

THE ZONE OF



*New Liberia Mining
Company*

FEASIBILITY STUDIES REPORT FOR A SEMI OPERATION- INDUSTRIAL IN

10/1/2025

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1. INTRODUCTION

The company NLMC has mandated the company Atlas Géo-Services (AGS) to carry out a feasibility study on the prospects highlighted on these two exploration permits based on the results of trenching and drilling from the 2018 campaign until 2021.

Atlas Géo-Service (AGS) is a company based in Morocco whose head office is Lotissement Charaf, Building 574, 4th floor, Apartment 13 Gueliz, Marrakech.

It is a company providing audit services, exploration work, feasibility studies and mining geology.

Created by three geologists with solid cumulative experience (83 years) and excellent knowledge of modern exploration and GIS techniques in different environments in Africa (the AGS company brochure is attached).

The feasibility study was carried out with a view to obtaining a semi-industrial exploitation permit and undertaking a gold extraction operation based on the results of exploration work which began in 2009 on permit 1348/MMG/ SGG. This permit, with an area of 39 km², was renewed on June 4, 2021 for 12 months under the reference CPDM A2021/119/DIGM/CPDM.

The second permit is 1349/MMG/SGG with an area of 51 km², renewed on June 4, 2021 under the reference CPDM A2021/120/DIGM/CPDM for 12 months. Exploration work by trenching and drilling has continued until now.

The research work made it possible to define profitably exploitable zones on all the permits. There are still uncertainties about the lateral and depth extension of the deposit, which is why a cautious approach is being considered. This approach involves investing in a gravimetric processing unit first, which will then be followed by a cyanidation unit (CIL) on gravity tailings and low-grade ores. This second phase will be studied during gravimetric operation.

A semi-industrial operation with a capacity of 800 tonnes per day is envisaged.



This gravimetric process does not require the use of chemicals, which can be harmful to the environment.

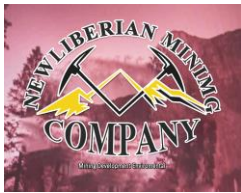
The exploration work was carried out according to the rules of the art by Canadian, French and Moroccan experts who have several decades of experience in the exploration and development of mineral deposits. The value of this work amounts to approximately US\$5,846,298 as detailed in the following table.

Table 1: Table of exploration expenditures on NLMC permits since 2009

NLMC MINING	DEPENSES D'EXPLORATION (USD)														9800
Year	2009	2010	2011	2012	2013	2014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	Total	MFG
remote sensing	35,000	10,000	-	-	-	8,950	35,000							88,950	872
boundary	9,300	-	-	-	-	-								9,300	91
equipment	-	-	-	-	-	-				3,850	6,181	11,633		21,664	212
Communication													329		-
Billet										4,000	22,959	23,623	21,985	72,567	711
vehicles	10,714	5,714	-	53,757	-	-				12,600	60,423	35,506	1,350	180,065	1,765
scientist	1,350	590	-	985	-	-								2,925	29
Geologist										14,250		107,907	14,600	136,757	1,340
Wages													6,440		-
Workers											26,252	20,314	903	47,469	465
Rock samples											585	1,230		1,815	18
Medical													1,009		-
geological reconnaissance	110,300	28,600	-	29,000	154,548	8,500			17,000					347,948	3,410
Consultants											48,000	57,000	4,000	109,000	1,068
Hotel													13,231		-



Diesel											66,407	46,910	3,656	116,973	1,146
access	6,000	-	5,450	6,200	-	-				29,550		13,410		60,610	594
Accommodation										24,000	46,828	36,921	6,561	114,310	1,120
logistics	14,100	5,700	9,600	14,380	-	-			3,590				132	47,502	466
topography	15,500	-	-	11,870	-	-	5,000							32,370	317
soil geochemistry	52,224	-	-	44,712	27,546	15,000								139,482	1,367
laboratories	65,280	11,800	-	55,890	27,546	6,500	8,600		5,318	55,984	24,580	38,666	19,930	320,094	3,137
field geophysics	-	-	-	-	-	-	-							-	-
airborne geophysics	-	-	257,580	-	-	-	-							257,580	2,524
pits and trenches	3,400	-	-	-	-	6,700	13,000		12,650	25,600	50,680	184,310		296,340	2,904
drilling	-	-	-	-	-	-	-			241,550	24,971	363,180		629,701	6,171
interpretation work	138,000	54,000	58,000	-	167,956	14,800		5,000	7,500	13,500	115,865	10,000		584,621	5,729
general and administrative costs	167,000	172,000	180,000	206,000	235,997	63,000	52,700	62,000	54,800	28,560	17,681	6,269	91,040	1,337,048	13,103
environmental studies							65,900						70,765	136,665	1,339
community work	26,000	-	-	-	437,895	26,000		2,974	3,953					496,822	4,869
Audit													163		-
mining rights	8,084	2,890	8,084	2,890	50,943	2,100	2,200	2,287	2,306	3,000	81,662	55,275	21,770	243,491	2,386
Security													926		-
miscellaneous										14,228				14,228	139
Total	662,252	291,294	518,714	425,684	1,102,432	151,550	182,400	72,261	107,117	470,672	593,074	1,012,154	278,792	5,846,298	57,294



GEOLOGY OF NLMC PERMITS

The two NLMC permits are covered by Birimian formations favorable to gold mineralization, these Birimian formations belong to the basin which covers the NE part of Upper Liberia.

In the outcrop areas, the geology of the deposit appears to be dominated by metasediments (carbonate sandstones, pelites and arkose) and volcano-sedimentary (grewacke turbidites and black shales) largely covered by hardened armor. We note the absence of intrusive masses at the outcrop.

These rocks, of Birimian age, are affected by green schist type metamorphism. The S0 and S1 are parallel and have a direction NNW to NNE.

The formations are cut by quartz veins and veinlets, of varying thickness from millimeters to centimeters, oriented NW, NE and EW with a sub-vertical to medium dip towards the south.

1.1 TYPE OF DEPOSIT

The Varney Town - Soso gold mineralization is carried by quartz veins hosted in deformed Birimian volcano-sedimentary rocks. The mineralizing fluid of this type of deposit as opposed to the magmatic type is generally produced by metamorphism. The installation is controlled by faults and/or shear zones which behave like traps allowing the imbalance of the mineralizing fluid following physicochemical variations leading to the precipitation of gold. Hydrothermal alteration and associated gold mineralization may postdate the metamorphic peak. The preferred deposition zones are therefore structural traps (faults, shear zones, fold hinges, etc.), particularly of second order or higher order. The faults/shears were therefore used as an exploration guide. The Soso Town –Soso mineralization appears to be linked to a major NNW and NE trending lineament.

This mineralization has undergone fairly intense supergene alteration resulting in a laterite/Saprolite type profile which developed to a depth of 70 meters. Under the Saprolite the volcano-sedimentary rocks are oxidized but the structure of the rock is preserved.



The strength of mineralized quartz veins varies from a few centimeters to several meters.

The alignment of geochemical anomalies as well as the extension of quartz lenses suggest a north-northwest structural control of the mineralization.

1.2 MINERAL RESOURCES

The Soso Town – Fula resource estimate was carried out using a computerized procedure (Datamine software). It consists of constructing a three-dimensional model of small blocks within the interpreted limits of the mineralized structures and of estimating the gold content of each of these small blocks from the measured content of samples taken in the drillings and located near the blocks.

Mineral resources are summarized in Table 2.

Table 2: NLMC permit resources

Prospect	Class	TONNES	At	Metal	Metal
		(T)	(g/t)	Kg	Oz
Varney Town	Indicated	670,000	1.31	878	28,243
Varney Town	Noted	2,552,200	1.72	4,396	141,345
Soso 02	Noted	357,000	0.87	310	9,968
Total indicated		3,579,200	1.56	5,585	179,557

Varney Town	Inferred	385,000	1.18	453	14,550
Varney Town	Inferred	1,246,800	1.44	1,796	57,733



Soso	Inferred	235,000	0.71	167	5,368
Varney Town	Inferred	357,000	1.04	371	11,928
Total Inferred		2,223,800	1.25	2,786	89,578

Total indicated & inferred	5,803,000	1.44	8,371	269,135
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1.3 MINING

The deposit will be exploited by the subcontracted conventional “open pit” method, technical services will be provided by NLMC.

The ore extracted from the pit with minimum dilution and maximum recovery will be sent directly to the crusher or stored at the Room pad.

The total tonnage extracted from the mine, ore and waste rock as well as the grade are summarized in the following table.

1.5 MINERAL RESERVES

Reserves are simply the diluted resources inside the final pit. Indicated resources give proven reserves and probable reserves come from indicated resources. They appear in Table 3 with the remaining resources which are the indicated resources outside the final pit plus the inferred resources.

The reserves correspond to a dilution of 15%, a metallurgical recovery of

65%, a gold price of US\$1,500/oz and a marginal cut-off grade of 0.52 g/t. The resources are given at a cut-off grade of 0.2 g/t.



Table 3: Mineral reserves

Prospect	Class	TONNES	Au	Metal	Metal
		(T)	(g/t)	Kg	Oz
Varney Town	probable	357 665	1.03	367	11 799
Varney Town	probable	1 465 000	1.16	1 699	54 637
Soso	probable	115 813	0.92	106	3 408
Total probable		1 938 478	1.12	2 172	69 844

1.6 METALLURGICAL TESTING

The Company mandated the Firm REMED ENGINEERING to carry out a Gravimetric recovery test on four different ore fractions.

The conclusion of the analysis is the recovery of 65% of the gold contained in the control sample which consisted of 120 kilograms of material taken from the representative areas of the trenches.

The control sample assayed 1.2 ppm and therefore we can conclude that almost 0.8g of gold was recovered per tonne of ore processed at a mesh size of 250 microns.

Given the less expensive gravimetric treatment method, this recovery makes it possible to envisage, at the current price of gold, an acceptable profitability. Of course, the cyanidation recovery tests which must be carried out as soon as exploitation begins will verify the possible benefits of greater recovery up to 94%+.

1.7 HUMAN RESOURCES

The opening of the semi-industrial mine on the NLMC permits will generate the creation of direct and indirect jobs which will positively affect the surrounding population in the first place and the Liberian workforce in general.

In total there will be 117 direct positions in the different services with a minimum of expatriates.



In accordance with the Mining Code, small and medium-sized enterprises (SMEs, SMIs), owned or controlled by Liberians will be encouraged and supported to provide a significant part of the goods and services that the mining project will need.

1.8 ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

A Social and Environmental Impact Study was carried out by the Company LIBERIA ENGINEERING CONSULTING AND SERVICES SARL (GUECS) and it was approved by the authorities and a Certificate of Environmental Conformity was issued on May 4, 2021. it consists of identification of the main environmental and social issues of the project sites, the delimitation of the zone of direct and indirect influence of the project, the summary characterization of the biophysical and human environments of the project area, the identification of actors likely to shed light on the process of carrying out said study, engage in consultation with stakeholders (central, decentralized authorities and communities) and finally enable the development of the Terms of Agreement.

Reference of the ESIA which constitutes the specifications of the consultant in order to guide him and limit him within the limits of his tasks.

1.9 INVESTMENTS AND OPERATIONAL COSTS

The investment required for the construction of infrastructure, purchase and installation of the factory as well as the purchase of mining equipment amounts to USD 3,017,504 in total. This amount is equivalent to what other projects of this type (gravity separation) have experienced.

1.10 ECONOMIC ANALYSIS

The project proposes to process between 264,000 tonnes of ore per year by the gravimetric method with a recovery rate of 63% as demonstrated in the laboratory. Exploration work to extend current resources by more than a million ounces will make it possible to sustain the operation and perhaps increase it later.

This project produces gold at an estimated cost price of \$900/oz. At the current price of gold, the profitability of the operation is firmly anchored.



A financial projection of the project over 5 years illustrates the projected profitability of the project.

1.11 IMPLEMENTATION

An appropriate implementation program for the design and construction phases of the ore processing plant, the construction of infrastructure and associated services is proposed in the following. It assumes that engineering experienced in gold ore processing technology will be contracted by NLMC for the construction of the processing plant, power plant, tailings dam and other industrial infrastructure. Mining will be outsourced

The overall expected duration for the construction of the project from its launch date to commissioning is 14 months, from the start of additional studies to the commissioning phase. The start-up date of the industrial installations is planned for around the beginning of January 2023. The first commercial production should occur at the beginning of February 2023.

1.12 REHABILITATION

As operations progress, the company must undertake the initial rehabilitation and security work on the site. The general rehabilitation of the mining site must take place immediately after the end of mining.

The costed rehabilitation program gives rise to the deposit of an annual provision with a local bank to cover the rehabilitation and security work on the site.

The cost of rehabilitation is estimated at \$0.15/t of ore

NLMC will put in place a rehabilitation plan to rehabilitate the site, in accordance with Liberian legislation. The communities surrounding the project will be involved in community development.

A closure and rehabilitation plan will be put in place to facilitate this operation which can be started during exploitation in the pits which are already exhausted. The Liberian mining code places emphasis on rehabilitation in several articles such as 64 and 144.

1.13 RISKS AND OPPORTUNITIES, RECOMMENDATIONS

The major risks on this project are as follows:



Gold price fluctuation, legislative risk, fuel prices, raw water supply, operating expenditure drift, hydrology, geotechnical and groundwater, resources and reserves, production, and environmental risks.

A gold price of US\$1,500/oz at was considered in the financial analysis compared to the current price above US\$1,700/oz Au.

If the price of gold is above US\$1,500 at the time of the transaction, it will result in a considerable increase in the NPV and IRR.

The project, in its current size, presents very interesting opportunities and potential. The profitability of the project according to the parameter considered perfectly encourages development in the future². *GENERALITES*

2.1 LEGAL INFORMATION ON PERMITS

NLMC Mining has two exploration permits in the Siguiri area:

- A/2021/1348/MMG/SGG; A/2021/119/DIGM/CPDM with an area of 39 km²
- A/2021/1349/MMG/SGG; A/2019/120/DIGM/CPDM covering an area of 51 km²

These permits are granted to the company NLMC MINING S.A on June 4, 2021 for a period of one year.

The coordinates of the two permits are supported in Table 4.

Table 4: NLMC permit details

Points	Permis	Surface	Latitude Nord	Longitude Ouest
1	Permis 1348 (3284)	39 Km ²	11° 25' 33.0"	9° 21' 00.1"
2			11° 25' 33.0"	9° 20' 11.0"
3			11° 24' 58.0"	9° 20' 11.0"
4			11° 24' 58.0"	9° 18' 00.2"
5			11° 23' 00.0"	9° 18' 00.2"
6			11° 23' 00.0"	9° 17' 00.3"
7			11° 21' 00.3"	9° 17' 00.3"
8			11° 21' 00.3"	9° 18' 36.0"
9			11° 22'28.0"	9° 18' 36.0"
10			11° 22'28.0"	9° 19' 51.0"



11			11° 22'47.0"	9° 19' 51.0"
12			11° 22'47.0"	9° 22' 33.0"
13			11° 23'39.0"	9° 22' 33.0"
14			11° 23'39.0"	9° 21' 01.0"
1	Permis 1349 (5350)	51 Km ²	11° 25' 33.0"	9° 18' 00.0"
2			11° 25' 33.0"	9° 14' 37.0"
3			11° 21' 49.0"	9° 14' 37.0"
4			11° 21' 49.0"	9° 12' 48.0"
5			11° 20' 58.0"	9° 12' 48.0"
6			11° 20' 58.0"	9° 17' 00.3"
7			11° 23' 01.0"	9° 17' 00.3"
8			11° 23' 01.0"	9° 18' 00.0"

Figure 1: Plan of the two NLMC permits

2.2 ACCESS, LOCATION AND INFRASTRUCTURE

Permits 1445 and 1141 are located 12km center of the town of Varney. They are contiguous to the southern side of the SAG permits where the largest Liberian gold extraction operation takes place, the production of which is approximately 300 Koz/year.

These permits are located in the prefecture, Administrative Region of Varnery Town, in grand Cape Mount County, Liberia.

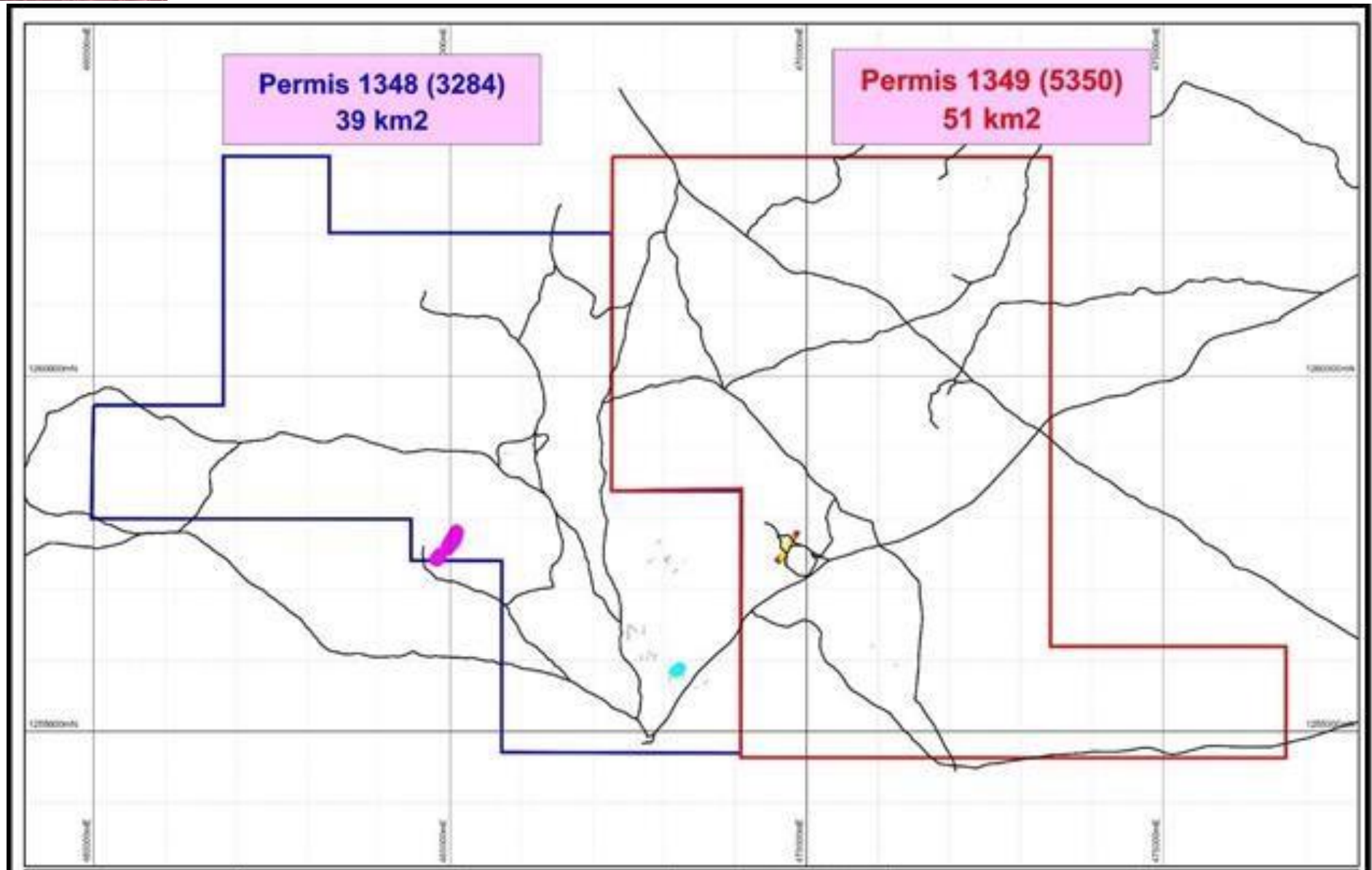




Figure 2: Location plan of permits AM2005522) and the main gold mines in the region

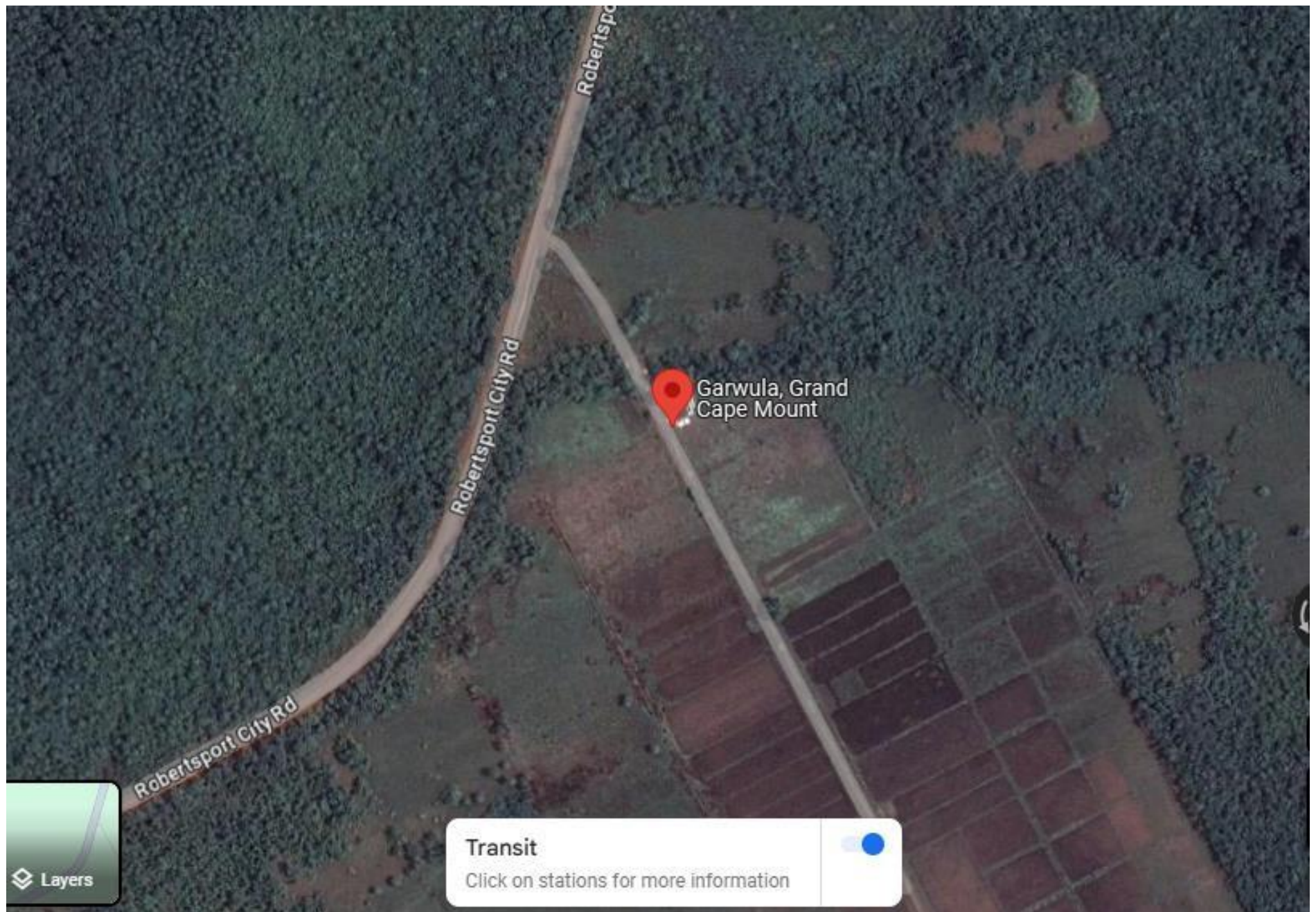


Figure 3: Location plan of permits AM2005522) and the main SAG mines (8.5MOz).



Varney has a sub-Sudanian type climate characterized by the alternation of two distinct seasons: a dry season of six (6) months (October - March) and a rainy season of six (6) months (April to September).

The predominant winds in the Varney, Fula and Soso town prefecture are the dry and raining seasons dry season of six (6) months (October - March) and a rainy season of six (6) months (April to September).

Maximum temperatures often reach 45°C in summer, while minimum temperatures in winter are usually as low as 15°C. The rainy season is limited to between September and October and August are generally very wet, contributing to an annual rainfall total of 1,100 to

1,500 millimeters. The high temperatures are due to the continental effect which creates a strong, dry wind, called Harmattan, which blows from the north during the months of December to February.

The prefecture of varney town has a very dense water network. It is made up of numerous stream.

2.4 PHYSIOGRAPHY

The relief of Varney Town prefecture is characterized by 3 town zone zones:

- The hill area whose altitude varies between 30 and 60 m with the Megue massif which peaks at 75 m characterized by lateritic, poor and acidic soils.
- The plateau area whose altitude varies between 300 to 400 m. It is characterized by gravel soil with rocky outcrops in places.



The characteristic formation of the vegetation of the grand Cape Mount County prefecture is the rainforest. It is composed of tree, shrub and grass species. Characteristic species are deer, leopard etc.

3. GEOLOGICAL CONTEXT

3.1 REGIONAL GEOLOGY

The geological map of Liberia is shown in Figure 16. The geological formations present on the territory of the Republic of Liberia are described below, from the oldest to the most recent (according to BRGM, 1999).

Liberia is located on the west coast of Africa, bordered by Sierra Leone to the northwest, Guinea to the north, and Côte d'Ivoire to the east. Its geology is varied, comprising different regional geological features that reflect a complex history of tectonic movements, sedimentary deposition, and volcanic activity.

Here is an overview of the key geological regions of Liberia:

1. Cratonic Basement (Precambrian Rocks)

Age: Archaean to Proterozoic (approximately 2.5 billion to 540 million years ago).

Location: This is found in the central and eastern parts of Liberia and is part of the West African Craton.

Rock Types: The basement rocks are predominantly granites, gneisses, and schists, which are highly metamorphosed rocks that have undergone significant geological transformation over billions of years.

Geological Features: These rocks are remnants of ancient continental crust, and their formation reflects the early geological history of the Earth. The West African Craton is a stable area that has been little disturbed by tectonic processes since it was first formed.



2. Liberian Belt (Metamorphic and Sedimentary Rocks)

Age: Mostly Proterozoic to early Paleozoic (around 1.8 billion to 500 million years ago).

Location: This belt runs through the western and central parts of Liberia.

Rock Types: The belt consists of metasedimentary rocks (such as quartzites, schists, and phyllites) as well as granites and gneisses that have undergone regional metamorphism.

Geological Features: The Liberian Belt is associated with tectonic processes that occurred during the Proterozoic, including orogeny (mountain-building events) and the folding and faulting of sediments and rocks. The belt may represent an ancient mountain range that was later eroded.

3. Coastal Basin (Cretaceous to Cenozoic Sediments)

Age: Mostly Cretaceous to Cenozoic (about 145 million years ago to present).

Location: This region is found along Liberia's coastline and is characterized by sedimentary deposits that were laid down in marine and river environments.

Rock Types: The sediments in this region include sandstones, shales, limestones, and conglomerates, which were deposited by rivers and the sea. There are also extensive lateritic soils that have developed due to tropical weathering.

Geological Features: The Coastal Basin reflects a much younger geological history than the basement areas and has undergone less tectonic disturbance. It includes the modern landscape of Liberia with its rivers, deltas, and coastal plains.

4. Basin of the Upper Guinea Coast (Paleozoic to Mesozoic)

Age: Ranges from the Paleozoic to the Mesozoic (approximately 540 million to 65 million years ago).

Location: This basin lies to the west of the country and is part of the larger Upper Guinea Basin, which extends across the western African coast.



Rock Types: Dominated by sandstones, shales, and mudstones from marine and continental environments.

Geological Features: The rocks in this region have been less deformed than those in the Liberian Belt and represent a series of sedimentary layers deposited in ancient seas and river systems.

5. Iron Ore Deposits (Liberian Geology's Economic Feature)

Age: Precambrian to Cenozoic.

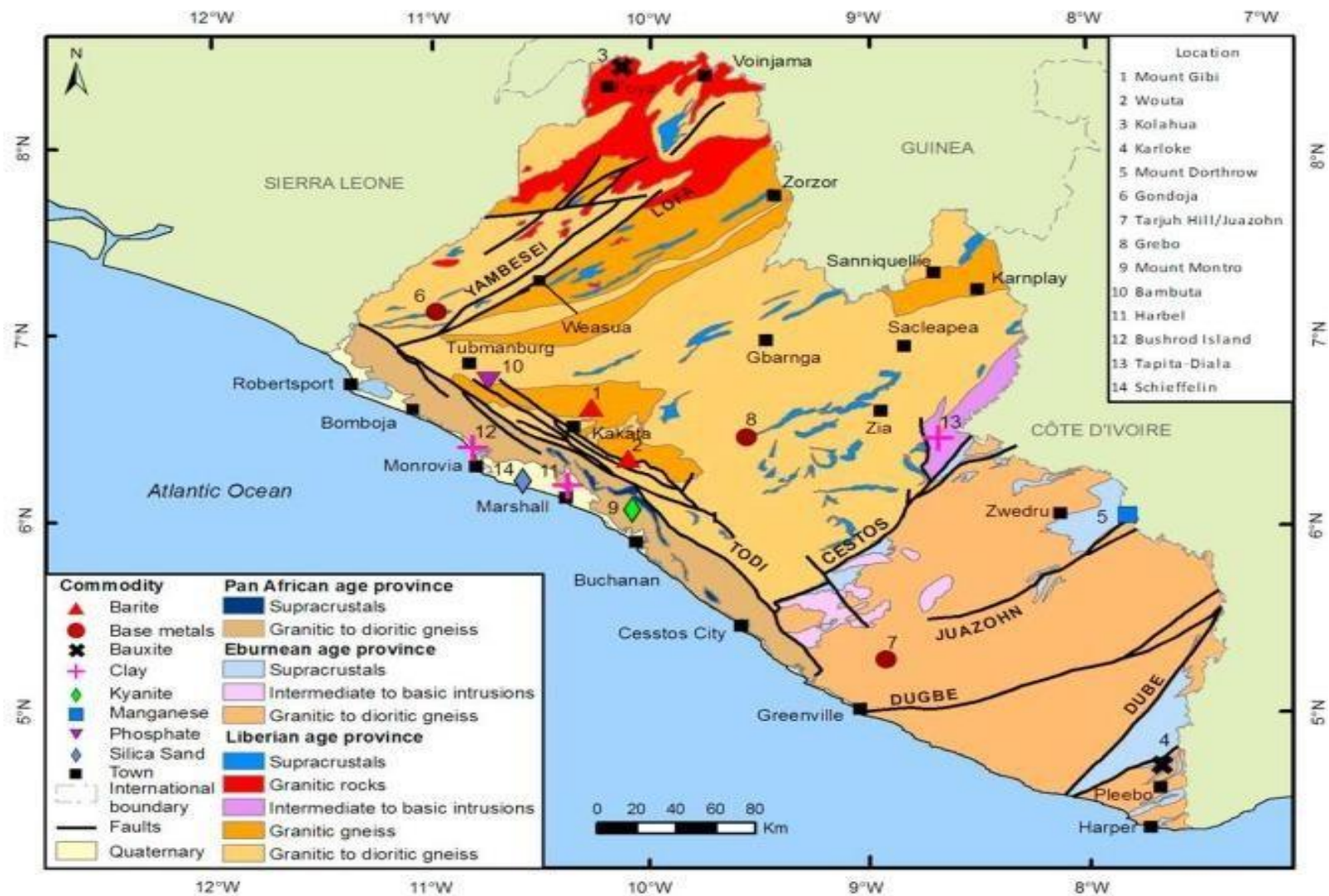
Location: The major iron ore deposits are found in the northern part of the country, including the Nimba Mountains region, where some of the richest iron ore reserves are located.

Minerals: In addition to iron ore, the country is known for other mineral resources such as gold, diamonds, and bauxite.

Geological Features: The iron ore deposits are hosted in banded iron formations (BIFs), which are sedimentary rocks containing layers of iron minerals like hematite and magnetite. These deposits were formed in ancient seas and have undergone various processes that concentrated the iron content.

Tectonic Setting:

Liberia lies on the West African Plate and is affected by the tectonic boundary interactions between the African Plate and the smaller plates to the north. The geological history of Liberia is influenced by the breakup of the supercontinent Pangaea during the Mesozoic, which created the Atlantic Ocean and shaped the coastal basin.



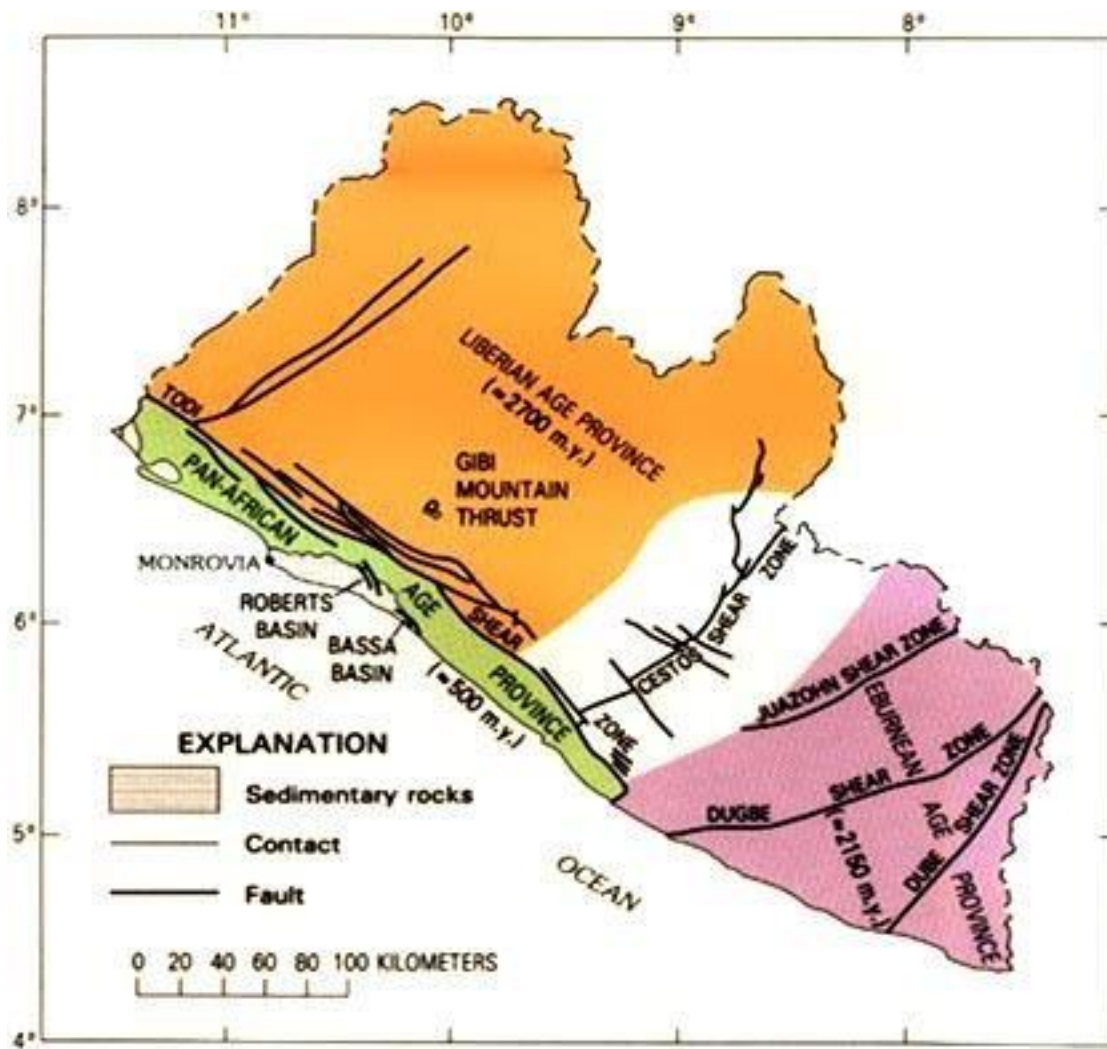


Figure 5: Positioning of NLMC permit boundaries on the Geological map of Liberia.



3.2 LOCAL GEOLOGY

Varney Town is located in Grand Cape Mount County, Liberia, a region that is part of the larger geological context of West Africa, which includes various rock formations and mineral deposits. While detailed geological data specific to Varney Town may not be easily accessible without in-depth regional studies, we can consider the general geology of Grand Cape Mount County and the surrounding areas to provide some context.

General Geology of Grand Cape Mount County:

1. **Precambrian Rocks:** The majority of the geology in Grand Cape Mount County is dominated by Precambrian rocks. These are some of the oldest rocks in the region, dating back billions of years. The area primarily features **crystalline rocks** such as **granite** and **gneiss**, which are typically part of the **Liberian Shield**. The Liberian Shield is a large geological feature made up of ancient metamorphic and igneous rocks that form the bedrock of much of Liberia.
2. **Metamorphic Rocks:** In addition to granitic formations, there are extensive outcrops of metamorphic rocks like **schists** and **quartzites** in the region. These rocks have been subjected to high temperatures and pressures, resulting in the formation of distinctive textures and mineral compositions.
3. **Sedimentary Layers:** There are also some areas where younger **sedimentary rocks** might be found, typically along coastal regions or river valleys. These sediments are often composed of sandstones, siltstones, and clays, deposited over time in ancient marine or riverine environments. However, these would be less dominant than the older Precambrian rocks.
4. **Mineral Resources:** Grand Cape Mount County, including areas like Varney Town, has been historically known for its mineral resources. Some minerals that can be found in the broader region include **iron ore**, **gold**, and **bauxite**. The region's geology is also favorable for other resources like **diamonds** and **rutile**.



Climate and Erosion:

The humid tropical climate of the region contributes to significant weathering and erosion of the older rocks. This can lead to the formation of rich soil layers, which are important for local agriculture. However, weathering also means that mineral deposits might be scattered or difficult to mine without advanced techniques.

Faults and Structural Features:

Liberia, and West Africa in general, has some tectonic activity, though the region is not as seismically active as other parts of the world. The geological structures in Grand Cape Mount County may include **faults**, **folds**, and **shear zones** that have developed over millions of years. These structural features could influence the distribution of mineral deposits and the local topography.

In summary, Varney Town's geology is likely to reflect the broader geological characteristics of Grand Cape Mount County, with ancient Precambrian crystalline rocks, some metamorphic formations, and potential mineral resources in the region. However, detailed geological surveys specific to Varney Town would be necessary to provide more precise information.

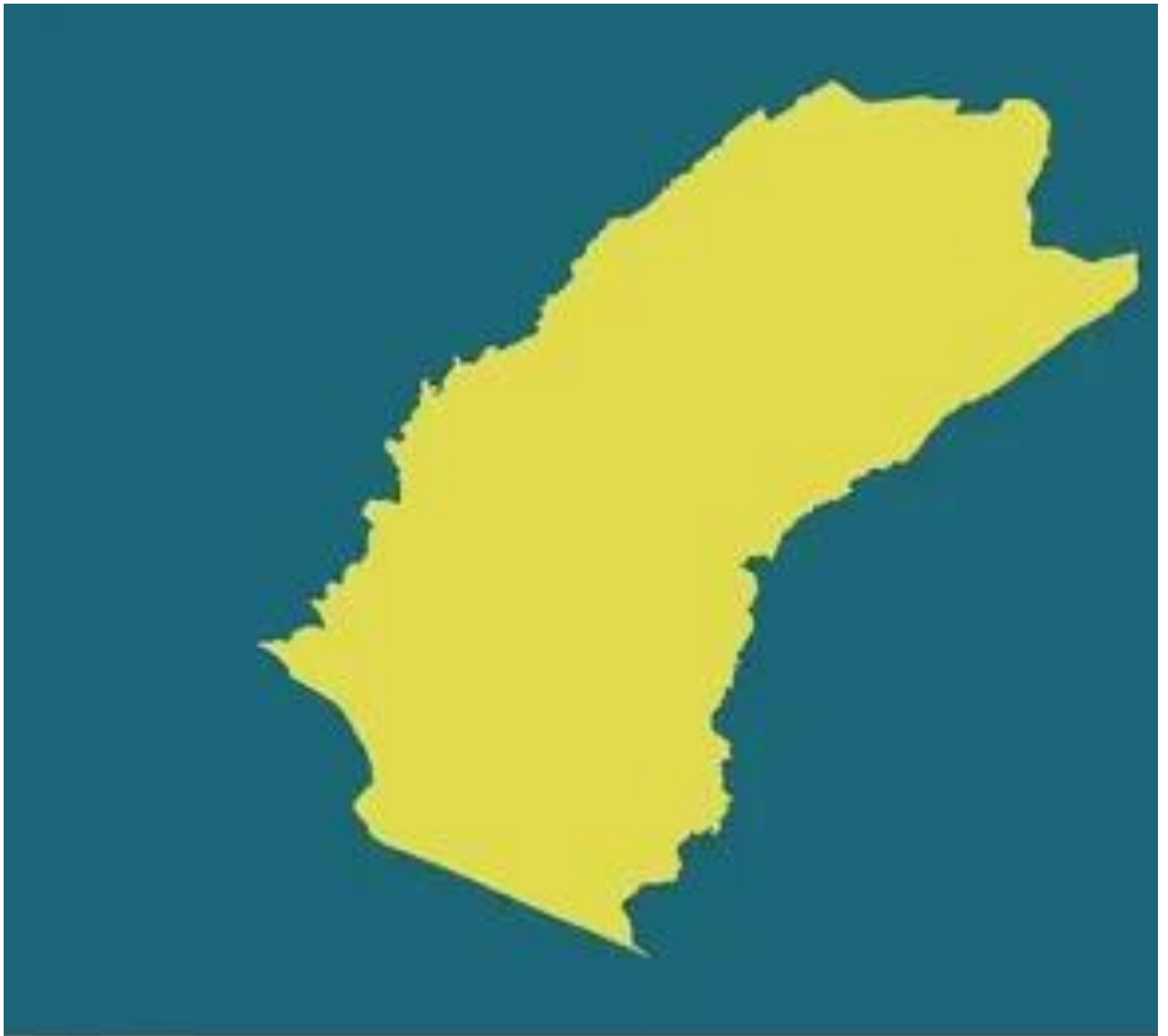


Figure 6: Positioning of the limits of NLMC permits on the Geological map of the Varney Town

3.3 GEOLOGY OF THE DEPOSIT

The geology of Grand Cape Mount County, located in the western part of Liberia, is characterized by a variety of geological formations, which include both sedimentary and crystalline rocks. Here's a general overview of the geological features of the region:



1. Precambrian Basement Rocks

Crystalline Rocks: Grand Cape Mount County lies over an area dominated by Precambrian crystalline rocks, which form part of the Liberian Shield. These rocks are mainly made up of:

Granite and gneiss: These are common in the region, formed from high-temperature metamorphism of older rocks.

Schists and marbles: Metamorphic rocks found in the area, often formed from sedimentary rocks under extreme pressure and temperature.

Quartzite: This is another significant rock type, often related to ancient sedimentary processes.

2. Structural Geology

The region is part of the West African Craton, an ancient geological formation that covers much of the West African region.

The geological structures in the area include folds, faults, and shear zones that have been caused by tectonic forces during the Precambrian and more recent geological times.

There are also some fracture zones and lineaments that reflect the complex tectonic history of the region, contributing to the formation of mineral deposits.

3. Sedimentary Rocks

While the majority of the geology in Grand Cape Mount is crystalline, some sedimentary deposits are also found, particularly along the coastal plains and river valleys.

These deposits include sandstones, shales, and conglomerates, which are typically associated with ancient river systems and marine environments.

4. Mineral Deposits



Iron Ore: Grand Cape Mount County is known for the presence of significant iron ore deposits. These are primarily found in the crystalline rock formations and are important to Liberia's mining industry.

Gold: Gold deposits also occur in the region, often associated with the ancient rocks of the Liberian Shield.

Bauxite: The area has some occurrences of bauxite, although it's more common in other parts of Liberia.

5. Soil and Hydrology

The soil in the region is typically lateritic, which is formed under tropical conditions with high rainfall and temperatures. This soil type is rich in iron and aluminum oxides.

The hydrology of Grand Cape Mount County is dominated by several rivers, including the Sierra Leone River to the northwest. These rivers are significant both for their ecological value and as sources of sediment transport.

6. Geological History

The geological history of Grand Cape Mount County is complex and involves several stages of tectonic activity. The region was originally part of the ancient supercontinent Rodinia, later becoming part of Gondwana.

The region experienced orogenic events (mountain-building) during the Precambrian, which helped shape its present-day geological structure.

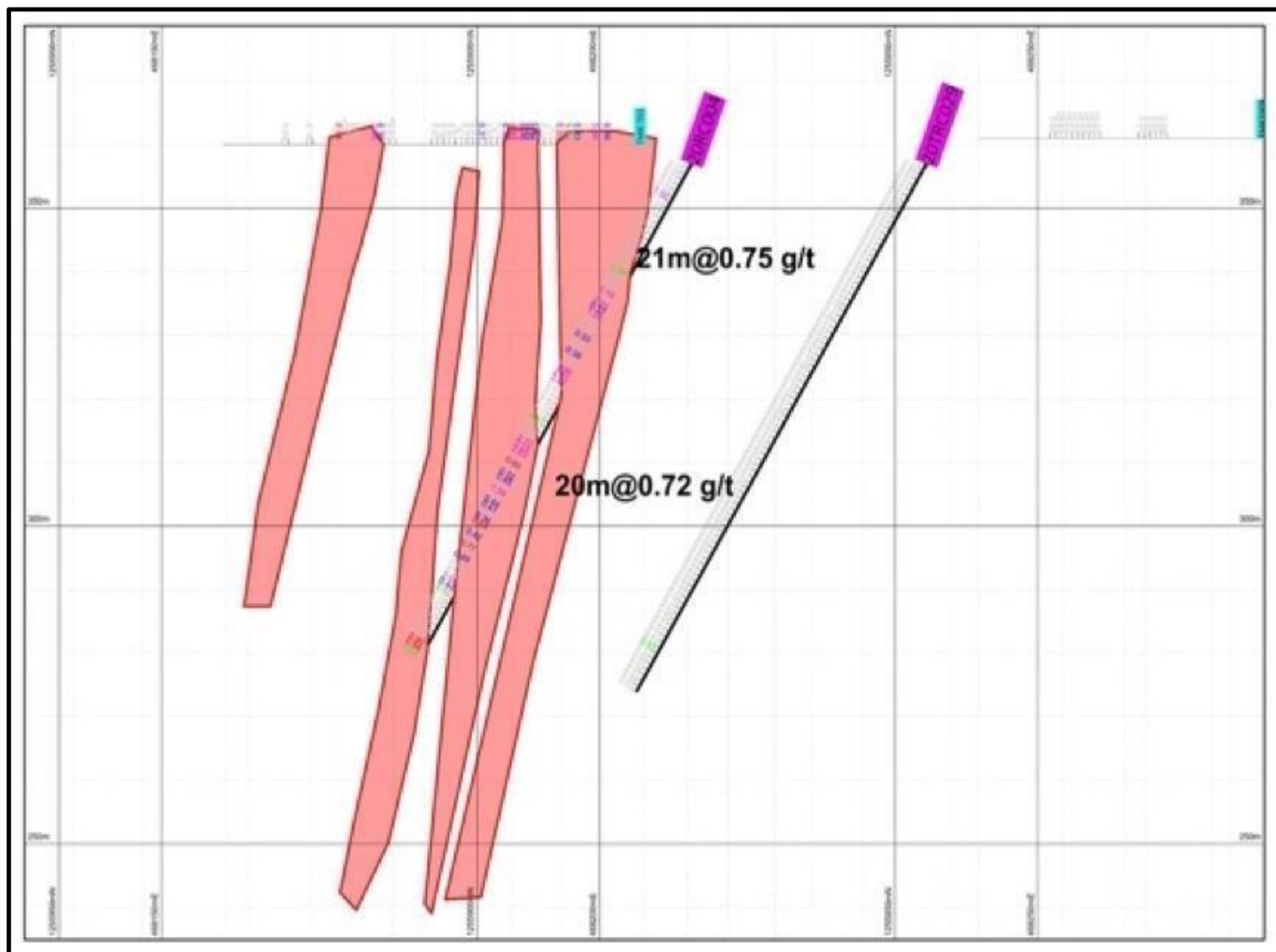
In more recent geological history, the area has been subjected to erosion and sedimentation processes, shaping the modern landscape.

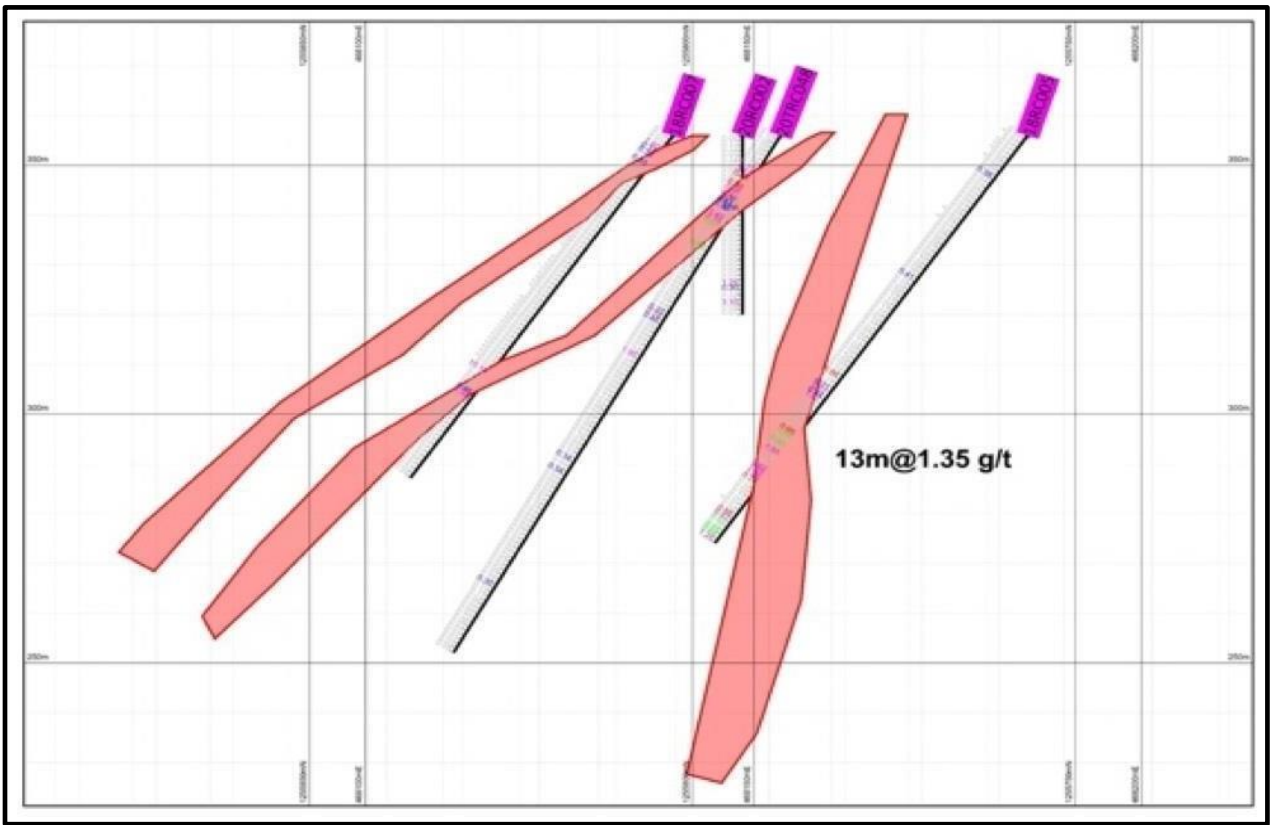


3.4 GEOLOGICAL SECTIONS

The drilling and trenching campaigns made it possible to draw up geological sections of the deposits and then to create models that could be used to estimate the reserves. Some of the typical cuts are shown below.

3.4.1 VARNEY





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3.1.2 VARNEY

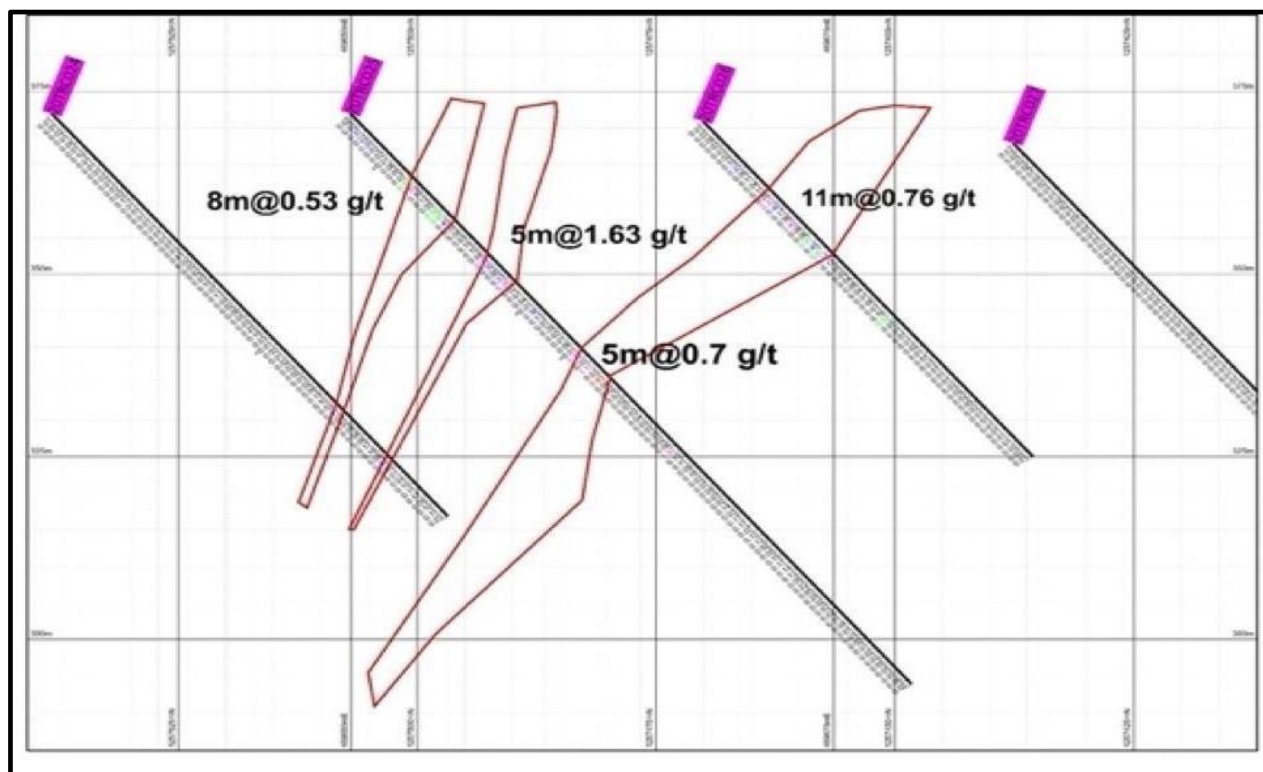


Figure 9: Coupe transversale Niandan1

3.5 GARWULA

Throughout the prospected area, mineralized zones appear with a sub-vertical horizontal extension (80° West) in a NNE direction.

The grade of the intersections is relatively low and oscillates between 0.5 and 2.5g/t, with an average of 1g/t. However, the mineralized powers, by bundles of quartz veins, are rather large (5 to 21m).

The geological structures and mineralizations are similar to what is found in the SAG mine, a few kilometers to the north.

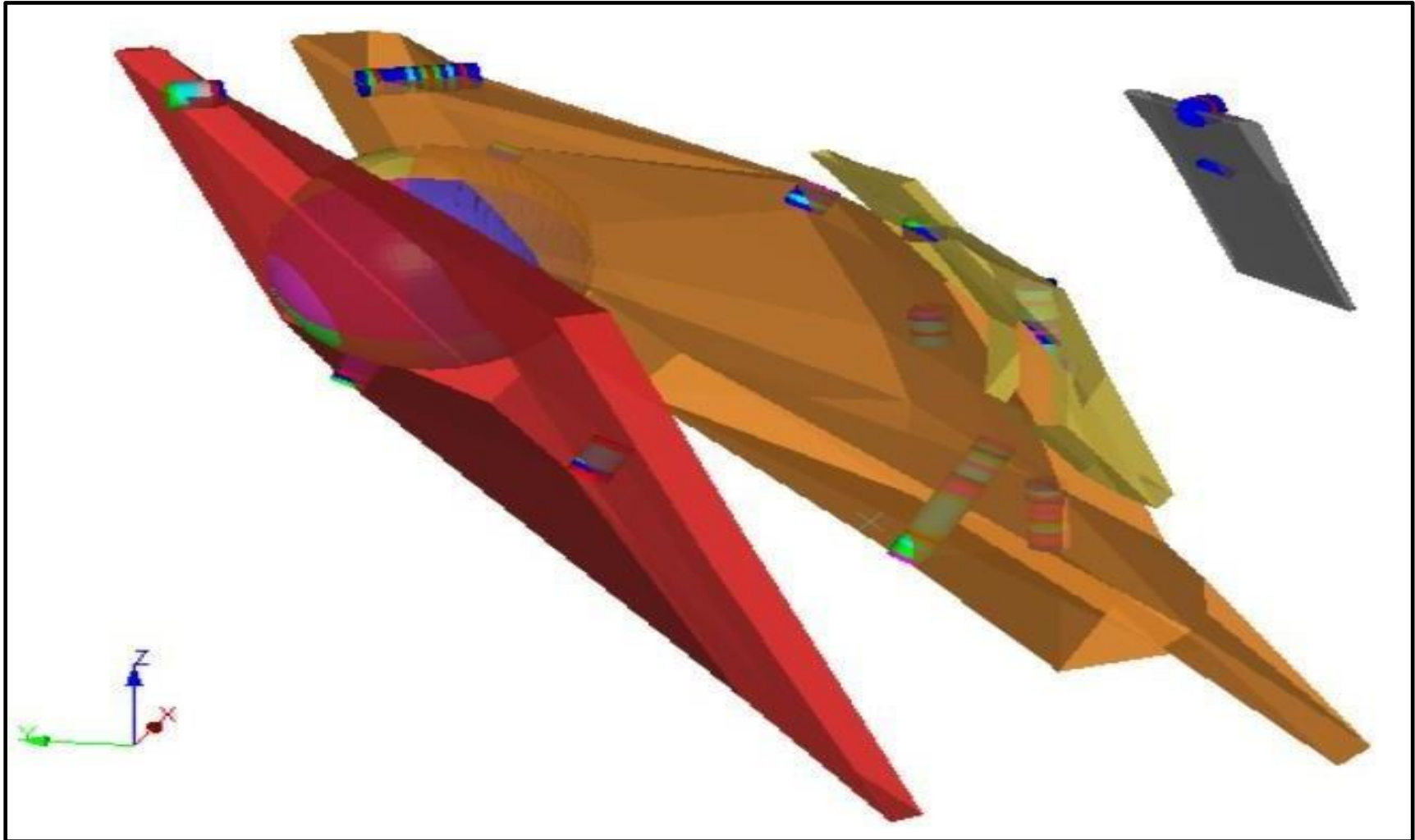


Thus, NLMC Mining permits could contain a deposit of the order of magnitude of the SAG (5Moz). To develop such a deposit, a major drilling program will be necessary.

It should be noted that the consistent geochemical and geophysical anomalies are well representative of the presence of deposits at depth, hence the interest in joining these maps into one and highlighting the areas to be drilled.

3.6 EXPLORATION RESULTS

The results of trenching work and drilling of RC surveys carried out in permit 1348 (3284) and Am2005522, made it possible to highlight in addition NW, NS, NE and EW structures with sub-vertical dip, mineralized sub-flat bodies. They also allowed an estimation of mineral resources especially in the areas of Varney Town, Soso Town and Garwula (figures 23 and 24).



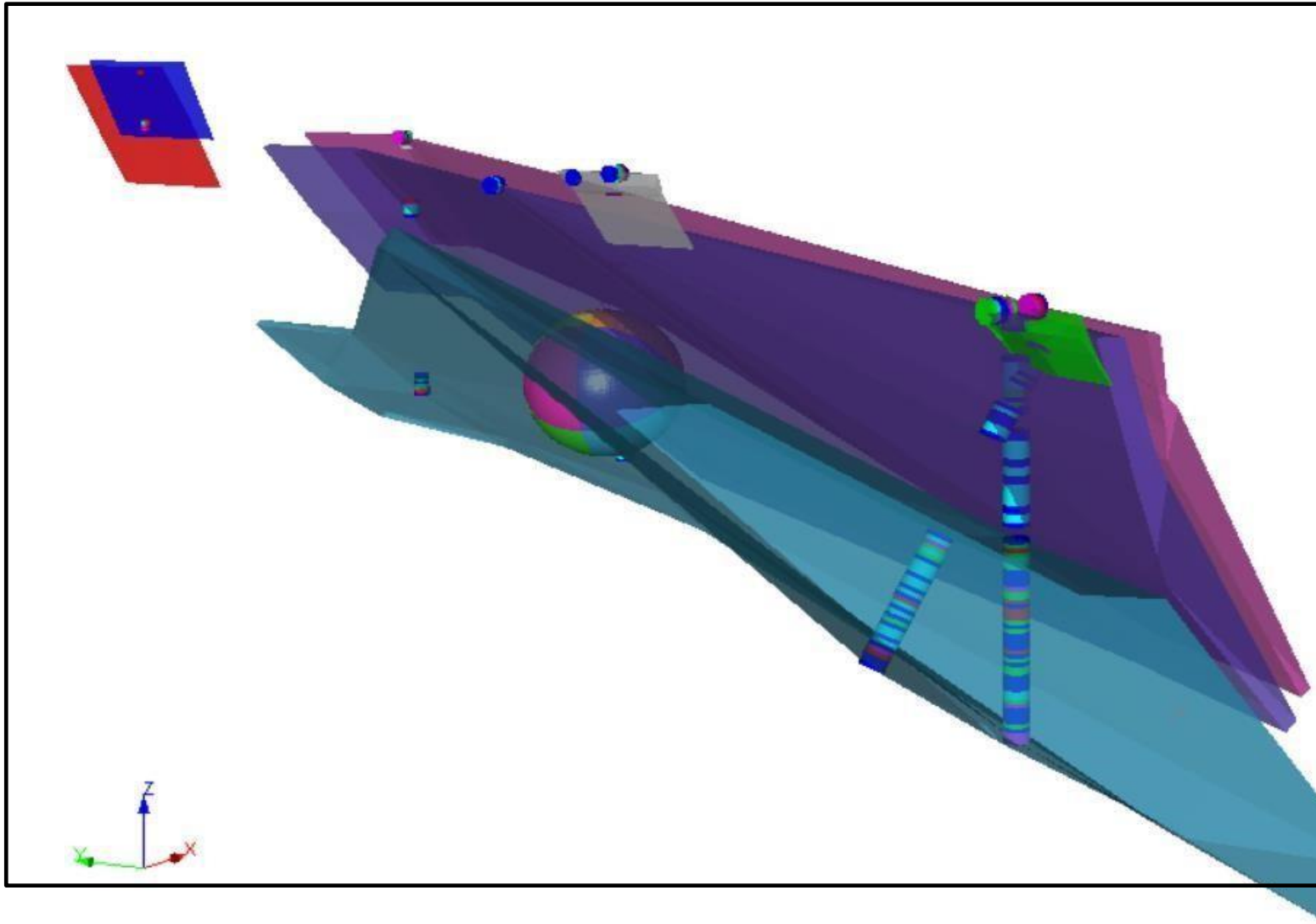


Figure 11: 3D view of mineralized structures in NLMC permit 1348 (3284), Soso Town 3 Zone.



4. HISTORY OF EXPLORATION

4.1 HISTORY OF WORK CARRIED OUT IN NLMC MINING PERMITS

BEFORE 2018

Before 2008, SICI and TMMRI held permits initially covering an area of 200 km². In 2008, the total surface area was maintained but split in two: The company SICI took the southern part and the northern part of the permits remained in TMMRI.

In 2009, a JV with Vancouver-based Caracal was concluded with the two companies.

Between 2009 and 2012, Caracal carried out the following works:

- Construction of a geographic information system under MapInfo of all existing data (Landsat and geophysical data);
- Geological recognition of permits and inventory of the main artisanal gold panning sites;
- Ground geochemistry, in several phases, with mesh sizes of 100mx1000m then 400mx100m. Tightening zones were carried out at 100mx50m in several sectors with gold analysis only (figure 3);
- Helicopter-borne geophysical surveys VTEM by the Canadian company GEOTECH on two bands oriented NE-SW;
- Digging of wells and trenches to recognize the origin of certain geochemical anomalies.



Table 5: Work carried out by Caracal

Trenches/Wells	Type of	Permit	Lead	UTM_E	UTM_N	total length
DEKPT1	Puits	1348(3284)	Denkakono	462728	1262714	4

DEKPT2	Puits	1348(3284)	Denkakono	462288	1262705	4
DEKPT3	Puits	1348(3284)	Denkakono	462277	1262709	4
DEKPT4	Puits	1348(3284)	Denkakono	462321	1262715	4
DEKPT5	Puits	1348(3284)	Denkakono	462309	1262758	4
DEKPT5	Puits	1348(3284)	Denkakono	462309	1262758	4
DEKPT6	Puits	1348(3284)	Denkakono	462312	1262765	4

Tota puits						28
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DEKT1	TRENCH	1348(3284)	Denkakono	462280	1262728	10
DEKT2	TRENCH	1348(3284)	Denkakono	462301	1262728	12
DEKT3	TRENCH	1348(3284)	Denkakono	462286	1262780	26

Total tranchées						48
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