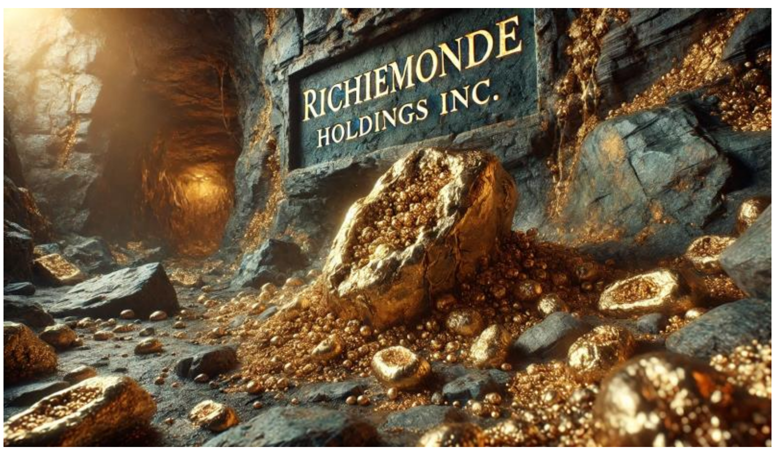
Project Technical Report on the Richiemonde Itumbi Gold Mine, Tanzania

Report for NI 31-101

Richiemonde Holdings Inc Limited



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14th September 2024
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RichieMonde Holdings Inc. Limited

Table of Contents

Preface:

DAR ES SALAAM: AS Tanzania celebrates 63 years of independence, geologically, the country has continued to reap the benefits of its rich mineral resources for economic prosperity.

Geologically, Tanzania is endowed with various mineral resources, making it one of the leading mineral-producing countries in Africa.

The minerals produced in the country include gold, copper, diamonds, tanzanite, ruby, limestone, gypsum, gravel, sand, clay, uranium, coal, etc. This makes the mining sector a significant contributor to the community and the national economy. To enhance the national income derived from mineral products, Tanzania and the world at large are focusing on adding value to these products. Therefore, to develop productive mining activities, investment in industries and technologies for value addition of mineral products, such as processing, refining and polishing industries is essential.

Tanzania is recognised in Africa and globally for its abundant mineral resources. These minerals are mined both through open-pit and underground methods using different technologies and equipment depending on the level of investment.

Tanzania's minerals are categorised into metallic minerals (gold, iron, silver, copper, nickel, niobium); gemstones (diamonds, tanzanite, ruby, sapphire, etc.); construction minerals (sand, gravel, stones, clay and aggregates); industrial minerals (limestone, gypsum, salt); Strategic minerals (graphite, nickel, cobalt); and energy minerals (coal and uranium).

Strategy for value addition of minerals

Mineral Value Addition is the process of improving raw minerals by processing and transforming them into intermediate or final products that have higher market value.

This process involves several crucial steps that can increase revenue, employment and technological development in the country. A comprehensive strategy for adding value to minerals considers market demands, technological capabilities, infrastructure and regulatory environments to boost the economy for the benefit of society and the nation.

Value addition of minerals is implemented through private sector, public sector, collaboration between public and private sectors, mining stakeholders and research institutions to achieve specific goals.

Mineral value addition steps include; beneficiation, processing, refining and manufacturing.

Beneficiation involves the physical or chemical separation of minerals from ore to increase their purity and quality. Beneficiation can improve the value of minerals by removing impurities and increasing their concentration. For example, nickel ore from Haneth – Dodoma can be value added from 2.5 per cent to 60 per cent.

Processing involves converting raw minerals into intermediate or final products through techniques such as crushing, grinding and sorting. This can enhance the value of minerals by making them suitable for specific applications or markets.

Refining is the process of purifying minerals to remove impurities and produce high-quality products. For example, refining of metals like gold, silver and platinum involves processes such as smelting, electrolysis and chemical treatments.

To date, Tanzania has more than 14 refineries including six gold refineries with capacity ranging from 60kg to 600 kg per day which are located in Geita, Mwanza, Kahama, Dodoma and Dar es Salaam. There are also eight smelters for graphite, copper, nickel and tin located in Kagera, Shinyanga, Tanga, Dodoma, Dar es Salaam and Lindi regions.

Manufacturing involves using processed minerals as raw materials to produce finished goods. This can add significant value to minerals by creating products with higher market demand and value. In Tanzania there are ten lapidaries including four large lapidaries and six small lapidaries in Dar es Salaam and Arusha.

The importance of innovation and technology

Investing in research and development to improve processing techniques, develop new products and optimise production processes can also enhance the value of minerals.

Overall, a comprehensive mineral value addition strategy should consider factors such as market, demand, technological capabilities, infrastructure and regulatory environment to maximise the economic benefits of mineral resources.

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Some minerals and their products

Tanzania's metallic minerals; gold, iron, silver, copper, nickel and niobium, are used differently based on their properties and needs of various sectors.

Gold, which is abundantly found in the Lake Zone region of Geita, Shinyanga, Mara and Mwanza regions, is used to make valuable jewellery such as necklaces, rings and earrings. It is also used in the manufacture of electronic devices such as computer cables due to its excellent conductivity.

Iron is a crucial raw material in the construction sector and the manufacture of various products such as railway tracks (SGR), rebar, doors and kitchen utensils (pots and plates). It is also used in the manufacture of vehicles, machinery and infrastructure construction such as buildings, bridges and roads and is also used to manufacture cement.

Iron is abundantly found in the Liganga area, Njombe Region, which has large iron ore deposits, as well as in other parts of the country.

Silver, which is obtained as a by-product in gold and copper deposits, especially in the Bulyanhulu and North Mara mines, is used to make valuable jewellery, household items like spoons and plates and in electronic devices such as phones. It is also used to make computers, batteries and solar panels (electricity and solar power).

Copper, abundantly found in the Lake Zone and western parts of the country, is used in the manufacturing of electrical wires and electronic devices. It is also used in making pipes and household items such as door handles and decorations.

Tanzania's gemstones tanzanite, diamonds, rubies, sapphires and garnets), predominantly found in Mirerani-Manyara, Tanga, Morogoro and Mwanza, are famous for their beauty and are mainly used in the production of valuable jewellery such as rings, earrings, necklaces, bracelets and other precious items.

Although there are small-scale gemstone processing industries in the country that manufacture these gemstones for local and international markets, the gemstone sector in Tanzania faces challenges such as export of rough gemstones (un-cut, un-polished and un-processed), lack of modern processing technology and lack of reliable markets for small-scale miners.

However, the government has initiated efforts to encourage gemstones value addition by establishing the Tanzania Gemological Centre in Arusha with the specific role of training young Tanzanians to various aspects of gemstones value addition and stone carvings. Other efforts include building processing industries, establishing gemstone markets and mineral auctions (both domestic and international) to ensure gemstones minerals contribute more to the national income and boost the country's economy.

Tanzania is also rich in industrial minerals such as limestone, gypsum, coal, kaolin, soda ash and phosphates. These minerals are used in the production of various essential products for the construction, agriculture, energy and other industries.

Gypsum is used to make cement, construction plaster, wallboards (gypsum boards) and also as a soil conditioner in agriculture. Gypsum is extensively mined in areas such as Itigi (Singida), Manda (Dodoma), Mkuranga (Coast Region), Kilwa and Lindi. The gypsum is used by Knauf Gypsum Tanzania to produce gypsum boards for construction, as well as by Dangote Cement in Mtwara, Camel Cement in Dar es Salaam and Lafarge Holcim (Mbeya Cement) for making cement. Additionally, gypsum is used in building construction for making plaster and wallboards.

Limestone is a key raw material in cement manufacturing. It is also used in agriculture to neutralise soil acidity and as a raw material in the production of paint and glass. Limestone is abundantly found in areas such as Tanga, Wazo Hill (Dar es Salaam), Lindi and Mbeya. The limestone produced in the country is used in cement factories like Wazo Hill Cement Factory, Kiln Product Industries, Tanga Cement and Mbeya Cement Factory. It is also used in the agricultural sector as a fertiliser for highly acidic soils.

Phosphate is used to make phosphate fertilisers and is also used in the production of soap and other industrial chemicals. Phosphate is extensively mined in areas such as Minjingu (Manyara) and Nachingwea (Lindi). Industries that use this raw material to produce fertilisers include Minjingu Mines & Fertiliser Ltd (Minjingu Rock Phosphate – MRP). Phosphate raw material is also used in soap industries as an ingredient in the production of powdered and bar soaps.

Soda Ash is used in the production of glass, soap, industrial chemicals and also as a raw material in making powdered and dishwashing soaps. Soda ash is abundantly found in the Lake Natron area, in Arusha Region. It is used in industries for the production of glass and glass products. These industries use sand and gravel to make cement blocks. Examples include Nyati Cement Blocks and Hansa Blocks (Dar es Salaam); Concrete Mixing Plants; Industries like Simba Cement and Bamburi Ready Mix use sand and gravel in making concrete. Road Construction Companies such as China Civil Engineering Construction Corporation (CCECC) and Sinohydro Corporation use gravel and sand in road construction.

Clay is used in the manufacture of burnt bricks, roofing tiles, decorative pots and other pottery products. Clay is found in areas such as Pugu (Dar es Salaam), Bagamoyo (Pwani), Moshi (Kilimanjaro) and Kondoa (Dodoma). In value addition processes, there are industries that use clay to make burnt bricks like Kioo Limited (Dar es Salaam); roofing tile industries like Tanga Tiles and Kilimanjaro Ceramics and pottery industries including small pottery industries like Nungu Ceramics that make pots and decorative items.

Marble and granite are used to make floors, wall tiles, countertops and statues. They are also used in the construction of luxurious buildings and tombstones. Marble is found in areas like Kilimanjaro and Dodoma, while granite is found in areas like Mbeya, Morogoro and Dodoma. In the value addition, there are marble industries like those in Dodoma. Marble Ltd manufactures marble products for flooring and walls, while Granite industries such as Mbeya Granite Factory and Morogoro Stone Quarry produce granite tiles and countertops for both domestic and international markets.

Tanzania also has a wealth of strategic minerals, which are becoming increasingly important in the production of new technologies and renewable energy. Some of these minerals are nickel, cobalt, graphite and rare earth elements (REEs).

Nickel is used in the production of stainless steel, electric vehicle batteries, chemical industries and in making alloys that resist corrosion and high temperatures. It is also a crucial raw material in the manufacture of electronic devices (phones, computers, etc.). According to research, nickel is abundantly found in areas such as Kabanga (Kagera), Haneth (Dodoma) and Lindi. Although nickel is used in international industries that manufacture stainless steel products, domestic industries utilising nickel are not yet well established in the country.

However, electric vehicle battery industries use nickel as an essential raw material for lithium-ion batteries used in electric vehicles. Although such industries do not currently exist in the country, the raw material is exported. Also, Kabanga Nickel Project aims to mine and transport nickel through the Kahama refinery (Tembo Nickel Refinery Company Limited) and establish industries to process these minerals for domestic use and export.

Cobalt is used in the production of electric vehicle batteries, phones and electronic devices. It is also used in industries that manufacture stainless steel alloys and superalloys.

Graphite used in the manufacture of batteries, construction materials, electrical equipment and industrial products such as electrodes, electric brushes and lubricants. Graphite is found in areas like Nachu (Lindi), Handeni (Tanga) and Mererani (Manyara).

Lithium-ion battery industries use graphite as a raw material for anodes in batteries for electric vehicles and electronic devices. Electrical industries use graphite to make electric brushes used in electrical equipment and electric motors.

Currently, this raw material is exported. The Mahenge Graphite Project aims to mine and process graphite for battery use as well as supply the mineral to other sectors worldwide.

Rare Earth Elements (REEs) are used in the manufacture of electronic devices, powerful magnets, electric vehicle batteries, military equipment and renewable energy technologies such as wind turbines. These minerals are abundantly found in areas like Lake Rukwa and Ngualla (Njombe).

To add value to REE minerals, the Ngualla Rare Earth Project aims to mine and process rare earth minerals for domestic use and export.

Benefits, challenges and opportunities in value addition activities

Processed or value-added products are sold at higher prices in the market, thus increasing the income of the country and communities involved in the sector. Value addition processes also require more workers, thus increasing employment for local citizens and helping to reduce the problem of unemployment;

On the other hand, value addition requires modern technologies and specialised expertise, which can help in enhancing the professional capabilities of the country and developing other production sectors. Additionally, a country that processes and adds value to its minerals can control product prices in the market and avoid challenges of falling raw material prices internationally.

It is equally important to note that there are still a number of **challenges in the value addition of minerals.** Many developing countries face the challenge of lacking modern technologies and machinery to conduct value addition activities.

Operational costs pose another challenge. Building processing and production factories requires significant financial investment, which often poses a challenge for countries without sufficient resources. It is also important to note that processed products need markets with demand for those products and often countries may lack opportunities for international markets due to high competition.

Opportunities in value addition of minerals

The Tanzanian government can attract foreign investment in the mineral processing sector by offering incentives such as tax exemptions and improved infrastructure.

Trade agreements between countries also present good opportunities for market access for value-added products.

Creating an enabling environment for research and innovation in the mining sector can help reduce dependence on foreign technology.

In conclusion, the journey from extracting minerals deep within the Earth to their application in advanced technologies highlights the critical economic opportunities in mineral value addition. Historically, Africa has been a major source of raw materials, but the focus is now shifting towards adding value within the continent. This shift is essential for sustainable economic growth and reducing dependency on raw material exports. By processing and refining minerals locally, African countries can create jobs, foster technological advancements and build stronger economies. This approach not only benefits the local economies but also contributes to global technological progress, as these minerals are crucial for manufacturing electronics, electric vehicles and other high-tech products. Hence, the move towards mineral value addition is a transformative step that can drive economic development, technological innovation and a more equitable global economy.

Executive Summary:

RichieMonde Holdings Inc. Limited is embarking on a state-of-the-art gold mining project aimed at maximizing resource extraction, ensuring sustainability, and driving economic development in the region. The project site is located in a mineral-rich area with proven reserves. Through cutting-edge technology, ethical mining practices, and community engagement, the company aims to produce high-grade gold while ensuring environmental compliance and long-term profitability.

Key Highlights:

- Project Location: [CHUNYA DIST, MBEYA REGION, DAR-ES-SALAAM]

- Estimated Reserves: 31 Mtr Wide Vein mine consists reserves estimated upto

  3,360,000 Ozs in near by site, site covers 9.6 Hectares of land.

- Project Duration: [16 Years]

- Investment: [6 Billion Dollars]

2. Introduction

Gold is a cornerstone of economic stability and wealth preservation. As global demand for this precious metal rises, RichieMonde Holdings seeks to establish itself as a leading player in ethical gold mining operations. This report outlines the project's objectives, operations, environmental considerations, and financial projections.

3. Overview of RichieMonde Holdings Inc. Limited

Founded on principles of innovation and sustainability, RichieMonde Holdings Inc. Limited has a proven track record in mining operations and resource management. With a vision to lead in responsible resource extraction, the company is committed to creating value for stakeholders and contributing to global economic growth.

The RichieMonde gold project is developed as an open pit mine, comprising a dormant gold mine and four prospects located in the north-central region of Tanzania.

According to a joint venture agreement signed in March 2024, holds a 85% interest in the RichieMonde gold project while the remaining 15% is owned by the Tanzanian Local individual Company, M/S Lukia Said Chimbayangu.

The project commences commercial production in December 2025. The gold project is expected to produce 822,000oz over its estimated mine life of 16 years.

A new three million tonnes per annum sulphide processing plant is being developed at the mine. It is expected to produce 150,000oz to 175,000oz of gold annually.

A crushing circuit part of the mill will get commissioned in April 2025.

RichieMonde gold project location

The RichieMonde gold project site is located 45km south-west of Chunya district Chunya District is one of the seven districts of Mbeya Region, Tanzania. It is bordered to the north by Tabora Region, to the northeast by Singida Region, to the east by Mbarali District, to the south by Mbeya Rural District, and to the west by Songwe District,

Mission Statement:

"To responsibly harness natural resources while fostering community and environmental stewardship."

4. Project Objectives

- Extract high-grade gold using efficient and ethical mining techniques.
- Minimize environmental impact through advanced sustainability practices.
- Generate long-term economic value for stakeholders and local communities.

Chunya is known for its significant mining and strategic importance. Mining activities in the Chunya district are concentrated in various areas such as Itumbi, Makongolosi, Sangambi, Ifumbo, Matundasi, and Mbugani. Small-scale miners largely dominate these operations, providing employment for over 50,000 individuals.

The trend of government revenue collection in the mineral-rich Chunya region has been consistently increasing year by year. In the previous fiscal year 2022/23, Chunya alone collected over 30 billion Tanzanian Shillings, and by May this year 2023/24, the collection had risen to more than 34 billion Tanzanian Shillings.

Currently, Chunya holds licenses for small-scale mining (Primary Mining Licence) and medium-scale mining (Mining Licence) but lacks licenses for large-scale mining operations (Special Mining Licence). There is a push for extensive research to facilitate the opening of large mines in this critical mineral-rich region.

Significant achievements have been realized through the mineral market in Chunya district. Before the establishment of this market, government records indicated only 20kg of gold sales; however, post-establishment, an average of over 250kg per month passes through this market, signifying a twelve-fold increase.

We commend financial institutions for their involvement in the mining sector by providing loans to small-scale miners and mineral traders. To date, more than 30 miners from Chunya have benefitted from loans from NMB Bank, and 20 from CRDB Bank.

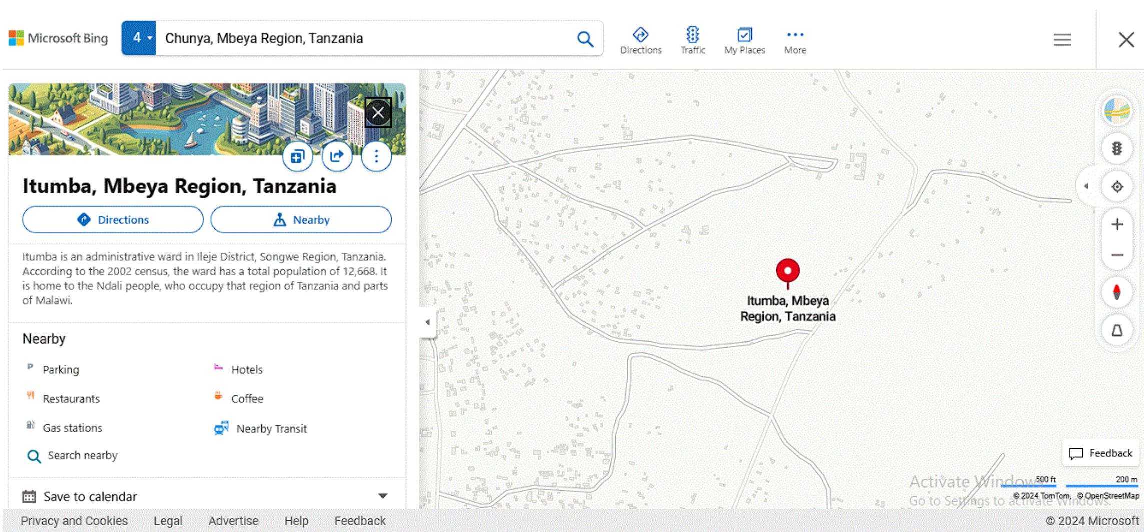
In greetings to the Chunya office staff, I conveyed special regards from the Minister of Minerals, Hon. Anthony Mavunde, and the Deputy Minister, Hon. Steven Kiruswa. We assured them of our commitment to address equipment challenges within the upcoming fiscal year and acknowledged their advice on enhancing funding opportunities for small-scale miners, promising to introduce alternative financing methods.

Lastly, emphasized the importance of accelerating revenue collection, resolving conflicts, combating smuggling, and corruption.

5. Location and Site Details

The project site, located in [Itumba, Chunya District, Mbeya Region/Tanzania], is known for its abundant gold reserves. Key details include:

- Geography:



- Reserves: Geological surveys confirm [825000 Ozs] of extractable gold.
- Infrastructure: Proximity to transportation, water sources, and utilities.

6. Geological Exploration and Feasibility Study

Extensive geological surveys have identified high-grade ore zones. The feasibility study highlights the following:

Reserve Estimate:

Geology and mineralisation details

The RichieMonde project is located within the Itumbi Area, Chunya district in Mbeya region in northern Tanzania, which comprises several east-west trending, linear, Archaean greenstone belts.

The project aims to develop four deposits: Gold, copper, Tanzanite and Rhodolite..

Gold mineralisation at RichieMonde is linked with pyrite-silica-carbonate alteration, with the highest grades present in intensely altered and fractured host rocks, often accompanied by quartz veining.

Mindat.org Region:	Mbeya Region, Tanzania
Region:	Itumbi, Chunya, Mbeya Region, Tanzania
Latitude:	8° 24' 40" S
Longitude:	33° 18' 7.5" E

Mineral reserves

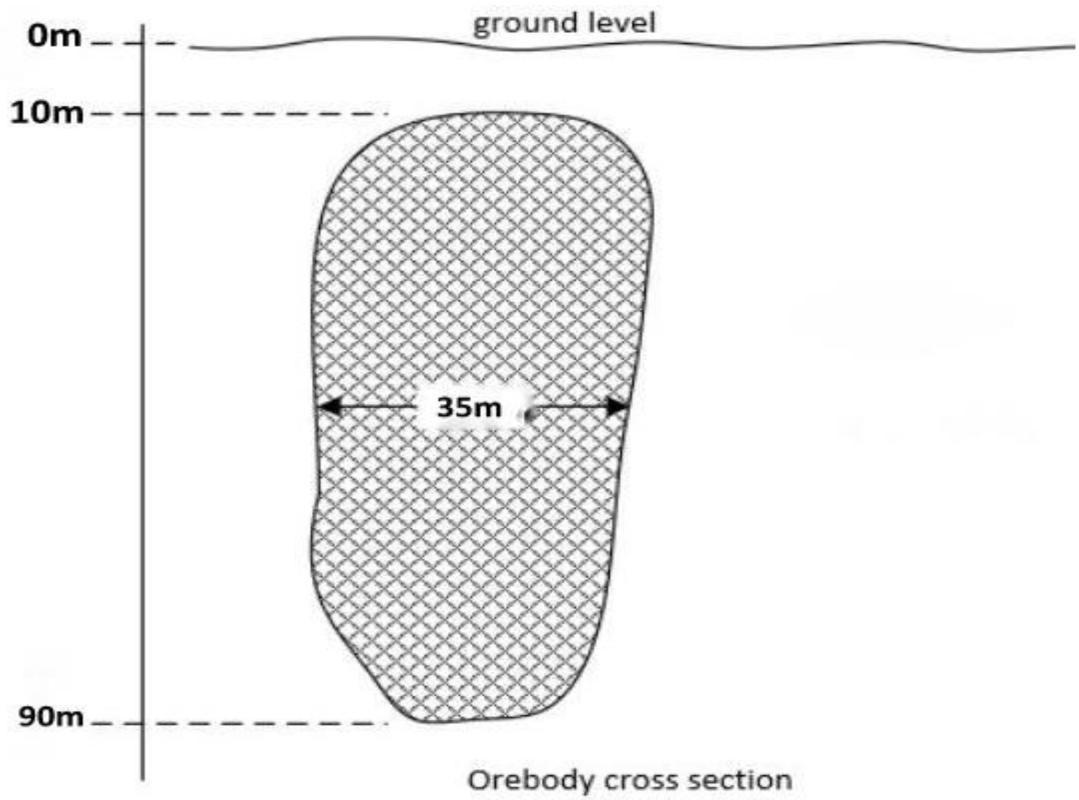
The RichieMonde gold mine was estimated to contain 96 tonnes (t) of proven and probable reserves grading 1.54g/t of gold, as of May 2023.

- Extraction Viability: Proven economic feasibility with sustainable methods.

The RichieMonde gold mine is an open-pit mining operation involving conventional drilling, blasting load and haul.

The project targets high-grade oxide reserves at or near the surface. The use of trucks and loaders delivers cost benefits and good selectivity.

The mining fleet requires 17 40t trucks and four backhoe excavators to haul waste and ore materials through the life of the mine.



Ore processing

The run-of-mine ore undergoes screening before being crushed in a primary jaw crusher, with the resultant material collected in a bin and subsequently transported to the milling plant.

The crushed ore combines with the oversize particles from the mill and enters the multishaft mills through a two-way splitter chute on the feed conveyor.

The mills discharge directly into a Rotaspiral equipped with a 100µm sizing screen.

The final milling product is transferred to the gravity concentrators. The underflow from the Rotaspirals is channelled to the gravity feed tank, where two Knelson concentrators, arranged sequentially, further refine the ore.

The ensuing concentrate is then funnelled to a Deister concentrating table, gathered, and packaged.

The tailings from the gravity concentration stage are conveyed to a dewatering cyclone. The cyclone underflow is fed into a pre-leach thickener for densification. Subsequently, the thickened underflow is pumped to the leaching carbon-in-leach (CIL) facility.

At the CIL facility, lime is added to the slurry in a pre-conditioning tank to adjust the pH to above ten before it progresses into the first of six CIL tanks.

The loaded carbon is then treated in the acid wash area to eliminate impurities.

The carbon undergoes a Zadra-type elution process, where gold is stripped using a high-temperature and pressure caustic soda/sodium cyanide solution.

The stripped gold is then subjected to electrowinning, culminating in the production of the final dore bars.

- Key Findings: Favorable ore-body structure and mineral composition.

Infrastructure at RichieMonde gold project

The project includes a 110kV transformer substation, provincial roads, a Tanzania Telecom line and cell phone coverage by Vodacom, Airtel, Halotel and Tigo.

The infrastructure includes waste rock sites, a central ore milling and processing plant, tailings storage facilities, mine operation buildings, an ore stockpile, and office and housing spaces with on-site accommodation.

The project site also has access to a 1,000m gravel airstrip for emergency medical evacuation.

The existing infrastructure also includes a defunct vertical shaft, open-pit and waste rock dump, borehole for domestic water sources, waterlines, pumps, inoperative heap leach pads, a 10 tonnes per hour carbon-in column processing plant, a 200t tonnes per hour crusher unit with scrubbers, as well as office and accommodation buildings.

The electrical power for the RichieMonde mine site is supplied by Tanzania Electricity Supply Company via a single transmission line.

7. Mining Operations

The project will adopt a phased approach to mining:

- Phase 1: Site preparation and infrastructure development.

- Phase 2: Open-pit/underground mining operations.

- Phase 3: Processing and refinement of ore.

8. Environmental Impact Assessment

RichieMonde Holdings is committed to minimizing its ecological footprint. The Environmental Impact Assessment (EIA) outlines:

- Controlled waste management systems.
- Water recycling and minimal land disruption.
- Rehabilitation plans post-mining operations.

Plant and Machinery

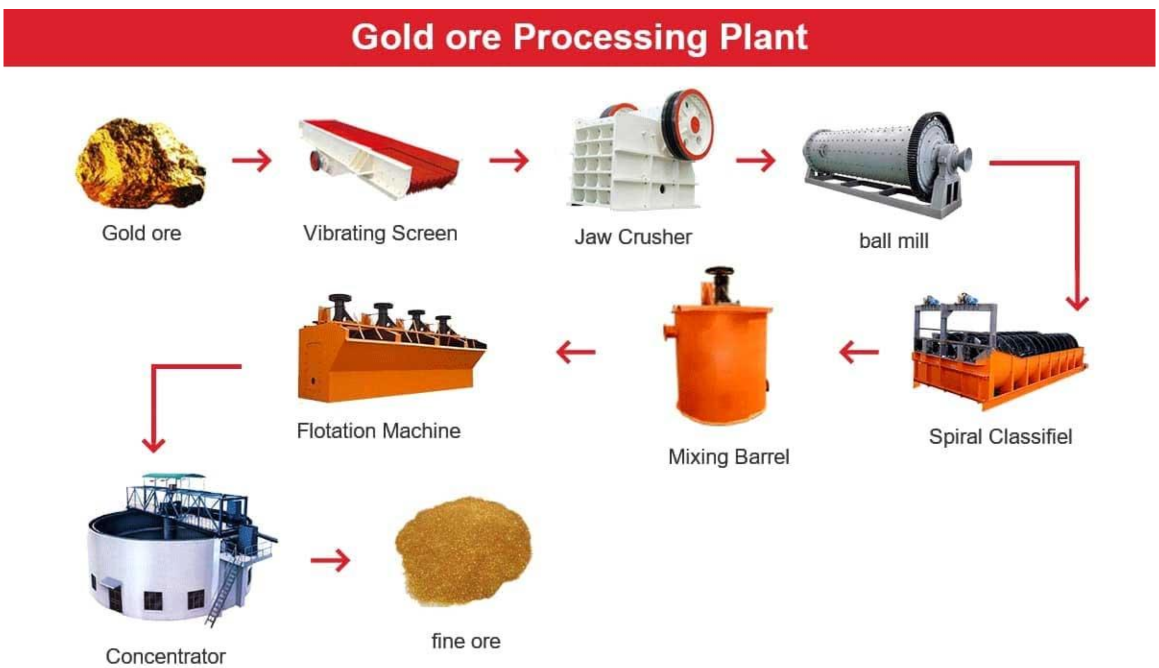
The process and machine required to extract the gold concentrate from gold mining stone.

Main gold ore extration beneficiation processes: flotation, gravity separation, cip, cil , heap leaching, etc.

Flotation gold processing

Flotation is the most widely used process for extracting gold concentrate. 80% of rock gold mines use this method for gold beneficiation, with recovery rates as high as 90-97%, and the gold concentrate selected can be sent to smelters for direct smelting.

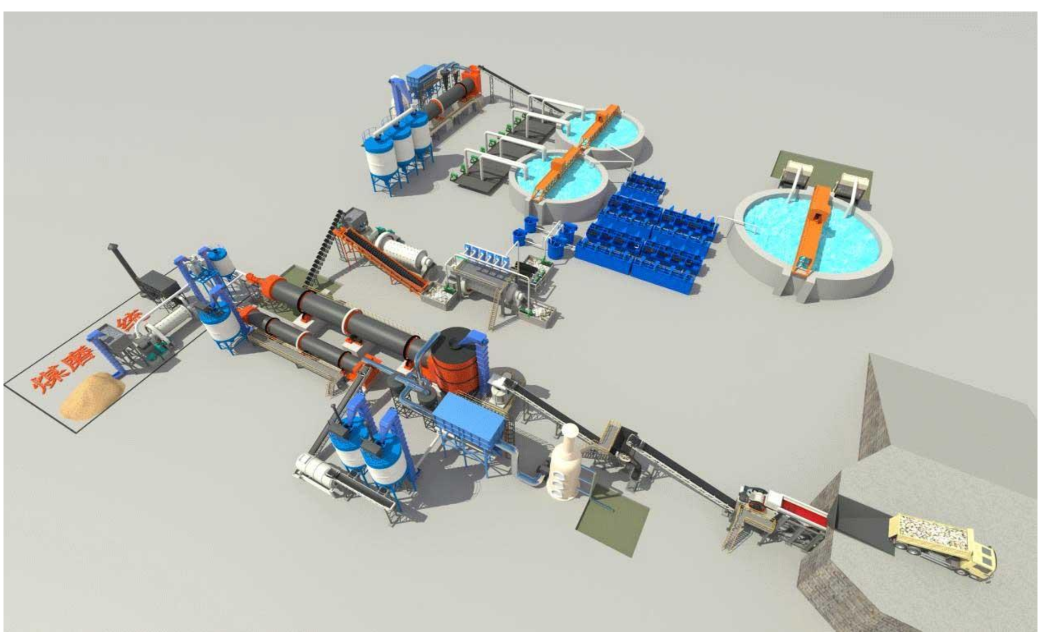
Main equipment:jaw crusher,vibrating screen,ball mill,spiral classifier,flotation machine, etc.

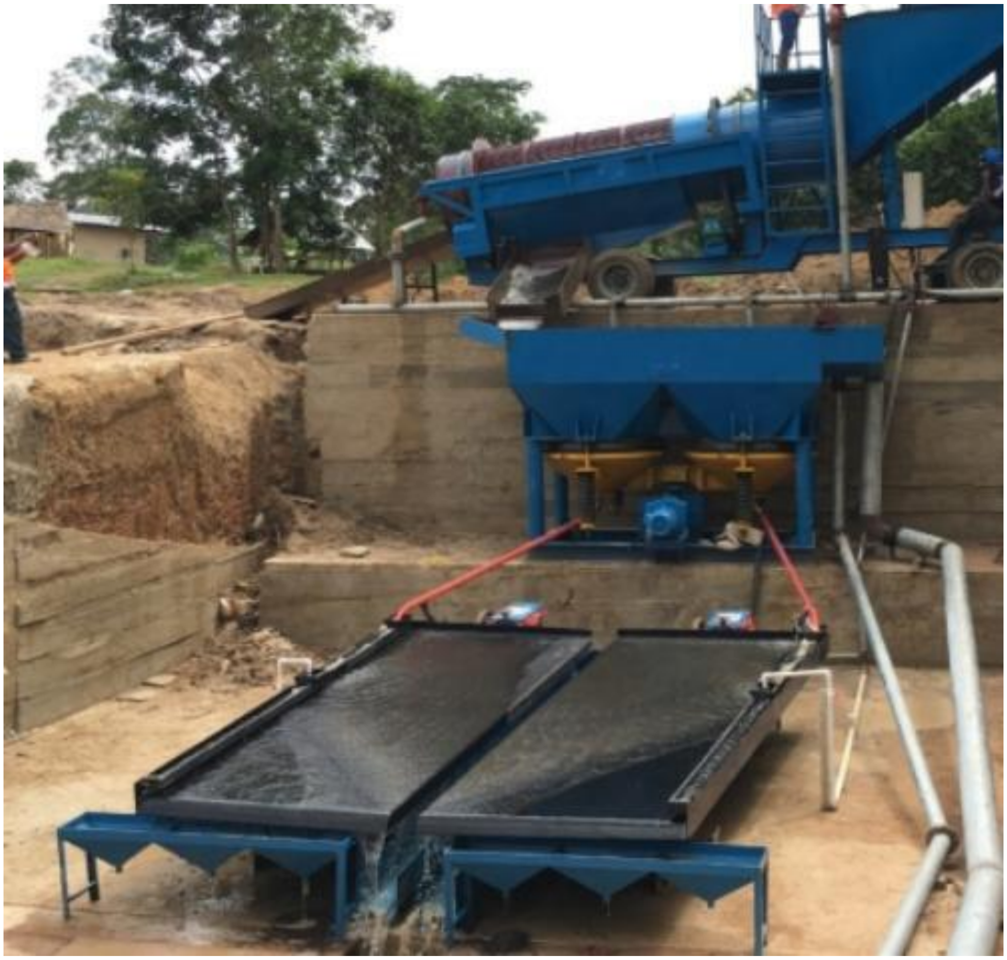


Gravity separation gold processing

①Gravity separation is mainly used for placer gold/alluvial gold washing beneficiation process, also known as gold washing plant, which has simple process, low investment cost and high efficiency.

Main equipment: trommel screen, shaking table, gold concertrator, etc.





ORGANISATIONAL STRUCTURE AND MANAGEMENT

Our Business Structure

As part of our plan to build a top flight gold mining company in Tanzania that will favorably compete with leaders in the industry, we have perfected plans to get it right from the onset which is why we are going the extra mile to ensure that we have competent employees to occupy all the available positions in our company.

In view of that, we have decided to hire qualified and competent hands to occupy the following positions at Richiemond Gold Mining Investments,

- Directors (Two partners)
- Mine Manager
- Human Resources and Admin Manager
- Chief Financial Officer, Accountant
- Gold Mining Casual Workers
- Truck Drivers

Roles and Responsibilities

Directors – Partners

- Increase management usefulness by recruiting, selecting, orienting, training, coaching, counseling, and disciplining manager. Collaborating values, strategies, and objectives. Preparing, monitoring, and appraising job results. Developing a climate for offering information and opinions.
- Responsible for providing direction for the business.
- Leading the development and implementation of the overall organization strategy.
- Accountable for signing cheques and documents on behalf of the company.
- Evaluates the success of the organization.

Gold Mining Site Manager

- Oversees the smooth running of operations in the mine.
- Makes sure that quality is maintained at all times.
- Maps out strategies that will lead to efficiency amongst workers in the organization
- Responsible for training, evaluation and assessment of the workforce
- Ensures operation of equipment by completing preventive maintenance requirements; calling for repairs.
- Ensures that our gold mining site meets the expected safety and health standard at all times.

Chief Financial Officer

- Responsible for preparing financial reports, budgets, and financial statements for the organization
- Provides management with financial analyses, development of budgets, and accounting reports. Analyzes financial feasibility for the most complex proposed projects. Conducts market research to forecast trends and business conditions.

- Responsible for financial forecasting and risks analysis.
- Performs cash management, general ledger accounting.
- Responsible for developing and managing financial systems and policies
- Responsible for administering payrolls
- Ensures compliance with taxation legislation
- Handles all financial transactions for the organization
- Serves as internal auditor for the organization

Human Resources and Admin Manager

- Responsible for overseeing the smooth running of HR and administrative tasks for the organization
- Defines job positions for recruitment and managing interviewing process
- Carries out induction for new team members
- Responsible for training, evaluation and assessment of employees
- Oversees the smooth running of the daily business activities.

Gold Mining Casual Workers

- Liable for operating excavators and other machines in the gold mining site
- Handles the mining of gold
- Responsible for processing of gold at the stamp mill.
- Assist in loading and offloading of the trucks.
- Responsible for all housekeeping tasks at the mine.

Truck Drivers

- Assists in loading and unloading of mine consumables.
- Maintains a logbook of their driving activities to ensure compliance with federal regulations governing the rest and work periods for operators.
- Keeps a record of vehicle inspections and make sure the truck is equipped with safety equipment
- Inspects vehicles for mechanical items and safety issues and perform preventative maintenance
- Complies with truck driving rules and regulations (size, weight, route designations, parking, break periods etc.) as well as with company policies and procedures
- Reports defects, accidents or violations

SWOT Analysis

Due to our drive for excellence when it comes to running a standard gold mining company, we were able to engage some of the finest business consultants in Tanzania to look through our business concept and together we were able to critically examine the prospect of the business and to assess ourselves to be sure we have what it takes to run a standard gold mining business that can compete favorably in the industry.
In view of that, we were able to take stock of our strengths, our weakness, our opportunities and also the threats that we are likely going to be exposed to in the market. Here is a preview of what we got from the critically conducted SWOT Analysis for Richiemond Holdings INC Limited.

3.2.1 Strength:

- Our strength lies in the fact that we have a fairly large ore reserve which if fully exploited the company could expand and become a leader in the gold mining industry as envisaged by the mission statement.
- The company also boasts of vast technical expertise since the owners of the business venture are aspiring mining and metallurgical engineers.

3.2.2 Weaknesses

- The organization is still at infancy with very little resources for expansion at the present moment.

3.2.3 Opportunities:

- Government has come up with initiatives to boost productivity by availing funds through the RBZ which can be utilized by small scale miners.

3.2.4 Threat

- The threat that is likely going to confront us is the fact that we are competing with established gold mining companies in Tanzania.
- Another threat that we are likely going to face are changes of government policies that could negatively affect the business operation.
- Market forces can negatively affect industry by lowering commodity prices which could affect smooth operations of the business enterprise.
- Covid-19 pandemic

Our Target Market

There is a well-defined market for gold in the market. In view of that, Sylmarc gold mine has conducted a market research and the report produced by the marketing team shows exactly what our target team will be expecting from us. Sylmarc Gold mine are in business to engage in supply of raw gold to the following organizations;

- Jewelry production companies
- Electronic components manufacturing companies
- Art and culture companies
- Gold merchant
- Glass manufacturing companies
- Dentistry prostheses manufacturers.

Our Competitive Advantage

Our competitive advantages are availability of resource, ability to forward sell production when appropriate and of course the ability to comply with environmental laws. As a standard and licensed gold mining company, we know that gaining a competitive edge requires a detailed analysis of the demographics of the surrounding area and the nature of the existing competitors. Although our operation has been successful, new competitors could enter the market at anytime and snatch our regular customers. Hence, we will not hesitate to adopt successful and workable strategies from our competitors.

Another competitive advantage that we have is the vast experience of our management team; we have people on board who understand how to grow a business from the scratch to becoming a national phenomenon. Our large and robust distribution network and of course our excellent customer service culture will count as a strong strength for the business. Lastly, our employees will be well taken care of, and their welfare package will be among the best within our category in the industry, meaning that they will be more than willing to build the business with us and help deliver our set goals and achieve all our aims and objectives. We will also give good working conditions and commissions to freelance sales agents that we will recruit from time to time.

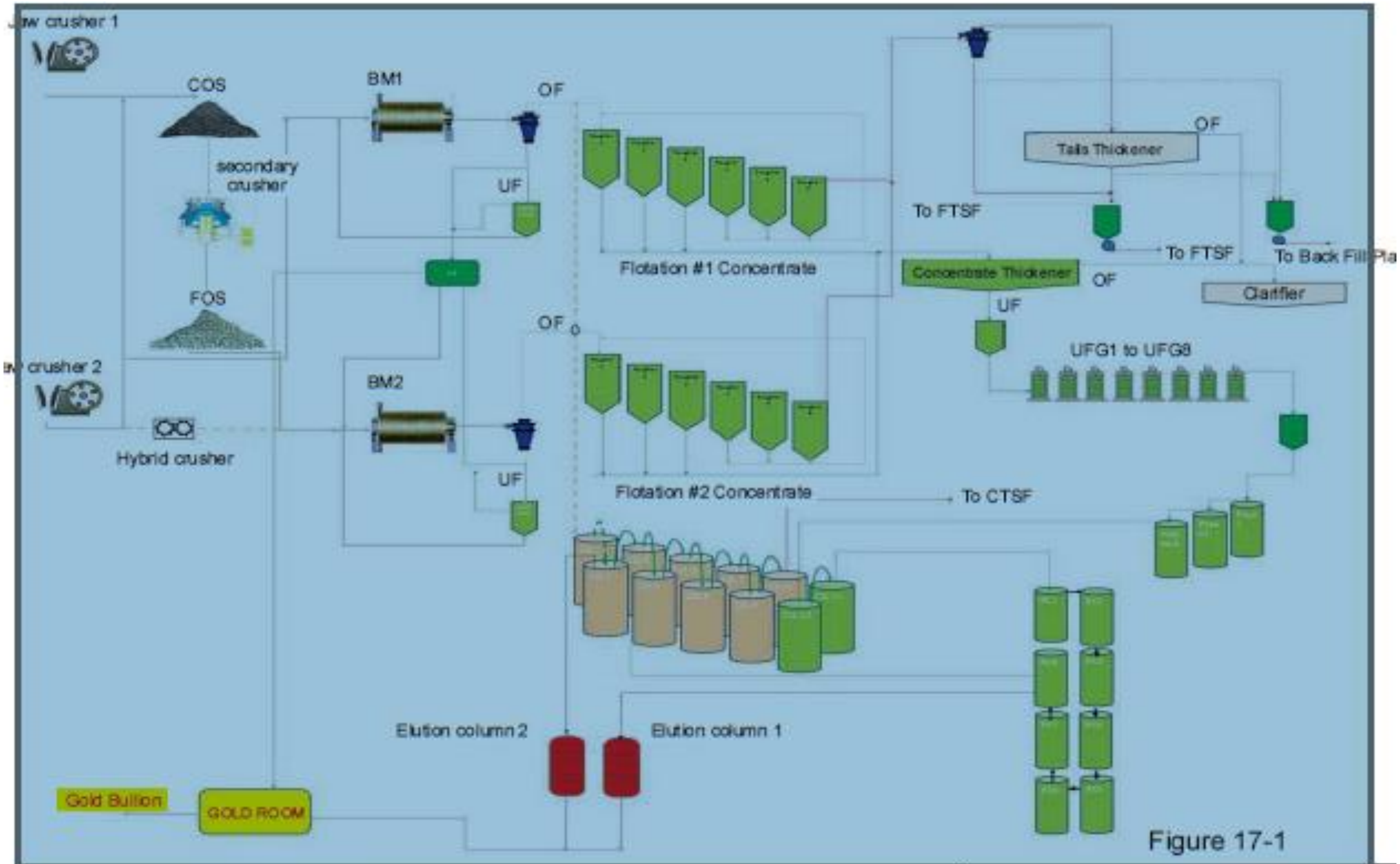


Figure 17-1

Richiemonde Holdings Inc Limited

Itumbi Gold mine

SIMPLIED FLOW CHART

The plant has the capacity to make the stated through-put based on historic throughput for the oxides and sulphides. The graph depicted in Figure in the below table attests to the continued improvement in throughput ultimately well beyond design capacity. No fatal flaws have been determined.

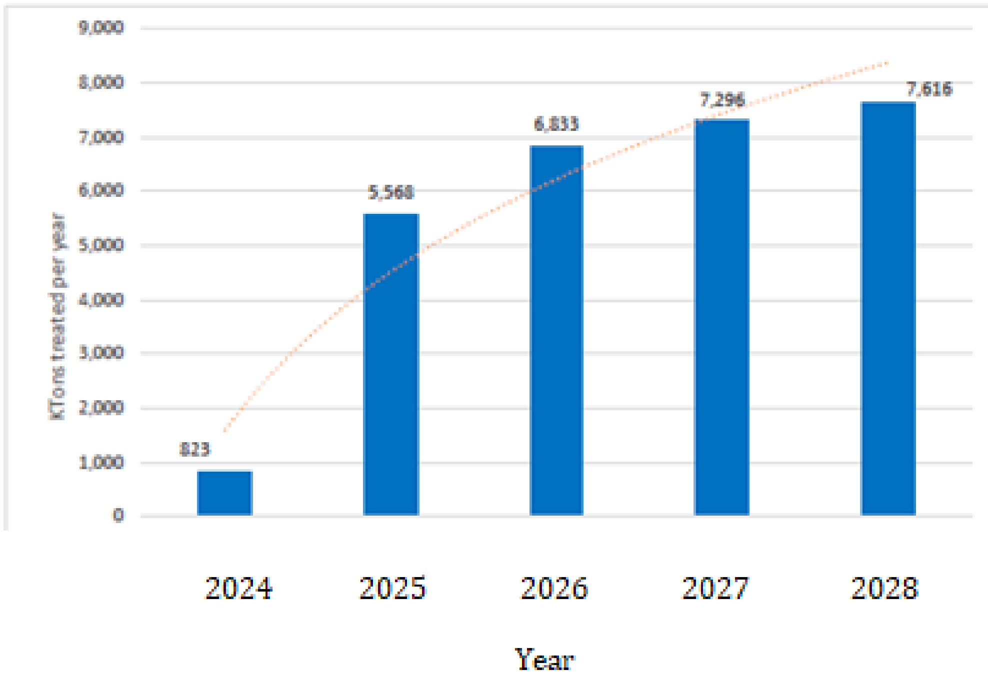


Fig: Richiemonde Itumbi Plant performance – Tones treatment in following years

The oxide circuit has the following processes:

- Primary crushing.
- An optional secondary hybrid roll type crusher for the harder transitional and free-milling sulphide ores.
- Milling.
- Cyclone classification.
- Gravity concentration.
- Flash flotation.
- Carbon in leach.
- Tailings disposal.

The sulphide circuit has the following processes;
• Primary and secondary crushing.
• Milling.
• Cyclone classification.
• Gravity concentration.
• Flash flotation.
• Conventional flotation.
• Ultra-fine grinding of the concentrates.
• Pre-oxidation circuit.
• Pumpcell adsorption circuit to recover gold from the concentrates.
• Tailings disposal.

The loaded carbon from the pumpcell circuit, that is, from the concentrate leach and carbon in pulp together with carbon from whole-ore leach, are treated in independent elution circuits, followed by electro-winning of gold eluate.

Once the oxide, transition and free-milling ore sources have been depleted, the existing oxide plant can be converted to a parallel sulphide circuit, which will necessitate the expansion of the concentrate handling and pumpcell circuits. There are two flotation circuits already present in the plant.

Richiemond further expanded the original fine-grind section in the 2024 sulphide expansion project by adding an additional four ultra-fine-grind mills, making eight in total.

Sulphide Crushing and Screening

Two primary jaw crushers (two Sandvik CJ815:200 kW, CSS:16 0 mm) are used targeting 1,300 tph and feeding two secondary crushers (two Sandvik CS660; 250 kW, CSS:45 mm) via a coarse ore stockpile (COS).

ROM sulphide ore, received from trucks, is treated in a primary crushing circuit comprising of a ROM bin, apron feeder, and primary jaw crusher (Sandvik CJ815) operated in open circuit at 1,300 tph target. This primary crushed product is then conveyed to a primary crushed stockpile or COS with a 5,000 t live capacity. The sulphide ore from underground has already been crushed underground and is also conveyed to this stockpile.

Apron feeders under the stockpile are used to combine the sulphide ores from the two sources before it is conveyed to the secondary crushing circuit that has two secondary cone crushers (Sandvik CS660) operating in parallel (running/standby) in open circuit to produce a crushed product stream with a P80 of 45 mm. The secondary circuit was commissioned in May 2014.

When sulphide ore is being treated, secondary crusher product is fed onto a fine ore stockpile (FOS) via a conveyor system. The FOS serves as a common mill stockpile to both the mills and has a live capacity of 11,700 t of sulphide ore to each mill. The mill is fed from the mill feed stockpile using apron feeders that feed directly onto the mill feed conveyor.

When oxide ore is being treated through its circuit, the primary crusher product (Sandvik CJ815) is fed directly to the mill feed conveyor and not via the secondary crushing circuit but may be subject to an in-line hybrid crushing stage, if deemed necessary, at least on one of the two parallel streams.

The design of the crushing circuit includes provision for the installation of a tertiary crushing circuit.

Oxide Crushing and Screening

ROM ore received from trucks is treated in a primary crushing circuit comprising of a ROM bin, an apron feeder, and a single toggle jaw crusher. This primary crushed product (at 450 tph) can either be diverted to the primary mill feed conveyor when oxide ore is treated, or alternatively conveyed to a common 5,000 t live primary crushed stockpile when sulphide ore is treated.

Sulphide Milling and Oxide Milling

A ball milling circuit comprising two Polysius ball mills, each operating independently in parallel, fitted with initially 7 MW, but later 8 MW motors, treat ore at a feed rate of 900 tph dry solids.

When treating oxide ore, the primary crusher product will feed directly onto the mill feed conveyor and into the milling circuit. When sulphide ore is treated, the mill will be fed from the mill feed stockpile.

Each ball mill is operated in closed circuit with a cyclone cluster used to produce a target grind of 80% passing 75 µm on sulphide and 80 µm on oxide. The mill feed consists of fresh crushed ore, a portion of the cyclone underflow, gravity concentrator scalping screen oversize and flash flotation cell high density tailings. Ground ore from the mill reports to the mill discharge sump where it combines with gravity concentrator tailings, flash flotation low density tailings and Gekko Inline Leach Reactor (ILR) tailings, before being pumped to the cyclone cluster.

When treating sulphide ore, the cyclone overflow is gravity fed to a rougher flotation circuit, whilst the overflow from the cyclones when treating oxide ore is directed to the CIL circuit. Cyclone underflow is split into three streams:

- Gravity concentration circuit.
- Flash flotation circuit.
- Remainder of the cyclone underflow is re-cycled to the mill feed.

Gravity concentrator tailings gravitates to the mill discharge sump while the concentrate reports to a batch ILR circuit.

The flash flotation cell produces a concentrate and a high-density tailings stream. The concentrate is directed to the concentrate handling circuit, alternatively it can be deposited into the feed of the gravity recovery pre-screening so as to enhance gravity recovery, while the high-density tailings are circulated back to the mill feed. Frother, collector, and promotor are added to the flash flotation cell for recovery of flash flotation concentrates. The required copper sulphate conditioner is added into the mill feed.

Flotation

Cyclone overflow from the primary milling circuit is routed to either the rougher flotation cells or bypasses the circuit to the rougher tailings tank before being pumped to the CIL circuit (if oxide or free-milling material is being treated).

Two separate parallel banks of six 70 m^3 Outotec forced air rougher flotation cells in series are used for flotation; however, when one mill is processing oxide ore then only one bank is required. Frother, collector, activator, and promoter are added to the slurry stream of sulphide ore for the recovery of a flotation concentrate. Rougher flotation concentrates from the first three tankcells in each bank are pumped to the concentrate handling circuit where it can combine with the flash flotation concentrates. The concentrate from the last three tankcells in each bank is recycled to the flotation feed. The reason for this split of concentrates is to not only reduce the overall mass pull for the limited capacity downstream concentrate treatment circuits, but also maximise potential flotation recovery by ensuring the limited mass pull comprises the higher grade concentrate emanating from the first three cells whilst the lower grade concentrate from the last three cells is not lost as is simply recycled for further processing. The rougher flotation tailings stream is pumped to the flotation tailings thickener. Occasionally, when warranted, either for reasons of maintaining stability of parameters within the main CIL circuit, or in the event of a low flotation recovery, in other words a high flotation tails value, the float tail is routed for leaching in the main CIL circuit, thereby facilitating further recovery of the residual gold in the CIL circuit.

Intensive Leach Reactors (ILR's)

Gravity concentrator concentrate is gravity fed into the reaction drum of the Gekko ILR (Inline Leach Reactor) from the feed cone. Sodium hydroxide, sodium cyanide, and oxygen are added in high concentrations to the reactor to put the gold into solution. At the completion of the leach

Oxygen is supplied from a 30 tpd oxygen plant being upgraded to a 40 tpd pressure swing adsorption (PSA) plant operated by Air Liquide.

Concentrate Handling and Ultra-Fine Grinding

Flotation and flash flotation concentrates, together with gold-room waste, report to the concentrate thickener. Thickener underflow is fed to the ultra-fine milling circuit. The ultra-fine grinding circuit (UFG) consist of eight VXP2500 FL Smidth (originally Deswik) ceramic bead mills in parallel, where circuit feed material of 80% passing 106 μm is treated to achieve a target grind of 80% passing 20 μm minimum, now typically 18 μm.

The ultra-fine milling products are pumped to the Pre-oxidation and pre-leach circuit followed by the pumpcell circuit.

Pre-Oxidation and Pre-leach

Slurry from the UFG circuit is fed to the Pump-cell circuit pre-oxidation and pre-leach circuit.

The pre-oxidation circuit consists of two agitated tanks operated either in parallel if both mill streams are treating refractory sulphide or in series if only a single stream on sulphide. Flexibility exists to operate as the ore demands. Each tank is fitted with four (two duty and two standby) Aachen REA450 reactors, through which slurry is circulated and contacted with oxygen. Both pre-oxidation tanks also have three oxygen sparge units. Lime and lead nitrate are dosed in both pre-oxidation tanks. Hydrogen Peroxide dosage is also available. The product stream from the second pre-oxidation tank overflows to an agitated pre-leach tank, fitted with one Aachen REA400 reactor with a dedicated Aachen reactor pump. The tank is also equipped with oxygen sparge units. Cyanide and lime are added to maintain the leach pH and hydrogen peroxide can also be dosed if required. A diesel dosing facility is also available to dose into the pre-leach tank and is aimed at reducing the effect of preg-robbing carbonaceous material in the slurry, though this is rarely if ever used. The pre-leach slurry product is pump fed to two 2100 m^3 leach tanks for extended residence time in an Aachen assisted leach environment.

Pumpcells

The pre-oxygenated and pre-leached product stream overflows to eight 100 m3 Kemix Pumpcell tanks operated in series. Before the concentrate expansion project, there were only six tanks. Eight tanks have proved sufficient for twin-stream sulphide operation, both on account of the mass-pull reduction initiatives introduced to the flotation circuit, but also because the pumpcell circuit residue stream can be blended into the main CIL circuit to mop up any residual gold. The Pumpcell tanks are operated in a carousel mode, with counter current flow of carbon relative to slurry. Slurry is moved between tanks with MPS(P) screens which both transfer slurry to the next sequential tank and screens out the carbon which remains in the original tank. The carbon in a Pumpcell circuit always remains in the same tank but the position of the tank in the circuit is changed. One tank is isolated each day and the entire content of the tank is pumped to the elution circuit. It is then re-introduced to the circuit as the last tank and receives a fresh batch of carbon. This results in a loaded carbon batch size of 5 t per day. This process too is flexible where advantage can be taken of two tanks being harvested in a single day so as to completely fill an elution column.

Loaded Carbon and Tailings

Loaded carbon from the Pumpcell tank taken offline is pumped to a vibrating screen. The screen oversize reports to the elution circuit acid wash tank while the undersize is routed to CIL tank 3.

Tailings from the Pumpcell circuit exiting the last Pumpcell tank in the carousel are pumped to the CIL circuit.

CIL

Oxide material, bypassing the flotation cells, is pumped to CIL tank No.1 for pre-oxidation via dedicated Aachen reactors

Lime is added to increase the slurry pH before cyanide is added. The leach pH level must be maintained at 10.5 or higher. Lead nitrate is also added. Hydrogen peroxide can also be used, if required.

The last two tanks in the CIL train have been dedicated to the extended pre-oxidation and pre-leaching of the concentrate stream prior to being routed to the pumpcell circuit.

CIL Tanks

Slurry and activated carbon flow counter current to each other through CIL tank numbers one to six. Slurry from the pre-oxidation tank flows by gravity to CIL tank 1. Pumpcell tailings also report to the CIL circuit with the flexibility of being treated in a selection of CIL tanks as deemed appropriate for the current ore feed blend and configuration, this after passing through the Pumpcell tailings samplers. The slurry in tank 1 is routed to tank 2, and thereafter each subsequent tank, using MPS(P) interstage screens. The MPS(P) screens only transfers the slurry while retaining the carbon in the tank.

Fresh/Re-gen carbon is added to the final tanks in the train and is pumped from each tank to the preceding tank in the sequence using carbon transfer pumps. A total of 12 t of carbon is transferred daily from each tank. Carbon and slurry is transferred by a carbon transfer pump from tank 1 to the loaded Carbon screen at the top of the elution columns where the carbon is screened out for elution. The screen underflow returns to CIL tank 1.

The following reagents are dosed in the CIL tanks- oxygen, cyanide, lime, lead nitrate, and hydrogen peroxide (used when oxygen is not available).

Detox Tanks

Four Detox tanks, each with two Aachen REA450 reactors, were designated to be used for cyanide destruction. Cyanide must be destroyed to below 50 ppm weak-acid dissociated (WAD) before CIL tailings can be disposed of in the lined tailings dam according to DRC legislation. The pulp in the detox circuit is typically contacted with activated carbon which serves as a catalyst for the oxidation of cyanide to cyanate. These tanks proved to be redundant both in terms of their ineffectiveness coupled with an alternative and superior method of controlling the cyanide concentrations within the CIL circuit via a cyanide analyser and controller. Thus, they were transformed into normal CIL tanks, effectively lengthening the CIL train and hence extending the residence time, making up the end tanks of the main CIL circuit, well suited also for the dedicated treatment of extended pre-oxidation and pre-leaching of concentrate prior to being routed to the pumpcell circuit.

Elution

The CIL and Pumpcell carbon are batch treated in the AARL elution circuit separately through two identical circuits. The duplicate 12 t AARL columns share a common heater facility capable of running both columns simultaneously. The CIL carbon is to be treated in 12 t batches once every 24 hours, while carbon from the Pumpcell circuit will be treated in 10 t batches every 48 hours or more frequently if desired. The elution heaters are electric whilst the regeneration kilns are diesel fired.

Loaded carbon is collected in an elution circuit acid wash tank. Carbon that has been acid washed is then loaded into a 12 t AARL elution column by gravity. The carbon has a clear eluate solution (1% NaCN and 3% NaOH at 125°C) pumped through it that desorbs the gold from the carbon and puts into solution to form the loaded solution, which is then pumped to the elution electro-winning circuit feed tank/pregnant solution tank.

Barren carbon is removed from the elution column and reports to either of two carbon regeneration kilns.

Electro-Winning and Gold Room

Pregnant solution from the ILR circuit is circulated through a single electro-winning cell and steady head tank. Gold is deposited on the cathodes as sludge and the solution circulated until the desired barren gold concentration is achieved or 18 hours has elapsed.

Pregnant solutions from the CIL elution circuit and the Pumpcell elution circuit are treated in the same way except that there are six electro-winning cells operated in parallel for each stream.

Loaded cathodes are periodically removed from the cells, the gold sludge is washed off using a high-pressure washer and the washed mixture is then decanted. The gold sludge left behind is calcined in two electric calcination furnaces. The calcined sludge is then mixed with fluxes and loaded into an induction smelting furnace. After smelting, the furnace crucible contents are poured into cascading moulds to produce gold bullion and slag.

General

The plant has two distinct processing streams that are largely separate in most areas. Hence a loss area in one will not affect all of the output of gold in most loss scenarios. This includes the substations where, for example, each ball mill has its own substation. However, once the elution and carbon handling areas are reached the production of gold is concentrated into single work areas.

All equipment installed was new at the time of installation. The design of the plant considered the International Cyanide Code regulations. Kibali Goldmines is currently not a signatory, however endorses conformance with the International Cyanide Management Code.

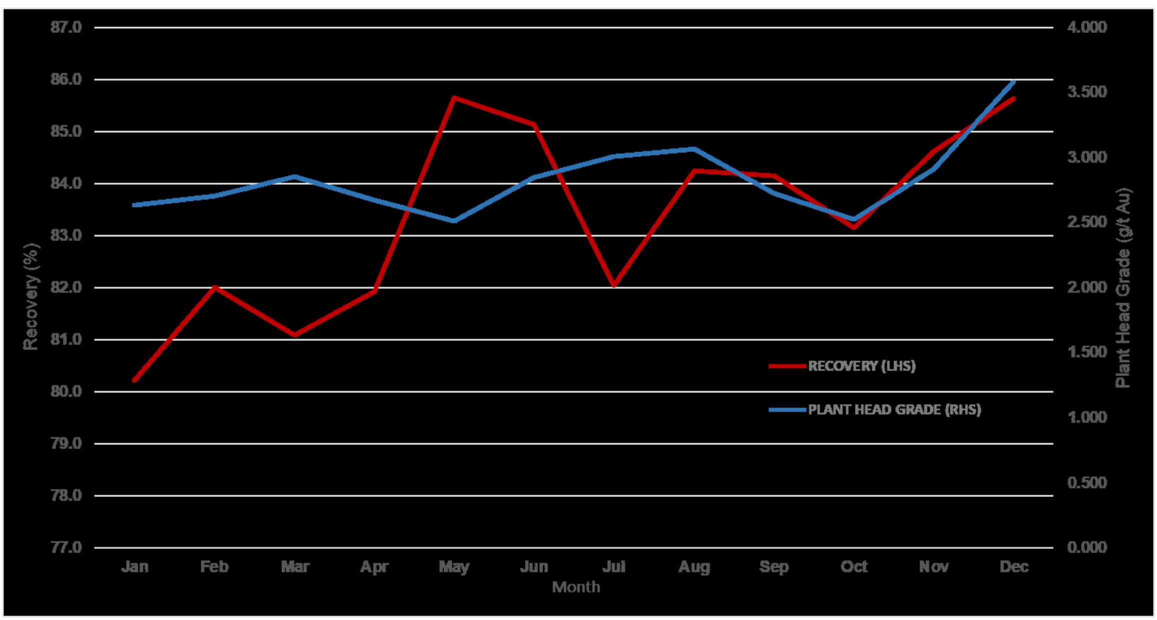
In general, there is a satisfactory level of protection against collision damage in the structures that support elevated structures. Bypass arrangements for tanks mean that if one unit is offline, the process flow does not stop. There are only minor impacts on recovery efficiency if only one tank or flotation cell is offline.

The process plant has been built on an existing site. The site has been cut largely from the top of hills to accommodate the present structures. The crusher, bin and mill were built on the old leach pad area while the CIL tanks reside in the old pregnant solution pond area. Geotechnical boreholes and test pits were completed to design the terraces.

In summary, this is a new process plant that is meeting its throughput and recovery efficiency expectations. It can be considered as having matured to steady stated operations.

Processing Recovery

Overall, the actual process plant gold recovery in 2023 varied monthly from 80.2% to 85.6% (Figure 17-3 and Table 17-2). The average gold recovery in 2024 was 83.4%. Recovery for 2025 is expected to be 84%, increasing to 87% in 2026, and 89% in subsequent years based primarily on a shift away from a blended ore feed to one that will be dominated by the RHIL and better recovery ores for Itumbi deposit.

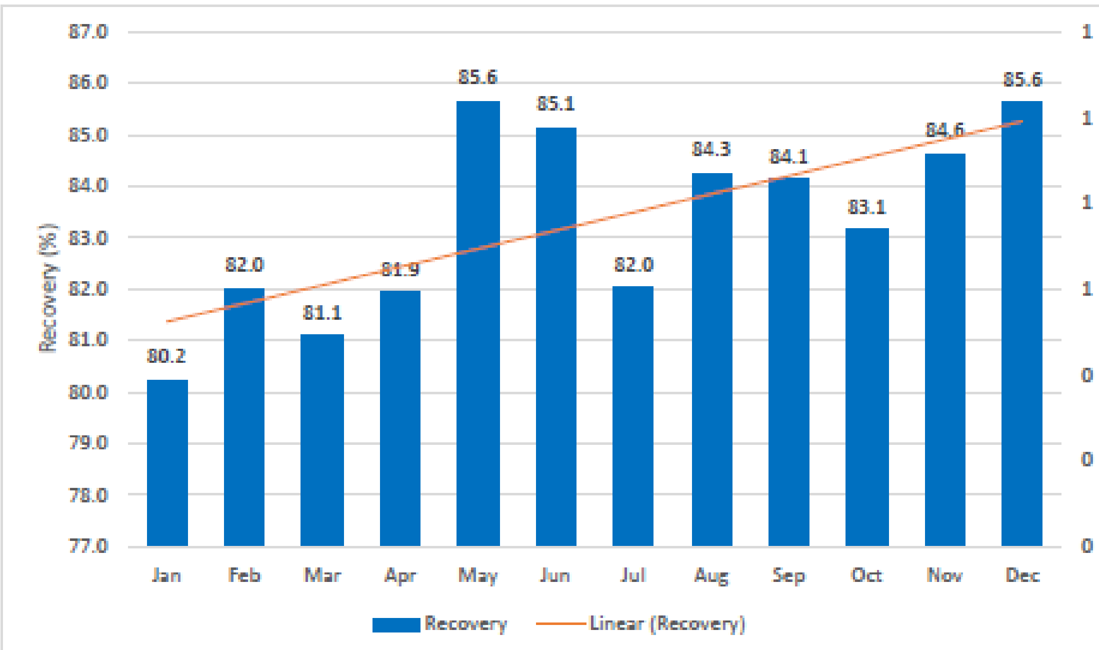


Processing Plant Overall Gold Recovery in 2026

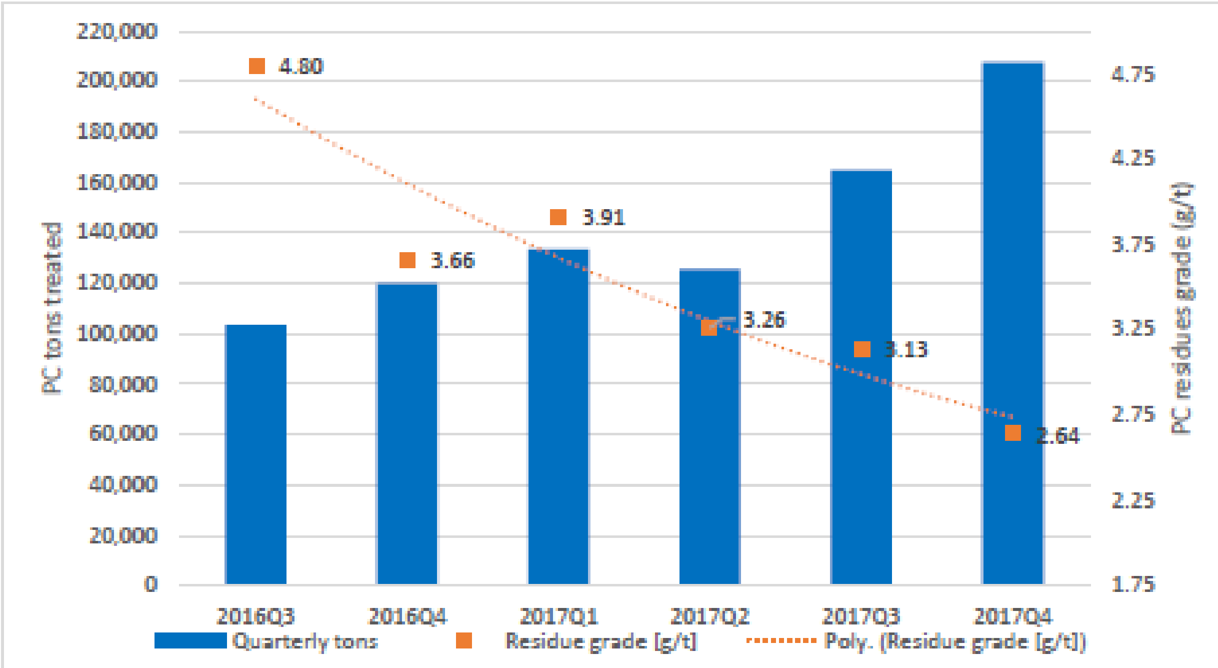
Processing Plant Overall Gold Recovery in 2026 by Month

Item	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2016 Total
Tonnes Treated (Dry)	kt	646	603	672	632	644	578	607	619	613	677	644	683	7,618
Plant Head Grade	g/t	2.63	2.70	2.85	2.67	2.51	2.85	3.01	3.07	2.72	2.53	2.91	3.58	2.84
Recovery	%	80.2	82.0	81.1	81.9	85.6	85.1	82.0	84.3	84.1	83.1	84.6	85.6	83.4

The Richiemonde processing facility has largely seen improvements in its operational performance on a year by year basis, both in terms of throughput capacity, demonstrated previously in Figure 17-2. However, this performance extends to overall gold recovery as is evident by Figure 17-4 and Figure 17-5 depicting an improvement trend over the months of 2024 and previous years.



Plant Recovery



Plant Pumpcell Residue and Throughput

Financials

Phase I.

Investment in phase I for 822000 ozs extraction

Capital Costs

Richiemond Holdings Inc Limited, is an on-going combined open pit and underground mining operation with the necessary facilities, equipment, and manpower in place to produce gold.

The open pit and underground LOM and capital and operating cost estimates have been completed in sufficient detail to be satisfied that economic extraction of the Proved and Probable Ore Reserves is justified.

The majority of the capital cost estimates contained in this report are based on quantities generated from the open pit and underground development requirements.

Capital expenditure over the remaining LOM is estimated to be $370.6 M, made up from the allocation of costs as summarised in Table

Description	Value in USD ($)
Construction and Project Capitals	22
Ongoing Capital	99
Underground Capital Development and Drilling	203
Pre-Production Capitalised	9.3
Exploration Capitalised	5.4
Rehabilitation/Mine Closure	32
Total LOM Capital Expenditure	**371**

Operating Costs

Richiemond Holdings INC Limited, maintains detailed operating cost records that provide a sound basis for estimating future operating costs.

Costs used for the open pit optimisations were derived from the Mining Contractor's pricing of the open pit LOM schedule. Owners cost were also added for underground operations as of the third quarter of 2018 in preparation for the move to Owner operations underground.

Labour costs for national employees were based on actual costs. Local labour laws regarding hours of work, employment conditions were also considered and overtime costs included.

During 2024 costs for processing and general and administration (G&A) were updated based on actuals adjusted with the latest forward estimates, production profiles and manning levels.

Customs duties, taxes, charges and logistical costs have been included.

Unit costs used to estimate LOM operating costs are summarized in Table 1-7. The annual fluctuation in production levels is relatively low, such that the effect of fixed versus variable expenses is minimized.

For the underground mine, operating costs have been derived from 2023 actual costs for Kibali. LOM costs have been adjusted to reflect operational changes including the move from contract mining to Owner operations during 2024.

Table 1-7 LOM Unit Operating

Activity	Units	Value
Open Pit Mining - Richiemond	$/t mined	3.27
Open Pit Mining - Richiemond	$/ore tonne mined	21.62
Underground Mining	$/t mined	34.46
Underground Mining	$/ore tonne mined	35.88
Stockpile Movement	$/t milled	0.30
Processing	$/t milled	17.20
G&A	$/t milled	7.78
Mining Total	$/t milled	30.40
Total LOM Net OPEX	**$/t milled**	**55.58**

The LOM has been prepared on the basis that the underground mining activities will transition to an Owner operated mine during 2024. It is assumed that current contract prices will remain unchanged for mining activities performed by a contractor such as open pit mining and the underground development and production.

Cost inputs have been priced in real Q4 2023 dollars, without any allowance for inflation or consideration to changes in foreign exchange rates.

The Qualified Persons are satisfied that the open pit LOM and cost estimates have been completed in sufficient detail to justify the economic extraction of the open pit Proved and Probable Ore Reserves.

The Qualified Persons are satisfied that the underground LOM and cost estimates have been completed in sufficient detail.

Mining and Ore Reserves

The open pit mining operations at Kibali consists of multiple open pits. The open pits are being operated by a mining contractor and a down-the-hole blasting service will be provided by an appropriate blasting contractor. Opportunities exist with the Inferred Mineral Resource within the current pits that can be upgraded and converted to Ore Reserve with drilling. A reduction of open pit production is scheduled from 2023 and the end of current open pit mine life is estimated at year 2026 based on current Ore Reserves.

The Richiemonde Holdings Inc Limited, RHIL underground mine is designed to extract the RHIL deposit directly beneath the RHIL pit. A 50 m crown pillar separates the pit bottom from the top of the underground mine. The underground mine is a long hole stoping operation planned to produce at a rate of 3.6 Mtpa for 10 years. The majority of the underground mine infrastructure is already in place. A vertical production shaft is scheduled for full commissioning during 2018 following commissioning of the materials handling system. In 2018, the production will move to the majority of ore being hoisted up the shaft, however, throughout the underground LOM the decline to surface will be used to haul ore from some of the shallower zones and to supplement the shaft haulage.

The LOM has a long tail of declining production over a further nine years. The schedule will be progressively optimised as underground exploration of down plunge extensions progresses to extend the period of 3.6 Mtpa production rate.

Richiemonde Gold Mines , as the owner operator of the Project has significant experience in other mining operations within Africa and these production rates, modification factors, and costs are benchmarked against other African operations to ensure they are suitable, taking into account the increased relative cost of fuel and labour within the Location.

The current Ore Reserves for Richiemonde support a total mine life of 15 years at near full mill capacity, nine years of open pit operations, and 15 years of underground mining. LOM gold production averages approximately 542 koz per year.

The Qualified Person considers the modelled recoveries for all ore sources and process plant combined process and engineering unit costs, used within the Mineral Resource and Ore Reserve process to be acceptable.

The Qualified Person is not aware of any environmental, legal, title, socioeconomic, marketing, mining, metallurgical, infrastructure, permitting, fiscal, or other relevant factors that could materially affect the Ore Reserve estimate.

Processing

Extensive metallurgical test work campaigns have been completed across all mineral deposits in RHIL that form part of the declared Ore Reserve. These have consistently demonstrated two distinct behavioural patterns the first of which exhibits free-milling characteristics suitable for gold extraction by a conventional CIL metallurgical process and the second of which exhibits a degree of refractoriness, where straight cyanidation returns gold dissolutions considered to be too low for optimal plant operation due to the presence of occluded gold particles within sulphide minerals. It has been demonstrated that a finer grind will expose a portion of this additional gold for leaching so that the recovery is enhanced to economically acceptable levels.

The Richiemonde process plant operational risks are materially reduced as a function of the two separate process streams and independent milling circuits. The process plant has demonstrated excellent improvements in throughput capability, even performing beyond design capacity at 7.2 Mtpa at consistent recovery performance.

The ore feed plan is blended using both RHIL underground ore plus ore sourced from satellite open pits at Richiemonde in order to provide a stable feed grade blend. The Richiemonde feed plan utilises geometallurgical models that estimate the arsenic content within potentially arsenic bearing mineral deposits such that any ore with high arsenic contents is stockpiled separately and blended into the CIL process route to ensure that discharge is directed to the lined CTSF and discharge levels are below the environmental requirements.

The Qualified Person considers the modelled recoveries for all ore sources and the process plant and engineering unit costs applied to the Mineral Resource and Ore Reserve process to be acceptable.

Risks

Richiemonde Goldmines has undertaken analysis of the Project risks. Table below summarises the Project risks and the Qualified Persons assessment of the risk degrees and consequences, as well as

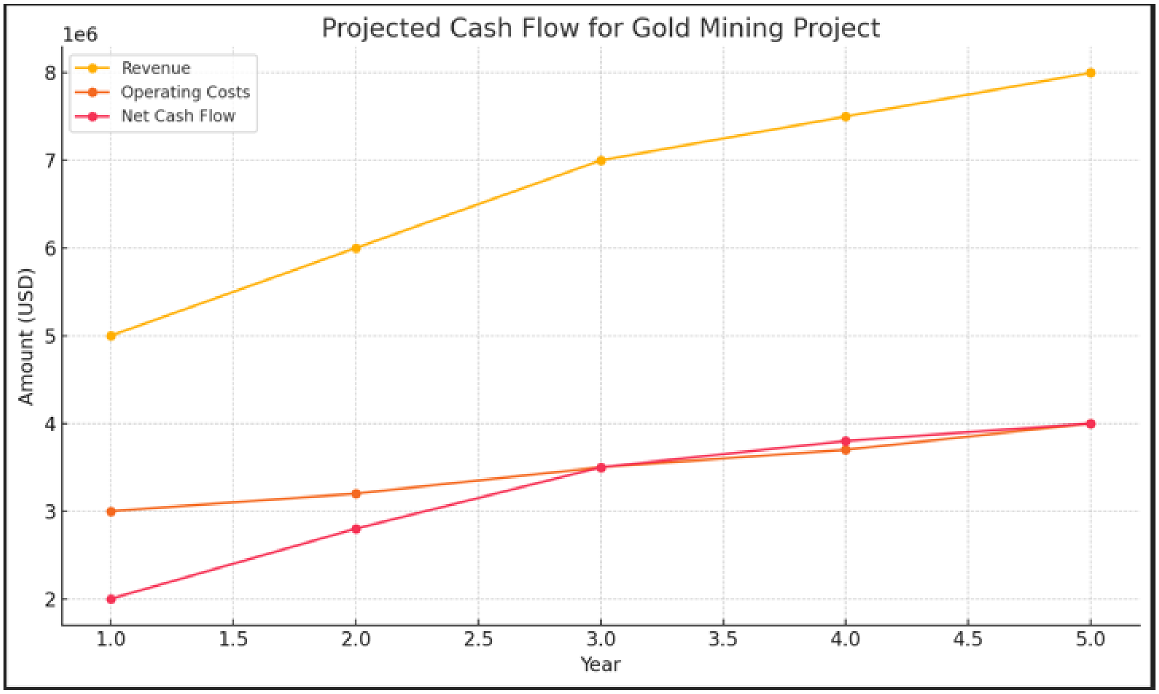
Risk Analysis Table

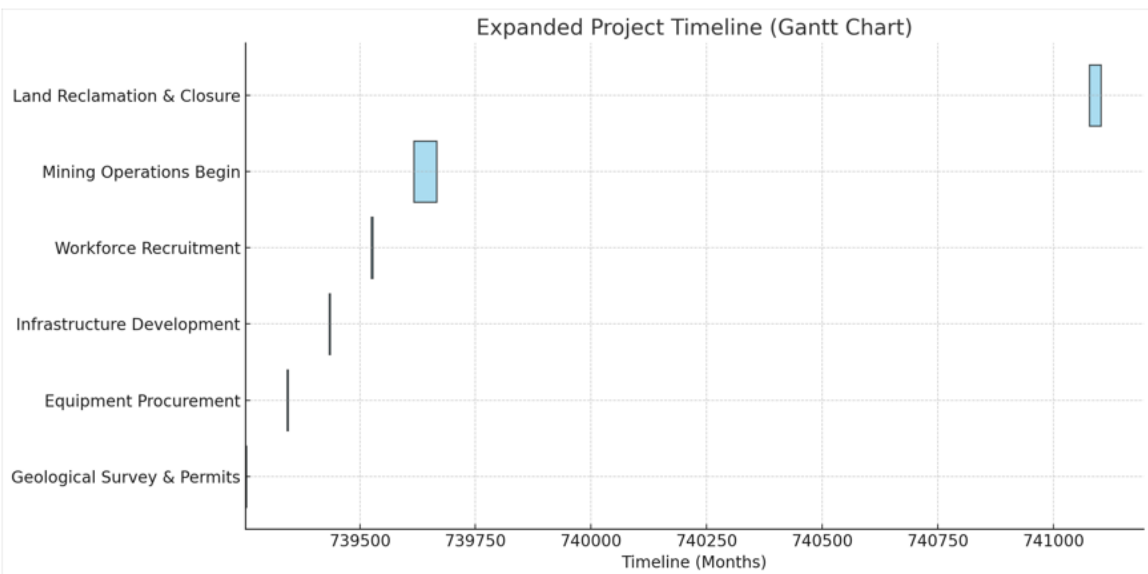
Risk Analysis Issue	Likelihood	Consequence Rating	Risk Rating	Mitigation
Geology and Mineral Resources – Confidence in Mineral Resource Models	Unlikely	Minor	Low	Additional scheduled infill drilling. Resource model updated on a regular basis using production reconciliation results.
Mining and Ore Reserves – Open Pit Slope Stability	Unlikely	Moderate	Minor	Continued in-pit monitoring, geotechnical drilling, instrumentation, and continued updating of geotechnical and hydrological models.
Mining and Ore Reserves – Underground Recovery and Dilution	Possible	Moderate	Low	Change in blasting practices to increase recovery and reduce dilution.
Processing - Water Dilution in CIL	Possible	Moderate	Medium	Several campaigns already successfully completed Plant modifications already installed to reduce water dilution at harvest screen and treatment of elution barrens
Processing Viscosity Drop in CIL Circuit Leading to carbon settlement	Possible	Moderate	Medium	Extensive trials performed. Viscosity modifiers or ensuring operation at acceptable slurry densities. Possible to increase the viscosity within the CIL by introducing oxides to supplement other ore or concentrate flows.
Environmental – Groundwater	Possible	Major	Low	Manage As levels through feed profile. All high As feed reports to

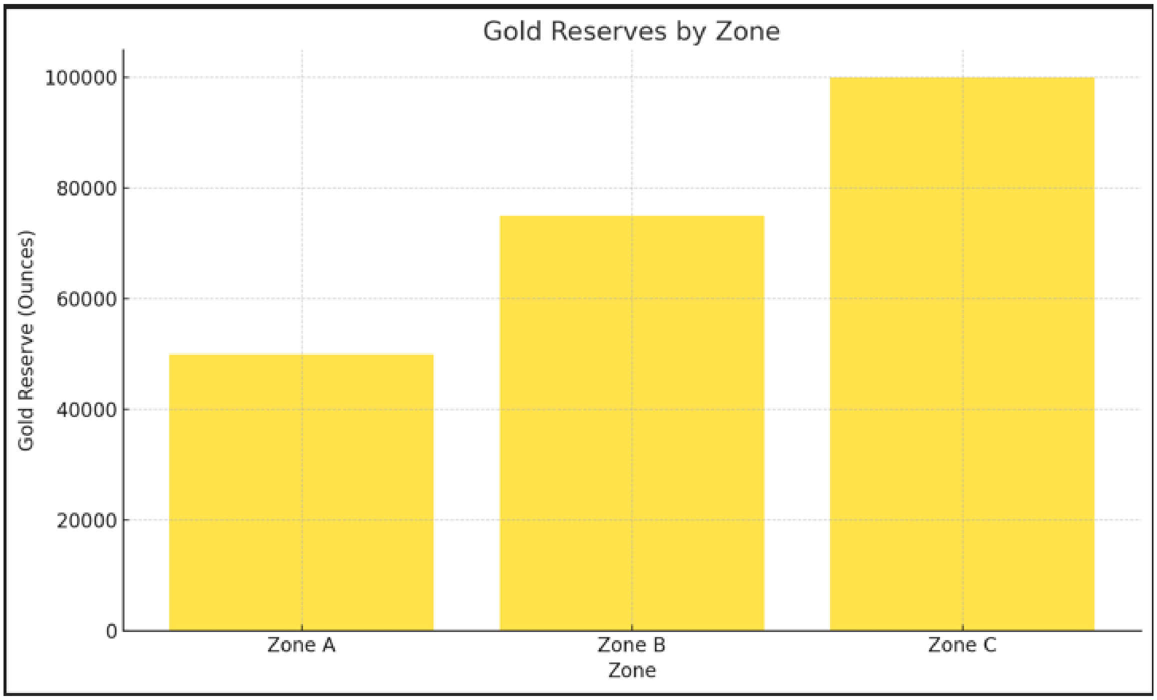
contamination (As) – Tailings failure				lined tailings facility. Continuing monitoring and external or third-party audits.
Social – Social License to Operate	Possible	Moderate	Moderate	Dedicated community engagement by company social and sustainability department.
Country & Political – Security – Governmental	Possible	Major	Moderate	Dedicated government liaison team in Dodoma. Government participation/ownership.
Capital and Operating Costs	Unlikely	Moderate	Low	Continue to track actual costs and LOM forecast costs, including considerations for inflation and foreign exchange. Switching to Owner/Operator for underground mining in 2024
Fiscal Stability	Possible	Moderate	Moderate	Dedicated government liaison team in Dodoma Government participation/ownership

Investment in phase I

Expense Category	Estimated Cost (USD)
Exploration & Survey	2,000,000
Equipment & Machinery	8,000,000
Infrastructure Development	6,000,000
Workforce Salaries & Training	4,000,000
Operational Expenses	3,200,000
Environmental Management	1,600,000
Dump Trucks	4,000,000
Earth Mover Equipment	8,000,000
Contingency Funds	1,300,000
Total	**38,100,000**


Projected Cash Flow for Gold Mining Project
1e6
Revenue
Operating Costs
Net Cash Flow
Amount (USD)
Year
8
7
6
5
4
3
2
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0


Expanded Project Timeline (Gantt Chart)
Land Reclamation & Closure
Mining Operations Begin
Workforce Recruitment
Infrastructure Development
Equipment Procurement
Geological Survey & Permits
739500
739750
740000
740250
740500
740750
741000
Timeline (Months)



Cost Component	Cost per Ounce (USD)	Category
Mining (Extraction)	500	Direct Operating Costs
Processing	350	Direct Operating Costs
Labor	200	Direct Operating Costs
Consumables	100	Direct Operating Costs
Power and Utilities	80	Direct Operating Costs
Maintenance	70	Direct Operating Costs
Royalties and Taxes	150	Indirect Costs
Administration	100	Indirect Costs
Environmental Compliance	50	Indirect Costs
Exploration and Development	50	Indirect Costs
Sustaining Capital	150	Capital Expenditures

Category	Total Cost (USD)
Direct Operating Costs	1300
Indirect Costs	350
Capital Expenditures	150
Total AISC for Gold Mining is	1800/ounce

Operating cost

Assumption for Zone A to Zone C

1. Let the monthly production rate be 17,494oz
2. The monthly operating costs are $1800/Oz

Revenue = monthly production rate * cost/Oz

= 17,494 * USD$1800

= USD$ 31,489,200/ month

The operating costs are therefore = USD$1800 * 17,494Oz = USD$ 31,489,200/ month

Gold ore tonnage = ore reserve * recovery

Total cost = Reserves * Price per Ounce = 820,000 ozs * $1800

Total Production cost = **$ 1,476,000,000**

Current selling price per Oz = $2349

Selling price * Total Reserves = $2349 x 820000

Total cost of Ore with current market price = $1,926,180,000

Net Profit = Selling Price – Cost Price = Profit

Profit after taxes $1,926,180,000 – 1,476,000,000 = $450,180,000

Table 1-5 Actual Process and Plant Engineering Operating Costs for 2024 and 2025 Cost	Units	2024 Actual	2025 Actual
Fixed Cost			
Consultants	$'000	203	347
Contractors - Assays	$'000	1544	1,588
Contractors - Oxygen	$'000	1735	1,634
Equipment Hire	$'000	3299	2,852
General Costs	$'000	6655	6,903
Gold Refining	$'000	3233	3,917
Labour	$'000	4896	5,734
Stores - Other	$'000	391	1
Total Fixed	**$'000**	**21,956**	**22,976**
Tonnes Processed	kt	7296	7,619
Total Fixed	**$/t**	**3.01**	**3.02**
Variable Costs			
Power	$/t	3.90	4.49
Reagents - Cyanide	$/t	3.10	2.80
Reagents - Lime	$/t	1.20	0.60
Good Issues - Caustic Soda	$/t	0.67	0.58
Good Issues - Activated Carbon	$/t	0.16	0.09
Reagents - Other	$/t	2.01	2.02
Stores - Grinding Media	$/t	0.81	0.96
Stores - Liners	$/t	0.41	0.43
Stores - Screens and Panels	$/t	0.01	0.10
Total Variable	**$/t**	12.27	**12.07**
Total $/ t	**$/t**	**15.28**	**15.09**
Plant Engineering	**$/t**	**3.79**	**3.62**
Combined Plant & Engineering	**$/t**	**19.07**	**18.71**

LOM processing costs have been budgeted at $17.24/t (which included plant engineering cost). The actual costs for 2024 were $18.71/t, with the key improvements over the LOM being the two hydropower stations that have been brought online in 2024 and 2025, which will drop power cost by approximately $1.30/t. Further to this, cyanide consumption has been optimised to a level of $2.50/t for the LOM (2023 levels being $2.80/t) as the plant operations are stabilised.

Recovery Methods

Processing Plant

Richiemode ore is blended using both Itumbi underground ore plus ore sourced from satellite open pits at Itumbi. The process plant has been treating Richiemonde Itumbi underground ore since 2015 and has demonstrated reasonably consistent recovery performance. The flow sheet comprises crushing, ball milling, classification, gravity recovery, a conventional CIL circuit, flash flotation, also conventional flotation, together producing a concentrate which goes to ultra-fine-grinding, and a dedicated intensive cyanide leach. This process consists of industry standard technology and is appropriate for Richiemonde's style of mineralisation. The Rihciemonde gold processing plant comprises two largely independent processing circuits, the first one designed for oxide, transition and free milling ore sources and the second for sulphide refractory ore. However, both circuits are designed to be switched to process sulphide ore when the oxide, transition and free milling ore sources have been depleted. A simplified flowsheet can be seen in Figure 17-1.

The oxide ore is recovered through a standard crushing, milling, and gravity plus CIL operation.

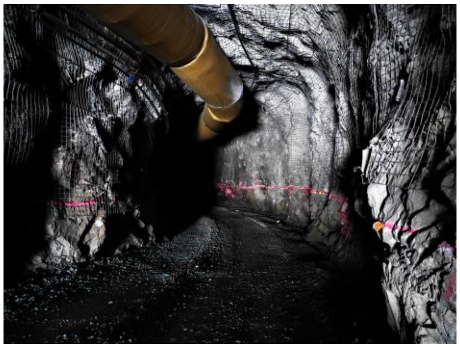
The sulphide ore requires: crushing; milling; flotation; ultra-fine grinding (UFG); a pumpcell circuit preceded by a three-tank gravity flow pre-oxidation circuit to passivate cyanide consuming sulphides as well as liberate the gold. The first two tanks are subject to highly intensive oxidation with cyanide being introduced into the third to fifth tanks for pre-leaching, where the resultant product gravitates to a pumpcell Carbon-in-Pulp (CIP) circuit with high concentrations of activated carbon. The pumpcell residue stream may still contain some residual gold which is then pumped to the main CIL circuit for final leaching to scavenge the remaining leachable gold. The flexibility of the plant design allows for an extended pre-oxidation and pre-leach step within the CIL occurring after the initial pre-oxidation circuit but prior to the stream being routed to the pumpcell circuit.

Most of the ore bodies contain some extent of free native gold, which means it is large enough to recover via a density separating step which is performed with Knelson gravity concentrators during the milling cycle.

The processing plant rated throughput is 3.6 Mtpa of soft oxide rock ore through the oxide circuit and 3.6 Mtpa of primary sulphide rock ore through a parallel sulphide circuit. Once the plant is sulphide only, the capacity is 7.2 Mtpa of sulphide ore. Richiemonde's operational performance has demonstrated that the process plant is fully capable of its design capacity, and further modifications to the mills with an increased motor size coupled with a decreased inlet trunnion size has allowed for an even greater power draw and hence higher throughputs. The 2025 process feed plan can be found in Table.

Table 17-1 2025 Process Feed Plan Type	**Tonnes Ore (kt)**	**Grade (g/t Au)**	**Contained Metal (koz)**
Sulphide	6,128	3.89	766
Transition + Soft Sulphide	798	2.43	62
Oxide	708	2.45	56
Total	7,627	3.6	884
Recovery (%)		87.52	
Gold Production (koz)		773	

Richiemond Itumbi Gold Mine, Turning Earths Riches into enduring values…



Proposed Richiemonde Itumbi Gold Mine

By

Richiemonde Holdings Inc, Limited