



# Chamber of Mines OF NAMIBIA

*The quarterly newsletter of the Namibian mining industry*

## NEWSLETTER





# MINING JOINT EXPO & CONFERENCE

CHAMBER OF MINES OF NAMIBIA



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# Chamber of Mines

## OF NAMIBIA

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#### PRINTED BY

John Meinert Printing

#### STOCK IMAGES

Shutterstock.com and Unsplash.com

#### ON THE COVER



Empowering sport through  
mining.

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# CEO'S FOREWORD



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*We look forward to starting the new year a fresh and commence preparations for the 2019 Mining Expo & Conference, that is scheduled to take place on the 24th and 25th April.*

—  
VESTON MALANGO  
CEO – CHAMBER OF MINES

*With a blink of an eye, the year is quickly coming to a close and reflections of successes and failures of the year gone by are top of the mind. Although the year has seen three mine closures, overall performance has remained robust with production increases reported in the first two quarters of this year.*

On the policy front, while some of the recent proposals to the Income Tax Amendment Bill have not been welcome and have hurt investor confidence, there have been some extremely positive developments with our line Ministry. On 19 October, the Minister of Mines and Energy through official communication to the Chamber announced that Additional Conditions to Exploration Licences are no longer applicable. The letter also stated that Additional Conditions still pertain at the mining licence stage; however, these have been aligned to suggested amendments submitted by the Chamber.

This comes with great relief to the industry as the conditions posed serious challenges for exploration companies, but are plausible for mining operations. The final resolution to this long outstanding matter is most welcome by the industry as it removes one of the main barriers to investment in exploration. The decision to remove Additional Conditions should thus see investment into exploration projects now materialise, that were previously delayed or stalled as a result. Moreover, we are optimistic that this move will help improve both Namibia's attractiveness as a mining jurisdiction and investor sentiment.

**VESTON MALANGO**  
**CEO – CHAMBER OF MINES**  
16 NOVEMBER 2018

With regard to the proposed amendments to the Income Tax Act, the Minister of Finance also provided some relief in his Mid-term Budget Review Statement, reiterating that that concerns raised have been duly considered and that any amendments will still be subject to wide consultations. In particular, he stated that tax amendments would focus on taxing income of Namibian residents, providing for specific taxation of trusts, phasing out of ineffective tax incentives, the introduction of thin capitalization rules and taxing commercial income of charitable, religious and educational institutions.

As per the special AGM, held at the Chamber of Mines annual Bosberaad from 14 – 16 September, I would like to welcome and congratulate the new office bearers to the Chamber Executive Committee. Congratulations to Hilifa Mbako, Managing Director of Orano Resources Namibia as 1st Vice President and Irvinne Simataa, General Manager of Skorpion Zinc as 2nd Vice President.

With the festive season and holidays approaching, in line with the industry motto of zero harm, I would like to encourage those travelling to be safe and vigilant on our national roads, and elsewhere, but most importantly to enjoy the time with loved ones responsibly. We look forward to starting the new year a fresh and commence preparations for the 2019 Mining Expo & Conference, that is scheduled to take place on the 24th and 25th April.



**Chamber of Mines**  
OF NAMIBIA

# CONGRATULATORY MESSAGE



**MR HILIFA MBAKO**

*First Vice President*



**MR IRVINNE SIMAATA**

*Second Vice President*

As per the extraordinary AGM held on 14 September, 2019, the Council of the Chamber of Mines wishes to congratulate Mr Hilifa Mbako for his re-election as First Vice President and Mr Irvinne Simataa for election as the new Second Vice President of the Chamber of Mines for the period 2018 to 2021.

**THE CHAMBER OF MINES WISHES THEM ALL THE BEST  
DURING THEIR TENURE OF OFFICE AS THEY DRIVE THE  
OBJECTIVES OF THE CHAMBER IN GROWING NAMIBIA'S  
MINING INDUSTRY.**

# MINING TOWNS

# CAN BE FOREVER

BY RETHA VAN DER SCHYF  
NAMDEBS RESPONSIBLE CLOSURE TEAM

**Mining operations by nature have a finite functional life, until the resource being extracted is depleted. Very often, towns created to support such mines struggle to find sustainable solutions to continue economic activities once an operation reaches its life of mine. However, proper mine closure and town transformation planning and commitment by all parties involved can pave the way for functional towns after a mine reaches closure.**

Oranjemund rose out of the desert more than 80 years ago as a private mining town after diamonds were discovered on the banks of the Orange River. In keeping with the practice of the mining industry world-wide, a town was shaped in this remote part of the world, solely in support of the mining operations, firstly for Consolidated Diamond Mines (CDM) and now Namdeb Diamond Corporation. Namdeb is a wholly owned subsidiary of Namdeb Holdings (Proprietary) Limited. Holdings, in turn, is owned in equal shares (50:50) by the Government of the Republic of Namibia and the De Beers Group.

Created out of business necessity, a privately-run closed mining town is a unique environment. Housing, schooling, health-care and town services are all provided by the mine to a high standard to ensure a well-serviced and safe environment for colleagues to live and work.

One important unintended consequence of such a town, however, is that its entire reason for being, including its economic make-up, becomes fully intertwined with the future of the mine and to the exclusion of all other economic activities. So much so that when the mine goes into decline or closes, the town by its very nature is at real risk of collapse. The many ghost towns littered across the world are testimony to this fact and locally, Kolmanskop is our one constant reminder.

With the turn in global economic performance in 2008, Namdeb's land-based operations came under real threat for the first time and this potential future reality dawned on Oranjemund town. After careful consideration by Namdeb and the Namibian Government, this in part resulted in Oranjemund's proclamation as a public town in 2011 and so the long process of what is referred to as 'town transformation' began in earnest.

The purpose of Oranjemund's town transformation is three-fold. The first objective is to normalise the town. This refers to the establishment of a town council for the first time, the

transfer of town services and infrastructure with associated costs from the mine to the new council, as well as the privatisation of land and buildings. Normalisation also includes the sustainable resolve of any education, healthcare or other services that the mine owns.

The second and the most challenging objective of a town

“

*To govern this process at Oranjemund, Namdeb launched a mine closure programme that not only includes its firm commitment to ensure a stable, sustainable town, but also its environmental rehabilitation commitments and the long-term commitments to its employees.*

—

transformation is to sever the key economic reliance between the mine and the town. By implication the local economy needs to be diversified to ensure new industries and opportunities can provide sufficient livelihood for the town and its residents after the mine eventually closes.

To ensure success, the biggest learning point from around the world is that expectations of a future town must be realistic. In every single case the mining town, at least initially, faces a different economic standard. It is near inevitable that when the mine closes, the town will initially shrink before it has the potential to grow again into a new future. The only variable is the pace at which new and sustainable business opportunities can be created. Here history has taught time and again that it is unwise to rely on the appearance of a single 'White Knight' and that it is best to establish at least two to three new medium size enterprises to ensure a stable town in the long-run.

The final objective of town transformation is to make sure that the mine in question can close responsibly when the unfortunate time finally arrives. To govern this process at Oranjemund, Namdeb launched a mine closure programme that not only includes its firm commitment to ensure a stable, sustain-

# MAKING A NEW ORANJEMUND



able town, but also its environmental rehabilitation commitments and the long-term commitments to its employees.

Town transformations don't happen organically. If they did, ghost towns would not be a reality. Town transformations are highly complex and is a long, arduous process and can take 15 years or more to achieve. Without question, it requires significant investment, as well as deliberate support, both independently and collectively, from several interested parties including the mine, the local, regional and national government, business leaders as well as the local community.

To launch this journey for Oranjemund, Namdeb in 2015 hosted a town event in full partnership with the new Oranjemund Town Council to ask its residents what they desired of their future town. A number of opportunities were identified that are now actively being pursued for and by the town. As part of this process the town's citizens identified four principles to guide this unique process: Belong, Conserve, Integrate and Diversify.

These pillars form the backbone of Oranjemund's town transformation programme, referred to as OMD 2030. This is the target date for achieving a stable town independent from the mine and regardless of when the mine eventually closes.

What lies ahead for Oranjemund is both an enormous challenge and a very unique opportunity. Namdeb is committed to this process alongside and in partnership with the local council and the citizens of Oranjemund.



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# NAMIB LEAD & ZINC MINE

## *progress update*

*Since the previous article published in the third issue of the Chamber Newsletter, the Namib lead and zinc mine site has been a hive of activity. This included development of the main underground decline, site infrastructure including the main water and power supply and offsite plant manufacturing and construction. Activities on site also increased with the arrival of plant construction material, while on-site construction consisted of the main portions for the communication circuit.*

### CONSTRUCTION PROGRESS

To date, more than N\$100 million has been spent on mine development and construction, while the company has committed N\$140 million to project development. Planned total investment is expected to reach N\$230 million. The bulk of capital and development expenditure is for the crushing and flotation plant, site infrastructure, mining development and equipment.

The project has completed the main portions of site infrastructure, building and earthworks. Civil works are complete for plant construction and in progress for the milling, flotation and filtration areas. Further peripheral works are planned for the site stores and export areas.

The main highlight for October was the first arrival of the processing plant equipment from Bond Equipment (Pty) Ltd in South Africa. Bond Equipment follows a construction methodology of full offsite assembly and testing before transporting and erection on site. This process has proven to be extremely successful and has transpired in a rapid and safe construction procedure.





Left page: Plant construction on NLZM site.  
This page above (left to right) : “Women in Mining” posing in newly acquired Utility vehicle; Assembly of second crusher and screen; Fine ore bin fully assembled.  
Below (top to bottom): Finance team; Underground tour, visiting Finance team with Management.

## PEOPLE

Namib Lead & Zinc Mining (NLZM) is an equal opportunity employer and its recruitment objective is to ensure that competent people are selected, trained, motivated and retained whilst complying with all relevant labour relevant legislation. The company is also working towards establishing an organizational culture and climate in which people have the competency, concern, drive and commitment to serve company needs.

NLZM strives to recruit Namibian citizens where possible and aims to attract competent candidates through offering competitive salaries and benefits. Currently, Namib Lead & Zinc Mining employs 52 individuals of which 38 are permanent and 14 are fixed term. The staff compliment also includes five students from the Namibian Institute of Mining and Technology (NIMT).

To date, the company has succeeded in recruiting a well-diversified management team with the key support staff to ensure a smooth start-up into operations. NLZM has implemented a flat organizational structure with only a Managing Director and Chief Financial Officer, heading up a lean, Namibianised Management team consisting of a Mining Manager, Plant Manager, Engineering Manager, Technical Services and Financial Manager. NLZM is in the process of engaging candidates needed to cater for the demands of their operation. With mining operations well underway, most of the mining personnel has already been recruited. Once fully operational, the company will have a total workforce of 150 employees.

## OPERATIONS

Construction at NLZM is planned to be completed early in 2019. Commissioning and Ramp-up is scheduled for the first quarter in 2019 and full production planned for mid-year 2019.

The first phase production rate is planned for 10,000 tonnes of ore treated monthly and the mine will produce zinc and lead concentrates that will be destined for various markets. The company will produce over 9,000 tonnes of contained lead and zinc metal annually. With an initial Mineral Resource of 1.1m tonnes, an initial mine life of nine years is proposed. The company has engaged various traders during the month of October prior and during their attendance of the annual London Metal Exchange (LME) week. The company is planning to finalise its sales offtake process early in 2019.





HEALTHCARE



EDUCATION



LIVELIHOODS



ENVIRONMENTAL  
CONSERVATION



OUR FOUR CSI FOCAL AREAS

## RAISING THE BAR ON CSI FOCUS ON EDUCATION

### THE EDUVISION INITIATIVE

EduGate Academy in Otjiwarongo celebrated the launch of its Eduvision initiative in August 2018. This project has revolutionised Namibian education through the launch of a cutting-edge e-learning programme.

Eduvision aims to improve the understanding of subject content and to ultimately improve pass rates of learners at Tsumkwe Secondary School (located in Tsumkwe Constituency). The two schools will share resources to facilitate learning between a private school and a government school. Teachers at both schools have been trained to effectively utilise the technology, which allows for live lessons to be given at EduGate, and to be received with interactive audio-visual equipment at Tsumkwe SS. The project will positively impact Tsumkwe SS by mitigating some of the challenges which teachers and students face. The smart boards,

projectors and screens at both EduGate and Tsumkwe SS were donated by B2Gold Namibia.

Mark Dawe (Managing Director and Country Manager, B2Gold Namibia) is adamant that support to community projects such as Eduvision is part and parcel of B2Gold's licence to operate: "What B2Gold is trying to do is to make a really big difference during the time that the mine is operational. We want to put back what we take out of the ground... There is so much that can be done in this country. If you mine in a developing country, I believe that you have to be prepared to give back."

Scan here to view the B2Gold Namibia "More Than Mining" CSI video on your mobile device:



▲ An EduGate teacher demonstrates the Eduvision technology at the launch of the initiative in August 2018 to various dignitaries. The satellite up-link with Tsumkwe Secondary can be seen to the right on the smaller screen.

#### CONTACT

B2Gold Namibia has a fully-fledged CSI department. For more information about our project application process, please email [namibia.pr@b2gold.com](mailto:namibia.pr@b2gold.com) or phone (061) 295 8700.

[www.b2gold.com](http://www.b2gold.com)





# BATTERY MINERALS DECLINE: *the bigger picture*

BY LAUREN DAVIDSON

***There has been much hype and optimism regarding battery minerals and what this could potentially mean for growing Namibia's mining sector. Since the start of this year, prices for battery minerals have been on the decline, fueling skepticism from local and global critics that the exponentially high prices for battery minerals was not sustainable for an industry that needs to meet the growing demand for Electric Vehicles (EVs) quickly and cost effectively.***

In Namibia, declining lithium prices has already had negative consequences on the operations and future plans of a junior mining company. It is thus important to understand the factors driving this price decrease, the intricate dynamics of the lithium market and why it does not rule out the prospect of Namibia as a lithium producer.

According to the International Energy Agency, China accounted for more than 50% of EV global sales in 2017, highlighting the country's dominance in the EV market. The main driver of China's growing EV industry has been through consumer-targeted subsidies and production incentives that are part of a national drive to curb carbon dioxide emissions and the country's carbon footprint. At the end of 2016, the national Government announced that it would begin reducing and capping these subsidies in an effort to make the industry self-sustaining. China's policy focus is thus moving towards incentives based on innovation and a dual-credit scheme that requires individual carmakers to produce a minimum number of EVs and enhance the fuel efficiency of traditional vehicles.

Policy change announcements have led to a reduction in the production of Chinese EVs in recent months which has subsequently curbed the demand for battery minerals, of which lithium is a major component. Furthermore, there has also been an increase in cheaper domestic production and increased imports from South America and Australia. In combination, these factors have led to a decrease in lithium spot prices in the Chinese market. As China was the sole consumer of Namibian produced lithium concentrate, lower prices resulted in the suspension of operations at Desert Lion Energy.

The market for lithium appears to be split between the rest of the world and China, with the two markets driven

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*In Namibia, declining lithium prices has already had negative consequences on the operations and future plans of a junior mining company. It is thus important to understand the factors driving this price decrease ...*

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by different mechanisms. The contracting characteristics of the rest of the world appear to be longer-term (three to five years) in comparison to Chinese contracts, which are shorter and thus closely correlated to the spot market. As a result, lithium spot prices outside of China have not declined as aggressively and are likely to buoy average lithium spot prices in the short term.

Emerging trade wars between the USA and China has also negatively affected the global market for lithium. Tariffs have risen the general costs of producing EVs and have made the US an unattractive destination for EV and battery manufacturing. Furthermore, EVs in the USA are no longer a policy priority as the transport department recently announced their intentions to remove the stringent fuel economy standards. China is thus increasingly positioned to hold an ever more dominant position in the EV market and will likely become the benchmark for global lithium prices.

While lithium prices may not return to the historic highs recorded in 2017, demand fundamentals remain intact as EVs are the central focus of developed countries pursuing cleaner economies and policy clarity in China is expected to reinstate local demand. As such, there are prospects for developing lithium projects in Namibia, however, it is necessary for their long-term viability to be established before development and operations commence.

# MINIMISING MINING'S FOOTPRINT

## WHILE MAXIMIZING SOCIO-ECONOMIC BENEFITS

BY LAUREN DAVIDSON

***In the last two years, the Namibian Chamber of Environment (NCE) and the Chamber of Mines (CoM) have coordinated efforts to explore ways through which the mining industry can elevate environmental management at an industry level while maximizing socio-economic benefits. This initiative, pioneered by Dr Chris Brown (CEO of NCE) and Charles Loots (General Manager – Corporate at B2Gold, Chairman of NCE and Chairperson of the Chamber Environmental Committee), was birthed in the realisation that there was no formal platform for environmental practitioners to discuss issues related to environmental best practice and management in the sector.***

These efforts are partially an attempt to raise awareness and negate the negative perceptions held by the general public regarding the mining industry and its environmental impact, since mining is characteristically associated with structural changes to otherwise natural occurring landscapes. The industry's reputation is also marred by unsound mining practices conducted decades ago, which was largely unregulated in terms of environmental compliance, mine closure and rehabilitation. This has left a legacy of over 200 un-rehabilitated mine sites in Namibia.

However, the present situation, with respect to environmental management in the mining industry, is vastly different to that of 20 years ago. Legislation requires that Mining Licence approvals have to be accompanied with an Environmental Clearance Certificate. The Environmental Commissioner, upon having approved the Environmental Impact Assessment report submitted by the applicant, issues this certificate. Once the Environmental Clearance Certificate has been received, and all other necessary conditions are

met, a company is then be issued with a Mining Licence. Moreover, mining companies are required to provide Environmental Management Plans, which include monitoring and regular reporting on their environmental impacts as well as mitigation strategies.

While these activities are being carried out at the individual mine level, prior to establishing the Environmental Subcommittee, there was no forum or platform for environmental practitioners to organise themselves at an industry level. The proposal to establish such a committee was subsequently approved at the Chamber of Mines Council Bosberaad meeting in September 2016. The strategic objectives of this committee have been included as a separate focus area in the 2017 – 2020 strategy of the Chamber of Mines, meaning that its deliberations are prioritised at the highest level. The committee is also unique in that it includes stakeholders from government, NCE as well as other environmental organisations, making it a truly inclusive and visible platform. During a recent meeting the Committee, along



Left: Chamber of Mines Environmental Committee meeting held in 2017, with discussions continuing long into the night.  
Right: Members of the Chamber of Mines Environmental Committee.



with the NCE, shared its partnership achievements to date and its planned objectives with Honourable Tom Alweendo, the Minister of Mines and Energy. Namibia is unique in that there are few (if any) other countries in the world that enjoy such a constructive relationship between two sectors that have traditionally been adversaries.

One of the strategic action plans currently underway is the compilation of an environmental best practice guide, to assist environmental practitioners and other mining personnel actually carrying out the work. The guide provides information on how key environmental aspects are best managed and risks mitigated in the industry. For example, it covers methods on how best to conduct rehabilitation activities, ground water management and how to monitor dust fallout. It is broken up into four sections, which cover the different stages of the mining life cycle: exploration, construction, operations and mine closure. An indirect spin-off of such a guide is that the approach can easily be applied and adopted in other sectors.

While the physical footprint of mining is very small (about 1% of Namibia's total surface area), Dr Chris Brown and Charles Loots are of the opinion that there is much more that the mining industry can achieve by working together. In prior years, the ethos of companies was purely profit-driven while the mantra today is more focused on value addition. The mining sector has embraced this mantra by exploring new ways on how things can be done differently in order to create jobs and maximise wealth creation in local communities, while keeping their environmental impacts to a minimum.

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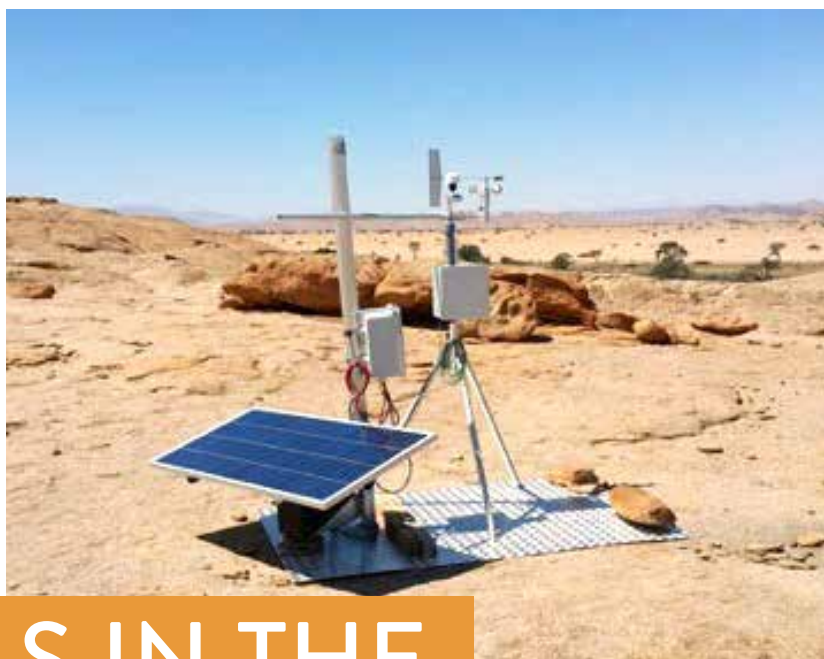
*One of the strategic action plans currently underway is the compilation of an environmental best practice guide, to assist environmental practitioners and other mining personnel actually carrying out the work.*

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Culminating from this is the concept of Environmental Offsets, which uses investments into socio-economic activities to compensate for an industry's impact on the environment and surrounding communities. Traditionally, mining companies in Namibia have invested in the regions and communities where they have immediate impact. However, the sector is in the process of adopting a more innovative approach to how such offsets are invested, with the creation of a fund for socio-economic projects in non-mining regions, which will have a much larger developmental impact and leave a lasting legacy.

Two projects have already been identified by the NCE to benefit from the Offset Fund, the first involving electrification of 900 houses in the Zambezi region, and the second the servicing of land in the Oshakati and Oshana regions for low income families.

Environmental and socio-economic issues are inextricably linked, especially in a country like Namibia, and these efforts should not be viewed in silos, but rather as complementary to maximise socio-economic gain while limiting environmental impacts. The approach is not only instrumental to ensure that objectives are aligned with key national development priorities, but also in positioning Namibia's mining industry as a leader in global best practice on these fronts.



# DUST LEVELS IN THE ERONGO REGION

## – WHAT DO WE KNOW SO FAR?

*Article of the Ministry of Mines and Energy, Namibia, by Hanlie Liebenberg-Enslin and Johann A. Enslin, Airshed Planning Professionals*

The coast of the Erongo region is known for the prevailing east wind during winter months. As recently as July, strong east winds covered the towns of Swakopmund and Walvis Bay in a dust blanket. Due to perceptions that these events occur earlier and more frequently than in previous years and that there may be a health risk to the public, the Ministry of Mines and Energy (MME) through BGR-GSN Cooperation initiated an air Quality Study to measure and assess dust and radioactivity levels in the region. This forms part of the Strategic Environmental Management Plan (SEMP) for the uranium mines and other industries within the Erongo region.

### AIR QUALITY MONITORING NETWORK

The figure below, indicates that several monitoring stations were installed in the most populated areas to measure the ambient air quality. Due to its isolated location, Jakalswater is used as a background station. The monitoring stations were installed in October 2016.

These stations monitor inhalable dust called Particulate Matter (PM) and measure meteorological parameters such as wind speed, wind direction, temperature, atmospheric pressure, among other variables.

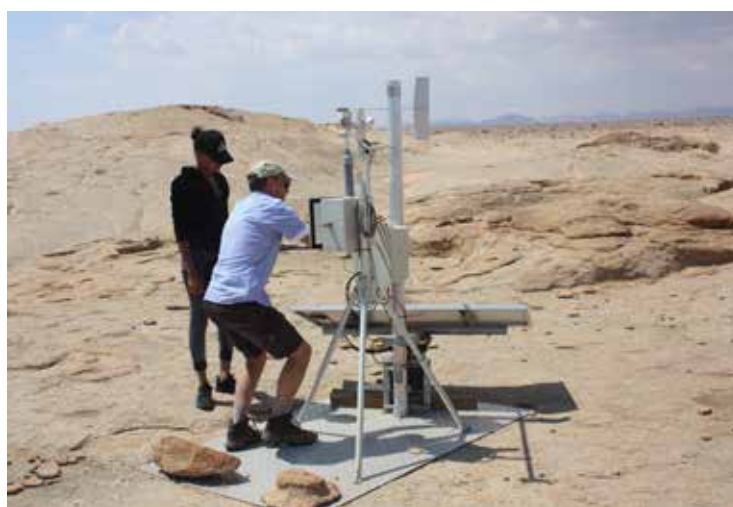
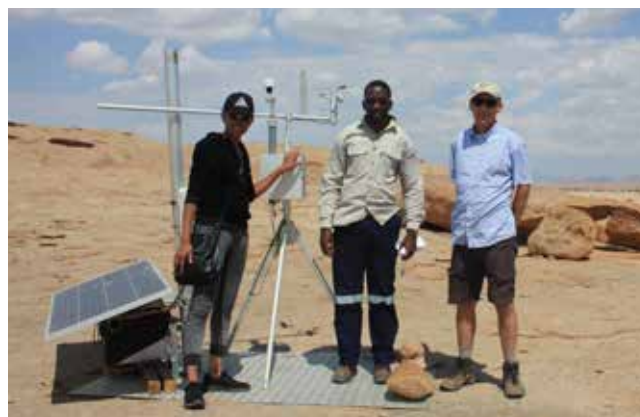
PM has two fine fractions called PM10 and PM2.5. The former is a fraction that is small enough to enter the respiratory tract and penetrate beyond the larynx, and the latter an even smaller fraction that may reach the deep lung. It is important to note that PM10 is primarily produced by processes such as windblown dust, road dust, and mining operations. These are the most prevalent in the region. PM2.5 originates primarily from combustion sources such as vehicle tailpipe emissions, boilers, etc. In addition to measuring inhalable dust, atmospheric concentration of radon, which is a radioactive gas, is measured at Swakopmund and Arandis.

### SOURCES OF DUST IN ERONGO REGION

Sources of pollution can be divided into natural- and man-made sources. Dust storms fall under natural sources where dust particles are lifted from the exposed gravel plains and suspended under high wind speeds. Another natural source is the ocean; contributing in the form of sea salts and organic matter. Then there is a range of man-made sources such as dust generated from vehicles travelling on roads (paved, treated and unpaved roads), vehicle exhaust emissions, various mining operations (uranium, gold, stone quarries and sand mining), harbour emissions (ships, loading and unloading activities, mobile equipment, etc.), construction activities, small boilers and incinerators.



Monitoring Location	Pollutant/ Parameter Measured									
	PM <sub>10</sub> (a)	PM <sub>2.5</sub> (b)	Wind Speed	Wind Direction	Temperature	Relative Humidity	Solar Radiation	Barometric Pressure	Rainfall	Radon
Swakopmund	x	x	x	x	x	x	x	x	x	x
Walvis Bay	x	x	x	x	x	x		x		x
Arandis	x		x	x	x	x	x	x	x	x
Henties Bay	x				x	x		x		
Jakalswater	x		x	x	x	x		x		



## HOW CAN WE DIFFERENTIATE BETWEEN THE CONTRIBUTION FROM NATURAL AND MANMADE SOURCES OF DUST? THERE ARE SEVERAL WAYS:

- We plot the measured PM10 and PM2.5 concentrations against wind direction and wind speed.
- We analyse the measured particulate matter for specific elements associated with mineral dust, mine dust or sea salts.
- We quantify the various sources of emissions in the region and use dispersion models to compare the results with the actual measurements. The difference between the quantified man-made and modelled results could indicate the contribution from natural sources.

All this is currently being undertaken by a team of consultants, lead by Airshed Planning Professionals (Pty) Ltd, to try and understand the main contributing sources and the composition of the measured particulate concentrations.

### WAY FORWARD

Monitoring is ongoing, and the consultants are busy with the air quality and radiation impact assessments. **For those who are interested, data can be viewed on the website <http://erongo.argos-sci.info>.**

## DUST CONCENTRATION TRENDS

What do we know so far? From the measured data for the year 2017 we can report on the following preliminary findings:

- Prevailing winds speeds are generally lower at inland stations than at the coast. Wind speed increases from the inland stations toward the coastline.
- PM10 concentrations are on average higher at Walvis Bay and Swakopmund than at the other stations, exceeding the acceptable international daily limit on 21 out of 365 days at Swakopmund and 27 days at Walvis Bay. At Henties Bay, Arandis and Jakalswater the PM10 concentrations are within the acceptable international limits.
- High PM10 concentrations are primarily associated with east wind conditions. Lower but more constant PM10 concentrations recorded at Walvis Bay and Swakopmund seem to be from the ocean when the wind is blowing from the south-west and from the north-west.
- PM2.5 concentrations, measured at Walvis Bay and Swakopmund, are well below the acceptable international limits. The PM2.5 and PM10 trends indicate that both concentrations are from the same sources, with PM2.5 a much smaller component.
- Atmospheric radon concentrations for the monitoring period 2017 were highly variable and much lower than the annual average level regarded as acceptable for indoor radon concentrations by the World Health Organisation (WHO).

# A DECADE OF URANIUM STEWARDSHIP

***In 2008, the Chamber of Mines of Namibia (CoM) established the Uranium Stewardship Committee (USC) in order to safeguard the interest of the Namibian uranium industry and in response to the then rapidly growing uranium industry. The committee was established in line with the World Nuclear Association's Stewardship Principles which advocate for collective responsibility and commitment by all players to the safe and responsible management of the uranium product.***

The Namibian Uranium Industry supports the concept of stewardship. Stewardship involves the care and management of uranium through its life cycle and covers the exploration, mining, processing, recovery, recycling and disposal of the product.

Stewardship needs to be an integrated programme of actions aimed at ensuring that all materials, processes, goods and services are managed throughout the life cycle in a socially and environmentally responsible manner.

Mike Leech, the then Managing Director of Rössing Uranium Ltd (RUL), was the first chairperson of the USC and underlined during the first meeting that the uranium exploration and mining industry in Namibia has a collective responsibility for leading practice in the stewardship of its product; that the USC and its members are fully aware of the need to support the principle of leading practice in the management of their product; and that the USC is taking action to back up that awareness to build confidence in the industry and to provide leadership to others.

Taking this commitment forward, a small office in Swakopmund was set up to develop standards for environmental health and management for uranium mines. Dr Wotan Swiegers was recruited as Principal Advisor: Health & Environment, Science & Strategy to

Below: Training at the Uranium Institute in 2012



head the Swakopmund office, which became known as the **Chamber of Mines' Uranium Institute (UI)**. It was realised that the cumulative impacts of the rapidly growing uranium activities in an area with fragile desert ecology requires strategic assessment and management rather than management of individual projects in isolation. **A Strategic Environmental Assessment (SEA)** was therefore proposed, and readily taken up by the Geological Survey of Namibia (GSN), Ministry of Mines and Energy (MME) and their cooperation partner, the German Federal Institute for Geosciences and Natural Resources (BGR). The SEA was carried out between 2008 and 2010 by the Southern African Institute for Environmental Assessment (SAIEA). SAIEA worked

in close cooperation with government and industry stakeholders, and extensive public participation ensured transparency and wide consultation in the process. It included many specialist reports and baseline studies on a comprehensive variety of environmental issues, and eventually culminated in the development of a **Strategic Environmental Management Plan (SEMP)**. The SEMP implementation started in 2011 in close cooperation between the MME and UI.

Meanwhile, the USC continued its work, and formed a Health & Environment and Radiation Safety Steering Committee (HERS-SC) with Working Groups on Emergency & Safety; Biodiversity, Biophysical & Land Use; Radiation safety; Water & Waste; Air Quality & Meteo-



rology; Occupational Health; Public & Social Health; and Education & Housing. The committee also contributed to the SEMP report.

In 2010, the UI was able to move into custom made premises at the Swakopmund Medical Centre. The new UI was officially opened on 19 August 2010 by the Governor of the Erongo Region, Hon Samuel Nuuyoma.

In 2013, the CoM identified the pressing need to establish a sustainable management and service delivery entity that can effectively address the key issues faced by the Namibian uranium industry. As a result, the **Namibian Uranium Association (NUA)** was established, and the UI became the **Namibian Uranium Institute (NUI)**. In 2016, Dr Gabi Schneider took over from Dr Wotan Swiegers as the Executive Director of NUI.

A variety of activities has been carried out by the UI since its modest beginnings, and subsequently by the NUI. To stimulate scientific debate, the NUI offers scientific talks under the auspices of the **Isaak Newton Forum** since 2014. A number of publications, such as Questions Answered about Uranium & Radiation (2011), the Guide to Radiation in Namibia's Uranium Exploration and Mining sectors (2015), the NUA Booklet (2016), Careers in the Mining Industry (2017), and the Radiation Safety Officer's Handbook (2018) have been released by NUI.

In order to provide information to stakeholders, UI's **website** was established and is regularly updated. It contains detailed information on the nuclear cycle, the uranium industry and government regulation, as well as on the environmental and safety aspects of uranium mining and exploration. It shows training schedules and course outlines, articles about the biodiversity of the Namib Desert and a Frequently Asked Questions section on radiation, uranium, the environment and nuclear



Top: The Uranium Institute in 2010

Below: The Water and Air Quality Working Group in the field, 2017



safety, and was completely overhauled in 2017/18.

In 2012, UI developed Health, Environment and Radiation Safety and Security (HERSS) **Standards** on the basis of the extensive knowledge and practical experience of the Namibian uranium industry. The standards are aligned with Namibian laws and regulations, and bring about substantial convergence between Namibian and international standards.

UI and various service providers also developed a suite of **training courses** to cater for the need of the uranium industry in Namibia. NUI is registered with the Ministry of Labour as an Authorized Inspection Authority for competencies in environmental science in mining and radiation systems management, and NUI is currently in the process of obtaining accreditation with the Namibian University for Science and Technology (NUST) and the Namibian Qualifications Authority (NQA). NUI's training programmes promote learning and capacity building in the fields of health, environmental

management and radiation safety. It provides an opportunity for NUA members to work together to improve safety and health performance and identify leading practices.

In 2013, NUA established a standing committee, the Sustainable Development Committee, under the NUI. This committee ensures that uranium supplied from Namibia is produced, transported, stored and managed in a socially, economically and environmentally responsible manner. It has a focus on the identification of risks to the Namibian uranium brand, and has appointed supporting technical working groups that advise on emerging issues.

Namibian uranium exploration and mining companies have fully recognized that managing environmental issues, radiation, health and safety, and waste is of paramount importance to protect staff, the general public and the receiving environment. This can best be achieved in a coordinated way, and the NUI has become the vehicle of choice to accomplish this.

# NAMDEB

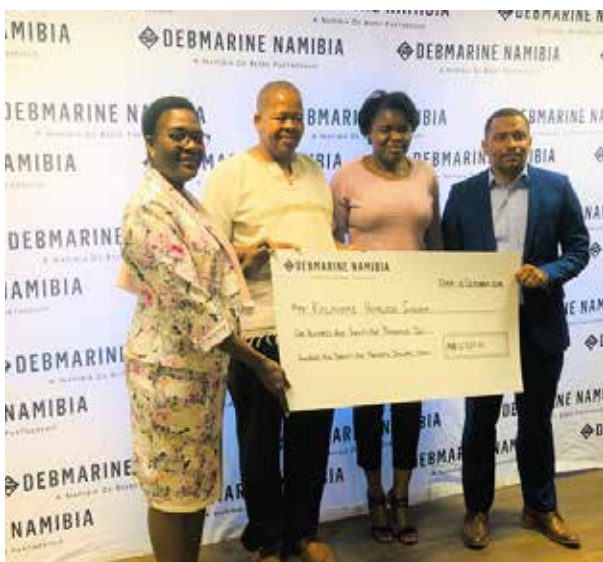
## EMPOWERS FEMALE EMPLOYEES

Namdeb continues to celebrate women in mining across all levels and disciplines. As such, during the first quarter of 2018, the Company introduced an information sharing platform for female employees, where key topics are discussed as a means of empowering women across the business. The topics range from gender diversity and inclusivity focus areas; wellness; health; family aspects; career guidance and issues of national interest amongst others.

Another one of these powerful sessions was hosted on Wednesday, 17 October 2018. At this occasion, the topics included Women and their Legal Rights, presented by Namdeb's Company Secretary, Libertha Kapere; Breast Cancer awareness by Aroschell Strydom, while Lilita Marques touched on Mental Health issues. This event was well attended and showcased the expertise and creativity of Namdeb's female talent.



## DEBMARINE NAMIBIA



## DONATES TOWARDS THE KALAHARI HOMELESS INDABA PROJECT

Debmarine Namibia recently donated N\$121,225 towards the Kalahari Homeless Indaba Project. The money will be used to build five galvanized zinc and two bedroom houses in the Kalahari Constituency in Omaheke Region. Speaking on behalf of Debmarine Namibia CEO during the handover, Mr Willy Mertens said that the company's corporate social investment is committed to delivering a lasting positive socio-economic impact and creating a positive diamond legacy. Accepting the donation, was Hon. Kornelia Shilunga, the patron of the Kalahari Homeless Indaba Project. Hon. Shilunga said there are a large number of people in the Kalahari Constituency still living in unbearable situations, in shacks and plastic houses. Families living in these houses are exposed to the harsh heat of summer, winter, rain, and dangerous creatures such as snakes and scorpions. "I therefore applaud Debmarine Namibia for this outstanding contribution and gesture in striving to improve people's living conditions as their support towards obtaining sustainable development and economic emancipation" says Hon. Shilunga during the handover.



# No.1

world leader in marine diamond mining

**DEBMARINE NAMIBIA**  
A NAMIBIA DE BEERS PARTNERSHIP









WE MAKE YOUR BUSINESS A SUCCESS

### ABOUT OUR COMPANY

Gecko Drilling and Blasting (Pty) Ltd. is a 100% Namibian owned company specializing in the provision of exploration drilling and drill & blast services to the mining, quarrying and civil construction industries. The Company's main office and workshop facilities are strategically located at Nonidas, Swakopmund. Services include efficient and cost-effective exploration, drill & blasting as well as mining and geological consultancy. Gecko has a wealth of knowledge and experience gained over many years of operation on numerous projects across the African sub-continent. With the Company's dedicated and experienced team at hand, we are committed to ensuring that client's requirements and objectives are met effectively.

### FLEET OF DRILL & BLAST RIGS

- \* Ingersoll Rand ECM 585,
- \* Ingersoll 660 Drills
- \* Reed Drill 400C
- \* SCH 5000's Drills
- \* Bohrmeister RC & DC 6x6 & 8x8
- \* Atlas Copco D60, DM30 & T45's
- \* Boart Longyear LF90DC
- \* Bohrmeister RC & DC on tracks

### SUPPORT INFRASTRUCTURE

Gecko Drilling and Blasting owns and operates comprehensively equipped workshops and technical support networks. Field service technicians are available to maintain, repair, build and modify all equipment to ensure minimal operational downtime

### CORE CAPABILITIES

- \* Reverse Circulation drilling (120 - 152mm)
- \* Surface wire-line diamond core drilling (sizes: BQ, NQ/ NQ3, HQ/HQ3 & PQ/PQ3)
- \* Open-hole percussion drilling (up to 15"/320mm)
- \* Geotechnical and
- \* Grade control drilling
- \* Water well drilling up to 254mm diameter
- \* Grouting, gravel packing and cement seals
- \* Unconsolidated drilling
- \* Environmental drilling

### CLIENT REFERENCES

**NAMIBIA**

\*Rossing Uranium

\*Kunene Resources

\*NAMDEB-Northern Coastal Mines

\*NAMDEB-Southern Coastal Mines

\*Langer Heinrich Uranium

\*UNIK Construction

\*Crushco

\*Namibia Construction

\*Imerys - Graphite

\*Celsius Resources

\*RTX - Rio Tinto Exploration

**SOUTHERN AFRICAN EXPLORATION COMMUNITY**

\*Glencore

\*BCL - Botswana

\*BHP Billiton Xstrata

\*Jindal

\*UMK (United Manganese Kalahari)

### BACKUP AND SUPPORT EQUIPMENT

- \*Tent-based camp facilities
- \*4x4, 6x6 and 8x8 support and supply trucks
- \*A large fleet of water bowzers, low-bed trucks & trailers



## CONTACT US FOR ALL YOUR DRILLING AND BLASTING NEEDS



**Director Operations**  
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Tel: +264 81 144 4061



# SKORPION ZINC

## EMPOWERING YOUNG TALENT THROUGH FOOTBALL

### SKORPION ZINC UNDER 17 SOCCER CUP

In the last five years, Skorpion Zinc (SZ) has sponsored five years of successful football, the SZ under 17 Soccer Cup and since inception, is on the annual calendar of the Namibia Football Association and is recognized by the Namibia Sports Commission. It reaches out to all the 14 regions of the country, with trails for the cup taking place in each of these areas. This provides an opportunity for young talented players to compete for a place in the regional team that participates at the National tournament. All 14 Regions in the country enthusiastically prepare their best talent to represent the region at the tournament.

The last five tournaments have seen approximately 1,750 players directly benefitting from this tournament. Football experts and talent scouts are always present to look out for the best players and potential recruitments for the premier league clubs, but most importantly, the National Under 17 Soccer Team. For five years, the tournament served as a pool for the selection of young talented Namibians for a spot in the National Under 17 team and eventually the National team. The tournament offers immense exposure and opportunity for young players to be selected in the National team, which participate in bigger tournaments such as the COSAFA Under 17 Cup.

This year, the //Kharas region was the winning team of the tournament, following three years of consecutive victory by the Omusati region. The first tournament in 2013, was won by the Khomas Region.



Top: Khomas Region Team won the Cup in 2013.  
Bottom: Omusati Region Team was the Cup in 2014.





Minister of Sport, Hon. Erastus Uutoni, officiating at the launch in July 2018. Middle: Advisor to the Governor of the Khomas Region, Mrs. Sibiya, and General Manager of Skorpion Zinc, Irvinne Simataa at the launch.



Kick-off of the 2017 U/17 tournament in Windhoek, in the picture from left: GM Skorpion Zinc, Irvinne Simataa, Deputy Minister of Sport, Hon. Agnes Tjongarero, former Minister of Mines and Energy, Hon. Obeth Kandjoze, Governor of the Khomas Region, Hon. Laura McLeod, Secretary General of the Namibia Football Association, Barry Rukoro, and Corporate Affairs Manager of Skorpion Zinc, Nora Ndopu.



Press Conference at Soccer House, 1 week before the kick-off of the 2018 SZ U/17 Cup, Corporate Affairs Manager at Skorpion Zinc and Barry Rukoro, Secretary General of the Namibia Football Association.

From top to bottom: Omusati Region Team was the Cup in 2017  
//Kharas Region Team won the cup in 2018.



Below: Women from the 10 clubs participating in the 2018 Skorpion Zinc NFA Women Super league.



Above: Ms. Nora Ndopu Corporate Affairs and Sustainability Manager together with Mrs. Emma Kantema-Gaomas Permanent Secretary of the Ministry of Sport, Youth and National Service, Barry Rukoro, Secretary General of the Namibia Football Association, NFA Women Soccer GM Mrs. Jacqueline Shipanga during the launch of the Skorpion Zinc NFA Women Super League (WSL) launch in Windhoek.



# NAMIBIAN WOMEN'S LEAGUE EMPOWERED

**Following the success of the Under 17 Soccer Tournament over the last five years, Skorpion Zinc, through its CEO of Africa Base Metals, Mrs. Deshnee Naidoo, has committed to reciprocating the same for young female football players through a sponsorship of the women soccer league. An amount of N\$750 000 will go towards the women soccer league.**

The league under the name Skorpion Zinc NFA Women Super League will target talented Namibian female soccer players, who are 16 to 35 years of age, from ten women soccer clubs across the country.

On the 4th October 2018 the Permanent Secretary of the Ministry of Sport, Youth and National Service Mrs. Emma Kantema-Gaomas and Ms. Nora Ndopu, Corporate Affairs Manager at Skorpion Zinc, launched the Skorpion Zinc NFA Women Super League in Windhoek. Ms. Ndopu, in her remarks, stated that funding of the women sport league will go a long way to provide more participation opportunities for young women and ensure that systems are in place to encourage and develop talented female soccer players who can then excel on the world stage. In 2014, SZ partnered with the Confederation of African Football (CAF) and other corporates to sponsor the Championships held in Windhoek, Namibia.

In her speech, Mrs. Emma Kantema-Gaomas applauded Skorpion Zinc for investing in youth development programs such as the Skorpion Zinc National under 17 Championships and now the sponsorship of the Women Super League. Mrs. Kantema-Gaomas also stated that the NFA Women Skorpion Zinc Super League will present a platform for the women and girls to showcase their talent and skills at the highest level in the country, making them competitive to take on international games elsewhere in the world.

“

*Thank you for empowering the girls of Namibia. You have touched and changed the lives of our girls in the regions by giving them this opportunity. We can assure you that we will work hard to make you proud.*

—  
JACQUELINE SHIPANGA,  
GENERAL MANAGER OF THE NFA WOMEN SOCCER

The event was graced by the presence of the Namibia Football Association Secretary-General, Mr. Barry Rukoro, NFA Exco members, Namibia Sports Commissioner, Mr. Freddy Mwiya, and the Director of Sports in the Ministry, Mr. Sivute Katamba.

While commitment from clubs is present, financial support for this event has been a challenge. Skorpion Zinc is the first Corporate Company to really partner with Namibia Women's Super League, through which it has now received the financial backing to run this sports event successfully.

Mrs. Jacqueline Shipanga, General Manager of the NFA Women Soccer extended her gratitude and appreciation to Mrs. Deshnee Naidoo, who after a visit to the Galz and Goals Centre at NFA Soccer House in 2017 had made a vow to assist one way or another. “Deshnee, you believed in us and in what we can achieve. Thank you for empowering the girls of Namibia. You have touched and changed the lives of our girls in the regions by giving them this opportunity. We can assure you that we will work hard to make you proud. We are emotional and have no words to say, except thank you. We will not let you down,” said Mrs Shipanga.

# RÖSSING

## *hosts bird watching day*

COASTAL SCHOOLS LEARN ABOUT RESPONSIBLE  
ENVIRONMENTAL MANAGEMENT DURING  
RÖSSING'S ANNUAL BIRD WATCHING DAY





Birds are known to be an important part of the environment, because they are indicators of environmental quality, biodiversity and sustainable land-use practices.

They also provide a focus for engaging with local communities and employees. With this in mind Rössing Uranium hosted its 18th annual bird watching day in September, involving learners and bird guides from our central coastal area. Seventy-four learners, from 13 coastal schools, and five bird guides participated in the event held at the Walvis Bay Bird Paradise. The bird-watching activities included identifying, counting and recording bird species found on the day.

Ignatius Shaduka, Rössing's environmental specialist welcomed the participants, affirming that Rössing aims to be the leader in environmental stewardship in Namibia and to be a responsible corporate citizen. "We are determined to do more than just watch birds; our wish is that you will be inspired and motivated to get involved and promote sustainable development. We moreover aim to motivate learners to take up studies that lead to the conservation of our environment" he explained.

At the end of the event, some 20 species of birds were recorded. The bird watchers made use of bird books and pamphlets about the common birds around the Bird Paradise area. Many Rio Tinto operations world-wide in partnership with Birdlife International host annual birdwatching events as a gateway to wider environmental awareness, as well as promoting an interest in birds. For Rössing, the aim of the birdwatching day is to develop a lifelong interest in birds and their conservation along the Namibian coast.

Learners and participants spotting birds at the Walvis Bay Bird Paradise – various bird species were identified and counted during the event. Rössing sponsored T-shirts with the slogan "beat plastic pollution" in support of responsible environmental management practices.



# RECOGNISING RÖSSING'S

## *long-serving employees*

Rössing recently celebrated the memorable careers of our long-serving employees at a special event in Swakopmund.

Four 30-year, two 35-year and eight 40-year award recipients were rewarded for their long outstanding service. The mine has been in production for 42 years.

Former Managing director, Werner Duvenhage said during the event that it remains an honour to share the special milestone with some of the “most valuable assets of the company – the long-serving employees of Rössing Uranium.” He added that it is those loyal colleagues who laid the foundation upon which Rössing has evolved and in fact at times survived through trying times: “As Rössing’s long-serving employees you are our heroes and heroines to our success as a company – the colleagues who have built this company from the very early days.”

Werner stated that at Rössing, “Our employees are pivotal to the business. The long service awards are clear testimony of the success of our human resources work, specifically with regard to employee retention.”

The fact that employees have been working at the mine for such a long time is truly a remarkable achievement of dedication and perseverance. “Without your guidance, men-

“

*Our employees are pivotal to the business. The long service awards are clear testimony of the success of our human resources work, specifically with regard to employee retention.*

—  
WERNER DUVENHAGE  
RÖSSING, FORMER MANAGING DIRECTOR

toring and knowledge share, Rössing would not have been able to continue boasting a skilled, motivated and capable workforce – being the employer of choice, said Werner.

With their experience at work, long-serving employees help position Rössing to achieve its strategic objectives and support our efforts to maintain Rio Tinto and Rössing’s standards and practices.

“You have indeed served Rössing with dedication and pride and I urge you to continue to serve as ambassadors to our external stakeholders and as an example to all other employees at the mine” Werner concluded.

Aspiring to be an employer of choice, Rössing Uranium provides long-term and rewarding employment. Rössing Uranium believes that through employment creation we are making significant contributions to society and the Namibian economy.

Below: Rössing MD Werner Duvenhage (left) and Rössing’s 2018 long-service award recipients for 40-, 35- and 30-years of service.







## EMPOWERING OUR GRADUATE TALENT POOL

***Transitioning from student life to the real work environment can be very daunting for a young graduate. To ease the transition, SWAKOP Uranium created a platform for graduates to gain invaluable work experience, maximize their strengths and develop their competence in making effective decisions, delivering at pace and to lead effectively.***

The pool of graduates is deemed to be a key source of talent for SWAKOP Uranium and serves as a strategic long-term approach to harness and develop the next generation of talented leaders.

The company made a significant investment in 2015/2016 in which 19 graduates from were appointed as graduate trainees, and subsequently appointed in substantive roles in 2018. They are now part of high performance teams, with supervisory responsibilities attached to them.

On 15 October 2018, ten new graduates were appointed that are mostly internal employees. The intake consists of five females and five males. They are graduates in the various disciplines such as mining, metallurgy, chemistry, electronic engineering and human resources. The graduate programme also aims to continue to strengthen SWAKOP Uranium's national and gender employee diversity.

The duration of the programme is 24 months, in which graduates receive coaching and mentorship from highly skilled professionals at SWAKOP Uranium. At the end of two year programme, the graduates will have an opportunity for substantive placement tailored to the their competencies gained, dedication and diligence, sound performance, positive contribution and value added to SWAKOP Uranium.

In efforts to reduce the very high level of youth unemployment in Namibia, the company is positively contributing to the National Agenda by providing Namibians, particularly from previously disadvantaged groups, employment opportunities. Swakop Uranium takes pride in being one of the largest employers in the sector and in being an industry leader by continuing to recruit Namibians during the economic downturn.

**BRILLIANCE  
HAS MANY  
FACETS.  
CELEBRATING  
THE POWER OF  
WOMEN IN  
MINING TODAY,  
FOR A BETTER  
TOMORROW.**

Exceptional things happen when women participate in a workforce to the best of their abilities. In their respective roles, they do more than just contribute to the growth of the company, they inspire and lead by example. This is because skill, passion and leadership are not gender bound qualities. Therefore at Namdeb you'll find some of the challenging positions occupied by women who've proven that they can inspire today, for a better tomorrow.

**GOOD TODAY.  
BETTER TOMORROW.**

