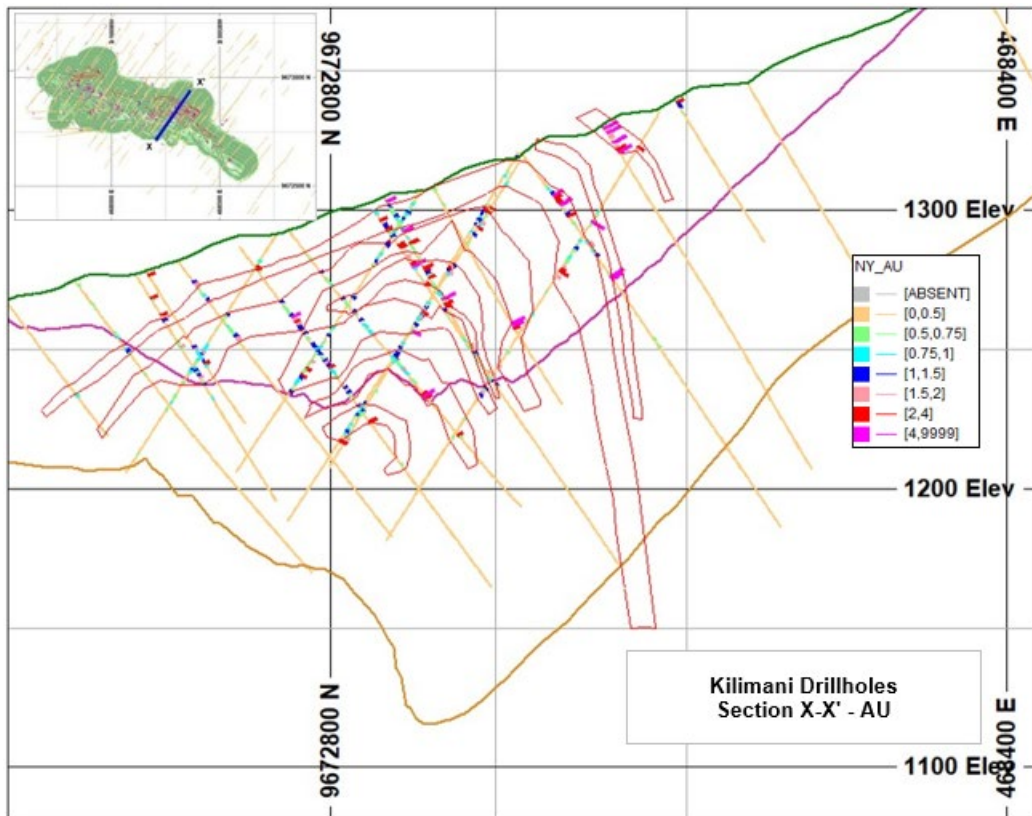


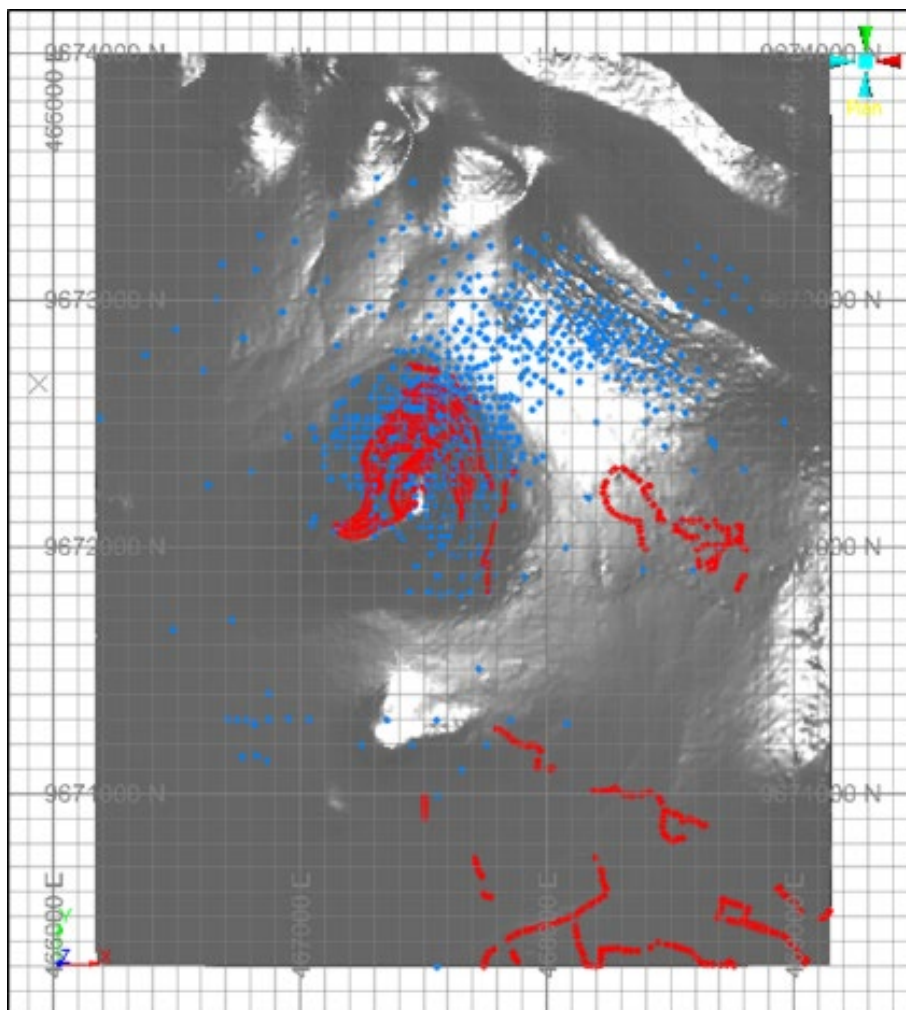
Figure 4.3.8 Kilimani Oblique Section X-X' Showing Modelled Mineralisation Zones



4.4 Topography

The topography for Nyanzaga and Kilimani, was rebuilt by CSA following the re-surveying of drillhole collars and DGPS spot height checks in 2016. These survey data point files were treated as the input data in the methodology outlined below. Figure 4.4.1 shows the location of these input data points along with the topographic surface. The approach chosen was to firstly record the difference in elevation (Z value) between the previous surface and the new input data. The topography wireframe data points were then assigned a fixed Z value. An Inverse Distance Weighting ('IDW') estimation was used to interpolate the Z difference recorded in the input data into the DTM wireframe file in much the same way as a 2D block model estimate would be undertaken.

Figure 4.4.1 Re-surveyed Collars (blue) and Spot Height Checks (red)



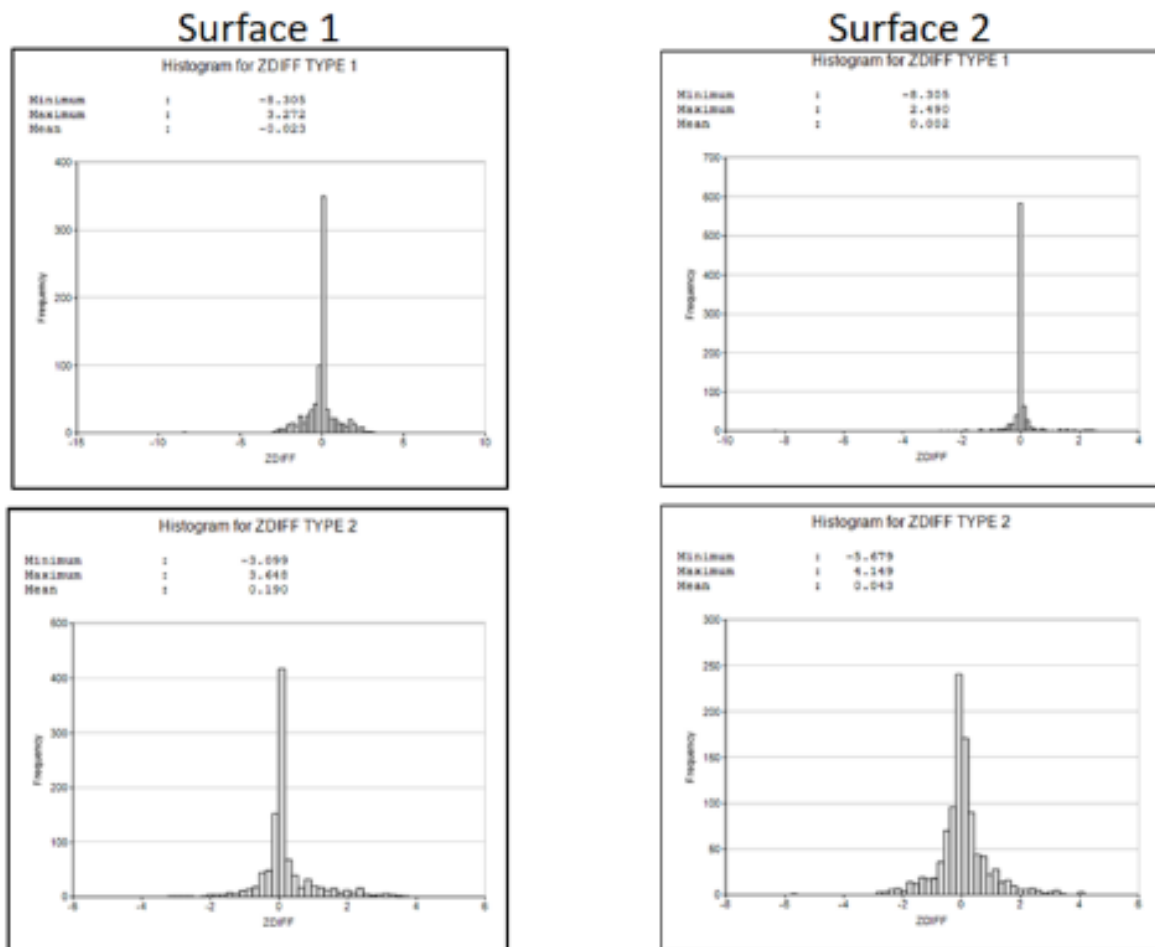
Where spot heights and re-surveyed collar coordinates were in close proximity, the collar data was prioritised during the estimation process. The first pass estimation was undertaken using the parameters detailed in Run 1 in Table 4.4.1. The first pass of this run was setup as a nearest neighbour ('NN') approach with an expanding search range to inform areas of sparse data.

Table 4.4.1 Search Parameters for IDW Estimation Runs for Topography Z Difference Interpolation

Run	Power	Search Range 1			Composites		Search Range 2			Composites		Search Range 3			Composites		Max Key
		1	2	3	Min	Max	1	2	3	Min	Max	1	2	3	Min	Max	
1	2	5	5	5	1	1	50	50	50	2	3	1000	1000	1000	2	3	3
2	3	5	5	5	1	3	25	25	25	2	3	50	50	50	2	3	3

These interpolated values were used to adjust the original Z values in the topography surface file. Sections were cut trending E-W starting from 9,671,800 mN, and visually validated in 10 m steps to the North. The output topography surface was reviewed against the input data. Most data were seen to honour the updated surface. However, there were some discrepancies, and a second run was undertaken on the output surface from the first run to further improve on the fit. This second run surface used only the collar data, and despite a slight drop in spot height Z difference accuracies, showed a significant improvement on the surface fit overall. Figure 4.4.2 below shows graphs of Z difference values between the Run 1 and Run 2 surfaces and input data points. Type 1 data refers to resurveyed collars, and Type 2 data to spot height checks.

Figure 4.4.2 Graphs of Z Value Differences for Interpolated Surfaces from Run 1 and Run 2 IDW Estimations



Overall, the average Z difference value for the collar (Type 1) data was 0.002 m [824 points], and the average Z difference value for the spot height (Type 2) data was 0.043 m [1,023 points] when compared to the Run 2 adjusted surface. The final output surface was reviewed with consideration to the main geomorphological features and considered to preserve the main features whilst improving on the fit where adjusted to the updated input data. Figure 4.4.3 shows the final output surface compared to the original coloured by Z value. Figure 4.4.4 shows a cross section of the surfaces with the input data and the Z difference values to the old surface.

Figure 4.4.3 Original Surface (Left) Compared to Adjusted Topographic Output (Right)

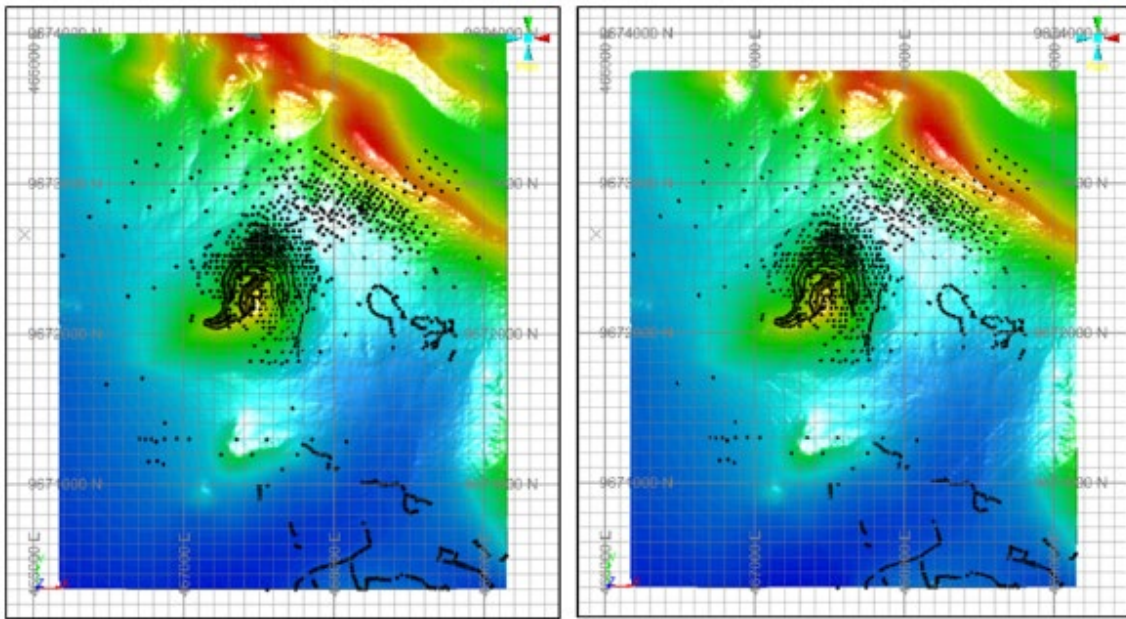
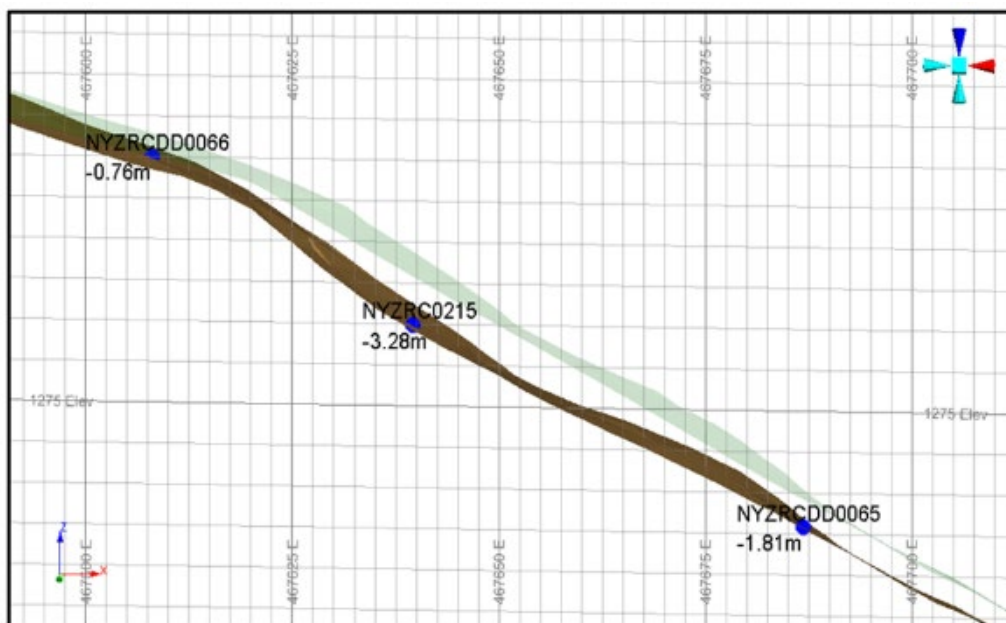


Figure 4.4.4 Cross-section of Original Surface (green), and Adjusted Surface (brown). Blue Points Represent Input Data and Z Value Differences Used During Initial Interpolation



4.5 Portal Site Selection

The addition of Kilimani to the production schedule necessitated changes to the site layout, particularly the process plant, surface infrastructure and portal location to the west of Nyanzaga. Results of this work include:

- The deepening of weathering is associated with alteration (carbonate +/- sulphide) development. The depth to top of fresh rock (TOFR) about Nyanzaga Hill is generally deep at between 60 to 80 m within the western portion of the pit, except for two areas where it shallows to around 50m. On the flats, the TOFR varies markedly, but some areas have been identified where it is less than 30 m deep.
- The weathering and fracture characteristics of the country rock is variable. As seen in the original planned portal site, east of the pit design, the most competent ground conditions appear to be in sandstone (felsic volcanoclastic sequences). These units are more competent than the mudstone and not as fractured.
- The current preferred portal sites are best developed in the shallower (<30 m deep) weathered and more competent sandstones.
- Geology of the current preferred portal and initial decline are within these sandstones and volcanoclastics interpreted to be dipping moderately to the north and northwest.
- As the planned decline progresses it will pass through fresh mudstones, narrow cherts, and likely footwall volcanoclastics. Identified carbonated zones associated with moderate (50°-60° west), northeast striking thrusts will be encountered as the portal advances and will need to be factored in the planning.

4.6 Conclusions

4.6.1 Geological Model

The Nyanzaga deposit is an orogenic gold deposit, with a strong lithological and structural control. Higher grade gold mineralisation occurs both in lodes associated with later stage sub-vertical faults; and within selected, preferentially altered units. A large, low-grade halo of alteration surrounds the higher grade mineralisation.

Due to the mineralisation's strong geological control; OreCorp contracted CSA to digitise the complex geological and structural model. Hand drawn level plans and cross sections, produced by Jim Brigden, and were used extensively to guide all 3D modelling. Despite this attention to detail, CSA believes that the only way to accurately define the complex fault zones precisely, is to access them from underground sampling or drilling.

4.6.2 Data Verification

Drillhole data used in the estimation of the MRE has been collected by several companies over the past 20 years. Jim Brigden from Leader Geological Services, together with Malcolm Titley, Principal Consultant, CSA, obtained and reviewed original paper logs and available drill core on site to both validate the data and construct an updated geological model to define the controls on the high-grade gold mineralisation.

Drill data provided includes Rotary Air Blast (RAB), Aircore (AC), Reverse Circulation (RC) and Diamond (DD) datasets. RAB and AC drilling appear to have been generally used as an exploration method and were not used to estimate grades in the MRE. Following this, large targets were tested by RC. However, higher grade, priority targets were (in the majority) tested using HQ and NQ-diameter, DD drilling, sometimes pre-collared with RC.

CSA considers the drilling, surveying, logging, sampling and data collection techniques to be consistent with good industry practise and suitable for use in the preparation of the MRE in accordance with The JORC Code (2012 Edition).

Mr J. Brigden visited site in May 2014, 5 October to 25 November 2015 and again between 21 January to 16 February 2016; and on regular visits until June 2017 and then intermittently to present. Mr Titley visited the Project on three occasions from 13 to 15 November 2015, from 26 to 29 January 2016 and from 1 to 7 February 2017. Dr. B. van Lente, CSA, visited site on one occasion from 4 to 15 June, 2017. Ms Susan visited site from 29 October to 1 November 2021.

SGS Mwanza was used for most of the sample preparation with pulps shipped to ALS Chemex and OMAC in Ireland, both laboratories are ISO/IEC 17025:2005 accredited. The 2016 and 2017 sampling used both SGS Mwanza and Genalysis Intertek Lab, Perth for preparation and analyses. Adequate QA/QC supports the integrity of the data used to prepare the MRE.

4.6.3 Statistical Analysis

For Nyanzaga High Grade (HG) mineralisation:

- A total of five sedimentary cycles within 11 fault blocks were combined to form eight estimation zones (ESTZON).
- Based on the results of a statistical review a combination of the flagged codes (CYCLE and FAULTB) were used to assign the estimation domain codes (ESTZON). Statistics were reviewed for uncut, declustered gold composites in each estimation domain.
- Variograms were well structured, with two to three structures, low to intermediate nuggets and moderate to long ranges. CSA consider the variograms to be reasonable for the deposit type and structural orientations and suitable for use for grade estimation using Ordinary Kriging ('OK'). Care was taken to address the impacts of negative Kriging weights.