### MINING DEVELOPMENTS

September/October 2025 Issue

MAGAZINE









imagination at work







Tel: +27 14 596 6285 Fax: +27 14 596 6574

Cell. +258 82 501 0051 Tel: +258 239 21948



Tel. +27 87 353 4280 Fax. +27 11 453 2141

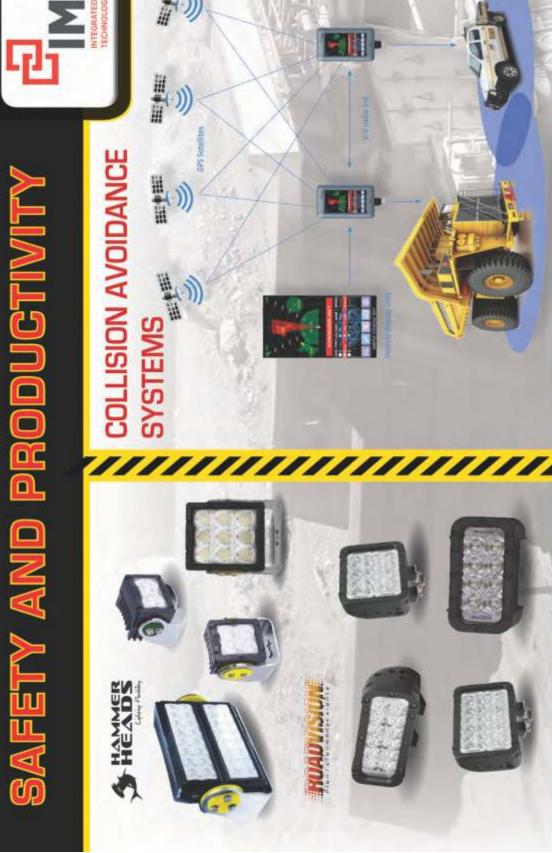
Tel: +27 13 692 4161

Fax +27 13 692 3337 WITBANK

Fax +27 86 570 1036 Tel: +27 13 697 0660

PROBE CAMS

seeingmachines



# The world's most complete range of mineral processing valves ...

Outstanding valve performance in abrasive, corrosive and scaling slurries.









32 Lincoln Road, Industrial Sites, Benoni South PO Box 5064, Benoni South 1502, Republic of South Africa. Tel: +27 11 748-0200, Fax: +27 11 421-2749 E-mail: dfc@dfc.co.za, www.dfc.co.za

## Shanta Gold Accelerates Development of West Kenya Gold Project in Kakamega and Kisumu Counties



Strategic investment positions Kenya as a new frontier for responsible, high-grade gold mining in Africa

Nairobi, Kenya – 14 August 2025 – Shanta Gold Limited ("Shanta" or "the Company"), the East Africa-focused gold producer, developer, and explorer, today announced significant progress in advancing its flagship West Kenya Gold Project toward development, marking a pivotal milestone for Kenya's emerging gold mining industry.

Located across Kakamega and Kisumu counties, the West Kenya Project is widely regarded as one of Africa's most promising undeveloped high-grade gold deposits, with resources exceeding 1.7 million ounces at an average grade of 4.8 grams per tonne (g/t)—placing it among the highest-grade projects globally in the development pipeline.

#### **Unlocking Kenya's Gold Potential**

Kenya's mining sector has historically focused on industrial minerals and small-scale artisanal gold operations. Shanta Gold's West Kenya Project is set to transform this narrative by introducing modern, mechanized, and environmentally responsible gold mining at scale.

Following the acquisition of the project in 2020, Shanta has completed extensive infill and step-out drilling campaigns—totaling over 100,000 meters—to confirm the continuity and grade of mineralization across its deposits, including the flagship Isulu and



Bushiangala zones. Eric Zurrin, CEO of Shanta Gold, commented:

"The West Kenya Project represents one of the highest-grade gold development opportunities in Africa. Our goal is to bring this asset into production responsibly, creating a long-term economic engine for Kenya while setting a new benchmark for environmental stewardship and community development in the country's mining industry."

#### **Recent Milestones**

Over the past 18 months, Shanta has achieved a series of milestones positioning the West Kenya Project for near-term construction: Completion of Feasibility-Level Studies – Detailed engineering, mine design, and process plant flow sheet finalization have been concluded, providing robust economic and technical parameters.

Updated Mineral Resource Estimate – The 2025 update confirmed 1.72 million ounces in indicated and inferred categories, with a high-grade core supporting low-cost, high-margin production potential.

Land Access Agreements – Collaborative engagements with local communities have enabled the securing of key project areas, ensuring equitable compensation and minimizing displacement impacts.

ESIA Progress – The Environmental and Social Impact Assessment (ESIA) process is in advanced stages, incorporating global best practices and in alignment with Kenya's environmental regulations.

Early Works Planning – Contracts for site access roads, initial camp construction, and water management infrastructure are being finalized to commence early works before full project sanctioning.

#### **Economic Impact**

Once in operation, the West Kenya Gold Project is projected to: Produce an average of 100,000 – 120,000 ounces of gold annually over its initial mine life

Generate direct employment for over 600 people, with thousands more indirect opportunities through local suppliers, contractors, and service providers.

Contribute significantly to Kenya's GDP through taxes, royalties, and export earnings, estimated at over US\$25 million annually in government revenue at prevailing gold prices.

Catalyze infrastructure improvements, including upgraded roads, power connections, and water systems benefiting surrounding communities.

The project's local procurement strategy prioritizes Kenyan businesses for goods and services, aiming for at least 60% local content by value during construction and operation.

#### **Commitment to Responsible Mining** Shanta Gold has emphasized that

environmental and social sustainability will remain central to the project's design and operation.

Environmental safeguards include:

- Dry-stack tailings storage to eliminate wet tailings dam risks.
- Renewable energy integration, targeting up to 30% of the mine's power from solar and hydropower sources.
- Comprehensive water recycling systems to minimize fresh water use.
- Social investment commitments cover:
- Skills development programs in partnership with local vocational training institutes.
- Support for healthcare, education, and clean water projects in host communities.

Gender inclusion initiatives aimed at ensuring women benefit equitably from mining-related employment and business opportunities.

#### Strengthening Kenya's Mining Policy Goals

The West Kenya Project aligns with the Kenyan government's Mining and Minerals Policy objectives, which prioritize value addition, job creation, and sustainable resource utilization. The project also supports Kenya's Vision 2030 blueprint for industrialization and economic diversification.

Speaking at the Nairobi press briefing, Cabinet Secretary for Mining, Blue Economy and Maritime Affairs, Hon. Salim Mvurya, said:

"Shanta Gold's commitment to develop the West Kenya Project in a responsible manner reflects the new era we envision for Kenya's mining sector—where investment,

MINIAU DETELOPMENTS



#### **GFG GWS**

GAS WARNING SYSTEM

- Ideal for use on underground drill rigs, electric locos, winches etc.
- Flame proof enclosure.
- Available with or without battery back-up.
- 3 digit LED display for gas concentration & adjustment parameters.
- Potential free contacts available.
- Available with flame proof audible & visual alarm.
- Up to 4 transmitters.



GfG(Pty)Ltd YOUR PARTNER IN GAS DETECTION

7 Voortrekker Road, Mindalore North, Krugersdorp | PO Box 6004, Westgate, 1734, South Africa Tel: +27 t1 955 4862 | Fax: +27 t1 955 4741 | E-mail: gfgsa@icon.co.za | Website: www.gfg.biz



sustainability, and community benefits go hand in hand. This project will not only unlock Kenya's gold potential but will also serve as a model for how mining can contribute to our long-term economic goals."

#### Path to Production

The project timeline anticipates: Late 2025 – Final ESIA approval, mining license conversion, and financing arrangements.

Early 2026 – Commencement of construction, including plant installation, underground development, and site infrastructure.

2027 – First gold pour and start of commercial production.

Financing discussions are ongoing with a mix of equity, debt, and potential strategic partners. Shanta Gold has signaled its

readiness to fund the initial development stages from its balance sheet while pursuing project-level financing to optimize capital allocation.

#### A Catalyst for Regional Development

The West Kenya Project's footprint spans multiple wards across Kakamega and Kisumu counties, offering a rare opportunity to create a regional economic cluster anchored by mining.

Key regional benefits include:

- Stimulating small and medium enterprises (SMEs) in transport, catering, engineering, and environmental services.

   Receting artisanal miner.
- Boosting artisanal miner formalization programs by introducing training and safe mining practices.
- Enhancing trade links with the Lake Victoria economic corridor, benefiting sectors beyond mining such as agriculture and tourism.

#### **Investor Confidence in Kenya's Mining Sector**

The progression of the West Kenya Project has attracted growing interest from institutional investors, mining analysts, and regional business leaders. Analysts note that the combination of high grade, favorable mining conditions, and stable jurisdictional outlook positions Kenya as a rising star in Africa's mining map.

#### About Shanta Gold Limited

Shanta Gold is an East Africa-focused gold producer, developer, and explorer with operations in Tanzania and exploration and development projects in Kenya. The Company is committed to responsible mining, operational excellence, and delivering value to all stakeholders. Shanta is listed on the London Stock Exchange's AIM market under the ticker SHG



#### WOOTA PUBLISHERS T/A MINING DEVELOPMENTS MAGAZINE

Kenya Office
Call Us: +254 758 235 164
P.O.BOX 178--20114 Kabazi, Nakuru Kenya info@miningdevelopmentsmagazine.com
www.miningdevelopmentsmagazine.com

Uganda Agent Hawk Eye Technologies Tel: +256 752 520 158 Plot no.6 Entebbe Road, Kampala, Central, 00256, Uganda Mon – Fri: 9:00 AM – 5:00 PM

South Aftrica's Office Mount Everest Publisher (pty) Ltd Tel: +27 78 692 0826 Fax: +27 86 601 9195 Mon – Fri: 9:00 AM – 5:00 PM

#### **Contributions**

The editors welcome news items, press releases, articles and photographs relating to the Mining Industry. These will be considered and, if accepted, published. No responsibility will be accepted should contributions be lost, damaged or incorrectly printed.

© All rights reserved





#### TOPCON

### WITH GREAT POWER **COMES GREAT VERSATILITY**



Topcon's new GLS-2000 is equipped with ultra high speed scanning that provides time saving benefits without compromising accuracy. With a scan range of over 350 meters, a full-dome 360° x 270° field-of-view, and a simple one-touch operation, the GLS-2000 is a rugged and versatile tool that enables you to capture accurate 3D data in all your challenging work environments, across all your applications. The GLS-2000 is an industry-leading scanner that no serious practitioner should be without.

topcon-positioning.eu

### Tata Chemicals Magadi Unveils Low-Carbon Expansion at Africa's Largest Natural Soda Ash Operation



World's first electric soda ash calciner and new 5 MW solar plant mark major step toward sustainable mineral processing in

Magadi, Kajiado County - 14 August 2025 -Tata Chemicals Magadi Limited (TCML), Africa's largest producer of natural soda ash. has today announced a landmark low-carbon expansion program at its Lake Magadi operations, highlighted by the commissioning of a 10-ton-per-hour electric calciner—the first of its kind in the global soda ash industry-and a new 5-megawatt (MW) solar photovoltaic plant.

These investments mark a significant stride toward the Tata Group's enterprise-wide netzero by 2045 ambition, while supporting Kenya's own drive for responsible and sustainable industrial growth.

"Today we're pairing century-old natural soda ash expertise with modern clean-energy technology," said S. Nagarajan, Managing Director, Tata Chemicals Magadi. "Electrification of calcination, backed by our new solar plant and Kenya's improving power mix, reduces the carbon footprint per tonne, improves operating stability, and sets a new benchmark for sustainable mineral processing on the continent."

#### **Industry First for Soda Ash Production**

The electric calciner replaces heavy-furnaceoil-based calcination with an electrified process powered in part by on-site renewable energy. It offers tighter temperature control,

greater operational flexibility, and reduced maintenance downtime—delivering both environmental and operational gains.

Complementing the calciner, TCML's 5 MW solar PV plant provides direct renewable electricity to the facility, reducing reliance on fossil fuels and further cutting Scope 1 emissions.

"This expansion underscores the Tata Group's commitment to invest in technology that is good for the planet and good for people," said Ramakrishnan Mukundan, Managing Director & CEO, Tata Chemicals Limited.

"Magadi is a jewel of East African industry; today's announcement signals our intent to keep it competitive, innovative, and inclusive for decades to come."

#### **Growth with Responsibility**

The low-carbon investments are part of a multi-vear program to increase production capacity toward approximately 600,000 tonnes per year within five years. This expansion will be carried out in phases to ensure uninterrupted supply to customers while maintaining high product quality standards.

Beyond climate benefits, the program is expected to generate new technical jobs, expand local supply chain opportunities, and strengthen Kenya's export earnings through increased soda ash shipments via the Port of Mombasa.

#### **Commitment to Environmental**

Lake Magadi's unique ecosystem is central to TCML's operations. The company continues to uphold strict environmental standards, including responsible brine management. biodiversity protection, and water efficiency measures. Electrifying the calcination process directly reduces combustion-related emissions and improves local air quality.

Safety remains paramount: the Magadi team has implemented rigorous pre-start-up safety reviews (PSSRs) for the new equipment and enhanced training programs for all employees and contractors.



## Industrial robotic Solutions

#### LAND • AIR • WATER



#### WHY ACCESSENTIAL?

- UTILISES STATE OF THE ART TECHNOLOGY
- ELIMINATES DANGER AND SAVES COSTS
- IMPORTS MACHINES FROM LEADING GLOBAL BRANDS
- CUSTOM, LOCALLY PRODUCED
   ROBOTIC EQUIPMENT AND
   SOFTWARE
- SERVICES MULTIPLE INDUSTRY SECTORS
- CUSTOM SOFTWARE DEVELOPED IN-HOUSE AND TAILORED TO CLIENT'S NEEDS, ENSURING JOB SPECIFIC DATA VISUALISATION AND REPORTING
- VIRTUAL REALITY SIMULATIONS ALSO AVAILABLE

dangerous spaces and, in doing so, offer our clients the ability to remove employees from dangerous situations – placing them in safe and remote locations whilst performing high-risk tasks. As the official African agents for Inuktun and Seamor Marine, we offer products from some of the leaders in the field of robotics. We also run our own in-house engineering department with qualified roboticists, developing tailor-made robotic solutions to suit any client's needs.

#### ACCESSENTIAL

CONFINED AND DANGEROUS SPACE SPECIALISTS

PLEASE CONTACT US TODAY FOR MORE INFORMATION

+27 [0]10 900 4073 www.accessential.co.za www.ryonicrobotics.com



#### Supporting Kenya's Green Industrial Agenda

TCML's expansion aligns with Kenya's national push for green industrialisation and clean energy adoption. By electrifying a core industrial process at scale, Magadi becomes a showcase for how African mining and processing industries can cut emissions without sacrificing growth or competitiveness.

**Fast Facts:** Tata Chemicals Magadi Low-Carbon Expansion

**First in the world:** 10 t/h electric soda ash calciner

**On-site renewables:** 5 MW solar PV plant **Capacity target:** ~600,000 tonnes per year within five years

**Global commitment:** Part of Tata Group's "Project Alingana" and net-zero 2045 strategy

#### About Tata Chemicals Magadi

Tata Chemicals Magadi Limited (TCML) is Africa's largest producer of natural soda ash, operating at Lake Magadi in Kenya's Rift Valley since 1911. The company mines natural trona and refines it into high-quality soda ash and crushed refined soda for global glass, detergent, and chemical industries. TCML is a subsidiary of Tata Chemicals Limited, part of the Tata Group.

#### **About Tata Chemicals Limited**

Tata Chemicals Limited is a global company with operations in India, North America, Europe, and Africa, serving customers across glass, detergents, and industrial sectors. The company is committed to sustainable business growth and achieving net-zero emissions by 2045.





## Kimwarer Fluorspar: Multibillion-Shilling Revival Set to Transform the Kerio Valley Economy



KSh 4.8 billion investment breathes new life into Kenya's flagship fluorspar operation, creating jobs, boosting exports, and empowering communities in Elgeyo-Marakwet County

#### Nairobi / Iten, Elgeyo-Marakwet – August

Kimwarer Fluorspar is proud to announce the official revival of its mining and processing operations in the Kerio Valley, following a KSh 4.8 billion investment package designed to restore production, modernize infrastructure, and deliver transformative community benefits.

This milestone—achieved through close collaboration with the Government of Kenya and the County Government of Elgeyo-Marakwet—marks the return of one of Kenya's most significant mineral projects to full operational status. The initiative will position Kenya as a competitive supplier of high-quality fluorspar for global markets while fostering inclusive socio-economic growth in the region.

"This is not just the revival of a mine—it is the revival of livelihoods, opportunity, and regional pride," said a Kimwarer Fluorspar spokesperson. "We are committed to ensuring the Kerio Valley community is the first to benefit from this renewed activity, and that operations meet the highest standards of safety, transparency, and environmental care."

#### Strategic Importance for Kenya's Mining

Fluorspar—used in steelmaking, aluminum production, refrigeration, and emerging clean-energy technologies—is a critical industrial mineral with growing demand globally. Kenya's Kimwarer deposit has historically supplied metallurgical and acid-grade fluorspar to customers across Europe, Asia, and Africa.

Following years of dormancy, the Government initiated a competitive process to identify a strategic partner capable of delivering a sustainable, responsible, and commercially viable restart. Kimwarer Fluorspar's revitalization now stands as a

flagship project in Kenya's broader miningsector resurgence, in line with the country's goal of increasing mining's contribution to GDP from less than 1% to 10% over the next decade.

### Key Deliverables of the Revival 1. Modernized Processing and Export Reliability

The investment will refurbish and upgrade the processing plant—improving flotation circuits, materials-handling systems, and concentrator performance. Logistics will be strengthened to ensure cost-efficient haulage from Kimwarer to the Port of Mombasa, enabling dependable export scheduling to international customers.

## 2. Job Creation and Skills Development Hundreds of direct and indirect jobs will be created across mining operations, plant maintenance, laboratory testing, transport, and site services. A structured apprenticeship and training program will offer young people from the Kerio Valley hands-on technical experience, with opportunities for upskilling in mining, geology, metallurgy, and

environmental management.

#### 3. Transparent Benefit Sharing

In line with Kenya's Mining Act, 2016, royalties will be shared between the National Government, County Government, and local community. Annual public reports will detail royalty disbursements and funded development projects to ensure accountability and trust.

#### 4. Local Enterprise Empowerment

The company will prioritize procurement from small and medium enterprises (SMEs) in Elgeyo-Marakwet, with emphasis on youth- and women-led businesses. Capacity-building support will help local suppliers meet industry safety and quality requirements.

#### 5. Responsible Mining and Environmental Stewardship

Best-practice environmental management plans will be implemented, including dust suppression, water conservation, progressive land rehabilitation, and biodiversity preservation. Quarterly Environmental, Social, and Governance (ESG) reports will be shared with stakeholders.

#### Community-Centered Approach

The revival places the community at the heart of decision-making. Continuous engagement with local leaders, elders, youth groups, and civil society ensures that development plans align with community needs.

#### **Compensation and Resettlement**

Kimwarer Fluorspar supports ongoing government-led processes to finalize compensation for households historically affected by mining operations. The company has pledged to participate constructively in transparent and verifiable grievance-resolution mechanisms.

#### Flagship Social Investment Programs (First 18 Months)

Education & Skills – Scholarships, bursaries, and technical training for students from host communities.

Healthcare – Support for local health facilities, mobile medical outreach, and occupational health services.

Sustainable Livelihoods – Climate-smart

agriculture, beekeeping, and horticulture cooperatives to diversify incomes.

#### Three-Phase Restart Plan

**Phase 1:** Compliance & Re-Commissioning (Months 0–6)

Engineering audits, environmental plan updates, plant equipment testing, recruitment of core teams, and procurement of critical spares. Road assessments and transport logistics will also be finalized.

Phase 2: Ramp-Up (Months 6–18)
Mining faces will be reopened in line with the new mine plan. Production will gradually scale up, metallurgical performance will be stabilized, and export contracts renewed with long-term customers.

**Phase 3:** Optimization & Value Addition (Months 18+)

Focus on operational efficiency, energy savings, water recycling, and potential incountry processing for higher-value fluorspar products.

#### Governance, Compliance, and Transparency

Kimwarer Fluorspar's operations will fully comply with Kenyan mining, labor, and environmental laws. The company is committed to:

Annual public disclosure of royalty payments.

#### Publishing an annual Sustainability Report.

Maintaining open community feedback channels via hotlines, suggestion boxes, and WhatsApp.

Holding biannual town-hall meetings in partnership with county leadership.

"Our goal is to be a model of responsible mining—competitive in the market, transparent in governance, and deeply rooted in community partnership," the spokesperson added.

#### Global Market Context

Fluorspar demand is growing due to its critical role in industrial processes and cleanenergy technologies. Kenya's return to the market will offer buyers a reliable, strategically located source at a time when supply diversification is increasingly important.

#### Safety and Environmental Care

Safety remains the top priority, with initiatives including:

Mandatory safety inductions and refra

Mandatory safety inductions and refresher training.

Visible leadership engagement on safety culture.

Behavior-based safety observations and reporting.

Partnership with county disaster-response teams for emergency preparedness.

#### **Environmental measures will include:**

Closed-loop water recycling systems. Progressive mine rehabilitation with indigenous vegetation. Dust and noise control measures.

Dust and noise control measures. Quarterly environmental monitoring with public reporting.

#### Working Together for Shared Prosperity

The revival is the result of strong partnerships between national and county governments, technical experts, community leaders, and development partners. All parties remain committed to ensuring that the Kerio Valley community benefits first and most from the project's success.

#### **About Kimwarer Fluorspar**

Kimwarer Fluorspar operates the fluorspar mine and processing plant in the Kerio Valley, producing metallurgical and acid-grade fluorspar for regional and international markets. The company is committed to responsible mining, transparent value sharing, and sustainable community partnerships.





## Kilimapesa Gold Reawakens: Caracal Gold Confirms Strategic Restart and Recapitalisation to Power Kenya's Next Gold Growth Phase

Narok County, Kenya - August 14, 2025 -Caracal Gold Plc ("Caracal" or the "Company"), the East Africa-focused gold producer and developer, today announces the formal restart of operations at the Kilimapesa Gold Mine in Narok County, alongside a comprehensive recapitalisation plan designed to deliver a disciplined ramp-up of production, expand exploration activity, and enhance long-term value for shareholders, employees, and the host community.

Located on the prolific Migori Greenstone Belt, Kilimapesa is Kenya's longest-operating commercial gold mine and remains a cornerstone of the country's formal gold sector. Holding a valid mining licence through 2036, the asset is underpinned by established processing infrastructure, a trained local workforce, and district-scale exploration

#### Funding Secured - Foundations for a **Strong Restart**

The restart programme is backed by targeted, well-structured financing milestones that strengthen Caracal's balance sheet and enable a safe, sustainable return to operations.

October 2024: Caracal secured US\$500,000 under a financing agreement, supplemented by a US\$100,000 CEO loan, directed toward critical site readiness and corporate activities.

July 2025: The Company closed a US\$1 million convertible loan facility, supported by existing financiers and regional investment partners. This facility provides working capital for ramp-up, process optimisation, and near-term exploration.

These funding steps, combined with prior investments in heap leach infrastructure. position Kilimapesa for efficient production growth. The combination of heap leach capability and the existing milling/CIL circuit gives Caracal processing flexibility, reduces bottlenecks, and supports a phased production

#### **Four Pillars Driving the Restart**

Caracal's restart plan rests on four strategic pillars, ensuring operational resilience and long-term growth:

- Operational Readiness & Safety
- Comprehensive maintenance,

- inspections, and staged recommissioning of mining and processing facilities.
- Enhanced safety protocols, workforce refresher training, and updated operating procedures to align with best-in-class mining standards.
- Processing Flexibility & Cost Efficiency
- Dual-path processing via heap leach and milling/CIL circuits to capture low-cost ounces while maintaining metallurgical flexibility.
- Smooth ramp-up curve supported by optimal ore blending and tailored mine
- Exploration & Resource Growth
- Targeted drilling campaigns to convert known mineralisation into mineable
- Step-out exploration along the Migori Belt to extend mine life and build a stronger reserve base.
- Governance, Transparency & Market
- Strengthened Board oversight, enhanced corporate reporting, and completion of outstanding audit requirements for
- Clear operational milestones to build investor confidence and demonstrate disciplined execution.

#### **Executive Leadership Perspectives**

Simon Grant-Rennick, Chairman, Caracal Gold Plc:

"Kilimapesa's restart marks a pivotal moment-not just for Caracal, but for Kenya's gold industry. We are delivering a focused, well-capitalised plan that balances responsible operations with the ambition to grow. Our strategy is deliberately measured, ensuring operational excellence and strong returns for all stakeholders."

#### Robbie McCrae, Chief Executive Officer:

"This mine is a rare asset in East Africa-established infrastructure, a capable Kenyan workforce, and strong exploration potential. The integration of heap leach and CIL processing means we can unlock low-cost ounces while scaling production in a controlled manner. With our financing secured, the ramp-up is firmly on track."

#### Jason Brewer, Executive Director:

"Our recapitalisation is about building a

resilient company. We are embedding transparency, enhancing governance, and prioritising long-term community partnerships. Every step we take is aligned with sustainable growth and operational discipline."

#### Community Partnerships and **Environmental Stewardship**

Caracal's approach to restarting Kilimapesa is anchored in shared prosperity with Narok County communities. Key initiatives include: Local Employment: Prioritising Kenyan nationals across the workforce, with a commitment to training and career development.

Local Procurement: Sourcing from regional suppliers wherever possible to stimulate the county's economy.

Community Engagement: Regular consultations with community leaders, county government, and local businesses to align project development with local priorities.

Environmental stewardship is non-negotiable. Kilimapesa operates under a robust Environmental and Social Management Plan (ESMP), incorporating: Tailings and heap leach management with

rigorous monitoring and OA/OC controls.

Progressive rehabilitation to restore mined

Water management systems to safeguard local

#### **Disciplined Ramp-Up Strategy**

The phased restart ensures cost control, production stability, and operational safety:

- Mine Planning: Integrating updated geological models and grade-control data for precision scheduling.
- Processing Stability: Gradual throughput increases matched to metallurgical performance.
- Cost Management: Stringent procurement strategies to maintain lean, reliable operations.
- Exploration Catalysts: Near-mine drilling to expand the resource base while production ramps.
- This cautious yet confident approach mitigates operational risk while preserving upside potential.



#### Supporting Kenya's Mining Ambition

Kilimapesa's revival contributes directly to Kenya's national objectives:

Growing formal gold production and refining

Strengthening fiscal revenues from mining. Developing local supply chains and technical

Caracal's presence in Narok County is not only about mining gold—it's about building a resilient, inclusive mining ecosystem that endures beyond the life of the mine.

#### Looking Ahead

With the restart underway and recapitalisation secured, Caracal is positioned to:

Achieve stable production through 2025 and scale output in 2026.

Extend mine life through aggressive exploration and resource conversion. Maintain a high standard of governance, transparency, and operational discipline. Deliver lasting value to shareholders. employees, and local communities.

#### About Kilimapesa Gold Mine

Kilimapesa, located on the Migori Greenstone Belt, is a fully licensed gold mining operation with established milling/CIL and heap leach facilities.

With a licence valid until 2036, the mine offers substantial exploration potential and remains a flagship project for Caracal Gold in East Africa.

#### **About Caracal Gold Plc**

Caracal Gold Plc (LSE: GCAT) is an East Africa-focused gold producer and developer. Anchored by the Kilimapesa Gold Mine in Kenya, the Company is executing a disciplined restart and recapitalisation strategy, committed to sustainable mining, community engagement, and shareholder value creation.

Redefining the Standard for Mine **Ventilation Efficiency & Availability** 



**TLT-Turbo Solutions** 

Noise abatement

▶ Optimized ventilation systems

► Extraction of toxic fumes and gases

System upgrades and retrofitting

► Energy efficiency analysis and improvement





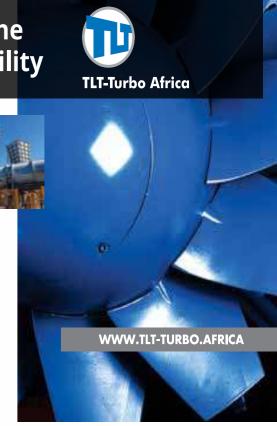






- ► Auxilliary & Booster Fans
- ► Modular Mining Fans
- ▶ Surface Fans
- Axial Fan systems ► Centrifugal Fan systems

▶ Underground solutions



# Mrima Hill Rare Earths & Niobium: New Consortium Circles a Strategic Critical Minerals Hub in Kwale County

Nairobi, Kenya — August 14, 2025 — A newly formed consortium of African and international investors today announced advanced plans to develop Mrima Hill in Kwale County into a modern critical minerals hub focused on rare earth elements (REEs) and niobium, positioning Kenya to play a pivotal role in global supply chains for clean energy, electric mobility, advanced manufacturing, and defense technologies.

The multi-stakeholder group—bringing together technical operators, Kenyan financial institutions, international offtakers in battery and magnet supply chains, and development partners—has entered into exclusive engagement to pursue a phased pathway from resource definition through to responsible mining, beneficiation, and downstream processing in Kenya. Subject to regulatory approvals and stakeholder consultations, the consortium aims to anchor a value-adding industrial ecosystem that could create local jobs, catalyze infrastructure, and generate export revenues while adhering to stringent environmental, social, and governance (ESG) standards.

"Critical minerals are the backbone of the energy transition and the digital economy. Mrima Hill's rare earths and niobium potential gives Kenya an opportunity to move beyond raw material extraction toward a diversified industrial base," said the Consortium Spokesperson. "Our proposal is not only to mine responsibly, but to build Kenyan capability in processing and advanced materials—keeping more value onshore, training Kenyan talent, and partnering with communities for the long term."

#### Transforming Mrima Hill into a Strategic

Located in coastal Kwale County, Mrima Hill has been historically recognized for significant occurrences of rare earth elements—including magnet materials such as neodymium and praseodymium—as well as niobium, an essential alloying metal that strengthens steel and underpins next-generation superconducting and high-temperature applications. The consortium's vision sets out a three-phase program:

- Resource Consolidation & Technical Studies
- Conduct confirmatory drilling, metallurgical testing, and environmental baseline studies aligned with Kenyan law and international best practice.

- Update geological models and publish transparent technical reports to inform investment decisions.
- Launch a participatory Environmental and Social Impact Assessment (ESIA) to map sensitive ecosystems and cultural heritage, and to incorporate community perspectives from the outset.

#### **Responsible Mining & Beneficiation**

Develop a modular mining plan with lowdisturbance methods, progressive rehabilitation, and stringent water and dust management.

Construct an on-site beneficiation plant to produce rare earth mineral concentrates and niobium concentrates, prioritizing energy efficiency and recycled water systems.

Implement a biodiversity action plan guided by independent experts, with monitoring disclosed publicly.

#### **Downstream Processing & Industrial Linkages**

Establish Kenyan-based facilities for mixed rare earth carbonate or oxide production, with a pathway to separated rare earth oxides used in permanent magnets.

Advance niobium processing to ferroniobium or other value-added forms for the steel and specialty alloys industries.

Develop supplier development programs for Kenyan SMEs in logistics, fabrication, environmental services, labs, and maintenance.

Community Partnership and Local Content at the Core

The consortium emphasized that community consent, benefit sharing, and transparency are non-negotiable pillars of the project's development. Early proposals include: A Community Development Framework codesigned with local leaders to prioritize education, healthcare, water and sanitation, and climate-resilient livelihoods. Local Employment & Skills Transfer: A "Hire Local, Train Local" program targeting youth and women for technical apprenticeships, metallurgy training, environmental monitoring, and plant operations. Supplier Inclusion: A targeted program to onboard local businesses into the supply chain—supported by capacity-building, access-to-finance linkages, and safety and

quality coaching.

Transparent Reporting: Regular disclosure of payments to government, environmental performance, and community investments, aligned with global transparency initiatives.

"Kwale is ready to lead in responsible critical minerals," said a representative of the Kwale County leadership. "We welcome a consortium that places our people, environment, and heritage first, while anchoring long-term skills and enterprise development. Our message is clear: value addition in Kenya, benefits to Kenyan communities."

ESG by Design: Nature, Water, and Climate Given Mrima Hill's ecological sensitivity, the consortium is embedding nature-positive planning from the earliest stage.

Commitments under consideration include: No-Go Zones and Setbacks: Identification and protection of high-value habitats, with strict buffer zones and avoidance of culturally significant sites.

Water Stewardship: Closed-loop water circuits, rainwater harvesting, and real-time monitoring to minimize drawdown and prevent contamination.

Air Quality & Dust Control: Best-available controls, continuous monitoring, and transparent publication of results.

Climate Alignment: Low-carbon electricity sourcing where feasible, options for renewable integration, and lifecycle greenhouse gas accounting with science-based tarrets.

Progressive Rehabilitation: Seed banks, native species replanting, and long-term ecological monitoring—beginning during operations, not after closure.

The consortium will appoint an independent ESG advisory panel comprising Kenyan and international experts in environment, social performance, and governance to review plans and publish periodic assessments.

#### **Building an East African Critical Minerals Value Chain**

Kenya's strategic location and deepening trade linkages provide a platform to build an East African value chain around rare earths and niobium. The consortium is exploring partnerships to:

Integrate with Regional Logistics: Leverage port, road, and rail connections to facilitate efficient movement of inputs and products. Enable Magnet & Alloy Manufacturing

Pathways: Work with technology partners to establish pilot lines for magnet precursor materials and niobium-bearing alloys.

Foster Research & Innovation: Collaborate with Kenyan universities and technical institutes on geology, metallurgy, environmental science, and advanced materials—funding scholarships, laboratories, and joint research.

Support Standards & Certification: Align with international responsible sourcing frameworks to ensure traceability from mine to magnet or alloy, meeting the due diligence needs of global customers.

"The world needs reliable, responsibly produced rare earths and niobium. Kenya can deliver that reliability with transparency and world-class standards," said an industry offtake partner within the consortium. "Our customers are eager for diversified supply chains that embed ESG performance, and our intention is to make Mrima Hill a flagship example."

Transparent Permitting, Consultation, and Compliance

The consortium reaffirmed that all activities will proceed subject to the laws of Kenya and with robust stakeholder engagement:
Regulatory Pathway: Any advancement is contingent upon approvals from the relevant national and county authorities, including environmental licencing following public participation.

Land & Community Engagement:

Engagement will be guided by Kenyan law and international principles on obtaining and maintaining a social licence to operate.

Occupational Health & Safety: The project will adopt rigorous safety standards, training, and a safety-first culture supported by real-time reporting and continuous improvement.

#### **Economic Impact and Inclusive Growth**

Preliminary assessments indicate the Mrima Hill development could:

Create hundreds of direct jobs during construction and operations, with a multiple of that in indirect and induced employment. Stimulate local enterprise through procurement of goods and services, from catering and transport to specialized engineering.

Generate fiscal revenues through taxes, royalties, and fees, providing resources for public services and infrastructure. Position Kenya as a credible producer of critical minerals, attracting complementary

Position Kenya as a credible producer of critical minerals, attracting complementary investments across manufacturing and technology.

A detailed socio-economic impact study will be conducted in parallel with the ESIA to refine these estimates and guide targeted interventions for inclusive growth.

#### Next Steps

Over the coming months, the consortium plans to:

Engage Stakeholders: Hold open forums in Kwale County to listen to community priorities, share preliminary plans, and incorporate feedback.

Launch Technical Work: Initiate confirmatory sampling and metallurgical test work, together with biodiversity and hydrology baselines

Advance Studies: Commence scoping and prefeasibility studies to define project options, infrastructure needs, and ESG design criteria.

Formalize Partnerships: Progress memoranda of understanding with training institutions, offtakers, and Kenyan SMEs.

Publish Updates: Provide regular public updates on milestones, timelines, and community programs.

"We are committed to doing this the right way—openly, carefully, and in partnership with local communities and authorities," said the Consortium Spokesperson. "Our goal is a world-class critical minerals hub at Mrima Hill that Kenyans are proud of and that the world can trust."

#### **About the Consortium**

The Mrima Hill Critical Minerals Consortium is an alliance of experienced African operators, Kenyan financial partners, international offtakers in advanced materials supply chains, and development finance institutions. The consortium brings deep expertise in geology, metallurgy, ESG, and project delivery across Africa and globally. Its shared mission is to build a responsible,

resilient, and competitive critical minerals value chain in Kenya—anchored in local content, environmental stewardship, and community prosperity.

#### **Forward-Looking Statements**

This press release contains forward-looking statements regarding planned activities, studies, approvals, and potential outcomes. These statements are subject to risks and uncertainties, including regulatory approvals, market conditions, financing, technical results, and stakeholder consultations. Actual results may differ materially. The consortium undertakes no obligation to update forward-looking statements except as required by law.





## Diamonds Beneath Limpopo: Inside De Beers' Bold Underground Gamble



The dusty roads leading into Musina tell a story of resilience. On one side, the savannah stretches endlessly toward Zimbabwe. On the other, heavy trucks rumble past, carrying machinery into what is quickly becoming one of the most ambitious mining projects in the world. This is the site of De Beers' Venetia Diamond Mine—and deep below the Limpopo soil, a new chapter of South Africa's diamond story is being written.

For three decades, Venetia's open pit has been the beating heart of South Africa's diamond industry. Since its first carats surfaced in 1992, Venetia has supplied almost half of the country's annual production, powering De Beers' global business and sustaining thousands of families in Limpopo. But by 2022, the massive pit—some two kilometers across—had given all it could. The diamonds now lie far beneath the surface.

Rather than walk away, De Beers decided to dig deeper. Much deeper. The result is the Venetia Underground Project (VUP): a staggering \$2.3 billion engineering feat that will turn the aging pit mine into one of the most advanced underground diamond

operations on the planet.

#### The Descen

On a recent morning, a lift cage clanks its way down Venetia's main shaft, carrying a team of engineers, geologists, and miners. In a few minutes, they will be nearly a kilometer underground, in a tunnel wide enough to fit two trucks side by side. The air is cooler here, filtered through a labyrinth of ventilation shafts and sensors.

"It's a city under the earth," one engineer jokes, his helmet light cutting across newly blasted rock.

That "city" is designed to unlock two enormous kimberlite orebodies known as K01 and K02—geological treasure chests that will keep Venetia producing until at least 2046. Together, they're expected to yield around 4.5 million carats of diamonds every year once the mine hits full stride.

#### **Machines That Drive Themselves**

If the old open pit was about brute force—giant yellow trucks hauling dirt in the hot African sun—the underground is about

intelligence. Venetia is pioneering a shift toward automation and digital mining, making it one of the most mechanized diamond mines on earth.

The tunnels are filled with Sandvik i-series machines: massive load-haul-dump vehicles, trucks, and drilling rigs that don't always need human hands. Some operate with drivers in the cab, others are remotely controlled from the surface, and in time many will drive themselves completely.

In January 2024, De Beers unveiled the Integrated Operations Centre (IOC)—a sleek control room where banks of screens track every moving part of the mine. Operators can monitor trucks underground, reroute them with a few clicks, and even adjust ventilation remotely. The goal is clear: fewer people underground, more work done by smart machines.

"We're moving from muscle to microchips," says one operations manager. "This is mining, but it's also robotics, data science, and artificial intelligence."



Water, Rock, and the Will to Overcome Of course, going underground in Limpopo is not as simple as flipping a switch. One of Venetia's biggest challenges has been water. Heavy summer rains and natural aquifers mean that groundwater seeps constantly into the tunnels.

To keep the workings dry, De Beers has built colossal pumping systems capable of moving thousands of cubic meters of water every hour. Vast flood doors—each taller than a two-story building—stand ready to seal off sections of the mine in case of sudden inflows. Above ground, a weather station tied into national systems provides real-time storm warnings.

"We respect the rock, and we respect the water," says a senior geologist. "The engineering here is about control as much as it is about extraction."

#### A Promise to Communities

While the tunnels stretch downward, Venetia's influence stretches outward into the communities of Musina and Blouberg.

The mine directly employs over 4,000 people, most of them locals. When the open pit wound down, De Beers made a deliberate choice: instead of laying off permanent workers, it retrained them for the underground. That transition was supported by a \$10.5 million training center, opened in 2021, where workers now learn to operate remote-controlled loaders or manage automated drilling rigs.

For many families, the shift underground means more than just continued paychecks. It's also about opportunity. Venetia funds school construction, youth training programs,

and small business development. In Limpopo alone, De Beers has helped build or improve 11 schools, giving local children better chances to succeed.

"Our parents worked in the pit," says a young apprentice learning to code automated equipment. "Now we're working with computers and machines underground. It feels like the future."

#### **Diamonds with a Smaller Footprint**

There's also a bigger picture at play: climate change and sustainability. De Beers has pledged to make Venetia carbon neutral by 2030, a bold target in an industry known for its heavy use of diesel and electricity.

The underground mine is already designed with this in mind. Many of the new machines are battery-powered, reducing emissions and noise underground. The ventilation system is "smart," meaning fans only operate in active areas rather than pushing air through empty tunnels. By the end of the decade, De Beers expects 85% of Venetia's energy use to be electric, with diesel cut to a fraction of today's levels.

Venetia also maintains the 36,000-hectare Venetia Limpopo Nature Reserve, a haven for wildlife relocated from the mining footprint. For De Beers, preserving biodiversity goes hand in hand with mining responsibly.

#### A Future Written in Stone and Steel

The Venetia Underground Project is not finished. While the mine produced its first underground diamonds in 2023, full ramp-up will take several more years. By 2026, the K02 ore body will come online, and by 2028 Venetia should be operating at steady-state production.

But already, the project is being watched closely across the mining world. In an era where many major diamond mines are nearing closure—from Canada's Arctic to Botswana's Jwaneng—Venetia's longevity

"This isn't just about diamonds," says a local community leader. "It's about jobs, schools, and futures. It's about proving that mining can change with the times."

#### The Sparkle Beyond the Stones

Every diamond that emerges from Venetia's tunnels in the years ahead will carry more than geological history. It will carry the story of a community that adapted, of engineers who solved impossible problems, and of a company betting that automation and sustainability can coexist with profit.

Deep in the Limpopo earth, amid the roar of machines and the hum of ventilation, miners and managers alike are forging a new identity for South Africa's diamond industry. One carat at a time, Venetia is proving that the sparkle of the world's hardest gem can reflect not only beauty but also progress.



## Platinum Group Metals Advances Waterberg PGM Project, Setting Stage for Decades of Strategic **Growth and National Value**



Platinum Group Metals Ltd. (TSX: PTM; NYSE American: PLG), operator of the Waterberg Platinum Group Metals (PGM) Project, is delighted to announce the successful completion of a revised Definitive Feasibility Study (DFS) and significant strides in pre-construction and development preparations. Located in the northern limb of the Bushveld Complex, approximately 85 km north of Mokopane in Limpopo, this project marks one of South Africa's most compelling new PGM ventures—offering scale, sustainability, economic impact, and multi-generational benefit.

#### A Strategic Resource of Scale and Longevity

The Waterberg PGM Project stands out as a world-class, shallow, mechanized PGM deposit. The most recent DFS update reveals Proven and Probable Reserves of 246.2 million tonnes at an average grade of 2.96 g/t 4E, equivalent to 23.41 million ounces of 4E metal content—comprising platinum, palladium, rhodium, and gold.

The projected Life-of-Mine (LoM) spans an impressive 54 years, extending well beyond earlier estimates of 45 years. Average annual concentrate production is anticipated at approximately 353,200 ounces 4E, with peak output potentially reaching 432,950 ounces

Economic modelling indicates robust returns—with an after-tax Net Present Value (NPV) of R11.5 billion (approx. USD \$569 million) and an Internal Rate of Return (IRR) of approximately 14-20%, depending on discount rates and prevailing pricing.

#### Methodical Design & Infrastructure Readiness

The Waterberg mine is designed as a fully mechanised, decline-access underground

operation, featuring dual twin declines to access the orebody at a shallow depth of roughly 140 m, facilitating long-hole stoping and paste backfill. This method ensures high extraction efficiency while maintaining structural integrity and safety.

Key surface infrastructure includes upgraded roads, a 132 kV power line linked to Eskom's grid with capacity for 140 MVA, and water pipelines to supply mine operations. These components are designed to optimize cost and logistics ahead of the development

Capital expenditure (CAPEX) dynamics in the 2024 DFS reflect both inflation and ZAR currency considerations. Peak CAPEX is estimated at USD \$776 million, rising to USD \$946 million when including an 8.5% contingency buffer.

#### Path to Construction and Early Progress

The Waterberg Joint Venture (JV)—comprising PTM (37.19% effective interest), Impala Platinum (14.86%), HJ Platinum (JOGMEC/Hanwa, 21.95%), and Black Economic Empowerment partner Mnombo Wethu Consultants (26%)—approved a R380 million (approx. USD \$21 million) pre-construction readiness

This program aims to drive de-risking activities, including building initial road access, establishing water supply infrastructure, setting up essential site facilities, constructing a first-phase lodge for construction staff, and securing power connections—while aligning with South Africa's Social & Labour Plan.

As of mid-2025, further progress includes an additional R42 million (~USD \$2.2 million) interim budget to support continued engineering and pre-build development, while also advancing a feasibility study for a smelter and base metals refinery (BMR) outside South Africa.

#### Concentrate Offtake and Beneficiation

Securing concentrate offtake remains a critical step before a definitive construction decision. PTM holds active discussions with South African smelters, including Implats, with Implats possessing a right of first refusal.

Internationally, PTM has signed a cooperation agreement with Ajlan & Bros Mining and Metals (Saudi Arabia) to explore the feasibility of establishing a PGM smelter and BMR. This scenario could reduce shipment volumes dramatically-from

130,000 t/y of concentrate to 8,000 t/y of converter matte—subject to securing government export permissions from South Africa.

Simultaneously, PTM continues to engage with authorities on local beneficiation options, reinforcing South Africa's value chain and industrial development objectives.

#### Job Creation, Economic Impact & Global Relevance

The Waterberg Project is expected to deliver substantial employment and socio-economic benefits. During construction (targeted to begin in December 2025), approximately 2,000 jobs are projected, transitioning into 1,425 permanent roles during steady-state

Strategically and economically, Waterberg supports global decarbonization efforts by providing key PGM metals—platinum, palladium, rhodium, and gold—as well as copper and nickel byproducts that are critical to automotive emissions control, fuel cells, and battery technologies.

PTM is also exploring partnerships, such as with Anglo American Platinum and Florida International University via Lion Battery Technologies, to advance PGM use in lithium battery innovation.

#### Looking Ahead: Timeline & Vision

According to current DFS modeling, construction is expected to commence in December 2025, with first production slated for September 2029. The mine is projected to reach full production ("steady state") by May 2032, with operations continuing through

#### **Executive Commentary**

"Waterberg offers remarkable scale, competitive costs, and generational longevity," said Frank Hallam, President and CEO of Platinum Group Metals. "We are advancing with confidence—through strategic infrastructure execution, beneficiation discussions, and strong JV alignment—to deliver enduring value for our partners, local communities, and all South Africans.'

#### Project Highlights at a Glance

Life of Mine: 54 years (avg. 353,200 oz 4E/year; peak 432,950 oz/year) Reserves: 246.2 million tonnes @ 2.96 g/t 4E (23.41 million ounces 4E) Capital Investment: USD \$946 million (including 8.5% contingency) Mine Access: Shallow decline-access underground mine with paste backfill Infrastructure: Road access, power (140 MVA), water pipelines, lodging Offtake Strategy: Discussions ongoing; in parallel, international refinery pathways being

Employment Impact: 2,000 jobs during construction; 1,425 permanent operating jobs Timeline: Construction starts Dec 2025; first production Sept 2029; full ramp-up by May

#### About Platinum Group Metals Ltd.

Platinum Group Metals Ltd. is a Toronto & New York-listed mining development company focused on exploring and building the Waterberg PGM Project. Its diversified partnership structure, exploration track record since 2011, and DFS-driven project execution position it as a leading custodian of South Africa's PGM future.



## Southern Palladium Advances Bengwenyama PGM Project in Limpopo with Optimised, Staged **Development Strategy**

Limpopo, South Africa — Southern Palladium Limited ("Southern Palladium" or "the Company"), dual-listed on the ASX (SPD) and JSE (SDL), is pleased to announce significant progress at its Bengwenyama Platinum Group Metals (PGM) Project in Limpopo Province. Building on an extensive body of technical work and community partnership, the Company has finalised an Optimised Pre-Feasibility Study (OPFS) that outlines a staged development pathway designed to reduce upfront capital intensity while preserving long-term project value. The OPFS follows the 2024 Pre-Feasibility Study (PFS) and is underpinned by a robust Mineral Resource across the UG2 and Merensky reefs on the eastern limb of South Africa's Bushveld

Situated near established PGM operations and infrastructure, Bengwenyama is 70% owned by Southern Palladium through its subsidiary Miracle Upon Miracle Investments (Pty) Ltd, with the remaining 30% owned by the Bengwenyama-ya-Maswazi Traditional Community, reflecting a long-standing commitment to local participation and benefit

A Tier-One-Scale Resource on the Bushveld's Eastern Limb

Bengwenyama's combined UG2 and Merensky Mineral Resource supports the Company's view that the project ranks among the most compelling undeveloped PGM assets globally. As at October 2024, the total Mineral Resource was updated to approximately 40.25 million ounces (7E), following drilling and studies that strengthened confidence—particularly in the UG2 hangingwall stability and in the potential for efficient ore extraction. These results highlight the project's scale and quality across both principal PGM horizons.

The resource endowment, together with favourable geotechnical findings and proximity to operating mines, underscores Bengwenyama's strategic position south of the Modikwa PGM complex in a premier mining

Optimised Study Delivers Capital Efficiency and Strong Economics

The new OPFS adopts a staged development approach that reduces peak funding requirements by approximately 38%—from around US\$452 million to US\$279 million—while maintaining compelling

returns and a scalable production profile that can be expanded as market conditions and cash flow permit. The improvement in fundability is a central feature of the optimised plan and reflects disciplined design choices, phased shaft and plant development, and a refined project schedule.

This OPFS builds on the October 2024 PFS, which delivered a post-tax NPV8 of approximately US\$1.059 billion and a posttax IRR in the high-20s, confirming the project's potential to generate attractive, longduration cash flows at conservative price assumptions. The optimised case (July 2025) refines capex and phasing to enhance fundability, with an updated value outlook communicated alongside the staged plan.

"Bengwenyama has the scale, geology and logistics to become a cornerstone PGM operation. By sequencing development, we materially lower upfront capital while preserving the full upside of the orebody. This is how we unlock a long-life mine responsibly, with our community partners at the centre of the journey," said the Company's Managing Director.

#### Clear Pathway Through Permitting and

Southern Palladium submitted the Bengwenyama Mining Right application on 29 September 2023, with the Department of Mineral Resources and Energy (DMRE) accepting the application on 17 October 2023. Since acceptance, the Company has progressed specialist studies and stakeholder consultations, as well as parallel permitting processes covering water use, waste management and related approvals. These activities support the transition from the OPFS into Definitive Feasibility Study (DFS) workstreams, including metallurgy, geotechnical, and infill drilling programs.

In line with the Company's July 2025 quarterly update, Southern Palladium has prioritised completion of OPFS deliverables and is now advancing the next-phase DFS scope. The key upcoming de-risking milestones include progress on the Mining Right, concentrate offtake arrangements, and completion of long-lead technical testwork—all aimed at positioning Bengwenyama for a rapid and responsible build-out once approvals are in hand.

**Community Partnership and Ownership** 

Bengwenyama is conceived from the ground up as a community-aligned project. Through its shareholding, the Bengwenyama-ya-Maswazi Traditional Community participates directly in the asset's long-term value, in addition to social and labour plan initiatives that prioritise local employment, skills transfer, and enterprise development. The governance framework recognises the Community's role as the lawful residents of the project farms (Eerstegeluk and Nooitverwacht), and Southern Palladium continues to engage through structured forums to ensure inclusive development planning and transparent decision-making.

"Our ownership interest is not symbolic—it's the foundation for shared prosperity," commented a representative of the community structures. "We are committed to ensuring that training, supplier development and infrastructure investment create opportunities for our people for decades to come."

#### Responsible Development, Robust ESG **Foundations**

Southern Palladium's development philosophy for Bengwenyama aligns with global best practice in ESG performance: Environmental Stewardship: The OPFS incorporates staged surface infrastructure and progressive rehabilitation, designed to minimise the initial footprint and manage water and waste streams responsibly. Environmental specialist studies inform the layout and sequencing, and permit applications are being advanced in accordance with South African law and international lender expectations.

Safety and Workforce Well-being: The mine plan will be engineered for safe, highly mechanised operations in targeted mining blocks, with a strong focus on geotechnical controls validated by drilling and testwork. Social Performance: The project's BEEcompliant ownership, social and labour planning, and commitment to local procurement create a framework for inclusive growth anchored in respect for cultural heritage and livelihoods.

#### Market Relevance: Right Metals, Right

PGMs—especially palladium, rhodium and platinum—are critical to auto-catalyst and industrial applications and stand to play an enduring role in decarbonisation pathways (including hydrogen value chains for

platinum). Bengwenyama's multi-decadal potential life and high-quality resource position it to contribute meaningfully to future supply as the market navigates cyclical tightness, evolving emission standards, and technology shifts. With its staged ramp-up, the project offers optionality to adapt volumes and capital timing to market signals while preserving the full-scale development case proven in the PFS.

**Development Blueprint: Staged to Succeed** Under the OPFS, the Company contemplates:

Phase 1 (Lower Capex, Early Cash Flow): Targeted access to highest-confidence, bestmargin stopes in the initial mining blocks; Modular concentrator capacity scaled to early

Prioritised underground infrastructure for safe, efficient ore handling.

#### Phase 2 (Scale-Up):

Incremental expansion of plant throughput and underground sections as orebody knowledge and cash generation increase; Progressive workforce growth with embedded training programs for local talent; Ongoing optimisation of stope design and scheduling based on DFS results and operating data.

Phase 3 (Full Development Case): Realisation of the larger PFS-supported production profile;

Potential for downstream value capture via concentrate offtake synergies; Continuous improvement initiatives focused on productivity, energy use and environmental performance.

This disciplined sequencing lowers peak funding to ~US\$279 million and improves fundability in current capital markets, while keeping the door open to PFS-level value (NPV US\$1.059 billion) under full

development.

#### **Next Milestones**

Permitting: Continued engagement on Mining Right and associated environmental and water licences:

Technical: DFS programmes underway, including metallurgy, geotechnical testing and infill drilling to refine stope designs and update the Mineral Resource and Ore Reserve where appropriate;

Commercial: Advancement of concentrate offtake discussions with potential partners; Community: Ongoing formal engagement with the Bengwenyama-va-Maswazi structures on social and labour planning, SME development and training roadmaps.

#### **About Southern Palladium**

Southern Palladium Limited is a PGM developer listed on the ASX (SPD) and JSE (SDL). The Company's flagship asset is the Bengwenyama PGM Project in Limpopo Province, located on the eastern limb of the Bushveld Complex. Ownership is 70% Southern Palladium and 30% Bengwenyamaya-Maswazi Traditional Community, aligning value creation with local stakeholders. The Company's strategy is to methodically de-risk Bengwenyama through staged development, rigorous technical work, and responsible partnerships.

This announcement contains forward-looking statements regarding the Bengwenyama Project, including anticipated timelines, capital costs, economic outcomes and permitting progress. These statements are subject to risks and uncertainties, including commodity price volatility, funding availability, regulatory approvals, and technical factors. Actual results may differ materially. Readers are cautioned not to place undue reliance on forward-looking statements, and Southern Palladium undertakes no obligation to update them except as required by law.



## Orion Minerals Charts Two-Phase Path for Prieska Copper-Zinc Project in Northern Cape



n the arid plains near Copperton in South Africa's Northern Cape, a historic mine is being reimagined for a new era. Orion Minerals (ASX/JSE: ORN) has unveiled a definitive plan to revive the Prieska Copper-Zinc Project, a brownfields asset once synonymous with South Africa's base-metals production.

A recently completed Definitive Feasibility Study (DFS) lays out a two-phase development strategy that promises to bring Prieska back to life as a long-life, mechanised producer of copper and zinc—metals now critical for renewable energy, electrification, and modern infrastructure.

#### From Brownfields Legacy to Modern Production Hub

Prieska has a proud mining heritage, having produced significant quantities of copper and zinc in decades past. Orion's plan leverages that legacy but infuses it with modern mine design, mechanised equipment, and safety

"Prieska is a brownfields asset, but we're not simply restarting an old mine—we're building a modern, technology-driven operation," explains Orion's CEO Tony Lennox, who took the helm in early 2025.

The DFS details a phased approach: Phase 1 ("the Uppers") targets shallow underground mineralisation that can be accessed quickly. By focusing first on nearsurface ore, Orion expects to produce metal within just over a year of construction

Phase 2 ("the Deeps") develops the deeper, large-scale resource base that underpins Prieska's long-term future.

This sequencing is designed to generate early cash flow, reduce upfront risk, and fund expansion organically. At full scale, the mine is expected to produce around 22,000 tonnes of copper and 65,000 tonnes of zinc annually.

#### The Numbers Behind the Plan

The DFS estimates a capital cost of approximately ZAR 7.59 billion (A\$607

million). Importantly, the study suggests that first concentrate could be delivered within 13 months of breaking ground—an unusually short lead time for a project of this scale. Trial mining and dewatering programs, completed in previous years, have already helped Orion understand ground conditions, refine mining methods, and reduce uncertainties around start-up. These steps mean the company is not starting from scratch, but building on extensive groundwork.

#### **Financing and Partnerships**

Mining projects of this magnitude hinge on financing, and Orion has taken creative steps to line up support.

In late 2022, the company signed an US\$80 million streaming agreement with Triple Flag Precious Metals, providing a cornerstone instrument for funding. Then, in 2023, the Industrial Development Corporation of South Africa (IDC) extended a ZAR 250 million convertible loan to back pre-development activities.

These packages have enabled Orion to advance studies, conduct early works, and reach the point where final funding and offtake deals are now within sight. The company is in discussions to finalise the capital structure that will carry Prieska through construction and into production.

#### **Metals for the Energy Transition**

Copper and zinc are increasingly recognised as strategic resources. Copper is indispensable for power grids, electric vehicles, and renewable energy installations, while zinc's primary use in galvanisation makes it vital for durable, low-maintenance infrastructure.

By reviving Prieska, Orion aims not only to supply these metals into growing markets but also to create a regional production hub in the Northern Cape.

Alongside Prieska, Orion is advancing the Okiep Copper Project (OCP) and the Jacomynspan battery-metals project, creating a multi-asset pipeline with potential combined copper output exceeding 50,000 tonnes per year by the decade's end.

#### A Commitment to Communities and Sustainability

For Lennox, the Prieska project is not just about tonnes of copper and zinc—it is about people.

"The Northern Cape has the geology, the infrastructure, and the skilled workforce to be a world-class mining district," he says. "Our job is to ensure local communities share in the benefits—through jobs, skills, procurement, and long-term development." Orion's sustainability initiatives include reusing pumped mine water for agriculture and exploring the sale of aggregate for regional infrastructure and renewable energy projects. These efforts underline the company's ambition to create diversified socio-economic value beyond the mine gates.

#### What Comes Next

With the DFS complete, Orion's focus is now on execution. The immediate priorities

Finalising project financing and offtake agreements.

Securing critical equipment and contractors for early works.

Maintaining ESG best practices and community engagement, and Staying on track to deliver first metal within 13 months of construction starting.

Prieska thus stands at the threshold of transformation-from a dormant asset to a cornerstone of South Africa's base-metals revival.

#### A New Era for a Historic Mine

The Northern Cape is no stranger to mining booms. Yet Prieska's rebirth feels distinct: it is designed for the era of decarbonisation, mechanisation, and shared value.

As global markets search for secure, responsible sources of copper and zinc, Orion Minerals is positioning the Prieska Copper-Zinc Project not just as a mine, but as a platform for growth, resilience, and opportunity in one of South Africa's most resource-rich regions.

Orion's story is far from finished—but the DFS marks a decisive chapter. The groundwork has been laid, the strategy is clear, and momentum is building toward production.

#### In the words of Lennox:

"Prieska will help supply the metals that power electrification while creating jobs and opportunities in the Northern Cape. We're ready to deliver."







+27 11 452 2169 michael@aspfire.co.za

www.aspfire.co.za

