

the Extractor

Mapping Namibia's Mineral Resources

- Venus shines among the world's deepwater giants
- Namibia's long road to mineral beneficiation
- The untapped engines of Namibia's mining economy
- BW Energy says Kharas-1 results encouraging

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Namibia's ambitious target

raising N\$52b in new, expanded projects within next 4 years

These developments carry the potential to create over 18,000 direct jobs, alongside tens of thousands of indirect opportunities across logistics, services, and construction.



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Haib keeps climbing the global rankings

Fynd Exploration's global copper leaderboard has ranked Haib third worldwide for the week of 27–31 October 2025, with a standout interval of 441m grading 0.22 per cent copper — a grade-width factor of 97 that underscores both continuity and scale.



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Planned mines expansion to bring in US\$2.8b

Namibia's mining sector is entering one of its most ambitious expansion phases in decades, with projects across gold, uranium, zinc, and

phosphate expected to inject more than US\$2.865 billion in combined capital expenditure over the next four years.

These developments carry the potential to create over 18,000 direct

jobs, alongside tens of thousands of indirect opportunities across logistics, services, and construction.

The investment outlook was unveiled at the Namibia Public-Private Forum, held on 23–24 October



The next four years will define the country's transition from exploration success to industrial-scale mineral development.



2025, where Irvinne Simataa, Second Vice-President of the Chamber of Mines of Namibia and Executive Vice-President of Swakop Uranium, joined Zenzi N. Awases, President of the Women in Mining Association of Namibia and Lead Consultant at EmpowerMine Consulting Service, in presenting the country's large-scale mining pipeline.

Gold sector growth

The gold sector is entering a new era of expansion, anchored by

Osino Resources' Twin Hills Mine, Namibia's next significant open-pit development near Karibib. Construction is advancing toward the first gold pour, with an estimated annual production of 150,000 ounces and hundreds of jobs already created during the build-up phase.

Meanwhile, QKR Namibia Mineral Holdings' Navachab Gold Mine is undertaking a N\$4 billion underground expansion that will extend the mine's life, increase ore grades, and sustain employment in the Erongo Region.

At the same time, B2Gold Namibia is progressing its Antelope underground expansion at the Otjikoto Mine near Otjiwarongo.

According to the company's preliminary

economic assessment, the Antelope project contains an estimated 1.75 million tonnes grading 6.91 g/t Au for about 390,000 ounces of gold.

The initial five-year life-of-mine will produce roughly 327,000 ounces ($\approx$ 65,000 ounces per year) from 2028 to 2032. Combined with low-grade stockpile feed, overall output is projected to average 110,000 ounces per year between 2029 and 2032. The mine's pre-production capital cost is estimated at US \$129 million, with an after-tax NPV (5 %) of US \$131 million, an IRR of 35 %, and free cash flow of US \$185 million at a gold price of US \$2,400 per ounce.

Together, these gold-sector expansions form a corridor of investment stretching

from Otjiwarongo through Karibib to Usakos, reinforcing Namibia's position as a stable gold-producing jurisdiction with diversified ownership and growing technical capacity.

Uranium, zinc, and phosphate

Uranium remains Namibia's strategic mineral mainstay. Bannerman Energy's Etango Project leads the current wave, with investment exceeding US \$300 million and a production target of 3.5–4 million lbs U₃O₈ per year. Reptile Mineral Resources is similarly expanding its processing facilities, while Rössing

Uranium and Husab Uranium are upgrading leach plants and pit extensions to sustain output well beyond 2035.

The planned conversion of the Skorpion Zinc refinery in the ǀKaras Region is driving Namibia's zinc resurgence. Once among southern Africa's premier zinc producers, the revamped facility aims to treat alternative concentrates and by-products such as germanium and gallium, creating hundreds of direct and contract jobs and re-establishing Namibia's metallurgical base.

In parallel, the Sinomine Resource Group-run

Tsumeb Smelter is being retooled into a multi-metal refining and recycling plant for germanium, gallium, and zinc, aligning with Namibia's Green Industrialisation Blueprint. Complementing these projects, the planned NamWater desalination plant will supply up to 20 million m³ of water annually to coastal mines, addressing a long-standing infrastructure bottleneck in Erongo.

Approval of marine phosphate mining could add a new dimension to the resource base, potentially generating about 50,000 jobs—5,000 direct and 45,000 indirect—through

extraction, beneficiation, and fertiliser production.

Challenges and policy priorities

Despite the robust pipeline, sector leaders cautioned that Namibia's mining ambitions face headwinds from policy uncertainty and licensing delays.

The Chamber of Mines has called for the urgent finalisation of the Minerals Bill, stronger administrative capacity within the Ministry of Mines and Energy, and more predictable investment frameworks.

Infrastructure gaps—especially water supply, electricity tariffs, and rail connectivity—continue

The retooled Tsumeb Smelter could become Africa's first multi-metal recycling hub for gallium and germanium.



to slow project rollout. Skills shortages in engineering, geology, and metallurgy were also flagged, with the Forum urging reinforcement of vocational training and streamlined work-permit processes for specialised expatriate expertise.

Currently, less than 10 % of Namibia's mineral exports are processed domestically, constraining industrial diversification.

The Forum recommended fast-tracking the Mineral Beneficiation Strategy through special economic zone incentives and improved access to serviced industrial land. Participants agreed that inclusive participation—particularly of women, youth, and local MSMEs—must guide the next wave of mining growth.

With mining contributing 13.3% of GDP in 2024, embedding these groups into value chains is vital for equitable progress.

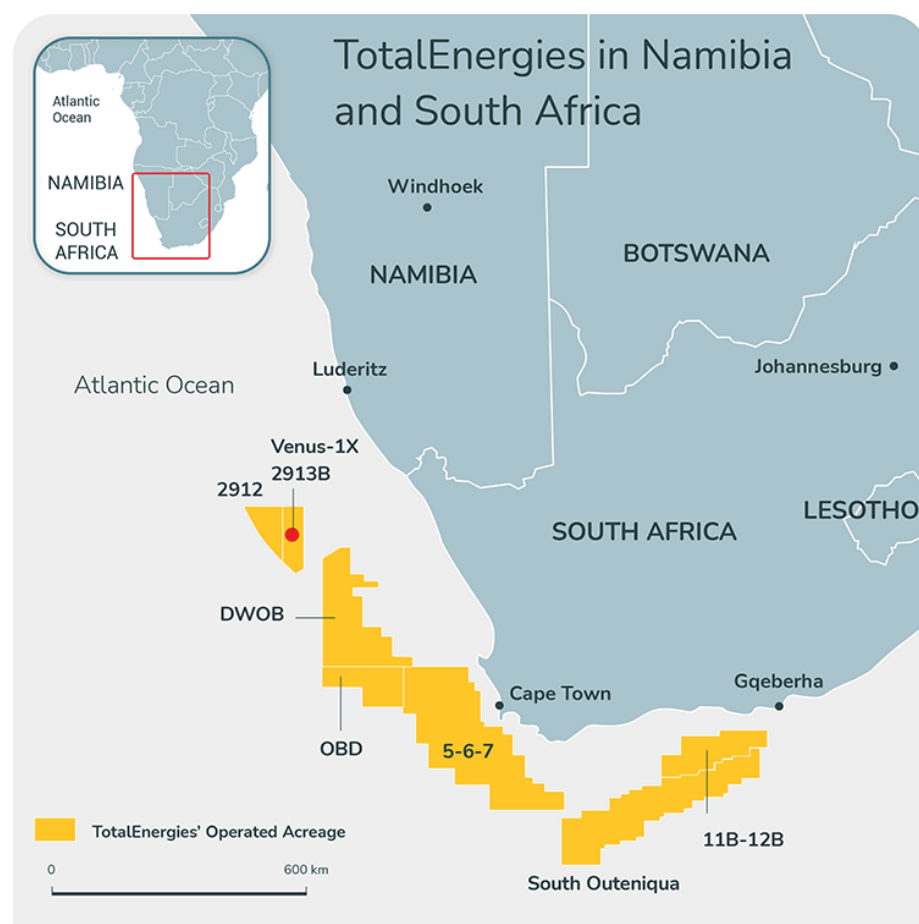
Venus shines among the world's deepwater giants

When TotalEnergies' drill bit struck oil in the deep waters of Namibia's Orange Basin in early 2022, the global energy industry took notice.

The discovery—named Venus—was immediately hailed as one of the most significant ultra-deepwater finds of the decade.

Three years later, its environmental and social impact assessment paints a picture of a technically ambitious, long-lived, and economically transformative venture that could reshape Namibia's economy for generations.

According to the 3 November 2025 ESIA by SLR Environmental Consulting, Venus is designed to operate for more than 25 years, with



oil production expected to run for 21 years and possibly another decade depending on reservoir performance.

The project sits some 300 kilometres off Oranjemund, in water depths approaching 3,000 metres, where up

to 40 subsea wells—half for production and half for gas injection—will feed a massive floating production, storage and offloading vessel.

Once production begins, about 600 direct jobs, 600 indirect, and an impressive 5,800 induced

jobs are expected to be created, most concentrated in logistics and engineering around Lüderitz and Walvis Bay.

For Namibia—a country with no history of large-scale oil production—the scale of Venus is unprecedented. But how does this new frontier compare to the rest of the world's great offshore discoveries?

Deepwater parallels: Venus and Brazil's Tupi

The closest parallel lies across the Atlantic in Brazil's Santos Basin. There, Petrobras' Tupi field—discovered in 2006 beneath thick layers of pre-salt rock—proved that ultra-deepwater oil could be produced at a commercial scale.

Like Venus, Tupi lies in waters around 2,000 to 3,000 metres deep

and required pioneering subsea technology and floating platforms.

Tupi's recoverable reserves were estimated at five billion barrels of oil equivalent—roughly the same ballpark TotalEnergies geoscientists have hinted at for Venus. The Brazilian project transformed its host economy: spawning domestic shipyards, engineering firms, and a web of supply industries that now employ tens of thousands.

Venus could play a similar role for Namibia, albeit on a smaller scale.

With local-content policies taking shape and new training funds pledged through Petrofund and the University of Namibia, the project's socio-economic reach could extend far beyond the rig floor—if

Venus could create nearly 7,000 jobs directly and indirectly, catalysing coastal economies from Lüderitz to Walvis Bay.



the country succeeds in replicating Brazil's careful blend of industrial policy and foreign partnership.

Lessons from the giants: Safaniya and Kashagan

On the scale of the world's significant oilfields, Venus is still modest. Saudi Arabia's Safaniya field, discovered in 1951, remains the largest offshore oil deposit on Earth, with recoverable reserves exceeding 37 billion barrels.

It has operated

continuously for more than seventy years and underpinned the industrial base of the Gulf region.

Yet Safaniya is a shallow-water environment, low risk compared to Venus's abyssal setting. Namibia's field belongs to the league of ultra-deep, high-cost, high-reward operations—projects that depend on advanced subsea robotics, remote operations, and delicate well integrity systems three kilometres below the surface.

Closer in spirit to Venus is Kazakhstan's Kashagan field in the Caspian Sea—another technically demanding frontier discovered in 2000.

Kashagan contains about 13 billion barrels

of recoverable oil but became infamous for its delays and costs, with development spending surpassing US\$50 billion before first production in 2013.

Harsh operating conditions, high sulphur content, and logistical bottlenecks plagued the project for years, offering a cautionary tale for newcomers: frontier riches require patience, discipline, and strong regulation.

Namibia's turn at the frontier

For Namibia, the difference lies in timing and governance. Unlike early frontier producers that stumbled through opaque contracts and weak environmental oversight, Venus is

**Three kilometres
beneath the Atlantic,
a single discovery
could lift GDP and
redefine the nation's
industrial base**



unfolding in an era of scrutiny and standards.

Its ESIA models every conceivable risk—from a gas injection line rupture releasing 267,000 m³ of gas once off, to a full-scale well blowout lasting 13 days—and ranks them by probability and consequence.

Modelling suggests that oil from such an event would drift northwest, away from the coast, with a negligible shoreline

impact under a 90 per cent likelihood.

A nearshore spill, however, could spread hundreds of kilometres along the coast, underscoring the need for the project to adhere to MARPOL standards and implement a tiered oil-spill contingency plan.

A decommissioning trust fund will also be established midway through the field's life to ensure cleanup and closure are fully funded.

These layers of planning place Venus within the best global practice for offshore operations—an approach TotalEnergies has refined through decades of experience in Angola, Nigeria, and Brazil. But what makes Venus distinctive is its national context: a

young, fast-growing energy economy where a single discovery can lift GDP, diversify exports, and reshape the labour market.

Scale, lifespan, and impact

In pure numbers, Venus may not match the giants of the Gulf or the Caspian. Yet it stands shoulder to shoulder with Brazil's Tupi, Guyana's Liza, and other 21st-century frontier discoveries that opened new provinces to the world.

A field life exceeding 25 years, 40 subsea wells, and an FPSO designed to operate autonomously in 3,000 metres of water make it one of Africa's most sophisticated offshore systems.

The induced job creation of nearly 6,000 positions—along with scholarships, training, and regional development funds—points to broad social benefits that extend beyond the oil barrels themselves.

If managed wisely, Venus could do for Namibia what Tupi did for Brazil: trigger a generation of skills transfer, infrastructure investment, and confidence that a small nation can master the world's most challenging frontiers.

The story of Venus is therefore not just about oil. It is about Namibia stepping onto the global energy stage—measured not against its size, but against its ambition.

BW Energy says Kharas-1 results encouraging, need appraisal well

Oso-listed energy firm BW Energy says preliminary results from its Kharas-1 appraisal well offshore Namibia are “encouraging,” confirming hydrocarbon-bearing intervals and evidence of an active petroleum system across the Kudu licence (PPL 003) in the Orange Basin.

Drilled by the Deepsea Mira, a sixth-generation

semi-submersible rig owned by Northern Ocean and operated by Odfjell Drilling, the well has now reached total depth after intersecting multiple target formations within a single borehole.

In a

statement issued on 31 October 2025, BW Energy said the Kharas-1 appraisal well, which has reached total depth and drilled multiple formations across the Kudu licence.

The well was strategically designed to intersect several targets within a single borehole.

The company said that while this approach did not allow for individual optimisation of each



The K1 interval may contain hydrocarbons wetter than dry gas—a promising sign for mixed-phase potential



formation, it provided valuable geological data across the broader petroleum system.

Preliminary results encouraging

Several intervals indicate the presence of hydrocarbons and reservoir potential,

suggesting a working petroleum system at Kharas. Early analysis indicates that the K1 interval may contain hydrocarbons wetter than dry gas.

A hydrocarbon migration front has been observed, and wireline operations are underway to assess reservoir quality, fluid type, and pressure characteristics.

A follow-up appraisal campaign will be required to evaluate the individual targets in greater detail. The outcome of the wireline program will guide decisions on the following well location

and the future appraisal strategy.”

The update, signed by Martin Seland Simensen, Vice-President of Investor Relations at BW Energy, underscores both the technical promise of the well and the company’s cautious, data-driven approach to assessing commercial viability.

Reassessing a legacy discovery

Located about 130 kilometres off Lüderitz in 170 metres of water, the Kudu licence is one of Namibia’s oldest offshore discoveries. The original Kudu-1 gas field,

discovered in 1974, has long been considered a primary untapped gas resource. Under BW Energy's operatorship, the company is seeking to redefine the licence as a multi-play asset, targeting both gas and potential oil intervals.

BW Energy holds a 95 per cent working interest in the licence, while NAMCOR E&P, a subsidiary of Namibia's National Petroleum Corporation (NAMCOR), retains 5 per cent.

The Kharas-1 well forms part of the company's broader plan to update Kudu's reservoir model and integrate legacy data with new deep-seismic

interpretations from the Orange Basin, a frontier now attracting some of the world's most significant exploration capital following the Venus and Graff discoveries further north.

High-spec drilling in Namibia's new frontier

Drilling was carried out using the Deepsea Mira, a 2018-built sixth-generation semi-submersible based on the Moss Maritime CS60E design.

The rig is capable of operating in both benign and harsh environments at depths up to 3,000 metres, making it one of the most advanced units ever deployed in

A single borehole intersected multiple targets to maximise geological data across the Orange Basin petroleum system.



Namibian waters.

The campaign began in September 2025 under a rig-sharing agreement with Rhino Resources, enabling cost efficiencies and operational continuity. The sound design—intentionally configured to intersect several formations in a single borehole—was chosen to maximise data recovery across the petroleum system

rather than to optimise individual reservoirs.

Early indicators and next steps

According to BW Energy, the wireline logging and pressure-testing programme now underway will determine the reservoir's quality, fluid composition, and pressure characteristics.

These findings will shape the company's next appraisal steps and could identify new well locations within the licence.

While the Kharas-1 results have bolstered confidence in the presence of hydrocarbons, BW Energy cautioned that

"further appraisal work is essential" before any commercial conclusions can be drawn.

A follow-up appraisal campaign is planned for 2026 to evaluate each formation separately and determine flow potential.

If successful, the project could rejuvenate Namibia's long-stalled Kudu gas-to-power initiative, a strategic component of the country's Sixth National Development Plan (NDP6).

A cautious but significant milestone

For Namibia, the Kharas-1 results mark a milestone in efforts to diversify the country's

offshore portfolio beyond the high-profile deepwater oil finds by TotalEnergies and Shell.

If Kudu's gas and condensate potential can be proven viable, it could establish the Orange Basin as a dual-resource province—combining deepwater oil in the north with mid-shelf gas in the south.

As BW Energy's wireline testing continues, the industry's attention remains firmly on the data emerging from Namibia's waters — data that could determine whether the Kudu region finally fulfils the promise first glimpsed half a century ago.

Noronex had a busy September quarter

Noronex Limited's September 2025 quarter marked one of its most active exploration periods to date, as the company deepened its footprint across the Kalahari Copper Belt and expanded its strategic alliance with South32 into Botswana.

Strong copper intercepts drove the momentum at its Fiesta Copper Project in Namibia, the start of a 7,000-metre drilling programme at the Powerline Project, and the discovery of new uranium anomalies at the Etango North Uranium Project.

Managing Director and CEO Victor Rajasooriar

Drilling at Fiesta has shown that copper mineralisation extends beyond previously defined depths, reshaping our geological model for the area,



said the quarter was pivotal in advancing Noronex's understanding of both copper and uranium systems within its regional portfolio.

"Drilling at Fiesta has shown that copper mineralisation extends beyond previously defined depths, which reshapes our geological model for the area.

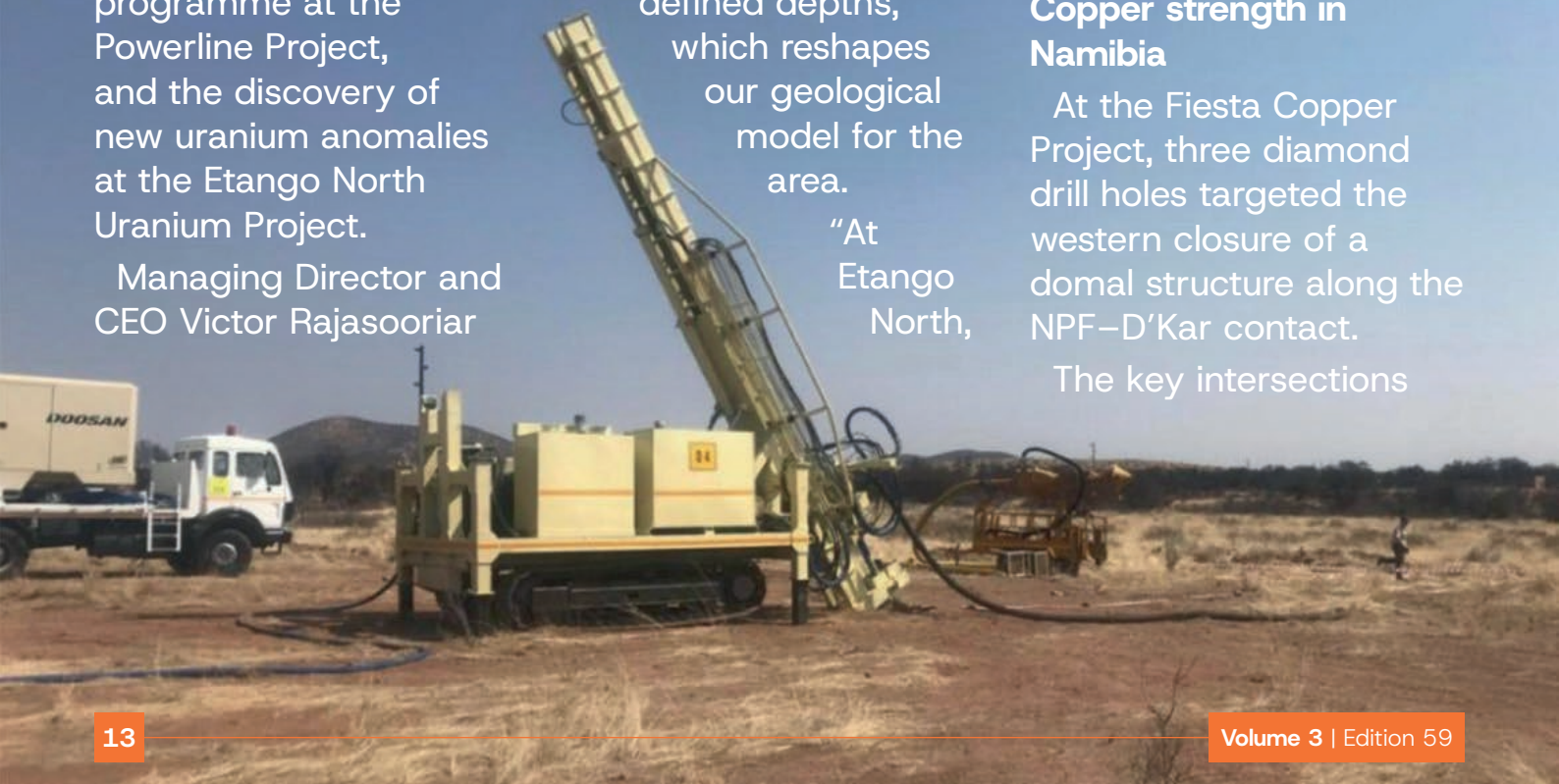
"At Etango North,

spectrometry work has mapped multiple uranium targets aligned with major structures known to host deposits such as Bannerman Energy's Etango Project, now under construction," he said.

Copper strength in Namibia

At the Fiesta Copper Project, three diamond drill holes targeted the western closure of a domal structure along the NPF-D'Kar contact.

The key intersections



included 11 metres at 0.5 per cent copper and 18 grams per tonne silver from 371 metres, and 6 metres at 0.7 per cent copper and 15 grams per tonne silver from 455 metres. Nearby, a water borehole returned 9 metres at 0.63 per cent copper and 21 grams per tonne silver from 120 metres, as well as 3 metres at 1.0 per cent copper and 4 grams per tonne silver from 137 metres.

These results confirmed mineralisation continuity over 4.5 kilometres of strike, hosted within chlorite-altered green shales and siltstones containing chalcocite, bornite, and chalcopyrite, with visible malachite near the surface.

The launch of a 7,000-metre reverse-circulation drilling programme at the Powerline Project followed the success at Fiesta.

Funded under the South32 earn-in, the campaign targets the limbs and closures of large antiform domes identified by aeromagnetic surveys.

The objective is to intersect the favourable

NPF–D’Kar contact—the same geological horizon that hosts some of Botswana’s largest copper mines.

Several historical holes in this region returned copper and silver values comparable to those of deposits such as the Banana Zone and Zone 5 across the border.

Expansion into Botswana

During the quarter, Noronex and South32 broadened their alliance to include two new Botswana licences—PL0074/2025 and PL0075/2025—collectively known as the Cgae Cgae Copper Project.

The definitive earn-in agreement, executed after the end of the quarter, allows South32 to earn a 60 per cent interest by spending A\$5 million over five years. Noronex remains the operator, and drilling is already underway on targets that have never been tested.

Combined with the existing Humpback–Damara earn-in, the partnership secures A\$1 million in committed

At Etango North, spectrometry work has mapped multiple uranium targets aligned with the same structural trends that host Bannerman Energy’s Etango deposit, now under construction.



funding each quarter to advance exploration throughout FY26.

Noronex’s landholding now extends across approximately 9,789 square kilometres in the Kalahari Copper Belt—of which more than 7,996 square kilometres are in Namibia—covering a 300-kilometre strike along the critical NPF–D’Kar contact zone.

The belt, stretching from central Namibia into northern Botswana, remains one of the least explored but most prospective copper districts in southern Africa.

Tenements and applications in Namibia and Botswana as at 30 September 2025, now cover an area of 9,789 square kilometres.

There have been no changes to the company's Canadian tenements since the 2024 annual report. In Namibia, the portfolio includes the Witvlei West and East licences (EPLs 7028 and 7029), held under Aloe 237 and renewed until June 2027, and the Dordabis licence (EPL 7030) under Borage, also continued until June 2027.

Additional Namibian holdings include Snowball East (EPL 7415), the Humpback group of EPLs 8655, 8656, and 8664, and the Damara Duplex East and West licences (EPLs 8671 and 8672), all of which are renewed to November 2025.

The Epukiro River East and West licences (EPLs 8964 and 8965) remain active until March 2027, while Powerline 1 and 2 (EPLs 9551 and 9552) have been extended until July 2027.

The Helena 1 licence (EPL 9932) is valid through March 2028. Collectively, these Namibian tenements cover 7,521 square kilometres and form the backbone of Noronex's exploration pipeline.

Uranium opportunity at

Etango North

Parallel to its copper activities, Noronex completed a detailed spectrometry survey over its Etango North Uranium Project in Namibia's Erongo Region.

The work outlined multiple uranium anomalies with geological similarities to the nearby Etango, Husab, and Rössing deposits.

Etango North lies just three kilometres north of Bannerman Energy's Etango mine site, which hosts 207 million pounds of contained U₃O₈. The survey, comprising 244 line kilometres of radiometric mapping by Terratec Geophysical Services, defined several uranium-rich zones associated with alaskite intrusions—granite-like bodies that host most of Namibia's uranium deposits.

The anomalies occur along strike from historical drillholes that recorded uranium mineralisation in the area, highlighting the project's untapped potential.

Fieldwork is now underway to verify these anomalies and refine future drilling targets.

Further work is planned and will be refined after

the field review. The anomalies require shallow drill testing to understand the third dimension and the occurrence of flat-lying alaskite sheets in the domal closure.

A programme of pXRF soil grids and profiles will be completed to assist in the final location of the drilling programme planned for later this year.

The region is highly prospective for further mineralisation and will be assessed and prioritised as the programme develops throughout FY26.

According to Rajasooriar, "the Etango North survey confirms that our ground lies in a fertile geological corridor. With our new funding in place, this will be a key focus going forward."

Proposed sale of Dordabis

Noronex's joint venture vehicle, Aloe 237, agreed to sell the Dordabis asset for A\$1.2 million (approximately US\$0.8 million).

The transaction is now in its final stages, with further updates expected soon. Dordabis, the most westerly licence within

Noronex's Namibian portfolio, lies about 60 kilometres from the flagship Witvlei claims (EPL 7028 and 7029). The two Witvlei licences are not part of the proposed sale.

Aloe 237 holds EPLs 7028, 7029, and 7030, with Noronex currently holding an indirect 76 per cent interest through its 80 per cent ownership of Larchmont Investments, which in turn owns 70 per cent of Aloe and a call option over an additional 25 per cent.

To date, the company has received payments totalling N\$6.5 million (about A\$0.5 million) out of the expected N\$13.68 million (about A\$1.1 million).

The balance of N\$7.18 million (A\$0.6 million) is expected to be received over the next quarter following delays linked to the buyer's financing arrangements.

Strengthened balance and leadership

To support these activities, Noronex raised A\$750,000 in a placement completed shortly after quarter-end.

The funds will underpin uranium

exploration while copper programmes continue under South32's earn-in.

The company also appointed veteran geologist Tony Chisnall as Chief Geologist, with Bruce Hooper assuming a strategic advisory role focused on business development.

The quarter closed with Noronex launching an InvestorHub platform to strengthen transparency and shareholder engagement—a fitting move for a company now operating across two countries and two commodities.



Haib keeps climbing the global rankings

Namibia's Haib Copper Project, operated by Koryx Copper Inc., has once again secured its place among the world's most significant copper drill results, cementing its reputation as one

of Africa's significant undeveloped porphyry deposits.

According to Fynd Exploration's global copper leaderboard, Haib ranked third worldwide for the week of 27–31 October 2025, with a

standout interval of 441 metres grading 0.22 per cent copper — a grade-width factor of 97 that underscores both continuity and scale.

This is not the first time the Namibian project has drawn international



attention.

In August 2025, Haib topped Fynd's global rankings with a remarkable intercept of 927 metres at 0.24 per cent Cu, one of the most extensive continuous copper intervals reported anywhere in the world that month.

The back-to-back recognition reflects the project's technical consistency and the steady momentum of Koryx's exploration work in southern Namibia's Karas Region, close to the Orange River and the South African border.

The oldest porphyry copper deposit

Haib holds a special place in geological history. First explored in the 1960s and often cited as the oldest known porphyry copper deposit on Earth, it represents an ancient hydrothermal system preserved in metamorphic rocks more than two billion years old. Successive exploration campaigns have confirmed that the mineralisation extends across several square kilometres, hosted in granodiorite intrusives with associated molybdenum and minor gold credits.

Today, Koryx Copper — formerly Trigon Metals — holds a 100 per cent

Haib continues to deliver world-class intercepts that reaffirm its geological scale and commercial potential, said a Koryx Copper spokesperson.

— ■ 66 ■ —

interest in the project through its Namibian subsidiary.

More than 80,000 metres of historical and modern drilling have defined an extensive low-to medium-grade copper system suitable for open-pit development. An updated Preliminary Economic Assessment

(PEA) released in 2025 refined the mine plan, processing parameters, and economic sensitivities, building on earlier technical studies and a robust resource base.

A resource built on scale

The Haib deposit hosts an indicated and inferred mineral resource totalling more than 2.2 billion tonnes at an average grade of 0.29 per cent Cu, containing roughly 6.4 million tonnes of copper metal — figures that place it among the largest copper inventories in sub-Saharan Africa.

While grades are modest by narrow-vein standards, Haib's sheer tonnage, favourable metallurgy, and potential for phased, bulk mining

operations make it highly attractive in an era of tightening global copper supply.

Recent drill campaigns have targeted depth extensions and flanking zones of the known mineralised zones, with consistent results demonstrating that copper grades remain stable over hundreds of metres.

The most recent intercepts reported in October 2025 confirm the presence of a broad, laterally continuous system with minimal structural disruption — an essential factor for low-cost open-pit extraction.

Momentum toward development

Koryx is now progressing a dual

strategy of resource growth and project optimisation. Metallurgical testing has indicated recovery rates above 90 per cent using conventional flotation, while ongoing pit design work aims to lower stripping ratios and capital intensity.

The company has also initiated baseline environmental and community consultations in preparation for a Definitive Feasibility Study, the next step on the road to production.

In interviews, executives have hinted that the strong drill results and improved market conditions could accelerate financing discussions. Copper prices remain buoyant, driven by the rapid global

build-out of renewable energy infrastructure and electric-vehicle manufacturing, both of which require massive amounts of conductive metals.

Haib's prominence coincides with a broader copper revival in Namibia.

Projects such as Midas Minerals' Otavi Copper Project, Golden Deeps' Nosib and Abenab prospects, and the Kombat mine restart are collectively re-establishing the country's copper credentials after a decade-long lull.

With the proper infrastructure and policy support, Namibia could soon emerge as a reliable mid-tier copper producer capable of supplying critical minerals markets in Europe and Asia.

Koryx's Haib Project demonstrates that frontier jurisdictions can deliver results of global significance.



For the government, Haib represents more than geology; it is a strategic asset that could anchor new downstream opportunities, from copper concentrate exports to refined metal and even cable manufacturing.

Recognition on the global stage

According to Fynd Exploration, Haib's repeated presence in the

global top-tier rankings is a rare achievement for an African project, demonstrating that world-class exploration results are not confined to the Americas or Australia.

Each new data point builds confidence that Haib's enormous system can support a long-life, scalable mine capable of delivering sustainable returns.

As Namibia positions itself as a key player in the green-energy transition, Koryx's consistent results at Haib serve as both a technical milestone and a national statement: Namibia's copper story is far from over — in fact, it may just be beginning anew.



Namibia's long road to mineral beneficiation

Less than 10 per cent of Namibia's mineral exports are processed domestically, a figure that underscores both the country's mineral wealth and its industrial gap. While mining remains the backbone of the

economy—contributing about 13.3 per cent to GDP in 2024—most ores leave the country unrefined, costing Namibia thousands of jobs and billions in lost value.

In 2021, the Ministry of Industrialisation and

Trade drafted the Mineral Beneficiation Strategy (MBS) to change that picture. The plan was designed to transform Namibia from a raw-materials exporter into a regional processing and manufacturing hub. It identifies priority

value chains where Namibia already has a comparative advantage: base metals (copper, zinc, lead), uranium, diamonds, dimension stone and semi-precious stones, and the critical-minerals cluster, which includes tin, tantalum, lithium, germanium, and gallium.

The strategy aligns with the Green Industrialisation Blueprint (2024/25) and National Development Plan 6 (2025–2030), both of which call for deeper industrial linkages between mining, manufacturing, and energy. The government's stated goal is to raise the share of processed mineral exports from about 46 per cent—essentially

diamonds—to 57 per cent by 2030, while creating 15,000 to 20,000 industrial jobs in downstream sectors.

Building value at home

At the centre of the beneficiation drive is the push to develop Special Economic Zones (SEZs) and industrial corridors with dedicated power, water, and logistics infrastructure.

These are intended to attract refineries, metal fabricators, and component manufacturers that can operate near Namibia's mines and ports.

The Tsumeb Smelter conversion—now owned by Sinomine Resource Group—is an early

Beneficiation is not just about refining metals — it's about building industries, skills, and sustainable value at home.



anchor project, shifting the ageing copper plant toward multi-metal processing and recycling of critical minerals such as germanium and gallium.

The investment, estimated at more than US\$220 million, is one of the first concrete demonstrations of the policy's intent.

Farther south, Skorpion Zinc is pursuing a refinery-conversion

feasibility study to restore Namibia's domestic zinc-processing capacity and eventually supply refined products to the Southern African market.

Other initiatives, such as Andrada Mining's lithium-tin-tantalum operation at Uis and Arcadia Minerals' Swanson Tantalum Project, are exploring local beneficiation routes for battery-metal concentrates.

These projects feed into the MBS's broader objectives: expanding the tax base, localising supplier networks, and enabling Namibian MSMEs to participate in new manufacturing and

service chains linked to the mining industry.

Obstacles to progress

Despite its promise, the beneficiation strategy has been slow to take off. Several challenges persist:

Policy alignment: The MBS must dovetail with the pending Minerals Bill, the SEZ framework, and evolving local-content rules.

Unclear timelines and overlapping mandates between ministries have slowed execution.

Infrastructure gaps: Smelting and refining require reliable power and

water supplies.

Namibia's electricity tariffs remain among the highest in the region, while desalination and rail infrastructure are still under development.

Finance and bankability: Downstream projects are capital-intensive. Investors demand long-term feedstock security, predictable tariffs, and regulatory stability before committing to billion-dollar plants.

Skills shortages: Namibia has a capable cadre of geologists and mining engineers, but a limited pool of metallurgists, process

Without streamlined permitting and infrastructure reliability, beneficiation will remain a blueprint rather than a reality



engineers, and industrial chemists—the very expertise needed to run beneficiation facilities.

Institutional capacity: Key agencies, including the Ministry of Mines and Energy and the Ministry of Environment, continue to face delays in processing permits and environmental clearances,

adding uncertainty to project timelines.

Despite the obstacles, the beneficiation policy remains a cornerstone of Namibia's industrial agenda. It is the mechanism through which the government hopes to double the mining sector's GDP contribution by 2035, embed domestic value-addition industries, and diversify exports away from raw materials.

If successful, Namibia could evolve from a supplier of unprocessed ore into a regional producer of refined metals, alloys, and battery-material

feedstocks. This position would attract global investment as countries seek transparent, sustainable sources of critical minerals.

For now, the policy is more blueprint than reality. But as major projects like Tsumeb, Skorpion, and Uis expand under the banner of beneficiation, the foundation is forming. Namibia's next chapter in mining will depend not on what it extracts from the ground, but on how much value it can keep above it.

Women and Youth: The untapped engines of Namibia's mining economy

More than 10,000 artisanal and small-scale miners are at work across Namibia, supporting a further 25,000 dependents in rural regions such as Kunene, Erongo, and //Karas.

Together, they represent a quiet but powerful workforce—35,000 Namibians whose livelihoods are tied directly to the extraction of the country's minerals.

From semi-precious gemstones such as aquamarine, topaz, and amethyst to emerging critical minerals like copper, the Artisanal and Small-Scale Mining (ASM) sector has become a pillar of survival and a potential driver of inclusive growth.

Yet, this essential sector remains trapped in

informality. ASM operations are fragmented, unregulated, and poorly financed.

Licensing processes are complex and costly, with little support for miners who often lack formal education or technical training.

Many work with outdated tools and minimal safety procedures, while the absence of value-chain linkages restricts their



access to markets. Despite its contribution to rural economies, the sector's total factor productivity — its efficiency and output per worker — remains constrained by bureaucracy, limited land access, and lack of geological data.

Formalisation and opportunity

Namibia's ASM sector holds significant promise if given structure and support. The Kunene Frontier Corridor, often described as the nation's next mineral and energy frontier, offers opportunities for discoveries and community-based

extraction models.

Semi-precious stone and dimension-stone value chains could anchor rural enterprise development if local beneficiation and cutting centres are established.

Introducing regional hubs for cutting, polishing, and processing could transform ASM into a formal, tax-paying segment of the economy.

Such infrastructure would allow miners to add value before export, multiplying incomes and creating skilled jobs.

At the heart of the problem lies an outdated regulatory framework. Licensing remains centralised and costly, deterring small miners

Warmbad shares its geological DNA with the Rossing Mine — uranium hosted in folded alaskitic intrusions.



from formalising their operations. Many claims are situated on communal or privately owned land held by larger exploration licence (EPL) owners, restricting legal access for ASM operators.

The lack of institutional support from the Geological Survey of Namibia further limits miners' ability to identify

viable deposits or test their ore for quality and value.

Access to finance is another persistent obstacle. Without collateral or banking records, miners cannot secure loans for equipment or expansion. A proposed solution involves establishing an equipment-leasing and working capital facility for ASM and mining-linked micro, small and medium enterprises (MSMEs), backed by government guarantees and paired with mandatory business and safety training.

MSMEs: The connective tissue of local mining

Mining-related MSMEs have grown alongside

large-scale mining (LSM) projects, forming the connective tissue between national investments and local economies. Thousands of enterprises now operate within or adjacent to mining value chains — from logistics and catering to construction and maintenance. In 2024 alone, mining-linked MSMEs supplied more than N\$24 billion in goods and services to the industry.

However, these enterprises face structural constraints similar to those of ASM: limited access to finance, shortages of technical skills, outdated technology, and unreliable infrastructure.

Targeted credit facilities, mentorship programmes, and inclusion in supplier databases could transform their productivity and enable meaningful participation in high-value contracts.

Women make up just 18% of Namibia's mining workforce, and fewer than 10% have held executive positions since 2009. Youth participation remains marginal, mainly due to the lack of structured pathways from education to employment. Despite this, women and young people are increasingly recognised as key to innovation and sustainability within the sector.

Empowering women

and youth is more than a moral imperative — it is a strategic necessity. As Namibia expands uranium and gold production and moves into new frontiers like lithium and rare earths, inclusion will be vital to sustaining growth and driving innovation. Youth bring digital literacy and new perspectives that are essential for modernising mineral value chains and advancing local beneficiation.

The Ministry of Mines and Energy, together with industry stakeholders, is exploring reforms to fast-track low-cost licensing for ASM and simplify environmental and safety standards. Proposed frameworks include a

dedicated ASM land-access policy, shared processing hubs, and mining extension services offering on-site training and technical assistance.

At the same time, gender- and youth-inclusion programmes are being designed in partnership with vocational training centres to build technical and entrepreneurial capacity. Setting measurable participation targets, not quotas, would ensure women and youth are integrated into supplier development, apprenticeships, and local-content opportunities.

Namibia's ASM, MSME, and inclusive mining ecosystem could

become a cornerstone of sustainable industrialisation if supported with finance, technology, and training. Formalising small-scale mining, empowering local enterprises, and centring women and youth in capacity building would not only expand employment and skills but also strengthen national supply chains.

The challenge is not potential — it is policy and coordination. If unlocked, the combined energy of Namibia's artisanal miners, small businesses, and emerging young talent could redefine the country's mining economy from the ground up.



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