

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO.LIMITED

BUSINESS PLAN FOR ESTABLISHMENT OF MINERALS TEST
LABARATORY PROJECT

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED

P. O. Box 16351, DARES SALAAM

1.0 INTRODUCTION

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED is a company incorporated in Tanzania with certificate No. 175871675 dated January 28th June, 2024 as private limited company under the Tanzanian Companies Act, 2002. JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED is engaged in the business in professional mineral product testing laboratory in Tanzania, which will focus on testing services for mineral resources such as copper, lead, zinc, nickel, silver, gold, and lithium etc, JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED is planning to provide minerals test laboratory within the country East Africa and SADC region.

Currently, there are the following challenges in the testing of mineral products in Tanzania:

- Insufficient testing capabilities: Most minerals are exported in their original form, lacking local deep processing and precise testing capabilities
- Exports rely on external certification: International traders need to send samples to foreign laboratories for testing, which is time-consuming and costly
- Weak quality control: Small mining companies lack professional testing equipment and technology, making it difficult to ensure product quality consistency

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That is why board of directors came up with the mineral laboratory test fill up the gap, the proposed project will have the following capacity

- It can serve about 50 customers in the first year and complete 1,000-1,500 test reports,
- The number of customers is expected to increase to 100 in the third year, and the number of test reports will reach 3,000

Become the leading mineral product testing laboratory in East Africa within five years

1.1 OUR MISSION

To become a leading integrated minerals test laboratory in East Africa providing business enabling solutions and exceeding customer expectations.

1.2 OUR VISION

To deliver customized and unique minerals test laboratory services ensuring time and cost savings for customers in a responsible and sustainable manner.

1.3 OUR VALUES

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At JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED, we believe the customer comes first; we are focused to ensure customer delight, superior quality of delivery and increased customer profitability.

At JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED, at our operations all over the country, we practice an enduring value system based on an open culture, honest and fair business and personal conduct, earning the confidence and trust of our Associates and Customers.

At JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED, we practice transparency with all agencies that we are involved with.

At JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED, we value the importance of our colleagues, evolving a sense of togetherness and passion to deliver. OWNERSHIP AND OPERATIONS

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1.4 COMPANY OWNERSHIP

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED is promoted by two shareholders who are very experienced in minerals business.

Name of shareholders	% of shares	Nationality
GUANGXI JIAHE SUPPLY CHAIN MANAGEMENT CO. LTD	1	China
HUNAN JIAHE SUPPLY CHAIN CO. LTD	99	China

1.6 PROJECT LOCATION

Project location of transportation is located at **Plot No.3520 Block U, Sabasaba Street. Kilwa Road, Mbagala, Temeke District Dar es Salaam region, Tanzania**

1.7 ORGANISATION FLOW CHART

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED management is headed by Managing Director. Core management team comprises of 1 General Manager, 1 HR and Admin Manager, 1 Logistics Manager, 1 Chief Accountant and 2 Junior accounting clerks. Operational team headed by

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3 operational managers and includes drivers and cleaners. Total of **15** Employees to be employed on full scale operation

2.0 TANZANIA'S MINING INDUSTRY OVER VIEW

The minerals found in Tanzania include metallic minerals, industrial minerals, and energy minerals. Minerals export accounted for USD 2.3 billion of the total value of Tanzania's export in 2019 (i.e. 45%). The metallic minerals found in Tanzania include gold, iron, silver, copper, platinum, nickel, and tin.

2.1 GOLD

Gold reserves in Tanzania are estimated at about 45 million ounces. Gold exploration has been centered mostly on the greenstone belts around Lake Victoria, where several large deposits have already been discovered and are being developed.

Gold production in Tanzania stood at 39 tonnes in 2018, compared to 43 tonnes in 2017 (-10%) and 40 tonnes in 2014 (-3%).

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Tanzania's gold production increased by more than 700% over the past 25 years, from 5 to 40-50 tonnes per year, while South Africa's production of gold decreased from over 500 tonnes in 1990 to 117 tonnes in 2018.

Gold exports account for more than 90% of Tanzania's total mineral exports with USD 1.5 billion in 2018, compared to USD 943 million in 2014, an increase of 59%.

2.2 IRON ORE

Iron reserves in Tanzania are located mainly in Liganga, Uluguru Mountains, Mbabala near Lake Tanganyika, Karema, Manyoro Gondite, and Itewe.

The Liganga iron ore mine holds the biggest iron resources in Tanzania with proven reserves of 126 million tonnes.

2.3 NICKEL

Mineral exploration of nickel in Tanzania takes place at the Kabanga Nickel Sulfide Deposit and the Kapalagulu intrusion.

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Kabanga deposit is acknowledged to be one of the largest and richest undeveloped nickel sulfide deposits known at present, of unmatched scale and grade.

The Kapalagulu intrusion present nickel mineralization of both laterite (nickel associated with cobalt) and sulfide (nickel associated with copper and platinum-group elements)-the two main types of nickel deposit currently exploited at a global scale.

2.4 INDUSTRIAL MINERALS

Industrial minerals found in Tanzania include gemstones, soda ash, gypsum, salt, phosphate, gravel, sand, dimension stones, and lately graphite.

2.5 GEMSTONES

Tanzania produces a variety of gemstones including diamonds, tanzanite, amethyst, aquamarine, garnet, ruby, sapphire, tanzanite and tourmaline.

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Diamonds in Tanzania are found mainly in the Williamson diamond mine, which is located south of the town Mwanza, while tanzanite is found at only one location in the world, the Mererani Hills of Manyara Region in Northern Tanzania.

2.6 GRAPHITE

Tanzania's largest graphite deposits are located in the central and east southern regions of the country. Bunyu graphite project, located in the Mtwara Region, is the largest graphite mineral resource in Tanzania. The project is owned by Volt Resources, an Australian graphite exploration company.

The project is planned to be developed in two phases. Volt submitted the mining license application for stages one and two of the development to the Ministry of Minerals in the first quarter of 2018.

Stage one development will enable Volt to establish infrastructure and market position for the development of stage two. The annual throughput of stage one will be 400,000 tonnes of ore and 23,700 tonnes per year of graphite over a seven-year mine life.

2.7 ENERGY MINERALS

Energy Minerals found in Tanzania include coal and uranium.

2.8 COAL

Coal reserves in Tanzania are estimated at 1.9 billion tonnes, 25% of which are proven.

Coalfields with the highest potential are Ketawaka-Mchuchuma in the Ruhuhu Basin, Ngaka fields in the South-West of Tanzania, and Songwe Kiwira fields.

Coal is currently exploited on small scale at Kiwira Coal Mine in Mbeya Region and Tancoal Energy Limited Mine at Ngaka in Ruvuma Region.

Coal production in Tanzania increased by 155% over the past five years, from 246 tonnes in 2014 to 628 tonnes in 2018.

2.9 URANIUM

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Tanzania has found huge deposits of uranium mainly in Namtumbo (Mkuju), Bahi, Galapo, Minjingu, Mbulu, Simanjiro, Lake Natron, Manyoni, Songea, Tunduru, Madaba, and Nachingwea.

One of the major uranium development projects is the Mkuju River Project with estimated reserves of 182.1 million tonnes.

Tanzania's total mineral resources rank fifth in Africa, mainly gold, diamonds, iron, nickel, uranium, phosphates, coal and various gemstones. In recent years, the Tanzanian government has vigorously promoted mining reforms, optimized tax policies, strengthened market control, cracked down on mineral smuggling, and standardized market order. The government also actively promotes the extension of the mineral cooperation supply chain and promotes the development of mineral mining and smelting industries to create more added value and employment opportunities.

3.0 PRODUCTS AND SERVICES

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED offers specialized mineral laboratory testing, analytic kits, it also provides consultancy in mineral related issues and minerals

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research support services. This ensures accurate and comprehensive diagnostic solutions for mining and related industries. Although the range of services is extensive, some clients may require additional support because of unique needs. But, with a commitment to excellence, the company remains dedicated to meeting these challenges.

3.1 LABORATORY CONSTRUCTION PLAN

The proposed laboratory will provide the following core testing services:

- Elemental composition analysis: Use X-ray fluorescence spectrometer (XRF), atomic absorption spectrometer (AAS) and other equipment to accurately determine the content of copper, lead, zinc, nickel, silver, gold, lithium and other elements
- Physical property testing: including ore particle size analysis, density measurement, hardness test, etc.
- Quality certification service: provide test reports that meet international standards and assist customers in obtaining export-required documents such as COC (certificate of conformity)
- Customized testing solutions: provide targeted testing services according to different customer needs

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3.2 THE LABORATORY WILL BE EQUIPPED WITH THE FOLLOWING KEY EQUIPMENT:

- X-ray fluorescence spectrometer (XRF): used for rapid and non-destructive elemental composition analysis, referring to the Hitachi X-MET8000 Geo Expert spectrometer adopted by the Tanzanian Mining Commission
- Atomic absorption spectrometer (AAS): provides higher precision element content determination
- Inductively coupled plasma mass spectrometer (ICP-MS): used for traced

3.3 IMPLEMENTATION SUGGESTIONS

- Phased construction: first establish basic testing capabilities, then gradually expand the service scope
- Focus on qualification acquisition: obtain ISO 17025 and other international certifications as soon as possible to improve market recognition
- Strengthen international cooperation: establish cooperative relations with internationally renowned testing institutions to ensure technological advancement

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- Localization of talents: train local technicians, reduce operating costs, and promote technology transfer
- Differentiated services: design differentiated service solutions for different customer groups (large mining companies, traders, small miners)

The successful implementation of this project will fill the gap in professional testing services for Tanzania's mineral products, provide reliable and efficient testing services for international traders, and at the same time promote the upgrading of Tanzania's mining value chain, thus achieving a win-win situation for investors, the local economy and international traders.

4.0 MARKET OPPORTUNITY

Copenhagen Diagnostics, which targets mining sector, and research institutions, is going to be one of the best mining laboratory test in East Africa. The Copenhagen laboratory services market is valued at USD 300 million, growing at 6% annually. Key trends exist: precision medicine advancements, personalized diagnostics and AI integration in healthcare testing processes. However,

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this growth presents challenges, because stakeholders must adapt to evolving technologies. Although the potential is significant, the competition is fierce.

4.1 TARGET CUSTOMER GROUPS

- International mineral traders: need reliable third-party test reports as a basis for transactions
- Local mining companies: including large mining companies and small artisanal miners
- Government regulatory agencies: such as the Tanzanian Mining Commission, which need technical support for market supervision
- Financial institutions: need professional evaluation reports before providing financing for mining projects

5.0 PROJECT ESTIMATED REVENUE

Testing service fee: calculated at an average of US\$500-800 per report and the average of 1600 to produced per year

5.1 PROJECT OPERATING COST

The company has estimated that the project operating cost and other cost to be 20% of the total annual revenue

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5.2 PROJECT FINANCING

The company has estimated that the project will be financed by equity 100%

5.3 PROJECT COST

The project has budgeted to cost the followings:

PARTICULAR	US\$
Land and Buildings	1,500,000
Machinery & Equipment	2,000,000
Motor Vehicles	100,000
Furniture & Fixtures	20,000
Pre exp	5,000
Others	150,000

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Working Capital	300,000
TOTAL	4,075,000

6.0 SWOT ANALYSIS

STRENGTHS

Strengths of the business are –

- Promoters have sound experience in this business and have talented Management.
- Rapid growth in sector due to effective management
- Influence & Networking of Directors in the Business Sector.
- Business location is at prominent place.
- Confirmed business via agreement entered with few companies.

WEAKNESSES

Weakness of the business are –

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- New entry in market
- Stiff competition from local market
- Limited market share growth

OPPORTUNITIES

Opportunities of the business are –

- Potential market encourages foreign investors
- Increasing market share due to increase of mining investment related activities
- Augmented demand for world –class mineral test laboratory services

THREATS

Threats of the business are –

- Complex Tax Structure
- Unorganised sector and competition
- Different laws in different countries

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7.0 COMPETITIVE ADVANTAGES

- Localized services: Compared with sending samples to Europe or South Africa for testing, local laboratories can significantly shorten the testing cycle (from weeks to days)
- Cost advantage: saving international transportation and tariff costs, the testing fee can be 30-50% lower than that of international laboratories
- Professional qualifications: Plan to obtain ISO 17025 and other international certifications to ensure global recognition of test results
- Policy support: In line with the Tanzanian government's strategic direction of increasing the added value of minerals

8.0 FINANCIAL ASPECTS FOR THE PROJECT

(i) Projected Profit and Loss Statement

The attached Appendix I shows the projected income for the 8years period. The position depicted is that the project earns profit throughout its life. Accumulated after tax profits grow from. **US\$ 718,200** in the 1st year to **US\$ 4,432,644 in** the 5th year.

(ii) Projected Cash Flows

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The project's cash flows are shown in Appendix II. They depict a good liquid position right from the first year. Cash accumulation builds up from **US\$ 780,200 in** the first year to **US\$ 4,742,644** at the end of 5th years of the project's operations.

(iii) **Projected Balance Sheet**

The owners' equity is shown in Appendix III. Owners' equity grows from **US\$ 4,075,000 in** the first year to **US\$ 8,507,644 at** the end of 8th years of the project's operations based

(iv) **Payback Period**

Total investment is **US\$4,075,000** cash accumulation in 5th year **US\$ 4,742,644** which is more than the initial investment, the project payback Period is exactly 5 years.

9.0 **ECONOMIC ASPECTS OF THE PROJECTS**

Besides the financial/monetary returns to the owners, there are other benefits to be derived for the whole country viz.

- **Employment Opportunities**

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Employment and poverty reduction are among the major concern of the Central and the Local Government authorities. It is gratifying to note that the company, is going to provide additional employment to 15 people. This is a significant contribution coming from local investors.

- **Revenue to the Government**

The Project is expected to pay a substantial annual amount in the form of corporation tax and other taxes

- **Foreign Exchange Earning**

Since the project's clientele is mostly towards neighbouring countries the project will thus earn foreign currency for the United Republic of Tanzania. Out of all project expected cargo overhauling transactions will be settled in foreign currencies. In this study we have assumed that the project will be paid in foreign currency

- **Increase the added value of minerals**

Help Tanzania shift from resource exports to value enhancement, in line with the government's economic development strategy

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- **Promote the standardized development of the mining industry**

Reduce trade disputes through professional testing and enhance the international reputation of Tanzanian mineral products

- Technical support for small miners

provide professional services to artisanal and small-scale miners to improve their operating conditions

10.0 **CONCLUSION**

Conclusion on the feasibility of the project

Comprehensive analysis shows that it is highly feasible to establish a professional mineral product testing laboratory in Tanzania:

- i. Clear market demand: With the development of Tanzania's mining industry and the growth of international trade, the demand for professional testing services will continue to increase

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- ii. Favorable policy environment: The government is promoting mining upgrades and value-added enhancement, and professional testing laboratories are in line with this direction
- iii. Considerable economic benefits: The investment payback period is expected to be about 3-4 years, and the medium- and long-term profitability is good
- iv. The project is profitable and contributes to government revenue by way of taxes.
- v. The project provides employment to 15 people.
- vi. The project is an encouraging sign to prove that we have good business environments and we have investors who have confidence in their country. Tanzania so much so that they are ready to invest such large sums of investment despite the odds of the sector in question.

11.0 RECOMMENDATION

After the foregoing economic and financial evaluation of the project, we strongly recommend that this project be implement and be given all the support required by all the concerned Government Ministries and Agencies, including the Tanzania

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Revenue Authority, TRA and the Tanzania Investment Centre – (TIC). The project deserves this support because of its viability, since it is technical feasible, economically viable and socially acceptable.

APPENDIX I

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED PROJECTED PROFIT AND LOSS STATEMENT US\$

	1	2	3	4	5
Revenue (Food & drinks)	1,360,000	1,496,000	1,645,600	1,810,160	1,991,176
Operating Expenses:	272,000	299,200	329,120	362,032	398,235
Profit before Depreciation & Interest	1,088,000	1,196,800	1,316,480	1,448,128	1,592,941
Interest	-	-	-	-	-
Depreciation	62,000	62,000	62,000	62,000	62,000
Gross Profit	1,026,000	1,134,800	1,254,480	1,386,128	1,530,941
Tax (30%)	307,800	340,440	376,344	415,838	459,282
Profit After Tax	718,200	794,360	878,136	970,290	1,071,659
Accumulated Profit	718,200	1,512,560	2,390,696	3,360,986	4,432,644

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APPENDIX II

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED PROJECTED CASH FLOWS US\$

SOURCES:		1	2	3	4	5
Profit before interest and depreciation	-	1,088,000	1,196,800	1,316,480	1,448,128	1,592,941
Equity	4,075,000					
Total Sources	4,075,000	1,088,000	1,196,800	1,316,480	1,448,128	1,592,941
Applications:						
Capital expenditure	3,620,000	-	-	-	-	-
working Capital &Others	455,000					
Cash	-	780,200	856,360	940,136	1,032,290	1,133,659
Tax	-	307,800	340,440	376,344	415,838	459,282
Sub total	4,075,000	1,088,000	1,196,800	1,316,480	1,448,128	1,592,941
Total applications	4,075,000	1,088,000	1,196,800	1,316,480	1,448,128	1,592,941
Accumulated cash		780,200	1,636,560	2,576,696	3,608,986	4,742,644

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APPENDIX III

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED PROJECTED BALANCE SHEET US\$

Fixed Assets	-	1	2	3	4	5
Opening balance	-	3,620,000	3,558,000	3,496,000	3,434,000	3,372,000
Total Long-term Assets	-	3,620,000	3,558,000	3,496,000	3,434,000	3,372,000
Less depreciation	-	62,000	62,000	62,000	62,000	62,000
Closing balance	-	3,558,000	3,496,000	3,434,000	3,372,000	3,310,000
Working capital	455,000	455,000	455,000	455,000	455,000	455,000
Accumulated cash	-	780,200	1,636,560	2,576,696	3,608,986	4,742,644
Total assets	455,000	4,793,200	5,587,560	6,465,696	7,435,986	8,507,644
Financed by						
Equity	4,075,000	4,075,000	4,075,000	4,075,000	4,075,000	4,075,000
Accumulated profit	-	718,200	1,512,560	2,390,696	3,360,986	4,432,644
Total equity	4,075,000	4,793,200	5,587,560	6,465,696	7,435,986	8,507,644
Total debts	-	-	-	-	-	-
Total equity and debts	4,075,000	4,793,200	5,587,560	6,465,696	7,435,986	8,507,644

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APPENDIX IV

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED PROJECTED DEPRECIATION SCHEDULE US\$

NAME OF ASSETS	1	2	3	4	5
Land And Buildings	1,500,000	1,470,000	1,440,000	1,410,000	1,380,000
Machinery, Tools & Equipment	2,000,000	1,980,000	1,960,000	1,940,000	1,920,000
Motor Vehicles	100,000	90,000	80,000	70,000	60,000
Furniture & Fixtures	20,000	18,000	16,000	14,000	12,000
Total	3,620,000	3,558,000	3,496,000	3,434,000	3,372,000
DEPRECIATION	1	2	3	4	5
Land and buildings	30,000	30,000.00	30,000.00	30,000.00	30,000.00
Machinery tools & Equipment	20,000	20,000.00	20,000.00	20,000.00	20,000.00

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Motor Vehicles	10,000	10,000	10,000	10,000	10,000
Furniture & Fixtures	2,000	2,000.00	2,000.00	2,000.00	2,000.00
ANNUAL DEPRECIATION	62,000	62,000	62,000	62,000	62,000

APPENDIX V

JIAHE WAREHOUSE AND LOGISTICS TANZANIA CO. LIMITED PROJECTED INVESTMENT COST US\$

PARTICULAR	
Land and Buildings	1,500,000
Machinery & Equipment	2,000,000
Motor Vehicles	100,000
Furniture & Fixtures	20,000
Pre exp	5,000
Others	150,000

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Working Capital	300,000
TOTAL	4,075,000

