

Chamber of Mines OF NAMIBIA

The quarterly newsletter of the Namibian mining industry

NEWSLETTER 2017 MINING EXPO AND CONFERENCE EDITION



Namdeb, the PRIDE of Namibia's Mining - to 2050 and beyond

Throughout our rich diamond history, Namdeb has played a significant role in contributing to the socio economic development of Namibia. Every facet of our diamond mining process is aimed at creating value for employees, stakeholders and shareholders, beyond that which can be perceived from the ground.

As Namdeb continues to unlock more sustainable value, we endeavour to make lasting contributions profitably, sustainably and responsibly – to 2050 and beyond.



Chamber of Mines OF NAMIBIA NEWSLETTER



CHAMBER OF MINES

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ON THE COVER-



Exhibitors welcoming the Hon. Minister at the 2016 Mining Expo & Conference



۲۵ Reaping the Benefits of Mining Investments'

FIRST EDITION

t is with great excitement that I launch the very first edition of the Chamber Newsletter for 2017, which is a unique issue on a number of accounts. As readers will have already noticed, the Chamber newsletter has an all new look and feel to it, encompassing a refreshing new design and layout. It is also the first edition which was internally produced by the Chamber team, through the leveraging of skills of its staff compliment and optimising on available resources.

Secondly, the Chamber team is being kept exceptionally busy in preparation for the upcoming 2017 Mining Expo & Conference, which is less than two weeks away and will be held at the Windhoek Show Grounds on 26 and 27 April. With a limited number of booths available, most of which have already been booked, I encourage stand bookings to be made as soon as possible to avoid disappointment, should companies still wish to showcase their operations, products or services.

This year's conference promises to cover a range of topics addressing the latest issues in the international and local mining scene. Under the theme "Reaping the Benefits of Mining Investments", these topics include fundamentals of the uranium price; exploration prospects and trends, the security of water for mines especially in central Namibia, rail infrastructure in Namibia and the challenges for transporting mining inputs, as well as how the mining sector can meaningfully contribute to key national development agendas such as the Harambee Prosperity Plan and NDP5.

To register for this conference, visit our website on <u>www.chamberofmines.org.na</u> and participation is free of charge. Lastly, on behalf of the Chamber team and the industry association, it is with huge relief and happiness that I announce the final acquisition of the office buildings on number 3 Schutzen Street by the Chamber of Mines of Namibia, after four years of administrative hassles and challenges.

I keenly look forward to welcoming and networking with all participants, visitors and exhibitors in a month's time at the 2017 Mining Expo & Conference.

Veston Malango CEO CHAMBER OF MINES THE EVOLUTION OF THE MINING EXPO AND CONFERENCE

BY NATHAN BURNS

The mining sector, one which is generally perceived in a negative light for the depleting nature of its activities, is often misrepresented concerning the real contribution it makes to local communities and economies. In Namibia, relevant and up-to-date information regarding such contributions made by mining companies and the overall importance of the sector to the national economy was not always readily available and effectively communicated to the average layman.

It is against this backdrop that the mining fraternity, through the Chamber of Mines of Namibia, decided to host what is now an annual Mining Expo & Conference, an event that has become an important date on the local business calendar. When the Mining Expo & Conference first kicked off in 2010 with an impressive 80 exhibitors at the Safari Hotel and Conference Centre, it was seen as the ideal platform to provide factual and timely information on mining activities, specifically on recent industry developments, career and business opportunities.

Initially the Mining Conference & Expo was conceived as a bi-annual event and thus took place four times between 2010 and 2015. Chamber members admit that organising for such an event requires long hours of planning and preparation but emphasise that the benefits of participation are manifold particularly as it continued to grow and gain traction in the sector. The 2013 Mining Expo & Conference saw 107 exhibitors, and as from 2015, the Council of the Chamber of Mines issued the directive to hold the event on an annual basis in light of growing demand. In the same vein, the event has moved to a larger venue, the Windhoek Show Grounds, to accommodate the growing number of exhibitors and visitors.

Benchmarked against a myriad of local and international expos and business fairs, the Mining Expo & Conference is exceptionally well received as it has attracted hundreds of visitors on a daily basis and is open to the public free of charge. Granted that the majority of visitors are usually somehow connected to the industry, the event has become a major drawcard for students and investors alike, not to mention gaining external interest, with visitors from neighbouring countries and from as far away as China, Australia and the United States.

The conference is also a crucial aspect of this event, which runs concurrently with the Expo and is pivotal in progressing the information sharing agenda on behalf of the mining sector. According to Signa Ndombo, the Mining Expo Project Manager at the Chamber of Mines, managing the event takes time and dedication, even though much of the logistical demands have been outsourced to the Windhoek Show Society. Ndombo, who had worked closely with the Chamber's CEO, Veston Malango, in organising the event since 2010, was fully tasked with managing the Expo about two years ago. "Since the event is part of my key performance areas, the buck stops with me. I have to ensure that we do the best as the Chamber to make a success of the event. Fortunately, we work as a team at the Chamber and we pull out all stops to make the Mining Expo & Conference a success each year," said Ndombo.

She added that while the event has not necessarily become easier to handle, having established good working relationships with different service providers has indeed made it more manageable. "Each year comes with its challenges though, that is why we have introduced evaluation surveys because sometimes as a host it is difficult to evaluate yourself. The organisers normally run a survey at the end of the Expo and furnish us with a feedback report. We also do an internal evaluation report as the Chamber team. This report is then discussed by EXCO who in-turn provide feedback of their experiences. We then have a final report and that becomes our benchmark for the next Expo. We learn from our shortcomings from the previous year and try turning them into opportunities of improvement and growth for the next year," Ndombo explained.

"We are now at a stage where we can manage the event quite comfortably and I think tremendous value is added because of the involvement of the Chamber. And even though there are exhibition fees applicable to the exhibitors, this is still a Not-For-Profit event because all the funds collected go directly into the hosting of the event," said Signa Ndombo, the Mining Expo Project Manager at the Chamber of Mines.

Subdued commodity prices and other industry constraints saw a reduction in exhibitors for the 2016 event. However, as the mining industry remains one of the largest contributors to Gross Domestic Product, constituting 12.5% in 2015 and contributing about 50% to Namibia's foreign earnings, the event is set to continue evolving as it looks to include the power industry to accommodate renewable energy players as well as the oil and gas sector.



UNLOCKING & ENHANCING THE POTENTIAL OF SURFICIAL URANIUM DEPOSITS

Marenica Energy Ltd ("MEY") has two substantive assets: the 75% owned Marenica Minerals Uranium Project in Namibia, a significant but relatively low-grade uranium deposit; and the 100% owned U-pgrade™ beneficiation process. The Marenica Minerals Uranium Project ("Project") is located within Mineral Deposit Retention Licence (MDRL) 3287, covering an area of 321 square kilometres in Namibia, hosting a total mineral resource (JORC) of 61 Mlbs U308. It adjoins the similar Trekkopje Deposit owned by AREVA. The Uranium is disseminated in palaeochannel calcrete deposits.

U-pgrade[™] is a beneficiation process that is capable of concentrating uranium ore by a factor of up to 50 times, producing a low mass concentrate for leaching on site or at a third party leach/refinery. The new process is estimated to reduce operating costs by 50 to 70%, capital costs by 30 to 50% and approximately 75% if no leach/ refinery is built. MEY is now well positioned to play a significant role in improving the future cost effectiveness of uranium production in Namibia together with a reduction in the social and environmental impacts of such projects.

Marenica Minerals Uranium Project

Following the granting of a MDRL on the Marenica project by the Minister of Mines and Energy on 30 November 2016, and indications that the U3O8 price may have bottomed, MEY has commenced a revised Scoping Study on its 75% owned Marenica Minerals Project.

A Scoping Study was completed on the Project in 2011. Since then MEY has developed its proprietary processing technology, U-pgradeTM, providing the potential to halve process operating and capital costs of the Project, and mining development costs have reduced significantly.

The Project would involve shallow mining of the surficial deposit followed by initial processing through an U-pgrade[™] plant which, based on testwork to date, could produce a concentrate with a grade in excess of 5,000 parts per million of uranium oxide. The low mass concentrate could be processed into yellowcake on site or transported a short distance by road to one of three existing processing plants for toll treatment or outright sale.

The U-pgrade[™] Process

In 2012 MEY embarked on a Research and Development program to develop a uranium concentration process that significantly lowers the extraction cost of uranium at the Marenica Minerals Uranium project. This program involved considerable testwork and analysis of the Marenica Minerals ore, and resulted in the development of a unique uranium concentrating process, U-pgrade™.

Namibian calcrete uranium ores are characterised by carbonate minerals and fine particulate material. The conventional approach is to leach these ore types with alkali, which is a higher cost process using a higher temperature, and slower kinetics.



The inclusion of fine particulate material in the ores produces materials handling issues, which result in higher operating costs and reduced uranium recovery.

Removal of carbonate minerals produces a concentrate with minimal acid consumers, a suitable feed for the faster kinetics, lower cost acid leach process. Removal of the fine particulate material greatly improves the materials handling characteristics, which is a significant advantage for a beneficiation process and subsequent leach and solid/ liquid separation stages.

U-pgrade[™] rejects the carbonate minerals and fine particulate material, as well as other target minerals, producing a concentrate that represents <5% of the mined ore mass.

Namibian ores are also characterised by a high sulphate layer nearest the surface, a high consumer of alkali reagent, quite often rendering the high sulphate ore uneconomic. The U-pgrade[™] process rejects the bulk of the sulphate minerals and what sulphate minerals remain have negligible impact on the reagent consumption of an acid leach. U-pgrade[™] can process high sulphate ore, resulting in the high sulphate material being included in the resource estimate.

This new process was also successfully applied in bench scale testwork to other third party ore types. The results were predictable, explainable and consistent with the outcomes from the Marenica Minerals ore testwork.

U-pgrade[™] is a beneficiation process that is applicable to secondary uranium deposits, which include surficial calcrete deposits and other styles of near surface secondary deposits. U-pgrade[™] is not applicable to primary deposits such as Rossing or Husab.

MEY have lodged a number of patents over its proprietary U-pgrade™ process to protect its intellectual property.

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'Bulk sampling activities to generate ore samples to be used in test-work to develop the U-pgradeTM technology.

In summary the U-pgrade[™] process:

- Reduces significantly operating and capital costs.
- Reduces fresh water, power and reagent requirement water quality has minimal effect on the U-pgrade[™] process performance, which means that sea water or high salt content water can be used for the bulk of the U-pgrade[™] process, with only a small volume of high quality fresh water required. An important outcome in Namibia which has limited fresh water.
- Reduces environmental impact with the bulk of mined ore rejected as inert waste with <5% of ore leached.
- Reduces environmental impact by decreasing the leaching reagents to be used and greatly reducing contaminated tailings

 the greatly reduced leach chemical consumption minimises the environmental impact and is a lower risk to the community, with significantly less chemicals transported through populated areas.
- Transforms the economics of uranium production.
- Reduces trigger price to develop uranium projects.
- Is applicable to all surficial uranium projects in Namibia and globally.
- Improves economics of low grade uranium projects resulting in greater value to Namibia.

MEY expects that its U-pgrade[™] process can benefit:

- Most existing surficial uranium mines in operation right now, by reducing operating costs and improving efficiencies, as well as allowing a lower cut-off grade to be used, thereby extending mine life and reducing mining costs.
- New projects stalled in the wake of current depressed uranium prices by decreasing the hurdle or "trigger" uranium prices required to proceed with development.

POSITIVE OUTCOMES FROM NEW DIAMOND DEAL

BY CHAMWE KAIRA

The new sales agreement between the government and the De Beers Group of Companies will yield positive benefits to the local diamond industry, Companies, Namibia Diamond Trading Company (NDTC) CEO, Shihaleni Ndjaba said in an interview.

Highlighting these, Ndjaba cited firstly, the duration of the agreement which is 10 years compared to five years in the previous agreement. "This reflects and underscores the excellent partnership that exists between the shareholders and gives all stakeholders across the diamond value chain a longer planning horizon."

The second positive outcome is that the agreement makes provision for the NDTC's newest client, Namib Desert Diamonds (Namdia), a wholly government owned company. Ndjaba also added that NDTC sight

46 A country that seeks to maximise revenue and benefit from its natural resources'

AND ENERGY, OBETH KANDJOZE

holders (customers) have become more diverse and said the diamonds supplied to them have increased in value. "From a beneficiation perspective, this should result in increased value addition activities in the Namibian diamond industry and further enhance the achievements Namibia has already made in the sphere of downstream diamond beneficiation."

Presently, NDTC has ten manufacturing companies on its supply list. NDTC offers a wide range of rough diamonds that can be viably cut and polished in Namibia taking into consideration particularly the cost of cutting and polishing in Namibia."Despite the fact that the availability of rough diamonds is finite by nature and NDTC will

almost never be in a position to fully satisfy the local demand for rough diamonds, NDTC customers have expressed satisfaction with the level and type of rough diamonds that are being made available to Namibian factories for local value addition purposes," he said.

Ndjaba said NDTC is delighted to have welcomed Namdia as its 11th client in Namibia and looks forward to a lasting working relationship with the companies, as it looks to avail an increased proportion of Namibian diamonds to the local market. He explained that there is a clear distinction between the mandates of NDTC and Namdia. NDTC's mandate is focused on enabling diamond beneficiation in the Namibia diamond industry by facilitating the supply of rough diamonds to cutting and polishing factories in the country.

Namdia's mandate is price discovery, which aims to ensure that Namibia derives the full benefit from revenue received through the sale of rough diamonds. "The relationship between NDTC and Namdia is simply that of a supplier and a customer. The new agreement makes provision for the supply of 15% of Namdeb Holding's diamond production by value from NDTC to Namdia so as to enable Namdia to fulfil its mandate," empahsised Ndjaba.

Minister of Mines and Energy, Obeth Kandjoze, emphasised that through Namdia's objective of price discovery, valuable government revenue through taxes and dividends would be generated. "The decision taken by government to assert its sovereign rights over its mineral resources in this manner, as opposed to nationalising mines and resources, reaffirms Namibia's position as a country that seeks to maximise revenue and benefit from its natural resources, while maintaining Namibia's status as an attractive and investor friendly environment," said Kandjoze.

Government and De Beers are also 50/50 partners in Namdeb Holdings, which mines on behalf of the venture. Namdeb is made up of land and sea mining operations. Namibia will see a significant increase in rough diamonds made available for beneficiation as a result of the agreement, with US\$430 million of rough diamonds being offered annually to Namibia Diamond Trading Company (NDTC) customers.

As part of the agreement, all Namdeb Holdings' Special Stones will be made available for sale in Namibia. The agreement was established on the socio-economic contribution the partnership between Government and De Beers has made to Namibia since it was formally established in 1994. Namdeb Holdings is one of Namibia's largest taxpayers and the country's biggest foreign exchange generator, contributing more than one in every five Namibian dollars of foreign earnings.

Towards improving workplace safety inspection management through use of a simple low cost risk management technique: the case of Skorpion Zinc Mine, 2016

Mufaro Gerald Mukwashi and Stephanus Terblanche

orpion Zinc Mine, Zinc International: Africa & Ireland, P. O. Box 2003, Rosh Pinah, Namibia

Introduction

Workplace inspections form an integral part of any organization's safety risk management programme¹ and are also an essential component of the hazard prevention program.

The process involves examining work stations on a regular basis with a view to: - identifying, recording actual and potential hazards posed by processes and practices; determining the effectiveness of existing hazard controls and recommending corrective action where appropriate².



Figure 1. Skorpion Zinc Refinery view.

Many organizations have adopted numerous workplace inspection programmes on various aspects based on the organization's risks. This approach used has generally been a fragmented process, in proactively steering management efforts in identifying high risk sections/ work areas.

Effective monitoring should contain elements necessary to have a proactive system, such as monitoring of the achievement of specific plans as well as established performance criteria and objectives⁵. The absence of an up-to-date risk based approach to measure the risk profile of work areas from regular work place inspections within Skorpion Zinc resulted in the need for the development of an innovative tool. The performance management tool is useful in measuring risk profiles of specific safety risk aspects from the business entity.

Materials and methods

A risk based evaluation tool guided by the 5 x 5 matrix was developed³. A generic section specific inspection/ evaluation sheet based on the Vedanta Critical Control Standards⁶ was used in the tool. Below is a listing of applicable aspects covered by the evaluation tool.

- 1. Safety fundamentals and housekeeping
- 2. Operator licensing/ Training & Competency
- 3. Mobile equipment & pedestrian safety
- 4. Hazardous material management
- 5. Equipment safe guarding
- 6. Confined Space
- 7. Lock-out & Isolation
- 8. Working at heights
- 9. Lifting operations
- 10. Ground control i.e. pit slope/tailings
- 11. Hot work/ Hot molten materials management

The findings obtained for each major potential incident causes are identified against each standard requirement listed above. Potential Unwanted Events are listed and evaluated using the 5 \times 5 (safety, health, environment, material damage, legal & regulatory and impact on reputation).



Data obtained was entered in the illustrated table below.



Results and discussion

Results from evaluations demonstrated that the tool to evaluate safety risks from work areas within Skorpion Zinc provides a simple solution to measure efforts directed towards improvement in risk management initiatives. Figure 3 below shows annual departmental evaluation scores for the period April 2015 to March 2016.



Figure 3. Annual evaluation scores April-15 to March-16

Departments that did not achieve the set target score of 75% have an opportunity to perform better by addressing areas requiring improvement.



Figure 4. Critical Control Standards compliance for Jan-16 to May-16

Figure 4 also highlights critical focus areas regarding compliance to Vedanta Critical Control Standards and this provides useful information that is used by the Skorpion Zinc Safety Management committee in strengthening the Safety Improvement Plan for 2016.

The strength of the risk evaluation tool is based on its ability to provide a risk based integration of safety, health and environmental risks from fragmented inspections into a single measurement unit.

Evaluations also provide a latest or up-to-date risk profile of specific work areas/ critical control standards and hence eliminating heavy reliance on baseline registers which are traditionally reviewed annually or as and when work place conditions change.

The tool can be customized to suit any operation/ organizations seeking to improve their safety risk management programmes.

Conclusions

For the tool to be successfully implemented, it is best applied by teams that are not biased in their conduct. Biased teams will seek to mask the prevailing risk and report higher scores on compliance levels. At Skorpion Zinc, the tool has been consistently applied by Risk Officers who are trained in the risk evaluation methodology.

Alternatively, a diverse composition of employees representing all levels in the business can be used to constitute a Risk Based Inspection Team (RBIT).

More value would be realized should such a risk based measurement tool be applied in organizational performance appraisal systems for management employees.

Opportunities for improvement exist in viewing the work area or Critical Risk Fatal Causing Aspect risk profiles in real time and thereby assisting management in creating strategies to immediately address areas requiring attention.

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HOW CAN NAMIBIA'S MINING SECTOR CONTRIBUTE TO SUSTAINABLE DEVELOPMENT?

BY LAUREN DAVIDSON

WHEN THE TERMS 'MINING' AND 'SUSTAINABLE DEVELOPMENT' ARE USED IN CONJUNCTION, IT RAISES SOME RATHER PERPLEXING QUESTIONS AND ISSUES GIVEN THE STRONG JUXTAPOSITION IN THEIR MEANINGS.

Mining in its absolute nature is a finite activity with an expected time frame of operation, whereas sustainable development refers to a process which ensures that economic activity focuses on meeting the needs of current and future generations, through mechanisms which will see natural resources and ecosystems to continue meeting such needs.

Over the past decade, sustainable development has taken centre stage in policy debates, and has become even more critical in this arena since the adoption of the Sustainable Development Goals by UN member states in September 2015. Given the depleting nature of the mining and minerals industry, companies in the sector have thus been called upon to actively take steps to ensure that the livelihoods of communities dependent on their operations continue to thrive and operate following mine closure. In reality, however, this is a tough feat given the terminable nature of mining operations just explained. Adding weight to the recent focus on mining operations and sustainable development is the sad reality that historically, mining companies in Africa generally do not have a convincing track record of responsible and sustainable mining approaches, leaving proceeding generations and governments with unrehabilitated mining sites and revenue gaps to fill. Mineral resources have also been the source of many conflicts in African countries, hindering the maximisation of economic benefit from these endowments and thus contributing very little to poverty eradication. The question then arises: how can extractive industries contribute to sustainable development?

In response to some of these challenges and critical sustainable development issues, the African Union launched the African Minerals Development Centre in December 2013. The Centre aims to increase the economic benefit accruing to countries through the implementation of the African Mining Vision, which focuses on integrating the mining industry with other sectors of the economy, and looks at how mining can contribute to local development. Contrary to popular belief and perception, mining companies in Namibia do not quite engender to this stereotype, and have in fact acquired a strong social license to operate. An example of such efforts is the far-reaching education programmes implemented by Rio Tinto's Rössing uranium mine. Since the early 1990s, the Rössing Foundation has worked closely with government to pursue initiatives that have strengthened the capacity of teachers and provided learner support, especially in the areas of Mathematics and Science.

This is exemplary of the many ways in which mining companies can contribute to the sustainable development of a country, and in particular to SDG 4 (Quality education), through their Corporate Social Responsibility (CSR) programmes. More recently, a common focus in the of area of CSR intervention has been on environmental protection, conservation and awareness through the recognition of positive implications such programmes can have for later rehabilitation of mining sites, the tourism industry and the preservation of the country's natural wildlife and habitats.

In Namibia, environmental concern in mining is regulated by two pieces of legislation, the Minerals (Prospecting and Mining) Act of 1992 and the Environment Management Act of 2007. Both pieces of legislation require mining companies to provide detailed studies on the potential impact of the operation on the surrounding environment, how these will be mitigated and rehabilitation plans for mine closure, before the company is issued with a mining license and an Environmental Clearance Certificate. Robust legislation is thus also imperative in ensuring responsible mining activity and minimising environmental harm on land which could be utilised for other commercial purposes, such as tourism or farming, once mining operations have ceased.

In local policy arenas, there has been a shift in the role of the mining sector in the structural transformation of Namibia's economy and sustainable development, primarily through calls for increased value



addition to the country's extracted minerals by mining companies. A few definitions in the mining value addition chain warrant explanation here. Raw materials are regarded as unprocessed ore derived from the mining operation for direct shipment. Beneficiation or value added in the mining sector is referred to as part of the mineral processing value chain after mining. The complete value chain involves the extraction of ore from underground or open-pit operations; mineral processing to produce a concentrate; smelting and finally refining.

Namibia's mining sector is already producing minerals with significant value added, such as special high grade zinc, copper cathode and blister copper. Furthermore, the majority of Namibia's minerals are exported in concentrate and not as raw materials as commonly perceived. While opportunities do exist for further beneficiation of Namibia's minerals within the mining value chain, there are a number of challenges which need to be addressed first. The current and medium term supply of domestic minerals is not sufficient to warrant the construction of capital, water and power intensive facilities. Thus, a lack of economies of scale has been identified as one of the main obstacles for further investment decisions in this sector.

There are also significant opportunities for value addition in manufacturing activities for Namibia's minerals. However, for beneficiation in manufacturing activities, competitive advantage is the key driver of investment decisions, not comparative advantage. Such activities require unique skills and craftsmanship, cost competitive production and access to markets, which are all areas in which Namibia is currently experiencing significant bottlenecks. Consequently, value addition activities to Namibia's minerals in manufacturing should not be proposed as an immediate contributor or strategy to the economy's sustainable development before such issues are adequately resolved.

Despite such challenges, significant economic opportunities do exist in the up-stream and side-stream linkages created by critical mass of the sector, which could be a key factor in contributing to Namibia's structural economic transformation process and hence to SDG8 (Promote inclusive and sustainable economic growth, employment and decent work for all). The mining industry has resulted in the creation of a number of linkages through the critical mass it provides. Up-stream linkages arise through its demand for locally supplied inputs and services. Examples of these range from financial services to capital inputs. Dundee Precious Metals Tsumeb recently identified an economic opportunity to produce sulphuric acid, for exclusive supply to two mining operations in Namibia, which prior to the local production thereof, was being imported from other countries.

The sector also enjoys strong ties with in side-stream linkages. By way of explanation, these include the support services required for the mine to function effectively, ranging from transport services to power, water, skills, research and development, logistics, communications and financial services. In Namibia, such services and side-stream inputs are provided by the public and private sectors. A railway network, for example, linking a mining operation to a port, could later be leveraged to connect the port to other trading hubs once mining activities have ceased. Namibia is currently looking to pursue such strategies through the envisioned Trans-Kalahari railway and its national Logistics Master Plan. While the notion of mining as a sustainable activity was altogether refuted at the beginning of this article, the longevity and livelihood of the sector is dependent on exploration endeavors being undertaken. It is recognised that although such investment decisions, which involve a high degree of risk, are largely dependent and influenced by external forces, they are also influenced by the regulatory environment and policies governing them.

In the last five years, Namibia has managed to attract investments of approximately US\$3 billion into the mining sector, owing primarily to an attractive environment through a favourable regulatory framework. In the last year, however, the positive investor sentiment has reversed as a result of certain policy proposals that would be detrimental to the growth of the mining and exploration sectors if effected in current forms.

It is thus not the responsibility of the mining sector alone to ensure that their activities contribute to the sustainable development of the country. It is rather through effective partnerships and understanding between the public and private sectors that mining activities can thrive and continue to contribute to the country's development in a sustainable manner. •

ROSSING VEHICLE CAMERA PROJECT: OUR COMMITMENT TO SAFETY

Embarking on a journey anywhere in Namibia, is enough to leave one with spine chills, having just witnessed the very reckless actions

Namibia has the unfortunate ranking of having the highest number of road deaths per 100 000 residents in the world, which is even more concerning when compared to the United States with a population of over 300 million people and 258 million cars.

taken by drivers on national roads.

A recent study by researchers at the University of Michigan, using World Health Organisation statistics, showed that Namibia's residents are 53% more likely to die in a vehicle collision than from cancer. Vehicle incidents are also one of Rössing Uranium's biggest risks - on and off site. In 2016, the company registered 43 vehicle incidents. From August 2016, 14 incidents were recorded, equating to at least one vehicle related accident per week. A total of 53 incidents were recorded in 2015. In spite of the company's best efforts, vehicle incidents continue to rise and will require on-going and dedicated action to change driver and operator behavior. Rössing continues to investigate possible solutions and strategies to curb such occurrences. In-vehicle cameras were identified as one of the most effective methods to solve this problem. Subsequently the mine has started to install a pilot programme to test these cameras in their light vehicles, which records a video of the road ahead as well as in-cab activity whilst driving. Over the last few weeks all management vehicles have been fitted with these systems.

RÖSSING AIMS TO ACHIEVE THE FOLLOWING:

Enhanced safety to

- Reduce chances of fatalities from vehicles and driving
- Enabling employees to arrive home safely to their families and friends
- Retain people skills and experience which we are scarce in Namibia
- Safeguard Company assets in this case, vehicles and valuable employees
- Contribute to national road safety campaigns

As a group coaching and training tool:

The recorded video can be used in training on how to, or how not to, behave in a risky situation. Coaching can also be done on how best to act in certain situations, drawing on lessons from recorded incidents.

Additional benefits of camera footage?

- to clearly determine the sequence of events of an incident
- to help the company understand from both inward and outward facing camera footage, what led to the incident. From this, improvement opportunities could be identified in making the driving experience of employees far safer
- As part of CSR initiatives, the footage could be used to report to the national traffic/ roads authorities the risky driving behaviours of other road users, and
- share the company's experience and lesson's learned from incidents with the National traffic/roads authorities for country-wide awareness.

The company hopes to see their latest effort curb vehicle related incidents, thereby ensuring the safety of Rössing employees, but also to enhance and instill values of accountability, safety, integrity and respect.

INTERNATIONAL SOS HAS BEEN OPERATING IN NAMIBIA FOR 16 YEARS.





WE MAINTAIN A ROBUST LOCAL AND GLOBAL NETWORK OF RESOURCES TO SUPPORT OUR MEMBERS WHEN THEY NEED MEDICAL OR TRAVEL SECURITY ASSISTANCE.

International SOS can support your **Energy**, **Mining and Infrastructure** operations onshore and offshore.

OUR KEY SUPPORT

- On call support from our assistance centre operating 24/7/365
- Comprehensive medical staffing for your onshore or offshore operations
- Local and internationally qualified doctors, nurses and paramedics — supported by International SOS' global resources
- Site based consulting services to help you identify and mitigate risks



OUR COMPREHENSIVE HEALTH AND SECURITY SOLUTIONS

- On-site medical services
- Medical and security consulting services
- Site health reviews
- Medical risk assessments
- Occupational health services
- Medical evacuations
- Security services
- Medical supply chain services
- Routine medical support
- Site clinic services
- Remote site staffing
- Medical training
- Integrated malaria control programmes
- Vector control programmes

OFFICE DETAILS

Office 7A, Southport Building, Cnr Mandume Ndemufayo and Hosea Kutako Ave, Southern Industrial Area, Windhoek, Namibia

Tel: +264 61 289 0904 South Africa Assistance Centre: +27 11 541 1300 /1350 Email: Namibiasales@internationalsos.com



TRAINING AT THE NAMIBIAN URANIUM INSTITUTE



VISION To be Namibia's leading source of advocacy, training and research on uranium related issues.

The so-called Uranium Rush some 10 years ago resulted in the establishment of the Namibian Uranium Institute (NUI). Initially, a Uranium Stewardship Committee (USC) was formed in 2008 under the auspices of the Chamber of Mines of Namibia, in order to promote the Namibian uranium brand and to identify and propagate appropriate best practices within the Namibian uranium industry.

Subsequently, in 2009, the Chamber of Mines' Uranium Institute (UI) was launched with a focus on improving environmental management, radiation safety and health care. When the Namibian Uranium Association (NUA) was formed in 2013, the UI became the NUI operating under the auspices of the NUA. NUI is guided by respected independent scientists who serve on NUA's Scientific Committee.

An integral part of NUI's activities is teaching in order to improve knowledge, safety and the implementation of best practises in the field of occupational health, environmental management and radiation safety. As part of its stewardship mission, NUI has developed partnerships with various service providers to develop standards, guidelines and training courses to cater for the needs of the uranium industry. NUI is also officially registered with the Ministry of Labour and Social Welfare as an Approved Inspection Authority in terms of the Regulations made under Schedule 1(2) of the Labour Act, 2007 (Act 11 of 2007) as an Inspection Authority with competencies in the fields of health, environment and radiation safety and security.

The various courses provided by the NUI focus on health, environmental management and radiation safety, training for employees and other interested parties. The courses have been developed over many years, and are continually revised to ensure that it reflects the latest scientific advances and changes in national and international regulations. Course leaders are recognised specialists in their disciplines. The following courses are planned for 2017:

MISSION

To support the Namibian uranium exploration, mining and export industry through the continuous development of health, environmental and radiation safety best practices, accessible research, training and social responsibility.

COURSE	2017 DATES
Radiation Technician Course	27 to 31 March
Radiation Safety Officer's Course (Part I)	15 to 20 May
Radiation Safety Officer's Course (Part II)	14 to 18 August
Radiation Safety Officer's Course (Part III)	27 to 29 March & 6 to 8 August
Radiation Safety Refresher Course (radioactive sources + X-ray)	9 August
Radiation Spring School – RSO Refresher	29 to 30 June
Radiation Safety for Managers	24 March & 7 September
Introduction to Radiation and Uranium for the Public	5 April, 12 July & 8 August
Radiation Safety for Transporters of Radioactive Material	10 February, 23 June & 10 November
Radiation Safety for Sealed Sources	10 August
Radiation Safety for Emergency Situations	11 August
Water Management for Managers in the Mining Environment	2 March
Essentialness of Fall Protection	8 to 9 March
Audiometry Full Course	10 to 12 April
Audiometry Refresher Course	8 April
Spirometry Full Course	7 to 9 July
Spirometry Refresher Course	10 June

For more information regarding our courses please visit our website or send us an email. www.namibianuranium.org | Tel: +264 64 402 393 Fax: +264 64 402 394 | info@namibianuranium.org



CHAMBER FINALLY ACQUIRES BUILDING AT NUMBER 3 SCHUTZEN STREET

After four years of administrative challenges and issues, the Chamber of Mines of Namibia finally became the official owner of the building at No 3 Schutzen street on 6 February 2017. The building is conveniently situated in the central business

district of the capital city, neighbouring the British High Commission and the Franco Namibian Cultural Centre.

Breathing a sigh of relief, the Chamber of Mines accountant, Hilma Nampala outlined the bottle necks and challenges in the acquisition process. Four years ago, when the sales agreement was signed, the bond could not be registered as the building plans were not available, a prerequisite for such a transfer to take place.

"Buying this building was a struggle. We encountered many difficulties. Many documents were not in place and we had hassle to find them, but finally we are happy and celebrating," she said. building space for more than four years, adding value through a number of renovations and necessary installments.

"Many of our partners including Swakop Uranium, which was

۲۵ We are really at peace to have our own offices.' Hilma Nampala, Accountant the previous owner of the building have complemented us for the changes we made to the building. We have put in new cupboards, new paintings, new air conditioners, among others," she said. Reiterating the lengthy acquisition process, Nampala explained that this has been the Chamber's biggest investment, highlighting one of its most significant achievements in the life span of the organisation.

Over the last few years, the Chamber has developed from

strength to strength, in expanding its staff compliment and technical capacities, to acquiring its very own offices through which it has been able to effectively fulfill its mandate and objectives. •

Luckily, however, the Chamber has been operating from this

INNOVATION TODAY FOR A BETTER TOMORROW

PAULINE THOMAS

Through the implementation of a cutting-edge exploration programme, Namdeb geologists have added more than 13 million carats to the resource since 1994, which is an astounding 670 000 carats per year. In seeking out these opportunities, new mines such as Sendelingsdrif (inaugurated in 2014) have been created, a new processing plant has been built and new technology and mining methods developed.

THE SPECTREMPLUS

Through innovative unconstrained mining methods, the unknown continues to be explored. There has however always been a question as to how much more resource lies submerged within the Atlantic Ocean. In addition to this, the challenge of understanding Namdeb's offshore resource potential is further compounded by a 60m thick coarse sand cover up which contains pockets of biogenic gas that disperses acoustic signals of traditional marine exploration tools in water depths ranging from 0 to 55 meters.

To address the challenge, Namdeb employed an airborne geophysical technique commonly used in land mineral exploration to overcome the physical and geophysical shortfalls related to data acquisition in a shallow water coastal environment. The Spectrem^{PLUS} system is deployed on the stable Basler DC3 aircraft which is able to fly slowly and safely at low altitude.

The transmit system consists of a copper loop which stretches from the aircraft wingtip to nose to wing tip to tail and a current is passed through the loop and a known primary electromagnetic field is transmitted. This primary field induces a secondary electromagnetic field that is a product of the interaction of the primary field with subsurface conductive and resistive geological units. The secondary field is received by a towed 'bird' and the difference between the known primary and measured secondary field can be used to calculate physical characteristics of the subsurface or, in this case submarine geology.

Sea water is highly conductive and has, in the past, inhibited marine airborne survey of this nature by attenuating the primary signal, for example, the electromagnetic current is trapped within the conductive water and is unable to penetrate into the sub-bottom.

The Spectrem^{PLUS} system was able to overcome this problem for the first time by increasing the power output up to 1,800 amps, enabling the mapping of a resistive basement-conductive overburden interface in up to 50metres of overburden. The sought-after submerged diamond beaches are now within our sight.

TO 2050 AND BEYOND

Utilising innovation and technology such the Spectrem^{PLUS} system is proof of Namdeb's ability to adapt and be flexible in today's resource constrained and fast changing context. Namdeb's mine plan now goes to 2038, and work continues to extend life-of-mine to 2050 and beyond. In balancing the short, medium, and long term, the Namdeb team will continue to manage risk, identify opportunities, and embrace change to ensure that credence is given to its mission statement of "Mining profitably, sustainably and responsibly." •



SEVERAL TYPES OF INNOVATIVE MINING TECHNIQUES ARE EMPLOYED TO EXTRACT DIAMONDS FROM ALLUVIAL DEPOSITS OF ORE BODIES. NAMDEB IS PROUD TO BE A SIGNIFICANT CONTRIBUTOR TO THE NAMIBIAN ECONOMY.

In line with Namdeb's efforts to mine to 2050 and beyond, avenues will continue to be explored to create a more sustainable impact in support of Namibia's Fifth National Development Plan (NDP5) which paves the way towards achieving the Vision 2030 goals. Namdeb remains committed to being the pride of Namibia's Mining.



MAGGY MUFENDA (SENIOR PROJECT GEOLOGIST) & LYNETTE KIRKPATRICK (SENIOR GEOPHYSICIST) ANALYSING INFORMATION



SPECTREM AIR'S AIRBORNE TIME DOMAIN ELECTROMAGNETIC SYSTEM IN ACTION OVER NAMDEB'S MINING AREA 1

INFORMATION ON LL NAMIBIA PHOSPHATE PROJECT

- Q: What does the phosphate sediment look like?
- A: It is loose sandy grains (1mm size), like beach sand with a grey colour.
- Q: Does the LLNP mining license lie within fishing grounds?
- A: No. The mine license lies 10 to 20 km east of the exploited fishing grounds. Furthermore, it does not overlap with fish spawning areas as demarcated by Fisheries.
- Q: Is Namibian marine phosphate sand poisonous or toxic?
- A: People say that the phosphate will kill fish and is harmful to humans. The fact is that phosphate is not a hazardous or toxic chemical; it may be handled, stored and transported by anyone. In fact, phosphate is one of the building blocks of life and without it we would actually die. Fish meal and animal feed is rich in phosphate, and is given to livestock and chickens by farmers as an essential part of their diet. Furthermore, phosphorous is necessary for repair of all human and animal tissue/cells and growth of bones and teeth, where about 85% of this mineral in the body is found.
- Q: Is the mining method going to use chemicals or blasting?
- A: No. The phosphate sand is loose material on top of the sea floor. Standard mine technology will be used similar to, but much less aggressive than that used in marine diamond mining.
- Q: Will fish be killed in the LLNP phosphate mining license? What portion of the fish will be affected and what effect will this have on the fishing industry?
- A: The Monkfish and Hake fishing grounds don't overlap with the mining license so there will be no impact. Mackerel, Anchovy and Herring fishing grounds also don't overlap with the mining license. Fish that might be present during mining will simply swim away and will not be caught or destroyed. Therefore, the impact on the fishing industry will
- Q: Will mining release dangerous heavy metals and radioactive material into the water?
- A: No. Heavy metals are trapped inside the phosphate structure and therefore will not dissolve in water. Furthermore the mine method is a suction action that will take sediment into the riser pipe and not cause disturbed sediment to accumulate as a plume on the sea floor. Once the material reaches the surface through the riser pipe it will fill a transport barge with no processing at sea or material being dumped back into the sea. In comparison, fish bottom trawling does disturb the sea floor without any suction and therefore does create a large plume on the sea floor.

- Q: What measures will LLNP put in place to minimize the environmental impact during mining in the phosphate license?
 A: The selected mining method and benefaction process will not cause a plume in the sea. Furthermore the mining plan will not cover the mine license 100% but will leave areas unmined within this area. Mining will remove only the top 40 cm, leaving behind similar sediment to that removed. This mine plan approach will ensure maintenance of the habitat for marine life, and quick rehabilitation.
- Q: Why mine marine phosphate in Namibia, if it has not been done anywhere else?
- A: Just as with marine diamonds, Namibia is blessed with easyto-mine phosphate sand. The other potential marine phosphate project is in New Zealand. However, the clearance was refused owing to the endangering of the dominant stony corals which would be severely damaged during mining and not for endangering fish. The mining license in Namibia has a sandy, loose sea floor type: all mined material, down to 40 cm, will be taken to shore with almost no return of material to create a plume in the water column.

Environmental damage to Namibia's sandy sea floor type is minimal compared to what mining the sea floor area in New Zealand would create.

- Q: What will be the project benefits to Lüderitz and on a national level?
- Project Investment will be approximately N\$24 billion during construction.
 - Three thousand jobs created during three year construction period
 - Two thousand permanent jobs for mining and processing operations
 - Creation of indirect employment, estimated to be around 9,000 jobs, and improvement through support services like engineering, maintenance, housing, schools, doctors, medical services, IT, transport, shops, recreation, etc.
 - Mariculture opportunities available to entrepreneurs through water holding ponds.
 - Construction of a new deep-water fertilizer harbour will be the driver for Namport Lüderitz harbour expansion.
 - Skills development through training.
 - Project is self-sufficient with its' own power and fresh water production.
 - Project will contribute 4 % to the national GDP, while marine diamond mining contributes 9% and fishing industry 3%.
 - Due to value addition and full beneficiation to a final product, Namibia will reap more benefits than most other mining ventures.

be minimal.



Living **Our Values**



B2Gold's Corporate Social Responsibility Programme aims to promote responsible mining in a sustainable manner. The gold deposit at Otjikoto Mine belongs to the Namibian people and is a finite resource so we aim to invest in projects which have a long term, lasting impact. Our CSR strategy is based on an ongoing assessment of the socio-economic environment in which the mine operates and through regular meetings with stakeholders at local, regional and national level, we are able to understand and focus our support in the most effective manner. The CSR strategic objectives are in line with the Namibian government's development plans and Vision 2030.

We support projects which aim to lead to long-term impacts that:

- contribute to economic upliftment and poverty reduction through skills training and livelihood development;
- promote educational opportunities, capacity building, innovation and technical excellence;
- promote health and well-being by complementing and supplementing government's efforts;
- empower communities, groups and entrepreneurs to help themselves;
- contribute to the sustainable utilisation of Namibia's renewable natural resources (energy, flora & fauna);
- improve environmental management and biodiversity conservation of indigenous ecosystems and endangered species.



EMPLOYEE PARENTING SKILLS Over 90 B2Gold employees have attended parenting classes for their zero to six-year-old children with the BrainBoosters Programme.

SAVE THE RHINO TRUST

B2Gold is contributing N\$3 million to Save the Rhino Trust to adequately compensate and equip SRT's rangers to reduce wildlife crime and to ensure the long-term security of desert adapted black rhino in Namibia. KAYEC'S YOUTH DEVELOPMENT PROGRAMME IN OTJIWARONGO B2Gold enables the Otjiwarongo KYD programme to provide after-school support to help 188 disadvantaged teens (of which 50% are girls) to stay in school and build their life skills.



Some of the pre-fabricated accommodation blocks in the B2Gold construction camp have been converted into 16 classrooms at three schools in Otavi

BUILDING CLASSROOMS



SMES COMPETE OFFICE IN OTJIWARONGO SMEs Compete routinely provides advice, mentoring and training to improve the entrepreneurial, management, marketing, and IT skills of 80 SMEs in our focal towns of Otavi and Otjiwarongo. EARLY CHILDHOOD DEVELOPMENT With Lifeline/Childline, B2Gold is complementing government efforts to improve quality early childhood care

in kindergartens in our focus towns of

Otavi and Otjiwarongo.



THE NAMIBIAN CHAMBER OF ENVIRONMENT

The Namibian Chamber of Environment is the brainchild of B2Gold and has been handed over for democratic management to the environmental fraternity. B2Gold has provided seeding capital of N\$1 million to the NCE.



PHARMACCESS MOBILE "MISTER SISTER" CLINIC

This B2Gold sponsored mobile clinic delivers a full range of primary healthcare to patients in informal settlements around Windhoek. The clinic also teaches parents about the critical importance of a child's early development – the first 1,000 days of life (from conception to two years of age).

Contact: Ignasius /Awaseb – CSR Manager Email: iawaseb@b2gold.com | Tel: +264 (0) 61 295 8700

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HRG Rennies Travel Namibia is Namibia's largest travel group with a history spanning more than 50 years. It provides global and local travel management services and travel products to both corporate and leisure travellers

Manica Group Namibia has been at the forefront of developments in the Namibian marine service and logistics industry for over 90 years, providing freight, integrated supply chain solutions, cargo management and specialist lubrication services to both Namibian and international companies alike.

Bidvest Namibia Information

Technology (BIT). BIT provides complete information technology services including data management, networking, servers, software, hardware and all IT-related services to the entire Group as well asexternal companies. **Voltex Namibia** is the leading supplier and distributor of electrical goods, equipment and energy-saving products in Namibia. Voltex stocks a complete range of electrical products for contractors, distributors and end users, as well as suppliers to the retail market.

Plumblink Namibia is a specialist plumbing, bathroom and kitchenware merchant currently operating from branches in Swakopmund and Windhoek.

Bidvest Namibia Steiner provides a comprehensive range of hygiene services and products, pest control services and consumables for the Namibian market.

Novel Motor Company operates four dealerships in Namibia, three in

Windhoek and the other in Walvis Bay. In the New Vehicle stable,

Novel Motor Company is the main representative for Ford and the sole representative for the Mazda, Jaguar and Land Rover vehicle brands in Namibia

Waltons Namibia is a well known commercial business and retail stationery brand that has been providing office supply solutions to businesses, schools, government institutions and individual customers in Namibia since 1979, providing them with stationary, IT products, copy centre services and office furniture.

Cecil Nurse is a manufacturer and retailer of office furniture and shop fittings. In business for 70 years, Cecil Nurse helps create intelligent, energising workspaces where people can assimilate, innovate and communicate.

Caterplus provides out-of-home food solutions to the catering and

hospitality industries. In addition to the current frozen and chilled products, Caterplus continues to increase its ambient product offering to establish a convenient all-inclusive shopping.

See how we unlock potential, visit: www.bidvestnamibia.com.na







DEBMARINE NAMIBIA GIVES RECOGNITION TO LONG SERVING EMPLOYEES



56

'How many people in Namibia can put their hand on their heart and say I work for the Company that contributes the single biggest amount to the Namibia treasury?' — daniel kali, de beers resident director

Debmarine Namibia recognised thirteen employees that worked for the Company for 25 years. Employees and their families were treated to a special dinner organised by the Company in their honour at Safari Hotel in Windhoek.

At the event, Debmarine Namibia CEO Otto Shikongo commended the long serving employees for their loyalty and dedication. He said through the years, employees have consistently shown and given their best at all times that contributed positively to the progression of the Company.

"You have been a very good asset in the Company and in this case, we would like to appreciate your long years in the service. As a CEO, I am therefore keenly aware that growth, advancement and success of Debmarine Namibia would not be possible without the hard work of dedicated staff members like you. You have helped to shape Debmarine Namibia, and the De Beers Group of Companies, into the great Company it is today", Mr Shikongo said.

Sharing the same sentiment was De Beers Resident Director Mr Daniel Kali, who was a special guest at the event. He said that the recipients should feel privileged to work for Debmarine Namibia "how many people in Namibia can put their hand on their heart and say I work for the Company that contributes the single biggest amount to the Namibia treasury? It is truly a privilege to work for this great company" said Mr Kali.

Every year, Debmarine Namibia celebrates long serving employees that aimed at recognising the years of dedication and commitment of the employees to the Company. •

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DEBMARINE NAMIBIA RESTORES PEOPLE'S GAME

Debmarine Namibia restored the hopes of many youth by taking a bold decision to return the most celebrated prestigious football cup by investing a whooping N\$14.1 million into football. The N\$4.7 million annual commitment from Debmarine Namibia is by far the biggest ever cup sponsorship in the history of Namibian football.

The sponsorship commitment was made on 7 December 2016 when Debmarine Namibia announced a three-year sponsorship deal that made the Company an official sponsor of the NFA Cup now to be known as Debmarine Namibia Cup.

Debmarine Namibia and Namibian Football Association (NFA) signed a milestone agreement at the launch of the cup where Debmarine Namibia's CEO Otto Shikongo emphasised the Company's effort to meet the government and other private companies' efforts to ease the current challenges. "Debmarine Namibia is looking at other means to complement efforts to address opportunities for young Namibians. Our agreement with the NFA, is just one such illustration of the efforts we are making to be responsive to the challenges facing our country" said Mr Shikongo.

He appealed to NFA to adhere to good governance and obey to highest standards of discipline and accountability, stressing that Debmarine Namibia is totally uncompromising when it comes to adherence to good governance and financial controls. At the same occasion, the NFA President Frans Mbidi applauded Debmarine Namibia for choosing to empower and uplift the country's youth and the masses through football, citing scarcity of funding that has been experienced through the years.

"Our football has been and continues to be hit hard by lack of financial resources and as football leaders we have vowed to continue fighting in the best interest of those we represent – and today we are all very excited about the next route we are embarking upon with Debmarine Namibia for the next three years," said Mr Mbidi. He concluded that the entire football family is indeed indebted to Debmarine Namibia for the valuable gesture bestowed upon their game and preferred pastime activity.

More than 250 football clubs and over 6000 football players will come together to battle it out for the ultimate prize. Second Division clubs from all fourteen (14) regions will compete for one spot per region. Two regional champions will then be drawn to face each other in a once off elimination match to reduce the fourteen regional Second Division clubs to thirteen. Football clubs in the North West, North East, and Southern Stream First Division leagues will also fight for one spot each.

The seventeen winners of the elimination rounds will each walk away with N\$20 000, while the losing finalists will receive N\$10 000. The losing semi-finalists will each receive N\$5,000 for taking part in the Debmarine Namibia Cup.

The 16 Namibia Premier League (NPL) clubs will join the thirteen Regional Second Division and three First Division clubs in the round of 32. At this level each club will receive N\$18,000 for preparations all the way to the final. The two finalists will each receive N\$28 000 to prepare for the final. The overall winner will walk away with N\$500 000 in addition to the N\$100,000 assistance received from the Round of 32 to reaching the final. The losing finalist will also receive N\$100,000 in addition to the N\$250,000 prize money.

The two losing semi-finalists will each earn N\$72,000 assistance on top of the N\$150,000 for reaching the semi-final. \bullet



TOWARDS BUILDING WATER AND ENERGY CONSERVATION RESPONSIBLE CITIZENS AMONG SCHOOL STUDENTS.

Sustainable use of natural resources is key in the preservation of these to ensure availability for future generations. Skorpion Zinc realizes the need to partner with all stakeholders in driving towards conservation of natural resources.

It was against this background that the company partnered with the Rosh Pinah Academy to hold a campaign on sustainability awareness for school pupils from grade one to five.

The Campaign included the following activities;

- Classes on water and energy saving discussions at school,
- Coloring competition of a natural ecosystem for grades one to three,
- An environmental terminology Quiz and,
- A Prize awards ceremony

A total number of 60 learners and five teachers were involved in the campaign. From these discussions it was learned that water management and conservation in Namibia is crucial with its low and erratic rainfall patterns with limited water supply, a country that has recently been facing severe water shortages.

Participants of the campaign realised that even small efforts in conserving water can have an impact, involving a simple change in attitude on water use and consumption.

Water savings measures are simple to implement, even at home which could include, for example; switching off the tap while brushing one's teeth or washing hands. Students also learned that water is the source of life, without which all living beings and organisms cannot survive.

Another aspect of the campaign involved electricity usage, and how one could save power through simple means such as switching off lights in vacant rooms, and appliances such as heaters and appliances when they are not in use.

Lastly, students were also encouraged to share the information they had learned among friends so as affect a greater impact in conserving energy and water. •





PHOSPHATE PROJECT NAMIBIA

The fertilizer project under development by LL Namibia Phosphates is planning to extract a 40 cm thin layer of phosphate sand from the top of the sea floor within their mine license and to convert it to fertilizer and animal feed products. The project started with sampling followed by test work for making fertilizers and animal feed from the phosphate sand. This test work activated the construction of a demonstration test facility in Lüderitz in order to improve the environmental and engineering design. The chosen technology is environmentally friendly and do not have all the challenges as with conventional fertilizer technology.

Capital expenditure for the operational project is estimated at N\$24 billion. Capital costs for the project will include land, infrastructure, roads and loading jetty's, ships, as well as mining, beneficiation and fertilizer plants. The three year construction phase of the project will already have a strong economic impact on Namibia.

This phase alone will provide employment for 3,000 individuals. Once construction is completed, the operation will create about 2 000 permanent positions and approximately an additional 9 000 jobs outside the company in related and support industries.

The project will be self-sufficient with its' own power and fresh water production. Furthermore, it will contribute 4% to the national GDP and due to the value addition and full beneficiation to a final product, Namibia will reap more benefits than most other mining ventures.

- FERTILIZER PROJECT PROCESS





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Operations Director: Craig Boy craig.boy@gecko.na +264 81 144 4061



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IMPROVING THE LIVES OF ALL NAMIBIANS THROUGH DIAMONDS



Marine mining may take place far out at sea, the benefits however, always come ashore. We make certain Namibia's diamond resources benefit our entire nation. With this in mind, we support a wide selection of activities to uplift communities throughout the country.

🗇 DEBMARINE NAMIBIA

A NAMIBIA DE BEERS PARTNERSHIP

Les Burney 84_27/02/2027