

ALNITAK RESOURCES COMPANY LIMITED

PROPOSED BUSINESS PLAN

FOR

THE GOLD PROCESSING FACTORY AT BUKOMBE WARD, IN BUKOMBE DISTRICT, GEITA REGION, TANZANIA.



Prepared by:
Alnitak Resources Company Limited,
P O Box 14446
ARUSHA REGION.

January, 2023.

Table of content

List of Abbreviations	4
EXECUTIVE SUMMARY	5
1.0. BUSINESS OVERVIEW AND BACK GROUND INFORMATION	7
1.1. Overview - Gold Processing Business in Tanzania.	7
1.2. Government support - Gold industrial development	8
1.3. Project concept in Geita Region	8
2.0. PROJECT OVERVIEW	10
2.1. The industry	10
2.2. Business Plan Objectives	10
2.3. Project technical aspect.....	11
A. Logistics and Crushed Ore/Tailings supply	11
B. M-Static Leaching and the Cyanidation process	12
The Cyanidation Process	12
The Leach Plant Process	13
C. Elution, Extraction and Smelting	14
Elution Plant Schematics	15
2.4. Project Description	15
2.5. Market potential and demand for gold.....	16
2.6. Pricing strategy	17
2.7. Technical Characteristic of the project.....	17
2.7.1. Project Location and site analysis.....	17
2.7.2. Buildings and related fixed cost.....	17
2.7.3. Machinery and Equipment.	17
2.7. 4. Motor Vehicles.....	18
2.7.5. Furniture & Fittings and computers	18
2.7.6. Pre-Operational Expenses	18
2.7.7. Initial Working Capital and pre operational cost	19
2.7.8. Project Capital Investment Summary.....	19
2.7.9. Project Financing	20
2.7.10. Project Implementation	20
2.7.11. Explanatory Notes	20
2.7.12. Auxiliary Materials/ services.....	20
2.7.13. Warehousing and distribution.....	22
2.7.14. Waste management for industry	22
3.0. MANPOWER AND PROPOSED SALARY BUDGET	23
3.1. Employment	23
3.2. Recruitment.....	23
3.3. Training and the use of consultants	23
3.4. Organization and Management.....	23
4.0. FINANCIAL ANALYSIS	25
4.1. Project Cost & Financing Pattern	25
4.2. Production, Revenue and project viability	25
5.0. RISK ANALYSIS	26
5.1. Risk Analysis.....	26
5.2. Macroeconomic risk analysis	26
5.3. Finance risk analysis.....	26
5.4. Other potential external risk.....	26
5.4. Mitigating potential risk	27
6.0. ECONOMIC AND SOCIAL ASPECTS	28
6.1. Impact Investment Index Framework	28
7.0. FINANCIAL MODELLING AND ANALYSIS	30

7.1. Project expected sales inputs	30
7.2. Objective and Scope of Financial Model	30
7.2.1. Objective	30
7.2.2. Scope	31
8.0. CONCLUDING REMARKS AND WAY FORWARD	38
8.1. Evidence of project viability based on financial model and policy framework support	38
8.2. Policy Framework Support	38
8.3. Conclusive Remarks and Way Forward	39

List of Abbreviations

4WD – Four Wheel Driver
CAPEX – Capital Expenditure
CIL – Carbon in Leaching
CIF- Central in Flight
CIP- Carbon In Pulp
EU – European Union
GDP – Growth Domestic Products
GEITA WSSA- Geita water supply and sanitation
Kg – kilo gram
IRR – Internal rate of return
MT – Metric Ton
MIS - Management Information System
NBS – National Bureau of standard
NEMC – National Environment Management Council
LTD - Limited
OPEX – Operating Expenditure
MW – Mega Watts
SIDO- Small Development Organization
SWOC – Strength Weakness Opportunity Challenge
TANESCO – Tanzania Electric Supply Company
TIC- Tanzania Investment Centre
TZS – Tanzania Shilling
USA - United state of America
UK – United Kingdom
US\$ - United State Dollar
VETA - Vocation Education Training Authority
VAT – Value Added tax

EXECUTIVE SUMMARY

Alnitak Resources Company Limited is a Tanzanian company registered in Tanzania with certificate of incorporation number 155056053 dated 06th February 2022. The office of the company is located in Arusha Township while the project is located at Nampalala, Bukombe district IN Geita Region.

The company aimed to expand her production capacity by purchasing modern machines and equipments for **gold processing and related value Chain (Buying and selling)** however the company is already involved in development of processing site at Namlalala Village, Bukombe district, in Geita region with structure of refinery plant buildings and CIL plant as major activities at site. Major capital expenditure will involve procurement of workshop tools and equipment, modern processing machines and equipment; purchase of utility motor vehicles, furniture and fittings, and fencing of the project sites.

The objectives of this study are three-fold. First is to determine the viability of the proposed project and serve as a business plan for the company's development program. Secondly, the business plan will act as a supporting document in the company's application for Tanzania Investment Centre (TIC) Certificate of Incentives and lastly it will be presented to Banks/Financial Institutions for application of Term Loan 1,171,800US\$ to support smooth implementation and running of the proposed projects.

The plant production capacity for CIL and elution respectively per day is 100MT and 3MT, equivalent to CIL is 300,000MT and 900MT respectively per year. But the plant provides elution services to small scale miners around the plant. If all material collected from mining site has the right grades, the total sales of processed gold is estimated to 1,310,000US\$ in a year, while sales from elution services is estimated to 105,000US\$.

The Alnitak Resources Company Limited; Production will be local and international market, proportional for export to local market is 20:80, for export markets the proposed countries are mostly Asia, Europe and USA. The price of gold is moved by a combination of supply, demand, and investor behavior. The basis for pricing has been from observations and data collected from various parts of Tanzania, market behavior of raw materials and by-products, production costs and profit margins. Major determinants of gold price are world international market. According to local content gold price sold between 80,000TZS to 125,000TZS equivalent to 35US\$ to 52US\$. Proposed price in this business plan is 42US\$.

The development of a large and complex project such as Alnitak Resources Company Limited is necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage the project in a manner which is fairly and adequately address the multiple risks in a comprehensive as well as systematic manner is to use the risk analysis and management methodology which identifies the risk issues and their instrumental

cause. In this regard, the risk is eliminated or effectively managed by the party best suited with capacity to handle or deal with the risk factors.

On the basis of all the analysis done on this Business Plan on all aspects of assessment on both SWOC Analysis, market analysis, risk analysis and the financial analysis, the proposed investment options in the gold processing plant as prescribed on this business plan have shown that the project is commercially viable. Financial analysis results show that when the construction of plant facility is financed using a combination of equity debt ratio (30:70), it gives an IRR of about 14.63%. The computed IRR is well above Dollar market of the annual loan interest rate of (8.00%) which is technically interpreted that the project is financially viable. The proposed integrated project is estimated to cost a total of US\$ 1,674,000 this including, own equity of US\$ 502,200 as proceeds from capital contribution of the project, total loan debt of 1,171,800US\$. The Current asset of US\$ 411,761 fixed assets 1,464,000US\$ and total liabilities of 2,629,121U\$. The project will be implemented within 5 years.

1.0. BUSINESS OVERVIEW AND BACK GROUND INFORMATION.

1.1. Overview - Gold Processing Business in Tanzania.

Tanzania has a unique geological environment that hosts a variety of economic minerals. The most famous deposit is the Lake Victoria Greenstone belt in the central and north-central part of the country. Gold discovery and exploitation by German colonialists started towards the end of the 19th century and lasted until the First World War. During the British colonial era (1918-1961) mineral production and revenue were mainly from gold, diamonds, lead, mica, salt and tin. Gold was at a peak level in 1940 when it contributed to about 90% of the value of the mineral production. Following independence in 1961, many industrial sectors including the mining industry, were nationalized by the government.

In 1986 Tanzania agreed to a structural adjustment program designed by the World Bank. Internal and external trade was liberalized, and the government opened up for foreign investment in the country. The liberalization of mining, accompanied by the legalization of the buying and selling of gold and gemstones through banks and designated dealers, had immediate effects.

Now Tanzania has become one of the fastest-emerging gold producers in Africa, and is the continent's third-largest gold-producing country after South Africa and Ghana. A number of large international mining companies (Barrick Gold Corporation, AngloGold, Ashanti Mining, Resolute Limited) are now involved in operations in the country.

However, the sector most relevant to operations conducted by Alnitak Resources Company Limited will be the small scale and artisanal sectors. Estimates for the number of artisanal miners operating in the country are usually taken to be around 500,000 people. There are approximately 6000 small scale claim holders for gold in Tanzania. Assuming the number of people employed on each site is between 30 and 60. This leads to an estimate of 270,000 people working on government sanctioned claims. There are also a large number of miners working on non-government sanctioned claims.

Currently in Tanzania there is a dichotomy between the large multinational mining companies and the artisanal miners. Alnitak Resources Company Limited will seek to exploit this dichotomy. It will operate in a way that will add value to artisanal miners while not troubling the larger mining companies.

There are a small number of companies that are carrying out similar gold leaching operations in Tanzania. These companies have appeared in the last few years following the gold price rises of 2005 where such business models became feasible. Pioneers of this business include M/s Mineral Extraction Technologies Ltd. Their leaching operation is based near Geita approximately 100km south west of Mwanza with another leaching plant 40km north of their current plant. There are also operations based in Ushirombo and Kahama by M/s Dynamic Mining, and a leaching plant at Igurubi by MMS Limited near Nzega. More companies of similar operations have increased in the last three years. The most recent but experienced in gold processing since 2016 is Alnitak Resources Company Limited with its operations site based in Nampalala Village, Bukombe ward, Bukombe in Geita district which is 80kms South of Geita Town.

1.2. Government support - Gold industrial development

Following advice from the World Bank¹, and hoping for economic growth and independence from donors, a number of African countries have opened up opportunities for large-scale mining by foreign investors over the last decade and a half. Tanzania, one of the 'new' mining countries, is now among the largest gold producers in Africa, but investor-friendly contracts have resulted in extremely low government revenues from mining, totaling less than 5 percent of what the country receives in development aid. In response to widespread discontent, and acknowledging the plight of affected communities, the government amended the 1998 Mining Act in 2010. In June 2018, the Government reviewed her 1998 Mining Act and formulated new investment policy which that support investment incentives to investors, review existence of the legal framework and the role of bilateral investment treaties to ensure secure investment environment.

However, improved legal provisions may have limited effect if the present governance challenges are not resolved. In due respect, the 5th Government of Tanzania support local investors by removing some of duties imposed to investors in this case investor can imported machinery, capital goods at zero duty. There are significant opportunities for the export of technology, machinery, and services. The Tanzanian Government encourages mining companies to procure local goods and services whenever possible, and many of the foreign mining executives would like to increase local consumption to support the Tanzanian economy. There is significant opportunity to supply foodstuffs, clean water, training, consultancy and other services.

1.3. Project concept in Geita Region

The proposed aimed to expands her production capacity by purchasing modern machines for gold processing, however the company is already involved in development of processing site at Nampalala Village, construction of refinery plant buildings, importation and installation of carbon regeneration plants, electro-winning plants, gold refinery plant and equipment, Power Generator, laboratory for noble metal testing; and environmental protection plant equipment. Other major capital expenditure will involve procurement of workshop tools and equipment, modern processing machines and equipment; purchase of utility motor vehicles, furniture and fittings, and fencing of the project sites. The project is divided into two (2) major parts:

Part I: Gold Processing in Bukombe District

Under this arrangement, Alnitak Resources Company Limited extract gold by herself but in addition of increased plant capacity demand, the company will enter into a

¹

https://www.researchgate.net/publication/270778022_Gold_and_governance_Legal_injustices_and_lost_opportunities_in_Tanzania

mining contract with the local small-scale miners at Nampalala Village and elsewhere in Bukombe District to the effect that the small-scale miners at the vicinity of the processing site will sell to the company their gold tailing so that the company can apply chemicals to extract the remaining gold. Furthermore, the company will then crush and process to obtain gold. The company plans to use leaching process to extract gold from the gold ore and tailings.

Part II: modernizing and expansion Gold Elution Facilities at Nampalala Village - Geita.

The second phase of this project proposal entails setting up gold refinery facilities, providing electro-winning plants so the gold may be liberated from the carbon and into bullion form using modern technology. The refinery plant will be created in the said site above. The proposed project will therefore involve the following activities:

- ❖ Acquisition of adequate mining sites to ensure maximum production of gold
- ❖ Development of processing camps and infrastructure
- ❖ Construction of gold refinery buildings and storage warehouses, workshops and offices
- ❖ Importation and installation of gold processing plants, laboratory for noble metal testing
- ❖ Procurement and installation of environmental protection plant equipment
- ❖ Importation and installation of equipment, machinery and plants for gold refinery
- ❖ Procurement of heavy-duty trucks fleet for transportation of gold ore and tailings from the small-scale mining centres to the processing site at Nampalala Village, Bukombe Ward, in Bukombe District. Other utility vehicles will also be procured for the project. This will include pickups, 4-WD station wagons to facilitate movement. Armored vehicles will also be procured for transportation of processed gold from the Village to the gold selling centre in Geita Township.
- ❖ Purchase of furniture, equipment, fittings and administration motor vehicles, fencing of the factory compound and storage yard.

2.0. PROJECT OVERVIEW

2.1. The industry

Alnitak Resources Company Limited is a Tanzanian company registered in Tanzania with certificate of incorporation number 155056053 dated 06th February 2022. The office of the company is located in Arusha Township in Arusha Region and sub-office in Mwanza city. The permanent is P O Box 14446 Arusha region while the project will be carried out in Nampalala Village, Bukombe district, Geita region

The initial Authorized Share Capital of the company is TZS 30,000,000/= divided into 100 ordinary shares of TZS 300,000/- each and the company have the power to divide the original or any increased capital into several classes, and to attach thereto any preferential, deferred, qualified or other special rights privileges, restrictions or conditions. Unless the conditions of issues shall otherwise expressly declare, every issue of shares, whether preference or otherwise, or any such rights, privileges or conditions shall not be altered or modified except in accordance with the registered Articles or Association. The liability of the members is limited and the following names compromise the company ownership and principal shareholding as illustrated on Table 2.1 below.

Table 2.1. Company Ownership and Principal Shareholders

S/No.	Shareholder's Name	Address	Occupation of Subscriber	Number of Shares
1.	Ms. Audrey Bernice Mpendwa Hendricks, (Tanzanian) (BUSINESS WOMEN)	P o Box 14446, ARUSHA, TANZANIA	Private Company by Share, Domicile in Tanzania- Incorporate Number 155056053	51
1.	Mr. Rodney Winthrop Thomson, (American) (BUSINESS MEN)	P o Box 14446, ARUSHA, TANZANIA	Private Company by Share, Domicile in Tanzania- Incorporate Number 155056053	49

2.2. Business Plan Objectives

The objectives of this study are three-fold. First is to determine the viability of the proposed project and serve as a business plan for the company's development program. Secondly, the business plan will act as a supporting document in the company's application for Tanzania Investment Centre (TIC) Certificate of Incentives so as to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997).

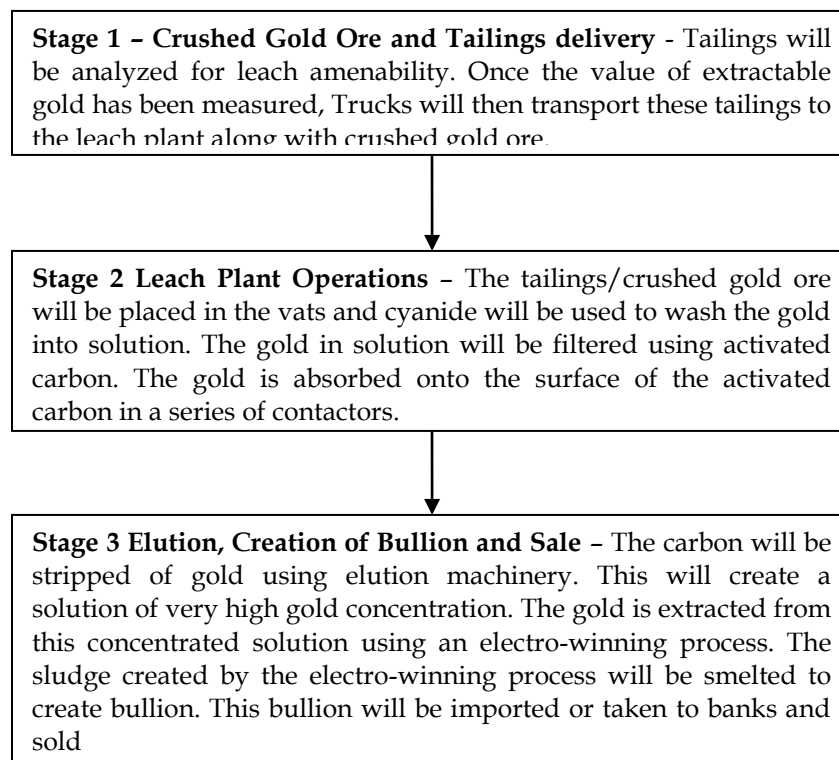
Thirdly, it will be presented to Banks/Financial Institutions for application of Term Loan 1,171,800US\$ to support smooth implementation and running of the proposed projects. The project promoters have commissioned a reputable engineering and project planning consulting firm to advice on detailed technical and economic

evaluation of the project and in determining its viability. As the report will be used to raise debt financing for the project, it is tailored to meet standard requirements of financial institutions in the region.

2.3. Project technical aspect

2.3.1. Gold Processing (Technology)

The business will be broken down into three stages or “gold flows”. The first stage will be that of the delivery of crushed gold ore and tailings to the leach plant. The second stage will be the leaching process that will take place at the leach plant. The third stage will be the elution of gold and creation of the bullion that will be sold to the banks or imported.



A. Logistics and Crushed Ore/Tailings supply

The first stage in the process of creating the bullion will be the sourcing of the gold ore/raw tailings to be processed. Scouting will be carried out and samples taken from piles in various areas around the leach site. These samples will be analyzed to measure their leach amenability and their effective value to the company. Once this has been done, the trucks will be organized to collect the gold ore/tailings and take them to the leach plant site. Gold ore will then be crushed by company crushers at the processing site.

During the start up phase, only a few trucks will be required to fill the small number of tanks available. As the tailings in the immediate vicinity are exhausted and as there are more vats created for leaching, a larger transport capacity will be required to maintain the gold flow capacity. Once the plant is operating at full capacity, 10 Tipper Trucks should be sufficient for supplying the plant with the required amount of gold ore and tailings.

One important factor will be to build up and maintain an on-site gold ore and tailings stock pile. This will ensure a steady and reliable flow of crushed ore and tailings to the vats. There will always be occasions when roads are made impassable by bad weather, or when trucks are being serviced or repaired. It would be wise to maintain a pile of at least 300MT of gold ore and tailings at the site. During the wet seasons it may be reasonable to increase this stock pile to 500MT.

B. M-Static Leaching and the Cyanidation process

The Cyanidation Process

The company uses Carbon in Pulp (CIP) gold processing technology, the company plan to modernize and expand its CIP capacity, thus will import equipment to increase processing capacity of CIP plant at site. The technology along with other mining equipment will be imported. As well as for the carbon regeneration plant and electro-winning, the company plans to start bringing the equipment in as soon as they receive TIC accreditation and approval of tax exemptions.

The CIP method is a relatively technical method used by all the large mines today. It involves creating ore slurry and directly contacting the activated carbon with the gold containing slurry in an agitated environment. Although the amount of gold extracted is high, the equipment is expensive and complicated to maintain and operate.

Vat leaching is used to extract gold from large volumes of low-grade ores. It is a very simple process with low costs of operation that allows large quantities of ore to be treated. It involves creating tanks with drainage pipes where ore can be leached. Cyanide solution is then sprayed onto the ore pile. This solution percolates through the ore pile dissolving the gold present. The solution is then collected at the base of the tanks where carbon is used to absorb the gold from solution. The main advantage is the extremely low cost of operation. No agitating, moving or separating equipment is required.

The method for gold extraction proposed by M/s Alnitak Resources Company Limited is much like a Vat leaching operation but has a slightly different characteristic.

The Leach Plant Process

The leach plant schematics can be seen below. The crushed ore and tailings are brought to the plant in trucks and offloaded adjacent to the concrete tanks. The Tailings are mixed with hydrated lime and placed into the tanks. The hydrated lime optimizes the conditions for gold extraction and reduces the loss of cyanide by hydrolysis.

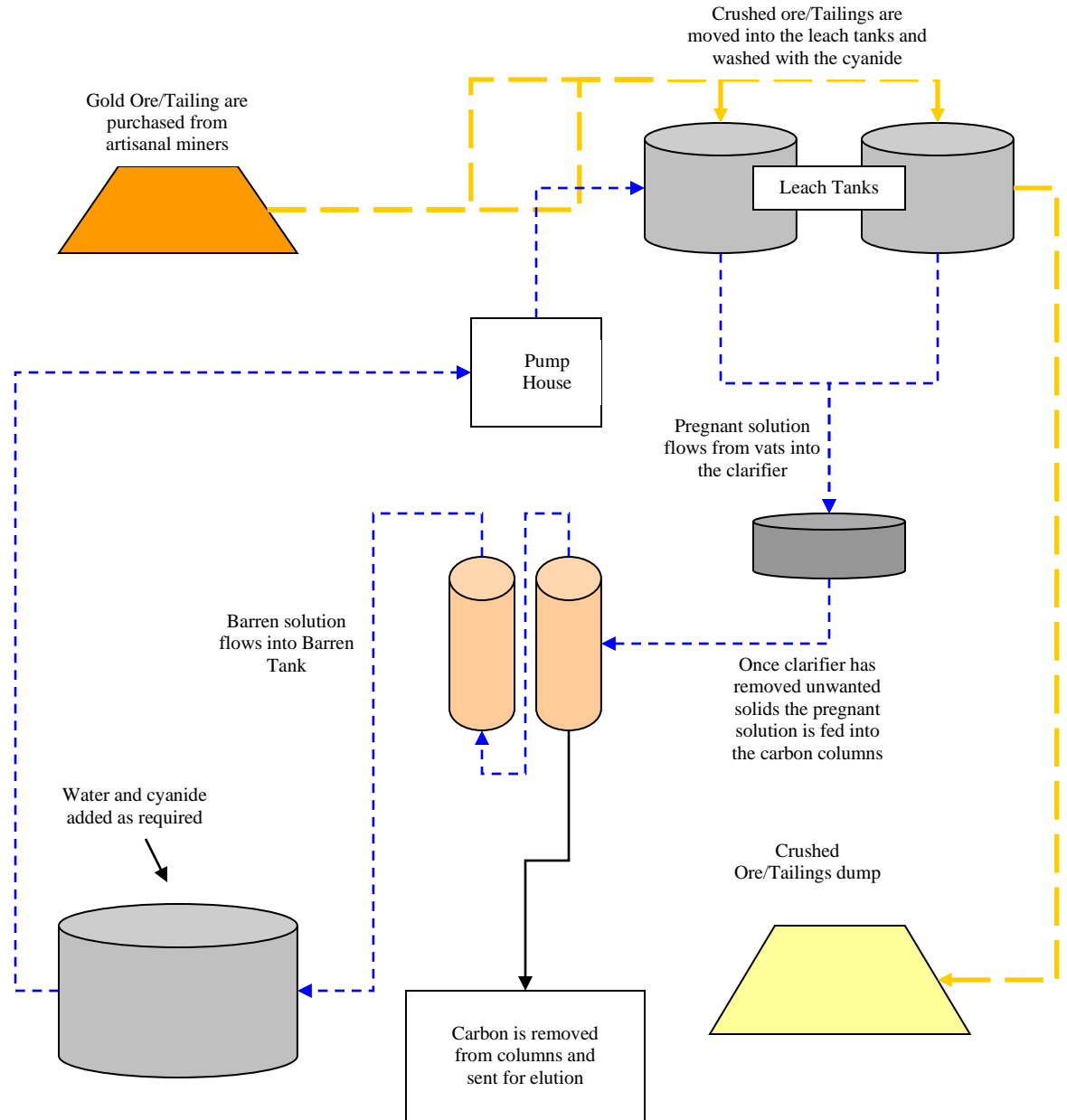
This improves gold extraction. Once the crushed ore/tailings have been soaked, the tap is opened and solution is allowed to percolate through the crushed ore/tailings dissolving the gold in its path. The solution flows through a filter at the base of the tanks that keeps the tailings in the tank.

The gold bearing (pregnant) solution flows out of the tank and into the clarifier. This removes any unwanted solid particles in the clear solution. This solution is then pumped through a series of carbon columns or contactors. The carbon adsorbs the gold from the pregnant solution. Barren solution then flows out of the columns and into the barren tank.

Water and cyanide are added here to maintain the balance in the closed system. Oxygen, a key reactant in the process is added in the barren tank by using a pump to aerate the solution. The barren solution containing the cyanide is then pumped into the newly filled vat and the solution cycle starts again.

After 3-5 days of solution flowing through the tailings the gold will have been extracted. The exhausted crushed ore/tailings in the tank are now washed with water and drained. The tank is then emptied and the tailings are moved to the tailings dump site.

Once the gold has been absorbed by the carbon, the carbon is removed and replaced with fresh carbon. The loaded carbon is then sent to the elution plant for extraction/stripping.



C. Elution, Extraction and Smelting

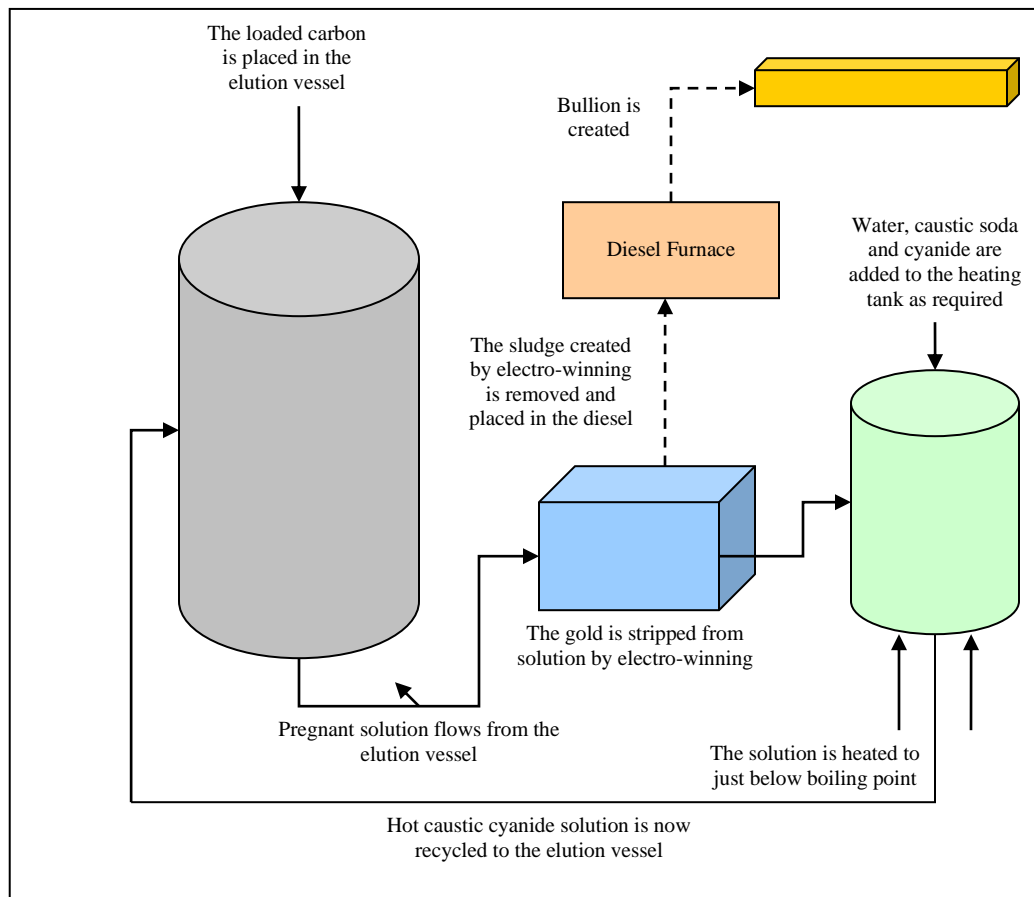
Once the loaded carbon has been transported from the leach plant to the elution plant the stripping of the gold can commence. This is done by taking the carbon and placing it in an elution vessel. Here the process of loading the gold onto the carbon is reversed and the gold is stripped. This is done by passing hot caustic solution past the carbon. Once the gold has entered the solution, it is pumped to an electro-winning cell. Here the gold is removed using electrolysis and it accumulates at the steel cathode. The now barren solution is then pumped to a heating tank where more cyanide and caustic

soda can be added to recharge the stripping solution. The solution is now fed back to the elution vessel for another stripping cycle.

Once all the gold has been stripped from the carbon, the carbon is removed and replaced with more loaded carbon. The stripped carbon is then acid washed and sent back to the leach plant for reloading.

The gold sludge is now removed from the electro-winning cell, placed into a kiln and smelted to create bullion.

Elution Plant Schematics



2.4. Project Description

Alnitak Resources Company Limited aimed at expanding her own production line by importing modernized Carbon In Leaching Plant (CIL) Machine and equipments, the company will produce pure gold from after extract from the ground and some raw material will be bought from small scale miners. The project has already started since 2016, the promoters aimed to expands production process by purchasing advanced machines for all gold mining activities and production process; purchasing 10 heavy truck lorries, additional of CIL plant, gold ore crushers, Modify elution plant, and other

working equipments. The project is expected to rehabilitated/expanded by January 2021 whereas over 75% of machines and equipment will be imported from China and raw materials will be collected from mining site while chemicals will be imported from South Africa, Turkey, Russia, China, India.

The plant production capacity for CIL and elution respectively per day is 100MT and 3MT, equivalent to CIL is 300,000MT and 900MT respectively per year. But the plant provides elution services to small scale miners around the plant. If all material collected from mining site has the right grades, the total sales of processed gold is estimated to 1,310,000US\$ in a year, while sales from elution services is estimated to 105,000US\$.

The project envisages setting up modern equipment in installation of modern machines and equipments, for gold ore crushers (300,000US\$), elution plant (27,000US\$) complete set of Laboratory equipment (23,000US\$) leaching plant 30,000US\$.

2.5. Market potential and demand for gold

The Bank of Tanzania (BoT) monthly economic review for August 2020 shows that gold export accounted for 56 per cent of non-traditional exports growing by 52.8 per cent to \$2,728.7m on account of volume and price effects in the world market. The outstanding performance of the traditional and non-traditional exports made the external sector development continue improving, reflecting the diminishing impact of the corona virus pandemic on the global supply chain.

The economic development in East Africa is projected to have a positive impact on the market for gold but previously Kenya dominates the market of Gold. In Tanzania Gold market is expected to have considerable growth in terms of market value owing to technological advancements in the gold processing industries for these emerging economies which will witness a sizeable increase in the revenue contribution of the sales in international market.

Nowadays government has banned buying/selling gold to unrecognized places, the government has opened gold selling point so as the buyer and seller will be safe in doing business, security and transparency in doing business.

The Alnitak Resources Company Limited; Production will be sold in the local and international markets, proportional for export to local market is 20:80, for export markets the proposed countries are mostly Asia, Europe and USA. The price of gold is moved by a combination of supply, demand, and investor behavior. That seems simple enough, yet the way those factors work together is sometimes counter intuitive. For instance, many investors think of gold as an inflation hedge. That has some common-sense plausibility, as paper money loses value as more is printed, while the supply of gold is relatively constant.

2.6. Pricing strategy

The basis for pricing has been from observations and data collected from various parts of Tanzania, market behavior of raw materials and by-products, production costs and profit margins. A major determinant of gold price is world international market. According to local content the gold price sold by sold between 80,000 to 125,000TZS equivalent to 35 to 52US\$. Proposed price in this business plan is 42US\$

2.7. Technical Characteristic of the project.

2.7.1. Project Location and site analysis

The project is located at Nampalala village, At Bukombe ward, Bukombe district in Geita Region. The project is 80Km from Geita Township. Based on physical inspection of the proposed site, the availability of basic and essential industrial infrastructure such transport, water supply, effluent disposal, electric power supply, telecommunication system and security were all checked out and are ok for factory establishment. The realization of the project development requires successful completion of a number of necessary activities and facilities to enable a successful development of the project. The project location is already installed necessary utilities such as reliable supplies of energy, water, transportation, telecommunications services, waste disposal and other services are in place.

2.7.2. Buildings and related fixed cost

The floor plan and elevation of buildings and other related structures will be rehabilitating to Alnitak Resources Company Limited as owned by the share holders. However, the total cost of Land acquisition and registration, factory buildings, Storage of raw materials and finished Gold and by products structure, the estimated cost of buildings and other structures is 233,000US\$, this includes Land acquisition already purchased, Buildings (administration block, canteen, elution block), Laboratory, camp sites (for 14 peoples), Access roads and amenities, TSF Pond for waste management and Store for chemical, spare parts, etc. Project fixed cost have been estimated at US\$ 1,464,000 (see balance Sheet), which includes purchasing of machines, motor vehicles and structure rehabilitation.

The industry also set budget as working capital which involves purchase of raw materials and factory overhead cost of 150,000US\$. The minor rehabilitations costs are inclusive of contingency and reflect prevailing cost of building materials and labour costs in the country. Mostly local building materials will be used in the construction of the same.

2.7.3. Machinery and Equipment.

Proper machinery selection is one of the key problems in the development of an industry. The machinery must suit the two-fold requirements of the developing countries, i.e. it should be up-to-date to allow for competitive production. In view of the foregoing, an effort has been made to choose from modern technological

alternatives, a level that strikes a balance between fixed costs based on depreciation and variable costs based essentially on wages.

The requirements of various items of equipment have been worked out taking into consideration the production programs, average equipment utilization and normal productivity level of an average worker etc. While working out details of equipment required, it has been assumed that the plant will be working in a double shift of 16 hours a day, 25 days a month or a total of 300 days a year.

The projects machinery and equipment will be sourced from China and are estimated to cost 450,000US\$, this includes, CIL Plant productivity capacity 100MT per day, Elution plant productivity capacity 3MT per day, Complete set of Lab Equipments, leaching plant productivity capacity 300MT per day, Stand by Generator and Other equipments and flight charges and contingents are inclusive. These cost assumptions are C.I.F Dar es Salaam and include installation, commissioning, consultancy, port charges and transport to the project site. Calculated depreciation of machines and other working facilities is estimated to cost 72,240US\$

Others working facilities have already in place this includes weighing scales, mini laboratory equipment, communications, computers and other office equipment, standby power generator and miscellaneous machinery and equipment.

2.7. 4.. Motor Vehicles



10 heavy lorries body trucks will be purchased in the first of production whereas truck will be purchased at a price of 65,000US\$ each totaling to 650,000US\$, and 2 Light Vehicles at a price of 150,000US\$ will add for smoothening distribution. Total cost for all type of truck is estimated to 800,000US\$.

2.7.5. Furniture & Fittings and computers

This cost item includes the purchase of various office furniture: tables, chairs cabinets, safes, telecommunication gadgets, firefighting equipment, air conditioners etc. A budget of 21,000US\$ will be allocated from general administration budget for furniture fittings and computer accessories. The total budget for furniture and fittings is small due to nature of industry as few or minor requirement of furniture and fittings.

2.7.6. Pre-Operational Expenses

Under pre-operational expenses are considered costs like company formation, preliminary project studies, business plan preparation costs, licenses, permits and authorization, including processing of TIC Certificate of Incentives, and legal fees,

travelling expenses, initial recruitment and training expenses, and interest accrued during project construction period. Budget allocated for this is 50,000US\$

2.7.7. Initial Working Capital and pre operational cost

This item will mainly cover initial imports of raw materials estimated to last for the first three months of operations. Otherwise, raw materials will generally be maintained at one month's stock and debtors at one month's sales volume constitute the biggest portion of current assets. Trade credits will be 15 days for the items listed. The initial working capital allocated budget is 150,000US\$ while pre operational cost is estimated to 60,000US\$

2.7.8. Project Capital Investment Summary

Investment Summary	
Fixed Assets	
Land acquisition	20,000
Buildings (administration block, canteen, Elution block)	60,000
Laboratory	5,000
Store for chemical, spare parts, etc	14,000
camp sites (for 14 peoples)	22,000
Access roads and amenities	12,000
TSF Pond for waste management	100,000
Sub total	233,000
Machineries and Equipments	
CIL Plant productivity capacity 100MT per day	300,000
Elution plant productivity capacity 3MT per day	27,000
Complete set of Lab Equipments	23,000
Leaching plant productivity capacity 300MT per day	30,000
Other equipments	20,000
Sub Total	400,000
Motor vehicles	
10 Heavy trucks	650,000
Light Vehicles for administration 2 Pick up	150,000
Sub Total	800,000
Other Facilities	
Furniture and fittings	6,000
Office Equipments	5,000
Continges/Others	20,000
Sub total	31,000
Subtotal Fixed Assets	1,464,000
Current Asset	
Pre operational expenses	60,000
Initial working capital	150,000
Sub total current Assets	210,000

2.7.9. Project Financing

The project costs, including fixed costs (machinery, equipment, building renovations, motor vehicles, office furniture and equipment and pre-operation expenses will be financed by a combination of bank term loan and shareholders own resources. Working capital requirements will be financed by short term bank financing in form of overdraft facility. The project promoters are planning to finance project cost in the following pattern:

2.7.10. Project Implementation

Full implementation of the project is planned to take place by Late February 2023. Machineries and motor vehicles will be imported immediately while construction/renovation works are in process.

2.7.11. Explanatory Notes

The production capacity of the plant is based on 300 working days excluding Holidays and Sunday. The factory runs per day with a maximum of 300MT by CIL per day while elution 60MT per day. Capacity utilization of the plant is 60% - 75%. The proposed project is a complete set of modern technology with output capacity of 2KG per month. All machines are from well known Asia brands (India), after being over hauled, run 20-25 years.

2.7.12. Auxiliary Materials/ services

Falling under this category is packing bags, paper for bags for bran, lubricants, grease and other miscellaneous items.

Utilities and service facilities that will need to be provided in this plant are as follows:

- (i) Workshop
- (ii) Electric power
- (iii) Water supply
- (iv) Miscellaneous facilities {Canteen; First Aid Kit, Storage and transport and Office Facilities}

(i) Workshop

It is necessary to make provision for a small workshop in the plant premises so that certain maintenance operations could be carried out following sudden breakdowns and major routine matters.

The facility will comprise of necessary machines like small centre lathe, drilling machine, welding set, soldering and gas-cutting equipment including complete electrical kit to take care of necessary electrical maintenance as well as to replace

worn-out parts and periodic oil and greases needs for the plant. Equipment provision has been restricted to the minimum.

(ii) Electric Power and Generator

The proposed site will be supplied with industrial production 3-phase standard power supply from Tanzania Electric Supply Company (TANESCO), the electricity is available through the National Grid Line from Mwanza to Geita Region. As part of an alternative power supply, the company is already installing a heavy duty 200KVA power generator automated generator that will be connected to the plant and premises for standby power supply.

The Alnitak Resources Company Limited will install an online UPS system that secures clean and uninterrupted power free of surges, brownouts, fluctuations and other power problems. The client manufactures PP non-woven fabrics in a high-temperature, high-pressure environment, in which electricity interruptions cause economic and material losses. The total cost of generator not included to business plan as it's already in place.

(iii) Water Supply

Apart from the needs of electric power, water is also required for the actual process and other social needs. The proposed site has close to Geita water supply and sanitation "GEITA WSSA" water network, the agency is major supplier of water to urban and peri urban area in the region. While depending on water supply from GEITA WSSA", the main line is close to the proposed industry from Geita Township. The main line from this source will be tapped and let to the land site and water collected in an overhead reservoir provided at the top of the building of the plant. Adequate provision has been made in the project cost for the overhead tank and supply and laying of pipelines etc.

(iv) Miscellaneous Facilities e.g. First Aid Kit, Storage and Transport, Office Facilities etc

- Provision has been made in the project costs for necessary facilities for external telephones and fire alarm system;
- Sickness and ill-health are recognized to be among the cause of absenteeism and low morale leading to decreased production, increased waste and bad employee-management relations. Therefore, necessary provision has been made for the canteen and first aid facilities in case of accidents, sudden sickness etc.
- Storage and transport needs of the plant have been duly recognized and been attempted mostly manual. Regarding transport, five (10) trucks with a capacity of 32 MT will be purchased and other 10 heavy trucks will be purchased and some will be hired for collection of raw materials.

- Necessary provision for furniture and office equipment has been made in the Capital Cost estimates.
- Provision has also been made for the various types of weighing equipment in various sections for material-handling equipment etc.

2.7.13. Warehousing and distribution

The Alnitak Resources Company Limited's warehousing service is ready to meet 24/7/365 with produced gold products and by products and raw materials imported. The efficiency of on-site combined with focal lift is already accommodated all needs and reduce supply chain costs. The industry uses electronics inventory management system means will ready for the efficiently movements of goods to next level.

The industry will use quick dispatch for fast distribution of final products and packed by manual means or by semi-automatic machines. The industry will take Extra care is therefore taken to make it hygienic so that the products do not get spoiled during storage.

2.7.14. Waste management for industry

In order to create a sustainable society, it is necessary to develop effective utilization of all sorts of wastes. One of the major wastes from our living is fiber wastes. Fiber wastes are generally divided to nonindustrial (organic chemicals) and industrial wastes (inorganic Chemicals)

In his strategic management for a Alnitak Resources Company Limited's; the industry has to move from an understanding of improvement at all costs to an understanding of continuous and balanced improvement once established. In modern times, environmental protection is being implemented not because it is enforced law, but as an administrative philosophy.

Rapid degradation in environmental conditions has changed at attitude of industrial managers toward ecological environment and had them consider ecology a significant factor while taking decisions related to industrial management. Parameters responsible for environmental pollution include chemicals discharged into air, water and soil as well as energy pollution all these will taken into consideration of the proposed project.

Noise pollution caused by poorly planned settlement programs is also included in this plan. Furthermore, safety and health of those working in production will be also taken into account by installing modern machines free from noise pollution.

3.0. MANPOWER AND PROPOSED SALARY BUDGET

3.1. Employment

The whole process of production lines is looking at providing direct employment to at least 15 permanent jobs on full implementation and operation of the project. The industry is divided into 2 Departments; Corporate (2), Production (13).

3.2. Recruitment

Recruitment of the 16 persons will be carried out by giving first preference to ex-technician from our local technical institutes such as Vocation Education Training Authority "VETA" and employees of Alnitak Resources Company Limited in Tanzania, based on demonstration of skills and aptitude basis and their willingness to work for Alnitak Resources Company Limited. Careful methodology is being worked out by a competent management consultant who will set the job descriptions. To ensure that the right calibre is recruited. Recruitment of expatriate personnel will be carried out in consultation with the relevant authorities in Government and the collaborating agencies.

3.3. Training and the use of consultants

The Company plans to initially carry out on the job training for most of the technical staff to be dispatched to the project site by the suppliers of the plant which will be specified under sales agreement. In general, the company will ensure that employees acquire new skills and procedures to increase their productivity fourfold. Educational materials will be subsidized or paid for to motivate the workers to develop themselves.

Whereas the company will endeavor to obtain the best talents to fill the permanent posts in the organization, it is intended where necessary, to continue with the policy of hiring out some specialized skills by way of consultants. Alternatively, those skills not required throughout the year will be left to consultants. These include legal counsels, systems and management consultants. To ensure efficient and scientific management, operational manuals will be prepared for the core functions of the company.

3.4. Organization and Management

The project will be managed by qualified professionals given the vast experience that the promoters have acquired over years in running and managing similar businesses. The Board of Directors formulates policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.

All the production line will be under the administrator under which the day to day leader/management of production line will be vested in the management team headed by a Administrator. The Administrator is to be assisted by qualified and experienced personnel.

Table 3.1. Proposed organization and manpower requirement for the plant is as follows:

S/NO.	CATEGORY	NOs	MONTHLY SALARY (US\$)	TOTAL ANNUAL SALARY (US\$)
CORPORATE OFFICE				
1	Project Manager	1	750	9,000
2	Administrator	1	600	7,200
	SUB TOTAL	2		16200
PRODUCTION DEPARTMENT				
3	Production manager	2	350	8,400
4	Operators	3	250	9,000
5	Helpers	3	200	7,200
6	Lab technician	1	300	3,600
7	Warehousing	2	200	4,800
8	Machine technician	2	250	6,000
	SUB TOTAL	13		39000
GRAND TOTAL		15		55200

4.0. FINANCIAL ANALYSIS

4.1. Project Cost & Financing Pattern

The proposed integrated project is estimated to cost a total of US\$ 1,674,000 this including, own equity of US\$ 502,200 as proceeds from capital contribution of the project, total loan debt of 1,171,800US\$ with 8% interest rate. The Current asset of US\$ 411,761 fixed assets 1,464,000US\$ and total liabilities of 2,701,361US\$. The project will be implemented within 5 years.

Equity	
Loan (70%)	1,171,800
equity (30%)	502,200
Total Equity	1,674,000

4.2. Production, Revenue and project viability

- ✚ The estimated revenue gain in selling gold and revenue gain in elution annually 1,415,400US\$ in the first year of production per 31.2KGS of Gold and provision of elution service excluding Value Added Tax.
- ✚ Net profit before tax is 825,600US\$, second year earning is 878,676US\$, which show the profit is increasing,
- ✚ Net profit after tax for the first years in production is 411,761US\$ and second year is increasing to 460,238US\$ for remaining year increasing positively,
- ✚ Gross sales contribution in the first year of production is 58% which increases tremendously in the second years up to 5 years,
- ✚ The expected sales increase annually is 5% while increase production cost is 3% which depends on inflation rate of the country, for the company,
- ✚ The discount rate has been assumed to be 8%,
- ✚ Total investment cost of the project is 1,674,000US\$ whereas the own equity is 30% and loan-able amount 1,171,800US\$
- ✚ The end balance of project in cash flow statement is positive and increases tremendous.
- ✚ The yearly loan payment schedule of project is 293,484.87US\$ for 5-years loan recovery schedule, the total interest for 5 years to bank is 295,624.57 (see loan payment schedule)
- ✚ Testing the project viability is positive whereas IRR is positive 14.63%, and payback period of project is within 4 years.
- ✚ Debt to capital ratios is 36% and increases over years,
- ✚ Equity to liabilities ratios increases from 64% to 72% final year of project payment plans

5.0. RISK ANALYSIS

5.1. Risk Analysis

Risk is the probability that an event or action will adversely affect the organization. Risk assessment is the identification and analysis of risks associated with the achievement of operations, financial reporting and compliance goals and objectives. Risk management is a central part of the Alnitak Resources Company Limited. The industry's management will determine the level of operations, financial and compliance risk they are willing to assume. Risk assessment is one of the Company's management responsibilities.

5.2. Macroeconomic risk analysis

Since early 1986, the government of Tanzania has launched a comprehensive economic policy and stabilization plan with the aim to enhance the amount of infrastructure construction and improve the lives of the poor. During this time the main economic indicators significantly improved. However, uneven development of various region in the country, lack of relevant infrastructure in transportation, telecommunications, networking, health facilities, electricity and water supplies have proven to be investment barriers. Overall, Tanzania has a weak economic foundation but the project can achieve a greater impact in attaining social and economic goals for the country.

5.3. Finance risk analysis

- a) **Supply Risk:** The risk in Primary production relates to supply of raw material, transportation and price fluctuations. There is no assurance of enough supply of raw materials in the local market instead mostly of raw materials are imported.
- b) **Processing Risks:** The technology, machines and equipment used in gold processing are in rudimentary stages all of which contribute to reducing production efficiency. Also, quality/food safety and standards consideration in the production environment is limited. In gold processing facilities operation know-how is very low as there are notarized labourers.
- c) **Sales/market risk:** Placing value added products on the consumer markets bears risk of demand fluctuations and rejections through retailers. Furthermore, distributors are not aware of the selling price mostly are controlled by world market.

5.4. Other potential external risk

- a) **Lack of Governance:** the governance mechanism in the value chain is underdeveloped, actors operate in an uncoordinated and unorganized fashion, and if rules exist, they are often ignored;

- b) Lack of market coordination:** No lead organization has a coordinating role in relation to markets, technology and information such that producers and processors have no incentives for improving neither their product nor the chain process to promote sustainable income earning opportunities;
- c) Unclear and conflicting roles regulatory authorities:** Regulatory Agencies are responsible for quality control as well as enforcing TBS, NEMC etc, are regulatory role in issuing licensing etc
- d) Industry associations:** Associations are weak at all levels of the chain;
- e) Operating procedures:** Standard procedures are inadequately enforced, or not enforced at all, because of relaxed production and trade regulations; and
- f) Integration:** there is little vertical integration of importers, mid chain actors and processors.

5.4. Mitigating potential risk

The development of a large and complex project such as Alnitak Resources Company Limited is necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage the project in a manner which is fairly and adequately address the multiple risks in a comprehensive as well as systematic manner is to use the risk analysis and management methodology which identifies the risk issues and their instrumental cause. In this regard, the risk is eliminated or effectively managed by the party best suited with capacity to handle or deal with the risk factors.

6.0. ECONOMIC AND SOCIAL ASPECTS

The project is also likely to have a positive impact on the economy of Lake Zone regions and Tanzania as a whole by creating employment, and contributing to Government revenues through various taxes, which will be paid. It also has potential for substantial exporting to foreign markets specially to neighboring countries in the Great Lakes Region. In summary the following table will show impact investment index framework.

6.1. Impact Investment Index Framework

Impact Investment Index		
Frame Work for Alnitak Resources Company Limited		
Performance Area	Quantitative Indicator	Remarks
Investment Capital	Total investment capital, CAPEX and OPEX US\$ 1,674,000US\$	Substantial amount of capital invested into the domestic economy.
Export Earnings	Indicative Annual sales of 20% earnings of 283,080US\$ out of annual average collection of 1,415,400US\$ for the project will be exported.	Increased foreign earnings.
Job requirements	Job creation after plant in operation 2020-2021. DIRECT TANZANIAN JOBS 15 locals employed	<ul style="list-style-type: none"> • Reasonable number of direct job created to local Tanzanians with direct impact on poverty reduction through enhanced income generation; and • Improving skills development for Industrial production
Technology applied	High Tech Environmentally friendly machinery	<ul style="list-style-type: none"> • Enhancing technological transfer; and • Applied technology which is free from environmental pollution,

Other Implied Project Benefits

- Increased sales to the Utility Companies providing services of electricity, water and sewerage, telecommunications;
- Increased business transacted by local banks and institutions providing financial services;
- Business opportunities for local entrepreneurs in market distribution channels,
- Business opportunities to contractors and sub-contractors during the minor construction phase;
- Increased regional intra-trade and international trade due to better infrastructure facility and links to markets;
- Increase of technology transfer & expertise to local employed staff,
- Capital spends in local economy over 1.674US\$ Millions and
- Contribution to GDP growth through increased economic activities

Based on the Impact Investment Index analysis, the company can develop projections that the project can deliver both value for money in the context of broad socioeconomic impact and return on investment while complying with governance requirements. In this regard therefore, Alnitak Resources Company Limited will promote the industrialization process in the country, create employment, attract new technologies, expand foreign exchange earnings and ultimately contribute substantially to the country's economic growth.

7.0. FINANCIAL MODELLING AND ANALYSIS

The Financial Modelling and analysis, is the main source of information for assessing the potential financial viability of the Alnitak Resources Company Limited. The analysis is based on the assumptions that have been taken for the implementation of the site development, demand and the associated potential investment requirements for a 5-year time period. The purpose of establishing this gold processing plant is to speed up the country's economic development by being a catalyst for restructuring the existing local industrial set up and attracting new, both foreign and domestic entrepreneurs to a liberalized legal business framework.

7.1. Project expected sales inputs

EXPECTED SALES OUT PUT	INPUTS
Working days per month	25
Annual working days	300
Monthly gold production	2.6KGS
Annual production of gold	31.20KGS
selling price per MT equivalent to 42USD per Gram	42,000USD
Annual sales of Gold	1,310,400USD
Annual sales/income of Elution services Monthly sales 8,696@12 Months	105,000USD
TOTAL SALE REVENUE	1,415,400USD

7.2. Objective and Scope of Financial Model

7.2.1. Objective

The main objective of the financial modelling and analysis is to setup a financial model framework for potential generated revenues and operational & maintenance costs for the full operation of Alnitak Resources Company Limited based on the assumptions taken for the Market Analysis, the plan for the facility development, unit production costs and other overhead and operational charges.

7.2.2. Scope

The scope consists of a financial model that will be used to analyse the potential financial viability of the project based on the assumptions taken for the concept and scope of the gold processing factory on the Market Analysis. The financial model has been developed in excel spread sheet and include information on costs, expenses and the subsequent sales revenue based on the average market prices and linked to the financial cash flow.

Income Statement Projections for 5 years

(all numbers in US\$)

<u>Revenue</u>							
	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>TOTAL</u>
Revenue Generated from Gold production and Processing							
Annual sales of Gold 31.2Kg at price of 42US\$ per gram	1,310,400	1,375,920	1,444,716	1,516,952	1,516,952		7,164,940
Annual sale/income from Elution services	105,000	110,250	115,763	121,551	121,551		574,114
Total Operating Revenue	-	1,415,400	1,486,170	1,560,479	1,638,502	1,638,502	7,739,053
<u>Expenses</u>							
	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Salaries		52,000	53,560	55,167	56,822	56,822	274,370
Social Charges & Pension Payments		10,400	10,712	11,033	11,364	11,364	54,874
Raw Materials Extract/Purchase		260,000	267,800	275,834	284,109	284,109	1,371,852
Chemicals processing gold		62,000	63,860	65,776	67,749	67,749	327,134
Fuel and Lubricants		52,000	53,560	55,167	56,822	56,822	274,370
Security system and services		6,000	6,180	6,489	6,813	6,813	32,296
Administrative expenses		21,000	21,630	22,279	22,947	22,947	110,803
Insurance/licensing/healthy/other charges		10,400	10,712	11,033	11,364	11,364	54,874
Utilities (Electricity and water supply)		106,000	109,180	112,455	115,829	115,829	559,294
Other Costs		10,000	10,300	10,609	10,927	10,927	52,764

Total Operating Costs		589,800	607,494	625,842	644,747	644,747	
Operational Net Earnings before Depreciation, Interest & Tax		825,600	878,676	934,636	993,755	993,755	3,112,631
<i>%age Gross Contribution</i>		<i>58</i>	<i>59</i>	<i>60</i>	<i>61</i>	<i>61</i>	<i>1</i>
Depreciation at 5 -12.5 % (mostly civil works)		72,240	76,884	81,781	86,954	86,954	416,378
Net Earnings before Tax & Interest		753,360	801,792	852,855	906,801	906,801	4,210,044
Interest Paid (Bank Loan)		93,744	77,765	60,507	41,869	21,740	295,624
Tax (30%)		247,855	263,790	280,589	298,338	298,338	1,388,910
Net Earnings		411,761	460,238	511,759	566,595	586,724	2,537,076

Cash Flow statement from Investing Activities for 5 years

(all numbers in US\$)

Year 1

Year 2

Year 3

Year 4

Year 5

CASH FLOW FROM OPERATING ACTIVITIES

Cash receipts from Sales		1,415,400	1,486,170	1,560,479	1,638,502	1,638,502
Cash paid to suppliers and employees		(589,800)	(607,494)	(625,842)	(644,747)	(644,747)
Cash generated from operations		825,600	878,676	934,636	993,755	993,755
Dividends received*		0	0	0	0	0
Interest received		0	0	0	0	0
Interest paid		(93,744)	(77,765)	(60,507)	(41,869)	(21,740)
Tax paid		(247,855)	(263,790)	(280,589)	(298,338)	(298,338)
Net cash flow from operating activities		484,001	537,122	593,540	653,548	673,678
<u>CASH FLOW FROM INVESTING ACTIVITIES</u>						
Replacement of equipment		0	0	0	0	0
Proceeds** from sale of equipment		0	0	0	0	0
Net cash flow from investing activities		0	0	0	0	0
<u>CASH FLOW FROM FINANCING ACTIVITIES</u>						
Proceeds from capital contributed		1,171,800	0	0	0	0
Proceeds from loan		1,171,800	0	0	0	0
Payment of loan		(199,741)	(215,720)	(232,978)	(251,616)	(271,745)
Net cash flow from financing activities		2,143,859	(215,720)	(232,978)	(251,616)	(271,745)
<u>NET INCREASE/ DECREASE IN CASH</u>		2,627,860	321,402	360,562	401,932	401,932
Cash at the beginning of the period		411,761	460,238	511,759	566,595	586,724
Cash at the end of the period		3,039,620	781,639	872,321	968,527	988,657

Pro forma balance sheet for 5 years					
(all numbers in US\$)	Year 1	Year 2	Year 3	Year 4	Year 5
ASSET					
Current asset	411,761	460,238	511,759	566,595	586,724
Fixed asset	1,464,000	1,493,280	1,523,146	1,553,609	1,584,681
Liquidity	825,600	878,676	934,636	993,755	993,755
TOTAL ASSET	2,701,361	2,832,194	2,969,541	3,113,958	3,165,160
NET ASSET MINUS DEPRECIATION	2,629,121	2,755,309	2,887,760	3,027,005	3,078,206
EQUITY & LIABILITIES					
Equity	1,674,000	1,718,194	1,870,494	2,036,295	2,216,792
Reserves					
Total Own Equity	1,674,000	1,718,194	1,870,494	2,036,295	2,216,792
Provisions	341,540	402,957	361,411	311,934	182,638
Long term loan	293,485	293,485	293,485	293,485	293,485
Short term Liabilities	320,095	340,674	362,370	385,291	385,291
Total Equity & Liabilities	2,629,121	2,755,309	2,887,760	3,027,005	3,078,206
NET FA/CL	4.99	5.09	5.19	5.29	5.40
CL/CA	0.78	0.74	0.71	0.68	0.66
DEBIT/CAPITAL RATIOS	0.36	0.38	0.35	0.33	0.28
ROI	24.6	26.8	27.4	27.8	26.5
BREAK EVEN POINT	1.77	1.70	1.63	1.56	1.59
BREAK EVEN RATIO	1.46	1.41	1.37	1.33	1.33
EQUITY/TOTAL LIABILITIES	64	62	65	67	72

Loan Data		Loan Summary	
Original Principal	1,171,800.00	Scheduled Payments	293,484.87
Loan Term (Years)	5.00	Scheduled number of payments	10.00
Annual Interest Rate	0.08	Actual number of payments	5.00
Payments per Year	1.00	Total Early Payment	-
Payment	293,484.87	Total Interest	1,470,885.00

Year	Payment	Interest	Cumulative Interest	Principal	Balance
-					1,171,800.00
1.00	293,484.87	93,744.00	93,744.00	199,740.87	972,059.13
2.00	293,484.87	77,764.73	171,508.73	215,720.14	756,338.98
3.00	293,484.87	60,507.12	232,015.85	232,977.75	523,361.23
4.00	293,484.87	41,868.90	273,884.75	251,615.98	271,745.25
5.00	293,484.87	21,739.62	295,624.37	271,745.25	0.00
	Total interest	295,624.57			

TESTING PROJECT VIABILITY: IRR

IRR for the Project		
(all numbers in US\$)		
	Initial Investment	-1,674,000
Year 1	Additional Annual Net Profit	411,761
Year 2	Additional Annual Net Profit	460,238
Year 3	Additional Annual Net Profit	511,759
Year 4	Additional Annual Net Profit	566,595
Year 5	Additional Annual Net Profit	586,724
	IRR (in 10 years)	14.63%

The IRR above indicates that the expected return on the \$ 1,674,000 initial investment after 5 years is 14.63%.

Payback Period Analysis

	Year	Beginning Balance	Net Cash Flows	Ending Balance
Cost of investment	0.00	1,674,000.00	0.00	1,674,000.00
	1.00	1,674,000.00	411,760.56	1,262,239.44
	2.00	1,262,239.44	460,237.60	802,001.84
	3.00	802,001.84	511,758.87	290,242.97
	4.00	290,242.97	566,594.84	276,351.87
	5.00	276,351.87	586,724.12	863,075.98

Payback Period =	4.00	Years
-------------------------	-------------	--------------

8.0. CONCLUDING REMARKS AND WAY FORWARD

8.1. Evidence of project viability based on financial model and policy framework support

On the basis of all the analysis done on this Business Plan on all aspects of assessment on both SWOC Analysis, market analysis, risk analysis and the financial analysis, the proposed investment options in the gold processing plant as prescribed on this business plan have shown that the project is commercially viable. Nonetheless, Alnitak Resources Company Limited through professional consultative manner, will continue to find ways of implementing cost effective options given time and financial resources that will be made available. Financial analysis results show that when the construction of plant facility is financed using a combination of equity debt ratio (30:70), it gives an IRR of about 14.63%. The computed IRR is well above Dollar market of the annual loan interest rate of (8.00%) which is technically interpreted that the project is financially viable. The payback period for the project is estimated at 4 years, which is within the range for this type of investment. Sensitivity analysis results also favor the project. Financial analysis for the project has shown feasible returns. Based on the investment scope and the assumptions taken in this Business Plan, the project will not face any difficulties during establishment, according to the projected cash flow be in a position to accomplish repayment of the loan and start generating profit.

8.2. Policy Framework Support

The development of the Alnitak Resources Company Limited is designed to tape advantages of the current Tanzanian market-oriented reforms. The Project will be developed and established to accelerate the industrialization process. The vision 2025 emphasizes the importance of the allocation of public funds for strategic investments and private sector financing for development investments.

The 15 years Perspective Plan (2010-2015); Prioritize private investment in the context of Public Private Partnership. The First Five Years Development Plan (2011-2016) recognizes the fundamental role of the private sector in enabling the

government to allocate its fund to strategic projects to facilitate a higher level of development. MKUKUTA II (2010-2015) identifies Public Private Partnership as a means of increasing the level of stakeholder participation and of easing the financial burden on the government. It should be noted that existing public resources are clearly insufficient to meet Tanzanian's huge development needs. The increased use of private enterprises participation in development projects can help alleviate the financing gap. This approach is now applied by Alnitak Resources Company Limited to ensure development of one among the ultra-modern plant in Geita Region. Private sector and investment have been recognized as the most significant potential source of additional funding required to facilitate development projects.

8.3. Conclusive Remarks and Way Forward

The development of this gold processing plant will be funded by private finances. The company acting through its various shareholders and structures will provide the initial risk capital amounting to 1,674,000US\$ and the amount of \$ 1,171,800 will be raised through borrowing from investment banks either within or outside the country. The company will fund the development of the project minor rehabilitations of factory building, business offices, bulk storage facilities and purchasing machines as stated on this business plan. Before the Company engages into the development of this project as a private enterprise, it needs to accomplish the pre development activities to make way for the development of the designated project. The company has to accomplish the following;

a) Apply for TIC certificate

The company by using this Business Plan and other required supporting documents should apply for the TIC Certificate at Tanzania investment centre or Mwanza Zonal Office. With this certificate, the company will be able to access tax reliefs which to a large extent will help to in reducing project costs, particularly in the purchasing of machineries and minor building of area of proposed industrial area.

b) Conduct Environmental Impact Assessment.

The company has to engage a consultant to conduct EIA in order to ensure that environmental and possibly other sustainability aspects are considered effectively in policy, plan and project development. The EIA Directive aims at introducing systematic assessment of the environmental effects of strategic land use related plans and programs. It typically applies to regional and local, development, waste and transport plans, within the country. EIA ensures that plans and programs take into consideration the environmental effects they cause.

c) Minor rehabilitation to suit Industrial requirement

The company should engage a firm to make minor rehabilitation of existing structure that will suit gold processing manufacturing requirements. The structure should include all vital service facilities described in this business plan. When possible, the process of design of the facility should be consultative insomuch that it should allow and incorporate ideas from experienced professionals from the industry.

d) Mobilizing Funds

As previously discussed on the Financial Analysis of this business plan, financing mechanism for plant should be scrutinized well before commencing the project implementation. There may be several options of financing the project development but the company will find the best option. The investment team should do consultation with relevant financial institutions (Banks and non-bank Financial Institutions), both within and outside the country. This exercise should be more effective if the team works closely with central government agencies, particularly TIC and the Ministry of Industry & Trade and Ministry of Investment.