

Rössing Uranium Limited  
Working for Namibia

Report to Stakeholders 2014

Making progress





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## The purpose of this report

This report aims to give readers an overview of the activities of Rössing Uranium Limited (Rössing Uranium) from January to December 2014, including our interaction with society, the economy and the environment. Although the Rio Tinto Group is the majority shareholder of Rössing Uranium, it is not the only stakeholder that has invested in the business. All individuals and institutions that influence and are affected by Rössing Uranium are stakeholders, including the mine's employees and contractors; the neighbouring communities of Arandis, Swakopmund and Walvis Bay; Government institutions; service providers; and the mine's customers. Thus, the report offers locally relevant information about our business and about issues raised during the year. We practise a philosophy of open communication and simultaneously instil a culture of sustainable development throughout our Company.

We would appreciate your feedback on this report. You can send us a text message to +264 81 143 3627; an e-mail to [yourcontact@rossing.com.na](mailto:yourcontact@rossing.com.na); contact us via our website at [www.rossing.com](http://www.rossing.com); or phone us at +264 64 520 9111.

 Learn more about Rössing: Reports and Research at [www.rossing.com](http://www.rossing.com)

Rössing Uranium: one of the world's biggest open-pit uranium mines, making a substantial contribution to Namibia's economy for the past 39 years.





# Making progress, in a challenging year

It is my pleasure to present Rössing Uranium's Report to Stakeholders 2014, which explains our business and our approach to what we do. The report serves to outline how our business performed in 2014, measured against our key drivers.

The saying "When the going gets tough, the tough get going" certainly applies to the 2014 reporting year – and we believe it applies to Rössing Uranium as a business.

Following a challenging 2013, 2014 was certainly not easier. However, our will to survive, to find innovative ways to work smarter and to face the many challenges of our business head-on, paid off: we made progress during yet another tough year.

In our 39-year history, there have been times when we have experienced similarly challenging periods. We survived these too – and went on to prosper when market conditions improved.

We are looking beyond the current difficult times, therefore, and we remain positive. We are proud of our progress towards securing our long-term future for the benefit of our stakeholders in particular as well as Namibia in general.

After the leach tank failure in December 2013, the first quarter of 2014 saw operations gradually being resumed. In the first half of the reporting year, uranium market prices dropped even lower than their 2013 levels. This led to the Board of Directors' decision to curtail operations from August 2014 onwards.

The curtailed operational plan involved moving to non-continuous operations in the mining and processing areas, with the objective of producing only enough uranium oxide to meet our long-term sales commitments. We also embarked on an organisational redesign exercise. This changed our 7-day, 24-hour operation to a 5-day, 24-hour operation. This in turn led to a decision to reduce our workforce – always a tough choice, but our long-term survival was at stake. A leaner structure has allowed us not only to improve productivity, but also to reduce our employee costs by over N\$100 million.

Our cash-generation (CashGen) projects motivate all employees to come up with cost- and time-saving initiatives. During the reporting year, the ideas derived from our employees allowed us to save another N\$149 million.

Naturally, curtailed operations impacted on our production figures for the year. Thus, during 2014, we produced 1,543 tonnes of uranium oxide, compared with 2,409 tonnes in 2013. Our revenue decreased accordingly, ie by 19 per cent compared with the previous year. This drop was due to significantly lower market prices and sales volumes, which in turn led to a net loss after tax of N\$91 million (2013: net profit after tax of N\$32 million) from normal operations.

A key focus during the reporting year was to continue exploring opportunities to improve productivity and reduce costs across all

of our main activities. One avenue which showed significant cost savings was blasting: the introduction of new methods has reduced the amount of explosives required.

Despite difficult times, our spending in Namibia is still significant, and leads to a long chain of value addition throughout the country's economy. In 2014, we spent N\$1,597 million on goods and services, of which 68 per cent was spent domestically – mostly in the Erongo Region.

Safety will remain our priority: it permeates our activities as a business and as a team. Our safety performance in 2014 was better than the previous year; however, it still exceeded our target for the year. During 2015, we will roll out an engaging and effective safety programme. Our goal remains the solid establishment and maintenance of an injury- and illness-free workplace, where everyone is healthy and goes home safely each day.

As we entered 2015, the mine sustained an incident that will impact our production in the first quarter of the year. On 12 February 2015 a fire broke out at our Final Product Recovery plant. No employees were injured during the incident and there were no uranium spills in the area. None of the final product drummed and stored outside the facility was affected.

Everything that we do in 2015 will be built on top of the following four pillars of strength:

- Zero harm
- Being an employer of choice
- Exceeding planned production targets
- Improving the reliability of our equipment

The long-term future for uranium remains encouraging: the market price for uranium is expected to rise in line with an expected increase in demand as utilities look to secure fuel for their 2017 to 2023 needs.

However, in the short term, the market remains oversupplied. Until such time as the industry recovers, we will continue to work in a constrained environment. And we will certainly continue to depend on the resilience, commitment and innovation of our employees to overcome these challenging times.

**Werner Duvenhage**  
Managing Director  
30 April 2015

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# Executive Committee



**Melissa Shanjengange**  
General Manager,  
Organisational  
Resources

**Shaan van Schalkwyk**  
Chief Financial Officer

**Martin Tjipita**  
General Manager,  
Operations

**Werner Duvenhage**  
Managing Director

## Our sustainable development approach

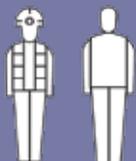
# Focusing on the issues that matter most

### Social People

Our workforce is central to our business. This means ensuring a safe and healthy workplace geared for human resource development in order to attract and retain employees, while maximising our contribution to their well-being.

### Communities

By understanding the diversity of the communities in which we operate, and through continuous interaction with them, we can respond to their concerns and needs. Moreover, the communities that host us should realise a net benefit and a long-lasting, positive effect from our activities.



### Environment and product stewardship

#### Environmental and asset resource stewardship

We aim to be the leader in environmental stewardship in Namibia and to maintain our reputation as a responsible corporate citizen. This can be achieved by understanding and appreciating our natural resources, both biotic and abiotic, utilising them sustainably, and creating a net positive impact.

#### Product stewardship

This theme focuses on expanding our understanding of the impact of our product on society by working with all interested and affected parties.



### Economy Economic viability

In order to provide the best returns on our shareholders' investment, we need to understand the long-term demand for our product as well as the cost, resource availability and value creation associated with that demand. Economic viability also ensures that we continue to make significant contributions to Namibia's economy and her people in various ways.



### Governance Corporate governance and compliance

We strive to be transparent and proactive in all our business operations. To this end we have auditable business systems in place which form the backbone of good corporate governance.



Sustainable development is the distinctive, significant and characteristic centre of our overall approach to business.

Driving the integration of sustainable development at Rössing Uranium are these six themes highlighted above. These themes form the framework in which our business is conducted.

Everything we do is in line with the generally accepted definition of *sustainable development*, namely development that meets the needs of the present without compromising the ability of future generations to meet their needs. This suggests that meeting the needs of future generations depends on how well we balance social, economic and environmental needs when making decisions today.

The aim of sustainable development is, therefore, to seek out win-win situations that can achieve environmental quality and increase economic wealth and social well-being, today and tomorrow.

Our vision remains focused on:

- creating long-lasting positive effects for the people of the Erongo Region and Namibia;

- building capacity to ensure that we contribute to the future well-being of our employees;
- minimising negative impacts and optimising positive ones; and
- maintaining our reputation as a responsible corporate citizen of Namibia.

When conducting our business we ensure that we maintain a balance in the way we:

- use our assets, that is, both our own resources and environmental resources to reflect our integrated approach in terms of profit, people and planet;
- contribute positively to the needs of society by providing support to stakeholder communities without creating dependency; and
- generate economic wealth.

# Performance focuses



## Curtailed production and lower revenue

Continued pressure on uranium market prices led to a decision to curtail operations from August 2014 onwards, moving from a 7-day, 24-hour operation to a 5-day, 24-hour one. This impacted on our production figures: we produced 1,543 tonnes of uranium oxide in 2014, compared with 2,409 tonnes in 2013. Our revenue decreased by 19 per cent as a result, which in turn led to a net loss after tax of N\$91 million from normal operations, compared with a net profit after tax of N\$32 million in 2013.



## Investing in our people

With our workforce of 850 people, most of whom reside in the mine's neighbouring communities, we remain a significant employer in the Erongo Region. During 2014, our wage bill was N\$674 million in direct salaries to our people. We invested N\$6 million in training and development which benefited 85 of our employees. Two new bursaries were granted, while 36 existing trade/university bursary holders continued to receive support.



## Using our natural resources sustainably

We aim to be a leader in environmental stewardship. As a resource-intensive industry, our operations impact on several aspects of the natural and social environment. We continuously improve our Environmental Management Plan, therefore, in order to minimise any negative impacts and maximise all benefits. Rössing Uranium holds ISO 14001 (2004) certification, which sets out the criteria for the establishment and maintenance of an environmental management system. Our adherence to these international standards ensured we again received certification in 2014.



## Substantial local procurement spend

Despite difficult times, our spending in Namibia is still significant. This leads to a long chain of value creation throughout the economy. In 2014 we spent N\$1,597 million on goods and services (N\$1,900 million in 2013) of which 68 per cent was spent domestically, mostly in the Erongo Region.



## Investing in our neighbouring communities

We recognise that the long-term sustainability of our business is dependent on establishing and maintaining enduring and effective relationships with our neighbouring communities. Such relationships are characterised by mutual respect, active partnership, and long-term commitment. Despite a challenging year, we invested N\$21 million in our neighbouring communities – either directly via donations and sponsorships, or indirectly through the Rössing Foundation.



## Receiving an unqualified review opinion

We pride ourselves on our track record of good corporate governance and on the financial compliance systems we have in place, as reflected in yet another unqualified review opinion from our external auditors for Rössing Uranium's 2014 financial year.

# Rössing Uranium's strategic pillars for 2014/15

These pillars summarise the key drivers that have enabled us to stay focused, and on which we now report.

**Vision**

To be the safest and most efficient uranium producer in the world.

**Mission**

To be a uranium supplier to the global nuclear power industry creating maximum return for our shareholders, whilst delivering benefits to all stakeholders.

**Values**

Teamwork; Respect; Accountability; Integrity

Strategic pillars	Health, safety and environment	Operational excellence	Asset integrity	People
<b>Our inspiration</b>	Zero harm	Exceed planned production	Improve asset reliability	Employer of choice
<b>Key drivers</b>	<ul style="list-style-type: none"> <li>• Behavioural safety</li> <li>• Effective leadership</li> <li>• Accountability</li> <li>• Simplified systems and procedures</li> <li>• Effective management of critical risks</li> <li>• Safety management</li> <li>• Enhance employee engagement</li> <li>• Leadership in the field</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain resource model integrity</li> <li>• Improve production planning</li> <li>• Enhance governance around key systems and processes</li> <li>• Improve on cost-saving performance</li> <li>• Enhance framework and project delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance planning and compliance</li> <li>• Asset refurbishment programmes</li> <li>• Appropriate working rosters</li> <li>• Do Kaizen projects (essential part for immediate results and continuous improvement) and implement actions</li> <li>• Annual shutdown planning and execution</li> </ul>	<ul style="list-style-type: none"> <li>• A great working environment</li> <li>• Talent and capacity-building systems to meet future needs</li> <li>• Effective team membership by all employees</li> <li>• Effective communication</li> <li>• Performance management systems and culture</li> <li>• Improving skills of all leaders</li> <li>• Enhancing productivity</li> </ul>



# Cash generation vital for survival

It is well known that cash flow is vital to the health of a business, and Rössing Uranium is no exception.

Over the past two years, our cash-generation drive – CashGen – has become part of daily life, with all projects under this initiative advancing our financial position, enhancing our unit-cost situation, and strengthening our bottom line.

CashGen is crucial for Rössing Uranium not only for our current survival, but also for our long-term growth and prosperity. The previous reporting year saw us implementing cash-saving projects, and we continued these during 2014, aligning this initiative with the broader Rio Tinto approach to the issue.

We embarked on just over 70 projects to ensure our cash-generation targets were met, while building on the methodology we applied during 2013 and with several process improvements during 2014, such as the introduction of a CashGen driver-team structure.

From the CashGen initiative we achieved an annualised value of N\$149 million, exceeding our 2014 annualised value target by N\$17 million. The values are projected from projects that have commenced/completed implementation, and are tracked on a monthly basis to ensure the forecasted value is realised.

This is a major achievement for the mine, and enabled us to reduce our cost structure and realise a smaller operating loss than would have occurred without the intervention.

Project savings relate to improvements in time, better terms and conditions on contracts, reduction in waste and disposals, improved efficiency, and enhanced productivity. A case in point was the tulip-plug project conducted in the Mining Department (see page 21). The Drill and Blast teams implementing this project plan to save the mine N\$16 million annualised value going forward.

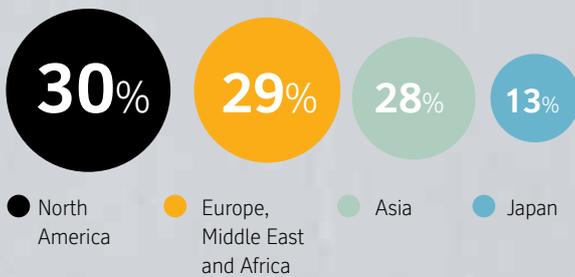
Towards the end of 2014, Rössing Uranium expanded its focus from tightly-scoped CashGen projects and gave more attention to embedding continuous improvement.

Thus, the current scope will widen in 2015 to include all operational projects with a significant CashGen element. In the coming year we will continue to focus on productivity and efficiency improvement, and all such projects will be sanctioned as CashGen projects.

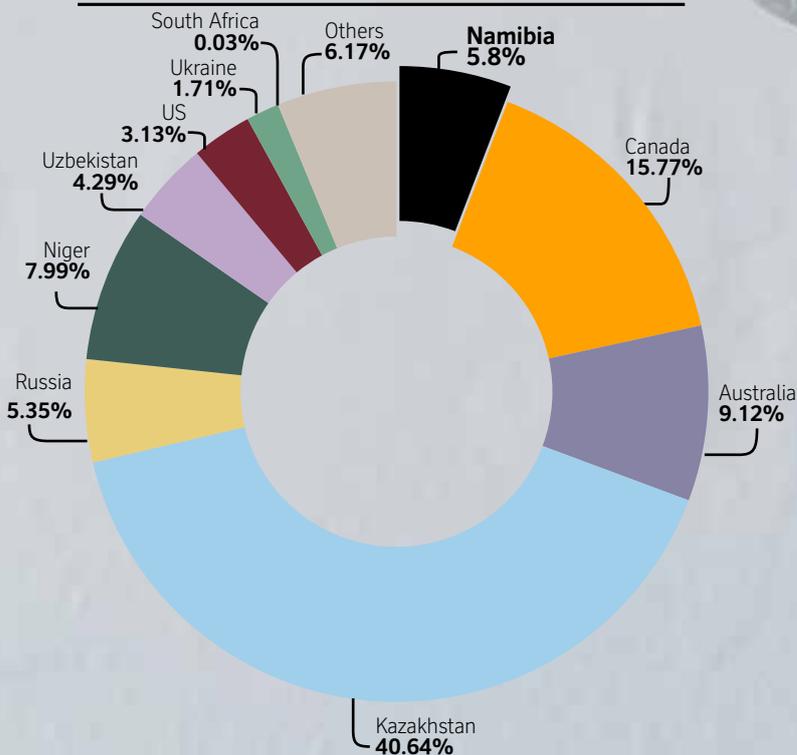
## Marketing our product

# Under pressure, but **positive outlook** in the long term

Rössing Uranium customers by region (%), 2014



World primary production of uranium oxide (%), 2014



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The 2014 reporting year continued with much pressure on Rössing Uranium. We experienced a combination of uranium price fluctuations, volatile exchange rates, shareholder pressures and cost challenges – all contributing to making 2014 a challenging year.

*Test tubes depicting the different processing stages of our product.*



**URANIUM LTD**



## Marketing our product

All uranium produced by Rio Tinto's mines is now marketed by Singapore-based Rio Tinto Uranium under a buy/sell arrangement with the mines. Rössing Uranium, one of the largest and longest-operating uranium mines in the world, supplies its final product via Rio Tinto Uranium to electricity companies located in all three major markets: Asia, Europe/Middle East, and North America.

In addition, Rössing Uranium supplies uranium directly to South Africa's national power utility Eskom to produce power for southern Africa. Almost all of our production is marketed through long-term contracts with a diverse selection of customers.

The uranium market in 2014 suffered further price declines, as buyers mostly sat on the sidelines and excess production and secondary supplies continued to overhang the market. With inventories so high throughout the system, long-term demand stayed at historically low levels; few utilities were very active in the spot market either.

Term demand is expected to pick up in the next few years as utilities look to secure fuel for their 2017–2023 needs. This should boost demand somewhat in 2015.

The reporting year showed one significantly positive sign: a full three years after the Fukushima tsunami-related accident in Japan and the corresponding drop in uranium demand, world production finally declined compared with 2013. Previously, world mine production had continued to expand each year despite the loss of demand – a situation caused by producers, which only made their price problems worse.

Leading this trend was Kazakhstan, which, after its astonishing expansion over the last decade, now produces almost 40 per cent of world mine supply. Kazakh production increases slowed in 2014, and were offset by several mine closures, including Paladin's shutdown of the Kayelekera mine in Malawi. More modest cuts were made at other mines worldwide, including Namibia, with Rössing Uranium reducing production from mid-2014.

The spot price for uranium began in 2014 at US\$35.50 per pound, but by mid-year, with too much supply and very little demand, the price dropped below US\$30.00 a pound for the first time since 2005, reaching a low of close to US\$28.00 per pound. Fortunately, by the third quarter, several speculators started to buy, bringing in some discretionary utility demand. Thus, the year ended at essentially the same price as it had started.

In 2014, production earmarked for the low spot market was curtailed, reducing overall sales volumes and total revenue. Rössing Uranium's long-term sales contract portfolio has limited exposure to the spot price, and therefore presents a resilient revenue stream for the Company.

Moreover, the roughly US\$5/pound rise in the long-term indicator toward the end of the year had a positive effect on Rössing Uranium's revenue line for the year, since our contracts are

primarily long-term in nature and utilise a variety of long-term pricing mechanisms.

Looking ahead to 2015, it is likely we will see the first units restarted in Japan during the first half of the year. This is an important step forward after the past four years, during which time most plants were kept offline. However, the pace of restarts will probably remain slow, while some of the older units or those which require costly upgrades may never be allowed to restart. The Japanese industry is unlikely to return to its previous size and position in the uranium-consuming market, but any resumption of operations at nuclear power plants in that country is a positive sign.

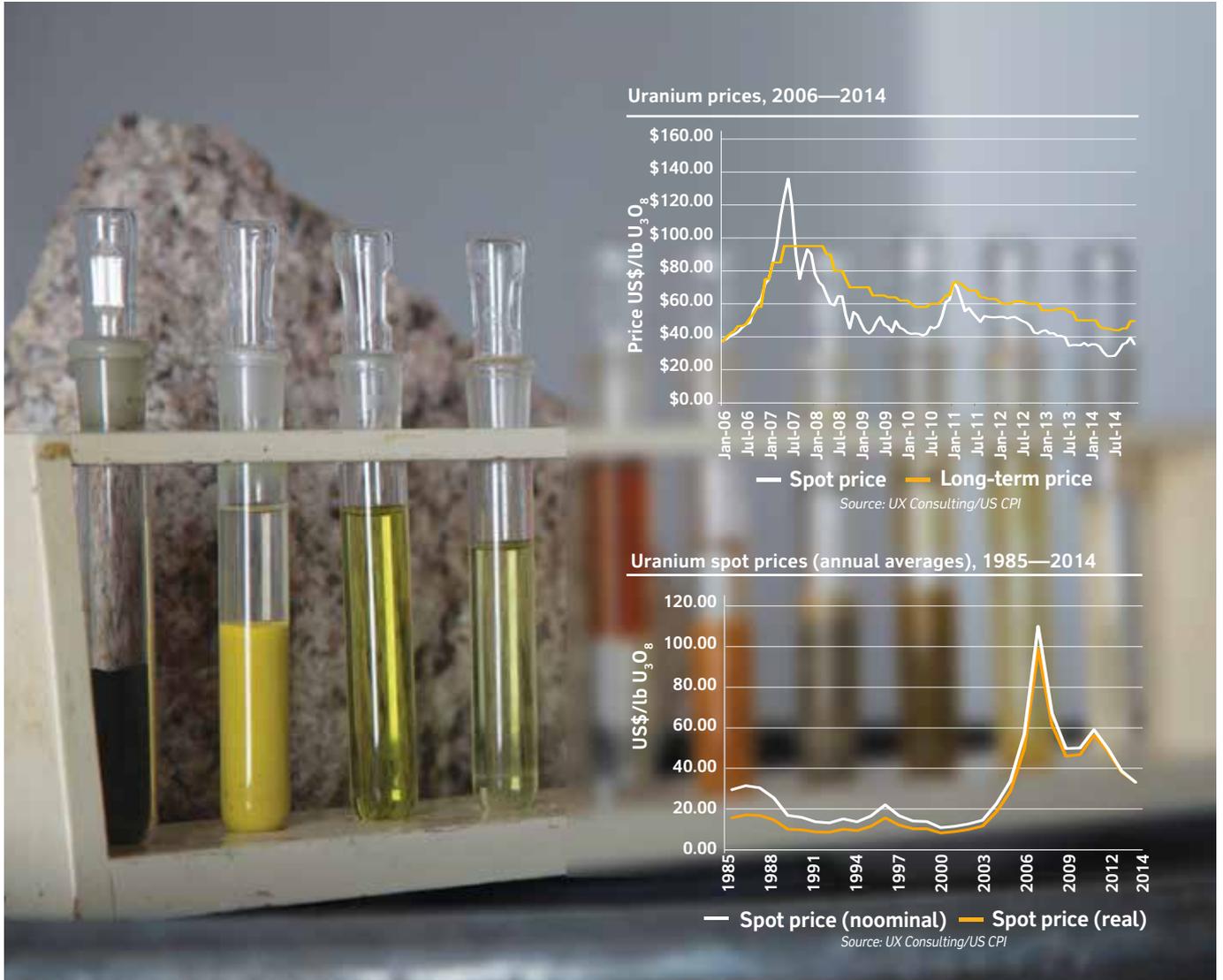
Elsewhere, some of the operating nuclear plants in the United States (US) remain under severe pressure from very low-cost natural gas as well as heavily subsidised renewables. In many parts of the US the electricity business model is broken, and while consumers are benefiting from low-cost electricity, the highly distorted power markets in some regions are putting stable, reliable, low-cost nuclear plants in danger of shutdown.

A heavier regulatory burden after Fukushima is adding to these pressures. With five new nuclear plants under construction in the US, it is positive to see there is still some growth in that mature market, but it may come at the expense of shutting down another few older plants in regions where gas generation predominates.

China, meanwhile, continues to lead the world in new reactor construction. Twenty-two reactors are now in operation, with another 26 under construction. New construction starts slowed somewhat after the Fukushima tsunami-related accident, but are poised to grow again as China seeks to diversify its electricity mix and reduce its heavy reliance on coal, which contributes to the latter country's severe air-pollution problems.

The long-term outlook for the nuclear industry remains encouraging. The challenges are in finding a path leading from today's weak, oversupplied market to the brighter days of higher demand.

For higher-cost producers such as Rössing Uranium, the next few years will remain challenging. In the longer term, the nuclear fuel market will continue to require stable, established, reliable producers — a position that suits Rössing Uranium well.



“The uranium market remained under pressure for most of 2014, as Japan struggled to restart its nuclear plants and market oversupply continued to be a problem for producers. By the middle of the year, spot prices had fallen to ten-year lows,

breaking the US\$30-per-pound market for a few months. Fortunately, this did not last long, and prices recovered somewhat by year end, but Rössing

Uranium needed to take further steps to reduce production and costs in the near term.

The outlook for 2015 is a bit brighter: the Japanese Government has now approved the restart of several units, and China continues to construct new reactors at a rapid pace. While the process in Japan will likely be slow, at least it is the first significant positive step toward resuming the nuclear programme in that country since the March 2011 tsunami.”

Clark Beyer, Managing Director, Rio Tinto Uranium

# Curtailed production due to poor market conditions

Rössing Uranium's operations consist of two distinct activities: mining uranium-bearing rock, and processing this ore to produce uranium oxide. All our attention is directed not only towards creating shareholder value and keeping the business safe and viable, but also towards ensuring that we are a long-term contributor to Namibia's economy.

## Exploration

As regards our exploration activities, we completed the third phase of drilling on the Z20 ore body during 2013, which meant no additional exploration activities were undertaken for the year. Data from the drilling indicated a significant uranium resource in Z20.

The objective for the reporting period was to establish the development pathway for the economical extraction of ore from Z20. This included establishing a new pit and overland conveyor for transporting ore for processing through a modified plant at the mine. Although this major investment was discussed with potential funding partners, due to the poor uranium price, it did not come to fruition.

The Z20 deposit remains part of Rössing Uranium's resource for further development at a point when market conditions improve sufficiently.

## Mining operations

We mined a total of 23 million tonnes of rock from the open pit during 2014, compared with 36 million tonnes in the previous reporting year. Tonnes were reduced to match the production capacity of the plant in line with the phased start-up process after the leach tank failure in December 2013 and to accommodate a planned four-week maintenance shutdown in June 2014 to the Processing Plant. Unfortunately, the uranium price decline further during the first half of the year, leading to a management and Board decision to curtail production to meet only contractual commitments, with the resulting curtailment production plan in effect from August 2014.

The north-west part of the open pit, Phase 2 of the SJ Pit, was the main source of uranium-bearing ore during the review period, while waste stripping continued in the south-eastern part – Phase 3.

Of the 23 million tonnes rock mined, 7 million tonnes were ore-bearing rock destined for further processing. The balance of 16 million tonnes was waste rock, giving a ratio of 0.43 in respect of ore processed to waste rock removed.

The reduced mining activity during 2014 in turn required a reduction of the uranium ore cut-off grade in order to produce sufficient ore for the Processing Plant.

A key focus during the reporting year was to continue with opportunities to improve productivity and reduce costs across all of the main mining activities, ie in drilling, blasting, loading, hauling and ore supply. Significant cost savings were indeed achieved with blasting, for example, following new methods being applied to reduce the amount of explosives needed (see case study on page 21).

In terms of our hauling activities, an improved truck cycle time provided significant savings in fuel costs. This was achieved when locations were identified for dumping waste rock relatively close to the pit, and utilisation of the electric trolley lines was improved.

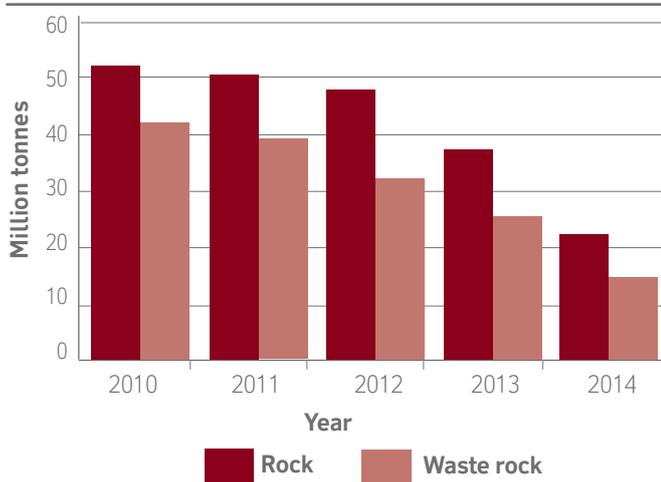
In ore supply, a higher proportion of direct feed from the pit, together with a depletion of the run-of-mine stockpiles from 2 million to 1.3 million tonnes, provided cost savings on reduced equipment hours.



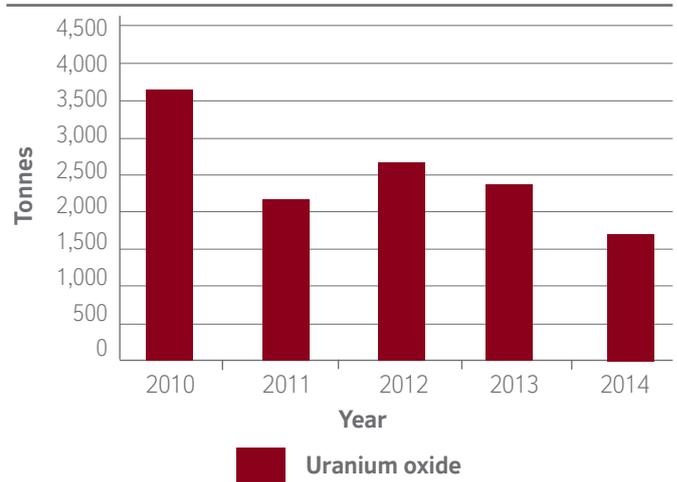
*Graduate Mining Engineer, Paulina Kapitango, inspecting the work done and capturing data on one of the mine's Komatsu haul trucks in the Haul Truck Workshop as part of the Haul Truck Payload Management Project. Each haul truck is equipped with a payload meter that registers the weight of the load.*

## Our operations

**Production 2010—2014: Tonnes of rock and waste rock mined**



**Production 2010—2014: Tonnes of uranium oxide produced**



Another focus area during 2014 was to improve the availability of key mining equipment. Notable successes were achieved on the availability of drills and shovels by fostering a closer working relationship with the maintenance team, and the care taken by operators to maximise availability of the equipment.

In 2015, the focus will shift to improving the effective utilisation of this equipment even further through initiatives such as multi-skilling and operator attendance at work.

The objective in 2015 will again be to ensure the right balance between the rate to which ore is mined and the throughput delivered to the Processing Plant. The plan is to provide between 9.5 million and 10.5 million tonnes of ore for processing. The balance of mining activities will be similar to those maintained in 2014 with two thirds of mined ore being hauled from Phase 2 of the open pit, and one third from Phase 3.

### Long-term planning

During the reporting year we undertook the further conversion of resources to reserves by reviewing various expansion opportunities within the open pit. In 2015 we plan to evaluate the SJ Pit's Phase 4 early on as part of the mine's resource base in order to be ready when the uranium market price improves.

### Processing operations

The Processing Plant is responsible for the extraction of uranium from the ore through a number of stages to produce uranium oxide ( $U_3O_8$ ), which is securely packed and shipped to our customers for further conversion. The objective of the plant is to produce planned quantities of uranium oxide in the most efficient and safe manner possible.

In June 2014 we had a four-week shutdown to cater for major maintenance of the plant. The shutdown was successfully executed in terms of having completed the planned work on time. Another shutdown to the same end is planned for mid-2015. This will go a long way towards reducing the maintenance debt and ensuring the smooth running of the plant.

We also put a lot of work into refurbishing the leach tanks. The refurbishments were completed in January 2015. A programme is also in place to refurbish all major or critical tanks and other structures, and will continue into 2016.

The mine's restructuring and the change in its operating model also had an impact on our processing operations: we reduced the workforce and changed from a 7-day, 24-hour operation to a 5-day, 24-hour one. While this has been a challenging journey and required considerable effort from the processing teams, the plant's performance has steadily improved as a result. A case in point was exceeding our milled target in October and November 2014.

Unfortunately, with low ore grades and challenges with recovery, the drummed target was not reached. Various efforts are ongoing to improve our recovery rates. We drummed 1,543 tonnes of uranium oxide compared with 2,409 tonnes the previous reporting year.

Areas that will continue to receive attention in 2015 are the sustained control and monitoring of dust exposure and hazardous substances. Two examples of our success to date are the implementation and commissioning of a dust collector and vacuuming system in one of the mine's laboratories to control silica dust exposures there, and commencing with the fabrication and installation of ducting in the Fine Crushing area.

## Our operations

*Terrence Muzengwa, Central Process Control (CPC) Operator, behind the monitors in the CPC room from where the operations of the Processing Plant are monitored. This includes the crushing and extraction processes from the coarse ore stockpile to the Final Product Recovery area where our final product, uranium oxide, is drummed.*



The Processing Plant will continue its efforts to implement the new operating model successfully, ensuring that the plant starts up smoothly after each maintenance module day. We will also continue to focus on decreasing our maintenance debt and breathing new life into the plant for many more years to come.

### Engineering

The year under review saw our engineering capability consolidated by accommodating the engineers under one department. This not only provides better opportunities for the engineers to develop, it also makes their deployment to priority areas more flexible. Dedicated senior engineers were appointed to oversee the overall engineering support to the business. In so doing, much was accomplished in re-establishing and updating engineering standards across the mine site.

We implemented various initiatives to improve workflow in the workshop areas, including a rotatable process to govern and streamline the repair of major plant and equipment components.

### Capital projects

During 2014, the Projects Section was responsible for designing and implementing various capital and operational improvement projects.

#### Tailings Storage Facility

Following a review of the Tailings Deposition Plan, we identified the need to construct a starter embankment on the north-to-northeastern side of the Tailings Storage Facility, and a buttress on the western side of the facility. These two stability reinforcement projects will ultimately enable us to deposit tailings in an area on the facility that was previously not suitable for tailings deposition. The overall project execution was approved for an amount of N\$100 million, which included the establishment of starter embankment walls for three new deposition areas on the facility. The starter embankments will provide a stable foundation for the deposited tailings. This project started in the last quarter of 2014 and will continue until the end of 2015.

## Our operations

### Leach tank refurbishments

Following the failure of one of the leach tanks at the end of 2013, Rössing Uranium initiated an overall programme for the refurbishment of all structures and tanks across the mine site. To this end we assessed a total of 84 process tanks containing various types of materials and chemicals, and prioritised repair work accordingly. From this assessment we identified 30 tanks that needed to be repaired over the next three years. To execute this refurbishment programme a separate project management team was established and will be assisted by two contracting companies. By the end of 2014, the failed leach tank had been completely rebuilt, and four others had been completely refurbished.

### Desalination plant

Rössing Uranium initiated a study to develop a desalination plant to supply fresh water to the mine due to the current constraints on the supply of aquifer water, as well as the high costs associated with alternative desalination supplies. We appointed consulting teams to conduct detailed engineering, costing and environmental impact assessments of such a plant. The last quarter of 2014 saw the environmental impact assessment process completed. The envisaged location will be approximately 6 km north of Swakopmund, at the existing Swakopmund Salt Works.

### Reagent store

Hematite and manganese are to be housed in 1-tonne bulk bags in a newly erected reagent store for use in the Processing Plant. The store can accommodate 260 tonnes of hematite and manganese respectively, a total of 520 tonnes. A Wikihall structure (a galvanised frame covered with durable canvas material that can be relocated) was used to construct the store as part of the Processing Plant. This proved to be a novel approach in terms of saving building time and costs.

### Reagent plant upgrade

The project to build the new Reagent Plant commenced during 2013 and will continue into 2015. It will assist the processing operations in reducing the dust pollution caused by handling mega bags and will improve efficiency and throughput relating to the addition of reagents during the processing operations.



*(Right) Laboratory Operator, Maria Emillas, wearing the required Personal Protective Equipment (PPE) while working in the mine's chemical laboratory where chemical tests are conducted to help determine the ore grade and acid consumption properties of the ore.*



## *Our operations*

### **Shutdown activities**

We executed an extensive plant shutdown over four weeks in mid-2014 in order to undertake major maintenance in the Processing Plant.

### **Change houses**

We successfully completed the construction of a 500-person change house at the Processing Plant and handed it over to the Operations and Maintenance teams who would be using it. The facility combines various dilapidated change houses that were scattered across the Processing Plant area.

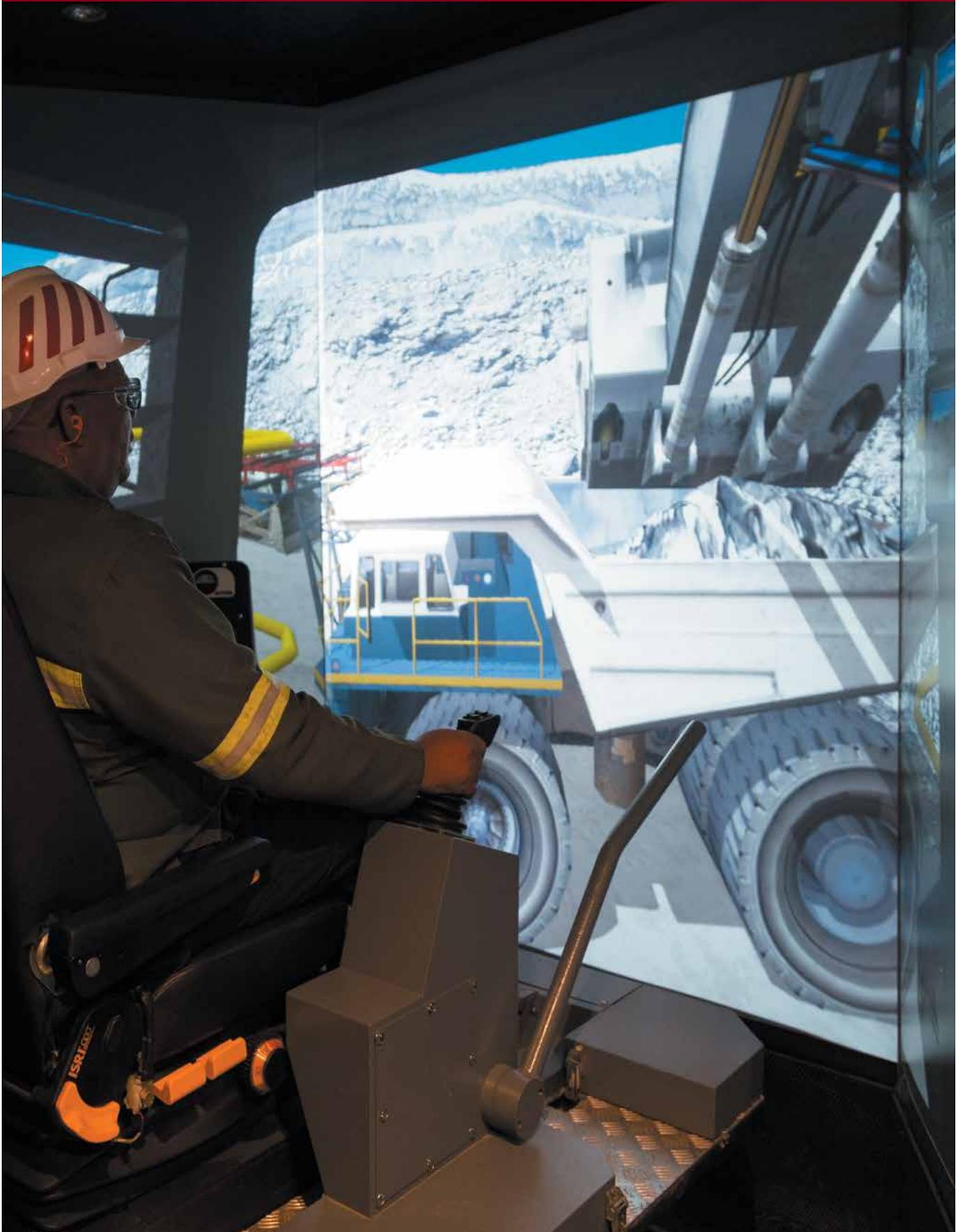
### **Fine Crushing Plant Ducting Replacement Programme**

Managing dust generation and spillages within the Fine Crushing Plant remains a major challenge. The dust needs to be collected in ducts, transported to suitable storage bins, and then removed and reintroduced into the system in a sensible manner without creating a hazard. Although the plant is equipped with dust collectors, the abrasiveness of the dust wears out the ducting. Once the ducting loses its integrity, the dust becomes airborne. This creates both a health and a safety hazard, as visibility becomes impaired. All deteriorated dust ducting will be repaired and replaced during 2015.

### **Laboratory dust collector upgrade**

Reducing the size of ore samples for metallurgical test work requires the samples to be crushed through a number of stages. These crushing processes generate significant amounts of dust within the closed laboratory area. Rössing Uranium therefore installed a new dust collector system in the laboratory to reduce operators' exposure levels.

*Open Pit Skills Trainer, Frederick Hanse, demonstrating the use of a simulator on site that is utilised to train Open Pit equipment operators to operate one of the mine's shovels when loading fragmented rock onto a haul truck. Making use of the simulator has proved to be an effective way to teach operating skills. During 2014, 31 operators attended refresher sessions while seven new operators were trained to operate shovels.*



## Case study: Tulip-plug Project will save millions

The Drill and Blast teams at Mining operations implemented the Tulip-plug Project that will save Rössing Uranium N\$16 million between October 2014 and September 2015. This is possible because we introduced two changes to production blast designs:

- Blast hole depths were reduced by about 10 per cent overall through drilling by employing shorter sub-drills; and
- Tulip plugs are installed in the shortened sub-drills to ensure there is no charge in the bottom 1.3 m of the blast holes.

As a result, the overall blast-hole length that is charged with explosives is reduced by about 30 per cent. In this way, the Drill and Blast teams ensure that the overall drilling and explosives expenses incurred by the Mining Department are reduced.

Implementing the Tulip-plug Project had the following cost-saving benefits:

- Drilling savings of 11.4 per cent
- Explosives savings of 31 per cent
- Reduced stemming ejection
- Overall drill and blast savings of 23 per cent
- Target cost savings of N\$1.3 million a month

The potential safety and environmental benefits of this project are as follows:

- Reduced flyrock
- Improved highwall conditions
- Reduced stemming ejection
- Reduced air blast or noise
- Reduced blast vibration
- Reduced dust

*(Right, top and bottom) Graduate Mining Engineer, Rafael Kalumbu, of the Drill and Blast team at Mining operations, demonstrating how the tulip plug will be used in the blast holes. This will save the mine about N\$16 million annually. The use of the tulip plug also holds safety and environmental benefits.*





RioTinto

Honeywell

Honeywell  
Purifier  
Model: P100  
3077910000



## Our people

# The backbone of our business

Our workforce remains the backbone of our business and a key focus in our sustainable development approach. This approach assures a safe and healthy workplace, geared for human resource development, allowing us to attract and retain employees.

In pursuit of our aspiration to be an employer of choice, Rössing Uranium provides stable, long-term and rewarding employment. We believe that, through employment, the mine can make significant contributions to society and the economy.

### Workforce at a glance

Due to volatile market conditions, we had to embark on an organisational redesign exercise which resulted in a change from continuous operations to a five-day operating model. Unfortunately, this led to 204 employees being retrenched. By the end of 2014 our staff complement totalled 850 employees, compared with 1,141 at the end of the previous reporting year.

The average number of contractors at the mine for the reporting period was 686.

### Employee relations

Employee relations continued to be an important focus area for our business during 2014. The relations between the mine and the Rössing Uranium branch of the Mineworkers Union of Namibia continued to strengthen and are viewed to be stable. The parties signed a three-year salary agreement for the period 2015 to 2017.

### Diversity and inclusion

Rössing Uranium is committed to embracing diversity and inclusion as part of the organisational culture. Evidence of this approach is clear from the data in the table on page 24, which shows our workforce profile for the past five years.

### Organisational effectiveness

We are committed to being a major contributor to building capacity among our employees, especially young Namibians, through various development programmes. In addition, performance management remains pivotal in ensuring that our business targets are linked to employees' performance objectives and are measured annually. A culture of recognition through performance management has been embedded at the mine for many years and aims at driving continuous business improvement.

The next few pages highlight the initiatives that will support us in achieving our goal of empowering and developing the workforce.

### Learning and development

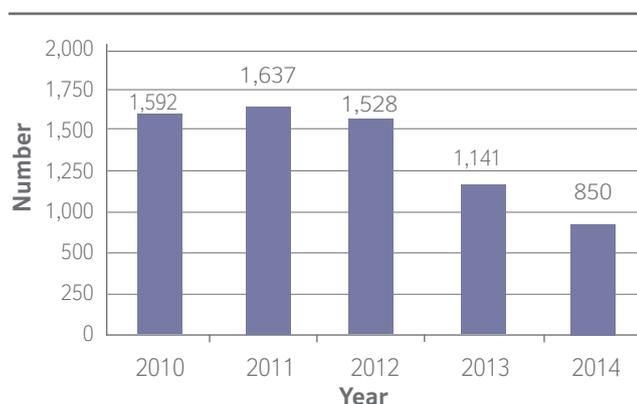
#### University Bursary Scheme

A total of 16 bursary students received Rössing Uranium sponsorships during 2014 to study at college or university at a total investment of N\$717,823 (excluding vacation work). Two new bursaries in the fields of Mining and Electrical Engineering will be awarded during 2015 in line with operational requirements determined by the annual human resources plan review.

The educational assistance scheme for employee dependants at tertiary level supported 31 individuals at a total investment of N\$298,742.

## Our people

### Number of employees, 2010—2014



Workforce profile	2010 (%)	2011 (%)	2012 (%)	2013 (%)	2014 (%)
Historically disadvantaged Namibian men	79.9	80.0	80.0	79.2	74.8
Historically disadvantaged Namibian women	13.6	12.8	13.1	13.7	15.9
Previously advantaged Namibian women	1.1	1.1	0.9	1.1	5.9
Previously advantaged Namibian men	4.6	4.5	4.4	4.5	1.6
Non-Namibian men	1.5	1.5	1.4	1.6	1.6
Non-Namibian women	0.2	0.1	0.1	0.0	0.0
Persons with disabilities: Men	0.3	0.1	0.1	0.2	0.2
Persons with disabilities: Women	0.0	0.0	0.0	0.0	0.0

#### Statistical information on our workforce, 2014

Local and foreign employees:

- Namibians: 98.35 per cent (836)
- Non-Namibians: 1.65 per cent (14), including:
  - 0.47 per cent (4) work permit holders, and
  - 1.18 per cent (10) permanent residence permit holders
- Female representation: 17.4 per cent (148); new female employees recruited: 9 per cent
- Average age of new employees: 34
- Number of employees who left the mine's employment: 343
- Number of new employees recruited: 52

### Apprentice training

A total of 20 apprentices on bursaries as well as two employee apprentices were supported during 2014. In May 2014, nine passed their National Trade Test and in October another nine succeeded in doing so. Two Riggers passed their Rigger Ropemanship trade tests at the Anglo American Platinum's mine near Rustenburg, South Africa. Support to another employee apprentice allowed him to earn his N4 and N5 Certificates in Instrumentation at the College of Cape Town, South Africa.

### Organisational development

#### Vocational Education and Training (VET) levy

The Namibian Government's aim with this levy is to facilitate and encourage vocational education and training. The levy rate is 1 per cent of an employer's total annual payroll.

Rössing Uranium has participated in the VET levy system since the regulations took effect in April 2014. Our contributions to date total N\$4.75 million.

#### The "Making a Difference" initiative

Recognition is a key driver to improving employee morale: it has a positive effect on an employee's self-esteem, mental health and identity; it makes work meaningful; it supports the employee in fulfilling his/her vital roles; and it helps employees develop a sense of pride and achievement in their work. In 2014, therefore, we launched the "Making a Difference" initiative. Through this programme, employees are eligible to receive awards in six categories:

- Living our values
- Health, safety, environment and community
- Business value
- Replication
- Team membership/leadership
- Community involvement

A total of 113 employees received a "Making a Difference" award during the reporting year.

#### Technical training

We trained 168 employees on various types of mobile mining equipment, engineering equipment, and processing equipment during the year under review. The year also saw many employees refresh their equipment training. In addition, the Open Pit Section devised an efficient planning and scheduling process for training and refreshment courses on heavy machinery. The same process will be rolled out to the Processing and Engineering Sections in 2015.

## Our people



(Above) Recognition is a key driver to improving employee morale. Rössing Uranium therefore implemented a "Making a Difference" initiative to acknowledge our employees, who are also recognised by means of long-service awards for their years of service to Rössing Uranium.

People supported by Rössing Uranium — 2010 to 2014: Number of participants in training and development programmes					
Nature of participation	December 2010	December 2011	December 2012	December 2013	December 2014
Trade bursaries	142	118	55	54	20
Trade job attachments	9	11	0	0	0
Apprentice employees	3	2	2	2	2
College/university bursaries	59	45	29	23	16
College/university job attachments outside Company bursary scheme	2	12	1	0	3
Employees enrolled at a technical college (full-time studies)	6	4	0	0	1
Employees enrolled at a college/university (full-time studies)	5	6	5	2	3
Employees involved in correspondence programmes	47	55	39	5	4
Employees enrolled in the Leadership Development Programme	29	50	26	0	0
Development positions	7	0	1	0	0
Rössing dependant scholarships awarded	99	118	85	35	31
Employees in limited-contact studies in various fields	9	5	3	2	5
<b>Total number of participants</b>	<b>417</b>	<b>426</b>	<b>246</b>	<b>123</b>	<b>85</b>
<b>Training programme costs (N\$)</b>	<b>15,527,087</b>	<b>15,529,708</b>	<b>8,110,937</b>	<b>5,569,885</b>	<b>6,062,321</b>



Our neighbouring communities

Our sustainability depends on  
our neighbouring communities



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## *Our neighbouring communities*

We recognise that the long-term sustainability of our business is dependent on establishing and maintaining enduring and effective relationships with our neighbouring communities that are characterised by mutual respect, active partnerships and long-term commitment.

*The Rössing Foundation's Tamariskia Centre located in Swakopmund contributes to the improvement of learners' skills in the Sciences.*



## Our neighbouring communities

Ever since its establishment as Namibia's first uranium mine 39 years ago, Rössing Uranium has recognised that contributing towards the sustainability of our neighbouring communities is a corporate responsibility. We also acknowledge that operating within a sustainable community provides our business with distinct benefits such as skilled and locally available employees, capable and local suppliers of goods and services, access to sustainably managed natural resources, and healthy and safe environments for our employees and their families. In 2014, therefore, we successfully continued our efforts to maintain these mutually beneficial relationships.

### Community relations

We are well aware that our operations impact the communities and society in which we operate in various ways. We regard the responsible management of our community and stakeholder relationships as being as necessary to our business success as the management of our operations. To this end, we take great care in understanding and responding responsibly to our neighbouring communities in order to maintain a positive social performance overall. The next few pages illustrate some of the many activities implemented by various sections of the mine during the reporting period.

The rigorous approach we apply to identify and mitigate possible social and environmental impacts caused by our operations was maintained through the systematic updating of a Social Risk Register. Key activities in 2014 relating to this included increasing stakeholder access to information on the health, safety and environmental impact controls we have in place.

Our community and social investment focus is consistent with the requirements of Namibia's Mining Charter. The Charter, overseen by the Chamber of Mines of Namibia, aims at positively and proactively addressing sustainable and broad-based economic and social transformation in the Namibian mining sector and is aligned to key Government policies and priorities such as Vision 2030 and the latest five-year National Development Plan (NDP4). Rössing Uranium's Board of Directors actively tracks our compliance

against targets contained in the Charter and to which the industry has committed itself.

In 2014, we invested more than N\$21 million in our neighbouring communities, either directly or through the Rössing Foundation. The biggest contributions were made towards programmes which target:

- improved primary and secondary education through the implementation of various learner and teacher support programmes;
- local workforce and specialised vocational skills development through the provision of scholarships, apprenticeships and part-time study opportunities; and
- local economic diversification and strengthening through the support of small- and medium-scale enterprise development.

We believe in celebrating success in order to build momentum and to motivate teams and individuals to continue delivering good work. We therefore supported the Regional Directorate of Education in celebrating the top-performing teachers and learners in the Erongo Region, while all the schools in our host region were assisted to commend their best-performing learners. In addition, we provided small incentives to the best performing students at the Polytechnic of Namibia.

We contributed to the Regional Education Support Fund as well as to the Namibian Coast Conservation and Management Project (NACOMA) Environmental Scholarship Fund. Our annual contribution to the Swakopmund Museum was continued, while we also made donations to the Erongo Emergency Fund to support those affected by shack fires, and the Erongo House of Safety to support orphans and other vulnerable children.

Besides these financial contributions, we used technical support to engage with the public and with community-based organisations in order to increase health, safety and environmental awareness within the Erongo Region. To improve radiation safety skills in our neighbouring communities, we provided radiation safety training to



(Left) Hon. Tjekero Tweya, then Deputy Minister of Trade and Industry, currently Minister of Information and Communications Technology, visited Rössing's stall at the Namport Erongo Business and Tourism Expo held at Walvis Bay in 2014. (Right) The 23rd Rössing Marathon National Championship attracted around 200 athletes from around the country.

## Our neighbouring communities

members of the public in collaboration with the Namibian Uranium Institute. We also provided expertise to the Namibian Uranium Association on water management issues to reduce the mining sector's footprint on regional water resources.

Our employees played a role in community outreach initiatives when they donated cash to LifeLine/ChildLine Namibia and the Cancer Association of Namibia during their respective "Lollipop" and "Boot out Cancer" campaigns. Various items collected on-site were donated to affected learners to ease their plight when a fire destroyed the Tamariskia Primary School's hostel.

No complaints of negative operational impacts were received from our neighbouring communities during 2014.

### External and internal communication activities

One of the key enablers in our business success is informing both our internal stakeholders – such as our employees and contractors – and our external stakeholders about our operations. The Corporate Communications Section has developed various platforms and activities to establish, nurture and maintain good relationships with identified stakeholders.

The section carries out various strategic communication functions in order to disseminate information via various channels in the print and electronic media as well as face-to-face.

During the year under review, Rössing Uranium kept the Namibian Government informed about its corporate business strategy. This

was accomplished through the mine's senior management engaging politicians and senior Government officials on a number of matters of mutual interest.

Our visitors' programme is a key means of engaging guests from around the world. It welcomes specialists, academics, government officials and members of the public. In 2014 we hosted 66 tours to the mine for a total of 1,283 visitors. Some of the prominent visitors in 2014 were representatives of the Organisation for Economic Co-operation and Development (OECD), the Nuclear Energy Agency – a specialised unit within the OECD, and the management of the International Atomic Energy Agency (IAEA).

Media relations were facilitated through the management of various media enquiries as well as a number of information-sharing events that resulted in continued relationship-building and balanced coverage.

Various other activities involved a number of external stakeholders. In 2014, we hosted the 14th annual Rio Tinto Rössing birdwatching event, which is part of the larger partnership between Rio Tinto and Birdlife International. In addition we hosted the 23rd Rössing Marathon National Championship, which attracted around 200 athletes. The competitors participated in a marathon as well as a race and fun walk in aid of the Cancer Association of Namibia.

The cash and in-kind sponsorships and donations effected through Rössing Uranium Corporate Communications totalled N\$339,000 during 2014.

*The annual Rössing Uranium's birdwatching event continues to attract community members and learners from Arandis, Swakopmund, and Walvis Bay. The event was held at the Birds Paradise in Walvis Bay in 2014.*



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## Our neighbouring communities

### The Rössing Foundation

Rössing Uranium established the Rössing Foundation in 1978 through a Deed of Trust to implement and facilitate activities that expressed Rössing's corporate social responsibility towards Namibian communities.

The Rössing Foundation undertakes a broad range of activities across a wide spectrum of community development areas. These activities are concentrated in the Erongo Region, where the Rössing Mine is located, but they also fan out to the Omakehe and Oshana Regions to some extent. All programmes that the Rössing Foundation drives and supports involve collaboration with critical partners such as the Ministry of Mines and Energy, the Ministry of Education, Arts and Culture and the Ministry of Higher Education, Training and Innovation, the National Institute for Educational Development, the Erongo Regional Council and the Arandis Town Council.

### Education programme

A lack of trained personnel, high failure rates, a lack of infrastructure and insufficient funding are among the major problems facing Namibia's education system.

Unsatisfactory performances at school level, coupled with the low output of qualifications at tertiary level, are good indicators that the education system does not yet adequately prepare learners for challenges beyond school in the Mathematics and Science fields. Proficiency of the English language also continues to be a stumbling block. One explanation for this is that many schools have, over the years, suffered from under-resourcing, limited learning materials and teaching equipment, and high learner-to-teacher ratios.

To address the educational challenges facing Namibia, the Rössing Foundation assists the Namibian Government, particularly the Ministry of Education, by offering opportunities to learners and teachers to acquire subject content knowledge and to improve their skills in the areas of Mathematics, English and the Sciences.

To meet this enormous undertaking, the Rössing Foundation has built and operates three Mathematics, English and Science centres in the towns of Arandis and Swakopmund in the Erongo Region, and in Ondangwa in the Oshana Region. The Foundation, in partnership with the selected Regional Directorates of Education, also assists schools in the areas of school management and leadership.

The three centres serve as the hubs of support programmes not only to learners and teachers, but also to the neighbouring communities.

### Learners' support programmes

Traditionally, Science and Mathematics have been regarded as being extremely difficult and boring, discouraging learners to select them in their choice of subjects. During 2014, therefore, the Rössing Foundation executed various programmes to support learners in their quest for improved competency in these subjects as well as English.

In the Erongo Region, for example, more than 570 learners from Grade 5 to Grade 12 registered and utilised the Rössing Foundation's Master Maths facilities in Arandis and Swakopmund during 2014. Learners were tutored for various end-of-year Ordinary and Higher Level examinations. These interactions involved topics such as calculus, trigonometric identities and graphs, algebra, vectors and coordinate geometry for Higher Level, and Ordinary Level topics such as algebra, geometry, trigonometry and statistics.

The Rössing Foundation also made history in 2014 through this type of support to schools when, for the very first time, one learner, Stefanus Petrus, from Coastal High Secondary School in Swakopmund, took and wrote Higher Level Mathematics – earning a Grade 3 symbol for the final examination. This particular learner, who had attended Master Maths afternoon classes at the local Rössing Foundation centre from Grade 6 to Grade 12, demonstrates that rigorous adherence to the Master Maths computer-based teaching system yields positive results.

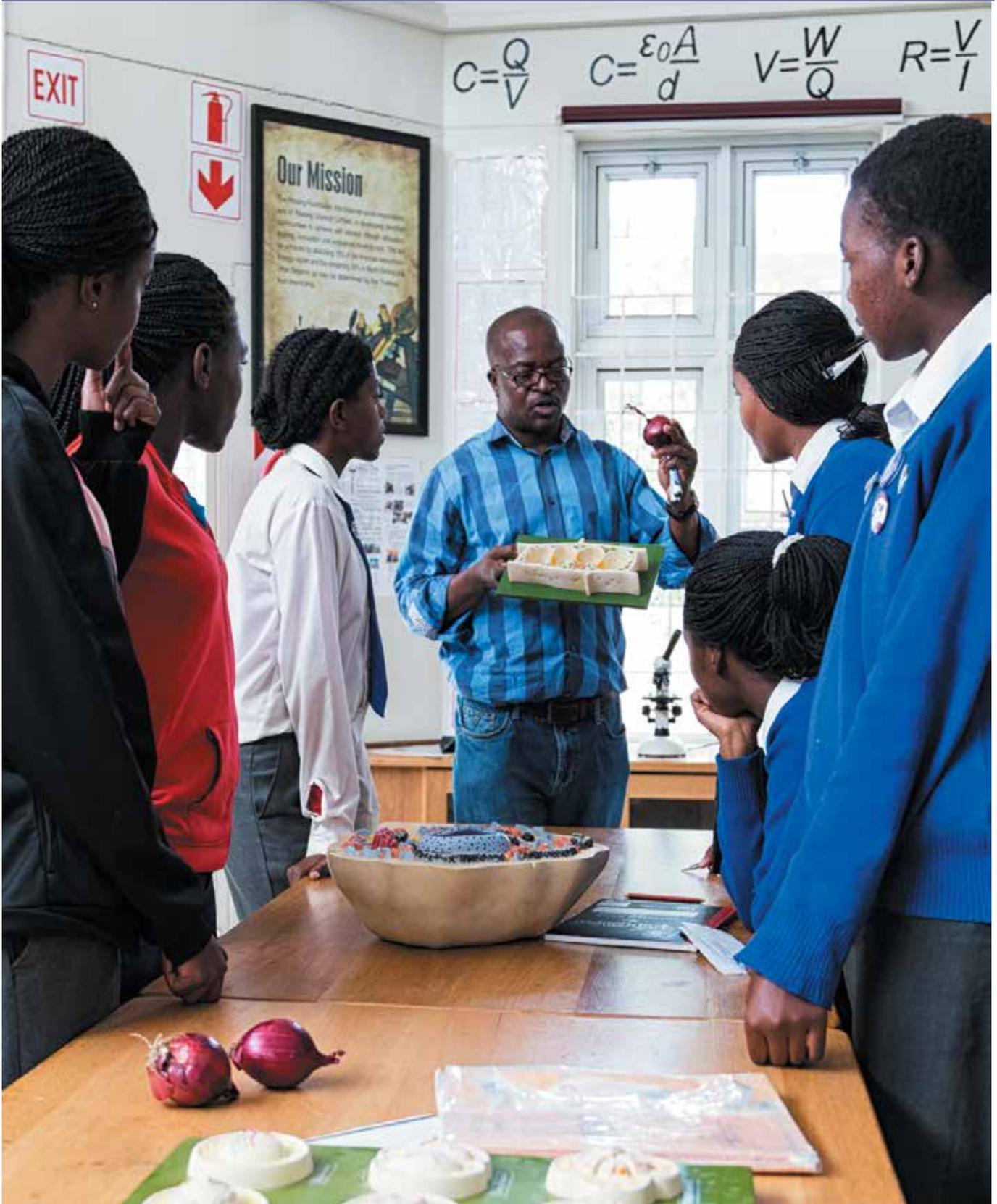
Many learners – mainly from Coastal High in Swakopmund, the Kolin Foundation Secondary School and UB Dax Primary School in Arandis, and the Kuisebmond and Duinesig Secondary Schools in Walvis Bay – received regular support as regards practical experiments and revision in preparing for their final examinations.

Also in the Erongo Region, the Ministry of Education (as it was called previously) arranged for more than 600 Grade 10 learners from the Omaruru, Swakopmund and Walvis Bay circuits to receive support during one-week Autumn and Spring Schools to help them prepare for their Mathematics, English and Science examinations. Teachers attended all the sessions as well, and focused on lesson modelling, co-teaching, and skills transfer during both the Autumn and Spring sessions.

At the Ondangwa Centre, the Foundation supported a total of 2,533 learners from Grade 7, Grade 10 and Grade 12 through Master Maths activities in 2014. The learners completed close to 80 Master Maths modules, scoring an average 79 per cent in the module exercises.

## Our neighbouring communities

To assist in addressing the educational challenges facing Namibia, the Rössing Foundation built and manages three education centres, offering learners and teachers opportunities to acquire subject content knowledge and improve their skills in the areas of Mathematics, English and the Sciences.



## Our neighbouring communities

The Ondangwa Centre also hosted two vacation sessions during the April and August school holidays, respectively. These sessions helped to prepare 289 learners for their end-of-year Mathematics examinations on National Senior Secondary Certificate (NSSC) Higher Level. Some 106 learners from the Ohangwena, Omusati and Oshana Regions also devoted part of their school holidays to improving their Mathematics subject knowledge.

To support English language development, more than 45 Grade 10 to Grade 12 learners enrolled at the Arandis and Tamariskia Centres. Some 62 Grade 2 to Grade 4 learners attended afternoon classes at the centre twice a week to be taught phonics in order to improve their reading skills.

As reading with comprehension is an integral part of learning, the Foundation invested in the A-Z Reading and Oxford Reading programmes for Grade 5 to Grade 7 learners. Some 35 learners enrolled for Spelling Bee sessions and the Spelling Bee competition.

Other support for English came to 129 learners by way of examination preparation activities at the Ondangwa Centre during school terms in 2014. This group consisted of 46 Grade 10s, 72 Grade 12 NSSC Ordinary Level learners and 11 NSSC Higher Level learners. A further 315 Grade 10s and Grade 12s attended vacation sessions. These learners, made up of 145 Grade 10s, 124 Grade 12 NSSCO Ordinary Level learners and 49 Grade 12 NSSC Higher Level learners, acquired greater skills in English.

The Rössing Foundation also donated schoolbooks worth N\$10,000 to the Directorate of Education in the Kunene Region for learners in the towns of Khorixas, Opuwo and Outjo. The donation, which aims to assist the Ministry in its quest to promote a culture of reading among learners, was arranged after a senior Education official from Kunene visited the Arandis and Tamariskia Centres solicited technical support from the Foundation, especially in reading, but also as regards the teaching of English in general. A long-term relationship with the Kunene Directorate of Education will be explored in 2015, subject to the financial and human resources at the Foundation's disposal.

### **Teachers' support programmes**

The unequal distribution of qualified teachers around the country is still a cause of national concern. Some of the approximately 18,000 teachers in Namibia are unqualified or have poor basic training skills.

The Rössing Foundation ensures its interventions in education are sustained by supporting teachers via various programmes. Teacher support, which is a key strategic focus area, aims at improving curriculum practice and quality education delivery. The development of Mathematics, English and Science teachers in particular receives focus from the Foundation in order to maximise the impact of its support and augment learners' scholastic achievements.

In the Erongo Region, the Arandis and Tamariskia Centres offered support to 437 teachers from the Omaruru, Usakos and

*Learners in the Rössing Foundation's Arandis Centre utilising the Master Maths programme to improve their competency in the subject.*



## Our neighbouring communities

*Education Officers from the Rössing Foundation with Biology teachers during training at the University of Namibia's Katima Mulilo Campus.*



“We, the Omaruru Primary Cluster and Omatjete Primary Cluster, would hereby like to express our profound gratitude for a very successful workshop your team conducted for our teachers. It was really an eye-opener for some colleagues. It gave us the confidence we needed to conduct our lessons. We promise to work hard on the relationship that we started with and contact you more often in the future.”  
*Amalia M #Goses, Cluster Centre Principal 2014*

Walvis Bay circuits in respect of their Mathematics, English and Science skills. More than 90 teachers from Erongo used the centres to enhance their lesson preparation, learner worksheets, and face-to-face tutoring of learners at Ordinary and Higher Level. The teachers concerned participated in Teacher Empowerment workshops and in English, Sciences and Mathematics training sessions that emphasised pedagogic content knowledge in specific topics they had identified in order to improve their learners' academic performance.

The acquisition of the A-Z Reading Programme and the Oxford Reading Tree Programme for Grade 5 to Grade 7 learners allowed the Foundation to offer a one-week training course to 16 Lower Primary teachers from Okakarara in the Otjozondjupa Region to learn more about teaching the course.

A total of 243 Lower Primary teachers from the Zambezi Region and 21 teachers from all primary schools in the Omaruru circuit in the Erongo Region received the Oxford Reading Tree Programme from the Foundation. This will equip them with the necessary skills to assist learners who face challenges with reading.

The Foundation also supported 339 teachers in the Oshana Region through professional development training workshops during 2014. In February, for example, a total of 32 NSSC Ordinary Level Mathematics teachers from the Omusati Region improved their pedagogical content knowledge in topics they had identified. In addition, the Foundation mentored 12 NSSC Higher Level Mathematics teachers from the Ohangwena, Omusati and Oshana Regions in teaching challenging topics.

The Ondangwa Centre received 115 visits by teachers during 2014. They benefited from additional support in areas ranging from preparing lessons and developing teaching materials, to setting examinations and accessing Master Maths resources.

### **Community support programmes**

Continuing its support to the community, the Rössing Foundation assists out-of-school youth enrolled with the Namibia College of Open Learning with improving their grades for possible admission to institutions of higher learning.

Twenty learners attended Mathematics sessions in the Erongo Region, while 40 Grade 10 and Grade 12 learners did so in the Oshana Region. The sessions aimed at equipping learners with the conceptual understanding and procedural fluency required for improving their academic performance in Mathematics. Learners were taken through training sessions in all relevant topics, and tackled the difficulty of how to answer examination questions. In addition, an average of 30 learners attended Physical Science and Biology sessions in the Erongo Region. These sessions concentrated on practical activities.

The Rössing Foundation education centres at Arandis and Swakopmund have also become an attractive education icon and destination for tours and vacation sessions by schools from all over Namibia.

During 2014, the coastal centres were visited by 1,500 teachers and learners from various schools. These included the Frank Fredericks Primary School in the Kunene Region, the Paulus Hamutenya Primary School and Haimbili Haufiku Secondary School in the Ohangwena Region, the Donatus Primary School in the Otjozondjupa Region, the Kuisebmond Primary School and Martin Luther High School in the Erongo Region, and the Sesheke Secondary School in the Zambezi Region. The visitors – teachers and learners alike – were exposed to the different activities offered at the various Foundation centres.

Science fairs and projects serve as first-hand learning experiences and form a cornerstone of successful teaching in the Sciences as well as in Mathematics. To this end, the Foundation assisted 12 learners from Coastal High, Kolin Foundation Secondary, Arandis Primary, Festus !Gonteb Primary and Westside High in completing their projects for exhibition at the Erongo Regional Science Fair. Five of the learners from these schools won silver medals at the subsequent National Science Fair, while three won bronze there. The Foundation also sponsored 80 learners from the Oshana Region in respect of their participation at the National Science Fair. The Education Officer for Mathematics at the Foundation's Ondangwa Centre also served as a deputy chief judge for the Secondary Phase category.

## Our neighbouring communities

### Library services to the community

The main purpose of Rössing Foundation's libraries is to ensure that learners, teachers and other community members have access to information and books, as the improvement of reading skills in turn contributes to the attainment of good results at school and a broader range of knowledge in general.

In 2014, the Foundation's three libraries at its centres experienced an increased influx of visits from all its targeted users. However, it remains a concern that not enough teachers take advantage of the library services.

The number of learners that visited the Foundation's Arandis library amounted to 16,718, while its Swakopmund library saw 17,239 and its Ondangwa library 10,855. In total, nearly 60,000 learners, teachers and community members visited these libraries during 2014, and 9,700 books were borrowed and returned.

### Arandis Sustainable Development Project

Rössing and the Rössing Foundation continue to support the Arandis Town Council in their effort to make Arandis sustainable beyond the life of the surrounding mines.

Since the Arandis Town Council's development and implementation of its Ten-year Strategic Joint Plan (2006–2016), Arandis has become known for its relentless drive towards economic transformation. The town has become an investment destination, characterised by the amount of economic development made there since the start of the transformation process in 2006.

The Arandis Town Council has applied for an additional 8,000 ha to expand its current boundaries and now awaits their formalisation by the relevant ministries. The Town Council has also approved the establishment of an industrial park as part of its Logistics Opportunity Programme. The layout of the industrial park has received the go-ahead, and development partners are now being solicited.

However, the town still faces several challenges in developing to its full potential. The demand for housing has increased significantly, and although the Town Council has made land available for housing, developers are slow to respond.

The closure of textile manufacturer Dantago Clothing also had a substantial impact on the Town Council's revenue, and exacerbated unemployment.

In addition, the cost of providing municipal services has increased sharply due to the geological structure of the area: hitting hard rock has resulted in delays in servicing the allocated land.

### Support to Arandis small and micro enterprises

The Rössing Foundation and the Arandis Town Council recognise that small- and medium-scale enterprises (SMEs) are the backbone of the town's economic development and need to be accorded opportunities to render services to fulfil their potential. The Town Council therefore outsourced street-cleaning services to ten local SMEs, who should, in turn, create three to four job opportunities each in line with their performance-based contracts.

In addition, the Foundation provided 15 Arandis-based SMEs with business development support in the form of advice on bookkeeping, taxation and compliance. Another five SMEs received help from the Foundation to develop their business plans. Three of these were approved and the SMEs subsequently received support from the Arandis Constituency Office.

Furthermore, the Foundation arranged for a financial literacy training course for Arandis SMEs. The training, co-financed by the German Government's *Gesellschaft für Internationale Zusammenarbeit* (GIZ) and the Rössing Foundation, enhanced the financial planning skills of 27 SME participants.

### Support to the Erongo Development Foundation

Microcredit can be an effective weapon in fighting the battle against poverty. To this end, the Rössing Foundation extended assistance to the Erongo Development Foundation (EDF) by way of implementing the Erongo Microcredit Programme. The programme offers microloans ranging from N\$1,000 to N\$13,000.

During 2014, the programme assisted 51 clients in all seven Erongo Region constituencies. The fund has an overall repayment rate of 75 per cent. After having paid back their initial microloans, three EDF clients were able to take out larger loans at the participating bank after building up a good credit record. This shows that the Erongo Microcredit Programme serves as a bridge for SMEs to enter the formal financial sector.

### Support to Erongo community-based mining

Seven board members of the Brandberg Small-scale Miners' Association acquired leadership skills and knowledge in their roles and responsibility as board members. During the training, the association's constitution was reviewed and amendments were proposed to the board to share with their association members. Additional support was provided to the board to develop an annual activity plan for 2015 that was submitted to the Small-scale Mining Division within the Ministry of Mines and Energy for approval and funding of some activities.

The Ūiba-Ôas Small-scale Miners' Cooperative, based mainly at the Ūiba-Ôas Crystal Market, is slowly growing through various activities and a diversification of its services. A detailed business plan devised for the cooperative now projects future developments towards self-sustainability. In addition, the cooperative was the

## Our neighbouring communities

*The Dreamland Gardening Project is one of the Rössing Foundation's initiatives to promote desert agriculture. The project is already supplying fresh vegetables to the Arandis community and to supermarkets in Karibib and Swakopmund.*



only one among applicants from 14 constituencies in Erongo that had the capacity to present their business plan to a Workshop which the Ministry of Mines and Energy's Cooperative Development Division held at Omaruru during the reporting year.

The Rössing Foundation also assisted the cooperative in raising funds for the construction of a pre-primary school and for mining equipment. The registration of the pre-primary school is already in progress, while the Ministry of Gender Equality and Child Welfare has committed itself to subsidising the salary of the school teacher. The school is scheduled to open in January 2015, with an enrolment of 17 children.

In the previous year under review, the Rössing Foundation reported that it had secured a grant from the Social Security Commission's Development Fund in order to support the Úiba-Ôas Small-scale Miners' Cooperative, among others. Through this grant, the construction of a gemstone cutting and polishing workshop commenced at the Úiba-Ôas Crystal Market and is expected to be completed in early 2015. This cutting and polishing facility will enable the community to add value to their semi-precious stones and, thus, to increase their income potential.

Building on its long-standing relationship with the Erongo Region Small-scale Miners' Association, the Rössing Foundation assisted the association with recruiting a licensed blaster for small-scale mining operations. Once the Ministry of Mines and Energy had issued the association with a blasting permit for March

to December 2014, a total number of 2,880 blasts were safely conducted. The blasting activities resulted in increased production and returns for association members.

### Promoting desert agriculture

The grant provided by the Social Security Commission's Development Fund also enabled the Rössing Foundation to support a community group from Arandis in respect of expanding their gardening project to a sizable and economically viable garden. Accordingly, a 60 m x 30 m greenhouse for the Dreamland Gardening Project was constructed, and is currently being utilised fully for vegetable production. Project members received business and agricultural mentoring services from the Foundation. Seven of the members are currently involved on a full-time basis, and they supply fresh vegetables to the Arandis community, as well as to supermarkets in Karibib and Swakopmund.

### Project monitoring and evaluation

The year under review saw regular daily and monthly monitoring of the various Foundation-supported projects. The Social Security Commission's Monitoring and Evaluation Unit also paid the Foundation three visits in order to monitor projects supported by its Development Fund grant. In addition, the Polytechnic of Namibia conducted a mid-term review, and made recommendations in respect of continuous improvement, which were subsequently implemented.



Coarse Ore

Rio Tinto  
Wesing Operations Limited  
Minimum PPE requirements  
for this area  
Fine Crushing:  
Ewald Ochs  
2265





# A basic employment right and, as always, a priority

Workplace health is a basic employment right. As ever, the health, safety and wellness of our employees remains a priority. The use of a formalised, integrative Health, Safety and Environmental (HSE) Management system is essential in allowing Rössing Uranium to optimise, coordinate and manage not only its operations, personnel, plant and equipment, but also its interactions with the environment and neighbouring communities, in a manner that demonstrates the Company's consistent application of best practices.

### The HSE Management system

We manage our operational activities to ensure that all impacts, whether on the biophysical or socio-economic environment, are reduced to acceptable limits. Our operations are governed by applicable national legislative and regulatory frameworks and then controlled by way of an integrated HSE Management system. The structure of the HSE Management system generally follows the layout of common international standards such as the International Organization for Standardization (ISO) 14001 (Environment), ISO 9001 (Quality) and Occupational Health and Safety Advisory series (OHSAS) British Standard (BS) 18001.

The HSE Management system is designed to assist in achieving our goals, including our legal obligations. This systematic approach to management performance promotes the most efficient use of resources. The system also offers Rössing Uranium the prospect of financial gain, which generates a win-win outcome in terms of HSE and business performance. An audit programme periodically evaluates the effectiveness of the HSE Management system. All potential impacts are listed on a risk register, with related mitigating and operational controls.

We proudly maintained our certification for ISO 14001:2004 in 2014.

*(Left) Frances Courtney-Clarke, HSE Adviser, Risk and Compliance, dressed in full Personal Protective Equipment (PPE) required for the area that she is visiting at the Coarse Ore Stockpile. The health, safety and wellness of our employees remains a priority.*

### Occupational health management

We review and update our risk-based Occupational Hygiene Monitoring Programme once a year according to health hazards and levels of risk identified as prevailing or emerging. The programme currently applies to similar exposure groups (SEGs), which include all Rössing Uranium workers and site contractors. SEGs are groups of workers who have the same general exposure profile because of the similarity and frequency of the tasks they perform, the similar ways in which they perform such tasks, and the similar materials and processes with which they work.

During the reporting year, our programme included measurement of noise, illumination, respirable dust (manganese, silica), gases, organic vapours, fumes and legionella (a water-borne bacterium that can cause legionnaires' disease). Two occupational illnesses were recorded, respectively relating to noise-induced hearing loss and occupational dermatitis.

We also conducted a Health Semi-quantitative Risk Assessment, which revealed noise and dust as critical health risks. Critical control monitoring of these risks is being planned and should be implemented by the end of 2015.

For 2015, the focal areas on occupational hygiene management will be as follows:

- critical health risk management through the implementation of critical control monitoring plans for noise exposure in the Maintenance Workshop areas, and dust exposure in the laboratories;
- implementation of the Fatigue Management Plan and Road Map; and
- reduction in dust exposure through implementation of the Dust Management and Control response plan in the Fine Crushing Plant.

**Rössing Uranium Limited**  
**Health, Safety, Environmental and Communities (HSEC) Policy**

**Excellence in HSEC management is one of the foundations of Rössing Uranium's vision to be the safest and most efficient producer of uranium in the world. This is in line with our commitment to zero harm, corporate citizenship, social responsibility, and sustainability.**

To accomplish this, Rössing Uranium is committed to:

- the protection of the health and safety of our employees, contractors, stakeholders, and neighbouring communities;
- operating our business with respect and care for both the local and global environment to prevent and mitigate residual pollution;
- understand and manage the effects of our product through its entire life cycle;
- work with integrity and be in full compliance with applicable legislation and industry best practice;
- seek continual and sustained improvement in HSEC performance to create a zero harm work environment;
- identify and assess hazards arising from our activities and manage associated risks to the lowest practical level;
- enhance biodiversity protection by assessing and considering ecological values and land-use aspects in investment, operational and closure activities;
- continue in our efforts to raise the awareness of HSEC issues in our neighbouring communities;
- regularly review our performance and publicly report our progress; and
- communicate our commitment to this HSEC policy to all interested and affected parties.

In implementing this policy, we will engage in constructive dialogue with our employees, contractors, neighbouring communities and all other stakeholders in sharing relevant information and responsibility for meeting our requirements.

## Health and safety

### Dust

In an open-pit mine such as ours, the removal of topsoil and overburden (the soil and rock on top of the ore body) and the transport of this material, along with the crushing of ore, are typically the major sources of dust emissions. Dust sources may be:

- *localised*, eg from blasting, loading trucks, crushing ore, or transfer by conveyor;
- *diffused*, eg from waste rock dumps or areas of disturbed ground; or
- *linear*, eg from haul roads.

Mining produces predominantly 'fugitive dust', that is, dust derived from a mixture of sources, or sources that are not easily defined.

The reporting year saw a drop in the dust levels measured in the Fine Crushing Plant to an average of 2.03 mg/m<sup>3</sup>, compared with 2.95 mg/m<sup>3</sup> measured in 2013. The drop can be attributed to the fact that monitoring results during abnormal plant conditions are not considered in annual averages.

The latter half of the year under review experienced extended periods of abnormal plant conditions, such as frequent dry dozing of the Coarse Ore Stockpile, and long delays in the replacement of dust collector bags. These resulted in high levels of visible dust.

Another factor contributing to the lower dust levels recorded is the reduction of the sampling frequency to once a month since July 2014. This change came about because there was no significant variation noted in the weekly samples.

A Dust Management Control and Response Plan was developed for the Fine Crushing Plant with input from all internal stakeholders. Projects that will contribute to a reduction in uncontrolled dust emissions during 2015 include:

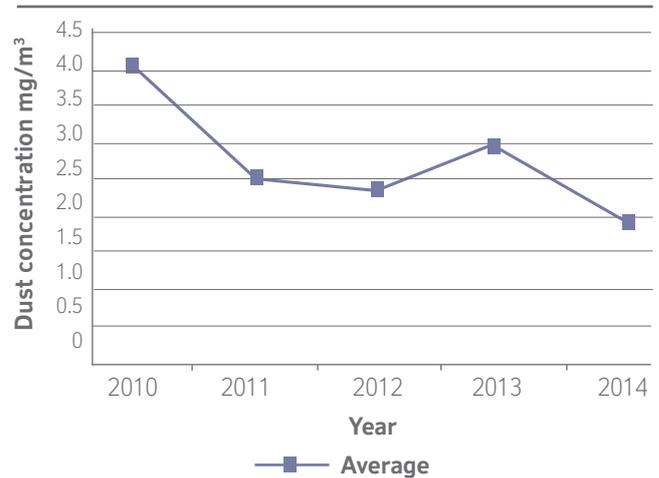
- the Screen Optimisation Project, which will result in fewer spillages, one of the sources of dust emissions;
- the Ducting Replacement Project, which is planned to be completed during the first half of 2015; and
- the Dust Management Control and Response Plan, which was developed in 2014 and should be fully implemented by the end of 2015.

### Noise

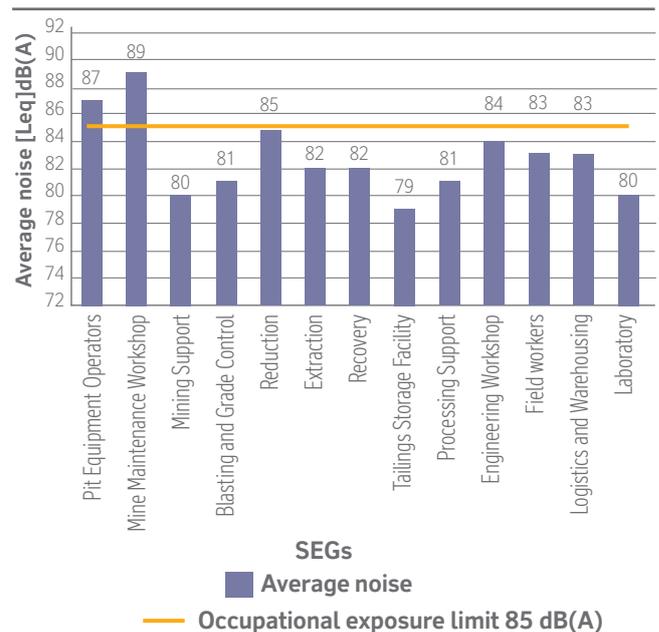
Noise is an integral part of mining because large pieces of equipment and machinery are constantly in operation. The human ear is most sensitive to sounds at or near the centre of its frequency range. To assess the impact of noise on people, a scale of frequency weighting is used, where A indicates the action level of 82 dB(A). Exposure to noise should be below the stipulated occupational exposure limit (OEL) of 85 dB(A).

Noise zoning is applied in high-risk areas, together with the application of personalised (custom-made) hearing-protection devices. In other areas disposable ear plugs are used. In high-risk areas, engineering and administrative controls alone are not sufficient to protect workers due to the nature of the tasks being performed.

Dust concentration levels at the Fine Crushing Plant, 2010–2014



Average personal noise exposures, 2014



Of the 13 SEGs monitored for personal noise exposure, one equalled and two exceeded the 85 dB(A) OEL. Contributing factors to these exceedances include the use of impact tools, general plant and equipment noise and high volumes from two-way radios in equipment cabins.

We have implemented remedial actions in respect of the specific noise sources identified in order to bring the levels down to below the OEL, and the attenuation on the personal hearing-protection devices will be adjusted where applicable.

The measured doses do not take into account the protection factor provided by the custom-made device, which is permanently calibrated to filter out all noise levels above 82 dB(A), and the disposable earplugs, which provide a noise-reduction rating of 26. The noise-reduction rating estimates the amount of protection achieved by 98 per cent of users in laboratory testing when hearing protectors are properly fitted. The second graph on the previous page depicts the average annual personal noise dose measured for the various SEGs in 2014.

### Occupational medical surveillance

The Occupational Medical Surveillance Programme provides the mine with relevant information so that it can control health risks and prevent, detect and treat occupational illnesses. All employees and contractors undergo pre-employment medical examinations to ensure they are fit to work. These are followed by regular risk-based medical examinations during employment and an exit medical examination when they leave Rössing Uranium.

In 2014 we carried out a total of 1,275 medical examinations on our employees and 1,584 on contractors. These examinations included pre-employment medicals, periodic medicals and exit medicals. Through the mine's workplace wellness programmes employees are encouraged to undergo additional medical screening tests to manage their own health and as a means of detecting chronic and/or life-threatening illnesses.

### Wellness

Our workplace wellness programmes are designed to assist us in creating a work environment that is healthy for our employees. Encouraging employees to look after their health and well-being is a critical component of our overall approach to health and safety. The programmes also involve increasing knowledge and awareness through campaigns and education sessions, and introducing policies that help employees make healthier choices.

Various activities were undertaken during 2014 to support these programmes. During August 2014, in collaboration with Namibia Health Plan, the Rössing Wellness Week was held on-site with the theme "Walk and live a healthy life". Awareness of the benefits of walking, stretching, smart food choices and exercise were raised through various media.

### Fatigue management

A fatigue pilot survey was completed successfully among Pit Equipment Operators. Readibands – a wrist-worn actigraphy device that permits the accurate characterisation of sleep quality, sleep quantity, and sleep/wake timing – were used during the survey. The objective of the survey was to assess the extent of fatigue and the threat it poses to operations. Twenty shift-working Pit Equipment Operators participated in the survey.

The results revealed that most operators were fatigued during the night shift, sleeping only between 4.7 hours to 5.2 hours on average per day, and having reduced mental effectiveness. A Fatigue Management Plan has since been developed and will be implemented during 2015.

### Blood donation clinic

The Blood Transfusion Service of Namibia held quarterly blood donation clinics on-site during 2014, resulting in 150 employees donating blood. We received the Corporate Challenge floating trophy for August from the Blood Transfusion Services, and also the Industrial Award Certificate of Recognition.

### Employees knowing their HIV status

We ran an on-site voluntary counselling and testing (VCT) campaign relating to the human immunodeficiency virus (HIV) in November 2014. The campaign supported the World AIDS Day theme "Closing the gap in HIV prevention and treatment". Sixteen per cent of our employees participated in the campaign, along with 12 per cent of our contractors.

### Peer Education Programme

Our Peer Education Programme, in existence since 1996, is a success story. Peer educators are employees and contractors who volunteer for and are trained to undertake informal or organised educational activities with their peers, both within and outside the workplace. The aim of these activities is to develop people's knowledge and skills, positively influence their attitudes and beliefs, and help them to be responsible for and protect their health.

During 2014 peer educators attended training in advanced peer education. The week-long training session at the mine, conducted by a non-governmental organisation, focused on the most important drivers of HIV and the acquired immune deficiency syndrome, AIDS. Themes focused on multi-concurrent partners, risk reduction, and HIV counselling and testing for couples.



## Radiation safety

In 2014, we continued to optimise and improve the way we control radiation exposure at Rössing Uranium, as well as the way we confirm our controls with our monitoring programmes.

Exposure to ionising radiation at Rössing is controlled through a comprehensive programme that is described in our Radiation Management Plan (RMP). The RMP is reviewed regularly and compliance with its provisions is checked annually by the National Radiation Protection Authority.

Occupational dose monitoring is facilitated by grouping workers into SEGs, according to the workplace exposure risks experienced by each worker. We collected 1,428 personal radiation exposure dose samples in 2014, ie an average of 30 per monitored SEG and pathway. In addition, a total of 138 workers were registered as radiation workers whose exposure to penetrating radiation was monitored continuously.

The results of our Occupational Radiation Monitoring Programme are summarised in the graph on the next page, which shows the average occupational radiation dose per person for the three main radiation exposure pathways – external, inhalation of radon progeny, and inhalation of radioactive dust – as well as the 95 per cent upper confidence level for the total exposure doses for each of the SEGs monitored.

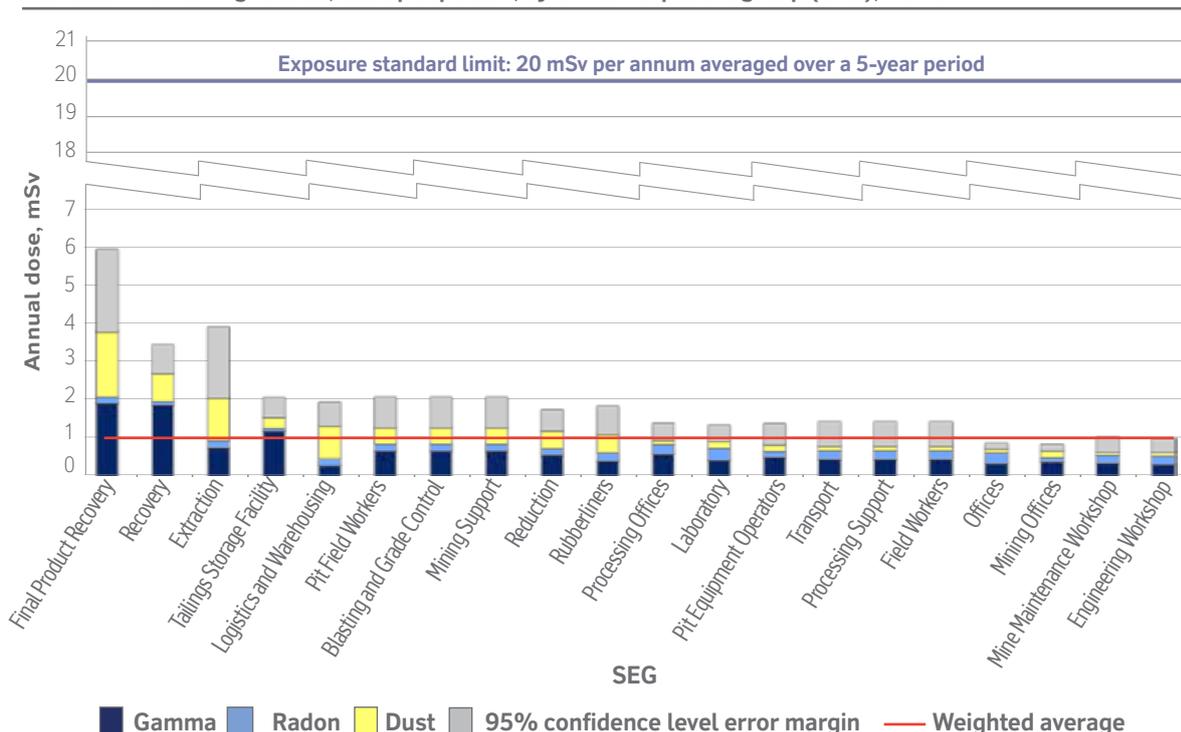
The average exposure doses in all SEGs are not only below the regulatory dose limit of 20 mSv per year, they are also below the Rio Tinto standard of 5 mSv per year, above which a classification as *radiation worker* would be required for additional control.

The weighted average dose per worker per year is 1.0 mSv, which is similar to the results for the two previous reporting years. This weighted average dose is extremely low, as it includes background radiation for the duration of the work year, and attests to the fact that radiation exposures of workers, on average, are controlled to levels similar to background radiation.

Since 2012, when we began reporting to the National Radiation Protection Authority (NRPA) on the individual dose for every worker as well as on the cumulative dose for each worker that has terminated employment at Rössing Uranium, we have sought to improve the communication of these outcomes to our workers.

*Senior Rubberliner, Ben Hanasab, is displaying some of the instruments used for radiation dose monitoring. Gamma radiation is monitored using electronic dosimeters such as the Thermo Electronic Personal Dosimeter (EPD) he wears on his chest, or the Tracerco EPD he displays on his belt. Internal exposure from the inhalation of radon and radioactive dust is measured using personal sampling instruments that sample the air and analyse it for its radioactive constituents. Ben wears these two additional devices in leather pouches on his belt.*

Radiation monitoring results, dose per person, by similar exposure group (SEG), 2014



We therefore designed and implemented an online dose-reporting tool on the Rössing Uranium intranet. This tool allows each worker to view his/her personal dose reported to the NRPA for each year. The tool also displays monthly results for the uranium-in-urine monitoring that is conducted on radiation workers, and it allows supervisors to view compliance with the monthly urine-testing requirement.

During 2011, a Rio Tinto HSE review highlighted the need to quantify the risk from ionising radiation at the mine in a statistical study designed to link exposure doses to potential health risks, including the long-term risk of cancer.

In 2014, we commissioned and completed the scoping process for such a health study. A subsequent scoping report was compiled by SENES (Specialists in Energy, Nuclear and Environmental Sciences) Consultants, an ARCADIS company. Based in the Netherlands, ARCADIS is an international company which provides consultancy, design, engineering and management services in the fields of infrastructure, water, environment and buildings.

The scoping study set out to determine which epidemiological study designs were appropriate and feasible in Namibia to understand the potential impact, if any, of occupational radiation exposures at Rössing Uranium on workers' health, making use of our detailed medical and radiation exposure records that date back to when the mining operations first began. The scoping study has been shared with key Namibian stakeholders including Government ministries and non-governmental organisations (NGOs).

The process of identifying a suitable external service provider with the required credentials for the execution of the study started in early 2015. The study is expected to be completed by 2016. The study report will be made available publicly and published in peer-reviewed scientific literature as soon as all key stakeholders (including relevant ministries) have been informed.

From 2013 onwards, in addition to the spreadsheet-based reporting previously requested, the NRPA has required a narrative report from all regulated organisations, including uranium mines. This narrative report was submitted by Rössing Uranium accordingly, and provides a summary of activities undertaken in order to demonstrate compliance with the radiation protection regulations as outlined in our Radiation Management Plan (RMP) in 2013.

To make the information contained in these documents publicly available, both our RMP and the 2013 annual report to the NRPA were prepared for public release by the end of 2014. They are placed on the Rössing Uranium website together with other information that may hold interest for public stakeholders.

Further to the information contained in these two documents, several surveys on specific issues were performed during the reporting year. The outcomes have been prepared in reports tailored to informing public stakeholders, and will also be placed on our website in due course.

The special interest surveys include a gamma dose rate survey of the car park area at the Rössing Uranium main gate; a gamma survey at the face of the Waste Rock Dump W7 in Dome Gorge; a radon concentration survey in Dome Gorge; a public dose assessment of the risk of tailings dust plumes to the west of the Tailings Storage Facility; and a summary of the principles used to confirm the absence of seepage contamination with radionuclide monitoring in monitoring boreholes.

Raising worker awareness about radiation continues to be one of the Radiation Safety Section's key activities. In 2014, full compliance with our stated training aim was reached, with every employee having attended at least one of the three radiation awareness modules which are available to the workforce.

## Health and safety

In addition, we continue to support the radiation training programmes of the Namibian Uranium Institute (NUI). During the reporting year we provided training at two six-day courses and one three-day course for Radiation Safety Officers. We provided training at the two-day annual Radiation Safety Winter School; and we hosted two officers from external sites at the mine for on-the-job training on radiation monitoring instrumentation. We also provided training and support for two one-day courses on radiation safety emergency response at the NUI, while we participated in various working groups at the Institute, among them, the Water Quality Working Group and the Sustainable Development Committee.

### Safety in our operations

Great importance is placed on safety issues in all areas of our operations. We continuously focus on making the workplace accident-free. We believe all incidents, injuries and occupational illnesses are preventable and, thus, our goal is zero harm. Our safety aims and objectives intend to encourage our employees to behave in ways which project a positive and proactive attitude towards safety.

We are committed to:

- protecting the health and safety of our employees and contractors;
- identifying and assessing hazards arising from our activities, and managing associated risks to the lowest practical level; and
- seeking continued and sustainable improvement in HSE performance in order to create a zero-harm work environment.

We believe that every employee and contractor should return home at the end of his/her shift without having sustained an occupational illness or a work-related injury. During 2014, as part of this belief, the following safety initiatives took place:

- We continued with process safety management, specifically around our anhydrous ammonia storage facility.
- A number of employees were trained in Hazard and Operability (HAZOP) techniques.

- We completed our biennial semi-quantitative risk assessment as part of our continuous improvement drive to reduce risks.
- We provided HSE training to all employees and contractors in the form of induction courses and annual refresher training.
- A hand-safety campaign was also rolled out towards the end of the reporting year.

The mine recorded an All-injury Frequency Rate (AIFR) of 0.81. Although this is an improvement on the 2013 AIFR of 0.96, the rate is not as low as it should be. Nonetheless, we managed to have four all-injury-free months during the reporting year.

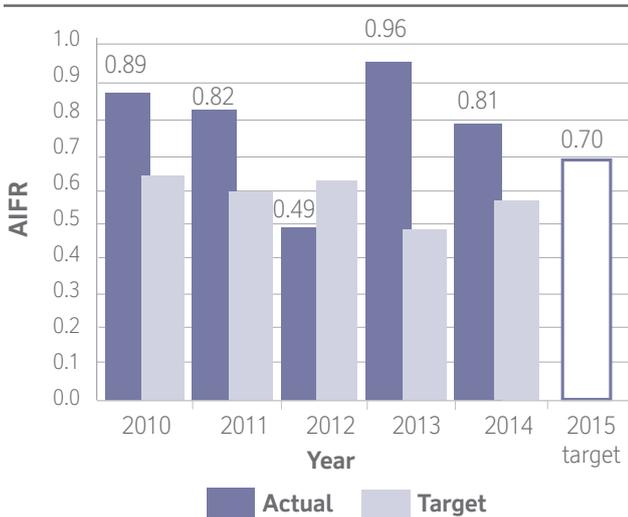
During the review period, the following injuries and significant potential incidents occurred on the mine:

- Lost-day injuries: 3
- Incidents requiring medical treatment: 5
- Restricted work-day injuries: 5
- Incidents requiring first aid treatment: 21
- Significant potential incidents: 13

In 2015, some of the focus areas to reduce the AIFR and raise safety awareness will include the following:

- Critical Risk Management Pilot Project: This is a Rio Tinto system of managing critical risks. It has been introduced at a number of other Rio Tinto operations and involves the use of well-designed checklists and strategically placed signage.
- Significant Potential Incident Lead Investigator training as well as Essential Factors investigation methodology training will be provided to all members of the management team. This will improve the root cause analysis of incidents as well as the communication of lessons learnt, in order to ensure that the specific incident does not happen again.
- Renewed look at vehicles and driving, including heavy mining equipment interaction with other vehicles. Currently, vehicle-related incidents are at unacceptable levels in Namibia and the mine is working closely with regional and national organisations to address this.

**All-injury Frequency Rate (AIFR), 2010—2014**



The AIFR is calculated by multiplying the number of all injuries (lost-day injuries, medical treatment cases and restricted work-day injuries) by 200,000 and then dividing the result by the total number of hours worked.



Our environment

# Using our natural resources in a sustainable manner



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## *Our environment*

Rössing Uranium aims to be a leader in environmental stewardship and to maintain its reputation as a responsible corporate citizen. This aim can be realised by understanding and appreciating our natural resources, and using them in a sustainable manner that will have created a positive impact after closure.

*Up to one quarter of the global population of *Lithops ruschiorum* (stone plant), which is endemic to Namibia, can be found at the mine. The densest of these populations on the mine is behind the Tailings Storage Facility, so it is crucial to avoid impacting them.*



## Our environment

As a resource-intensive industry, Rössing Uranium's operations impact on natural resources and the environment. We therefore continuously improve our Environmental Management Plan to minimise negative impacts and maximise benefits. Key programmes include those on:

- water (demand, and quality control);
- air quality control (including the emission of dust, blast noise and vibrations);
- energy efficiency and greenhouse gas emissions;
- waste management (of both mineral and non-mineral waste); and
- land use management (including biodiversity, rehabilitation and closure).

The various environmental management programmes in place at the mine are discussed over the next few pages.

### Water management

Since the mine is located in the arid part of the Namib Desert, water management is one of the most significant environmental and operational aspects of our activities. It is an integral part of our HSE Management system and entails all aspects of water abstraction, dewatering, transport, storage, usage (potable and process), and direct/indirect discharge, which involves surface water (including run-off), impounded water and groundwater.

Guiding our Water Management Plan is a formal water strategy, developed according to Rio Tinto's performance standard on water use and quality control, and supported by Rio Tinto's water use and quality control guidance notes. The aim of the standard is to ensure efficient, safe and sustainable use and protection of water resources and ecosystems.

A cornerstone of the mine's water and seepage management is its comprehensive monitoring programme, which starts at the Tailings Storage Facility (TSF). The programme is designed to achieve three main objectives:

- Ensure sufficient capacity at deposition areas;
- Ensure low water levels in the tailings pools; and
- Ensure proper functioning of all seepage control systems.

On the side in the plant where water is reused, frequent flow meter readings are taken at various areas to maintain an overview of the water balance at any time.

Water recycling and reuse are the foundation of the mine's Water Savings Programme. All spillages in the Processing Plant are captured and channelled to a large recycle sump for reuse.

Effluents from the workshops are treated to remove oils, and sewage is treated in the on-site Sewage Plant. These effluents are used in the open pit for dust control purposes.

Most of the mine's water management takes place at the TSF. We recognise that the facility's structural integrity is a critical risk component that needs to be looked after on a continuous basis. The stability of the TSF forms the cornerstone of the safe operation of our entire asset and the fact that it continued to increase in height prompted us to embark on two major stability reinforcement projects, namely the construction of the starter embankments on the north-to-north-eastern part of the TSF, as well as the buttress on the western side of the facility. These are both necessary projects, not only with regard to extending the life of the TSF, but also to ensure its fundamental stability. Both projects are short-term, with expected completion dates set for September 2015.

Surface water from pools forming at tailings deposition areas is recycled and reused on a continuous basis in the Processing Plant, minimising evaporation and infiltration into the tailings pile. Remaining water that has infiltrated is recovered by pumping boreholes and open trenches installed on the facility itself to reduce the volume of underground water within the tailings pile.

Seepage control systems are also employed outside the TSF. They include a surface seepage collection dam to capture water from the engineered tailings toe drains, cut-off trenches in sand-filled river channels, dewatering boreholes situated on geological faults, and fracture systems on the downstream western side of the facility. All systems are designed to lower the water table to the extent that flow towards the Khan River is interrupted. The recovered water is reused in the Processing Plant.

To ensure that all systems are functional and zero discharge to the Khan River is maintained, water level measurements are taken on a network of more than 100 monitoring points. A number of these points are also sampled to determine the quality of the groundwater, including the concentration of uranium and other radionuclides. As a condition of the permit issued by the Department of Water Affairs, monitoring results are submitted to the Department at regular intervals for review.

### Freshwater use

Our operating plan for 2014 made provision for a target use of 3 million cubic metres (m<sup>3</sup>) of fresh water. The 2014 plan was initially based on operations conducted 24/7, but, due to their curtailment, a five-day operating plan was introduced, with a new target of 2.3 million m<sup>3</sup>. Actual consumption of fresh water during 2014 amounted to 2.4 million m<sup>3</sup>.

As in the previous reporting year, the water performance for 2014 was worse than anticipated. This was mainly due to the reduction in total tonnes of ore milled in the plant, as well as changes in the operating model. Lower tonnages at fixed water usage, combined with lower grades, result in a higher unit consumption, as shown for the years 2011 to 2014 in the graph on page 47.

## Our environment

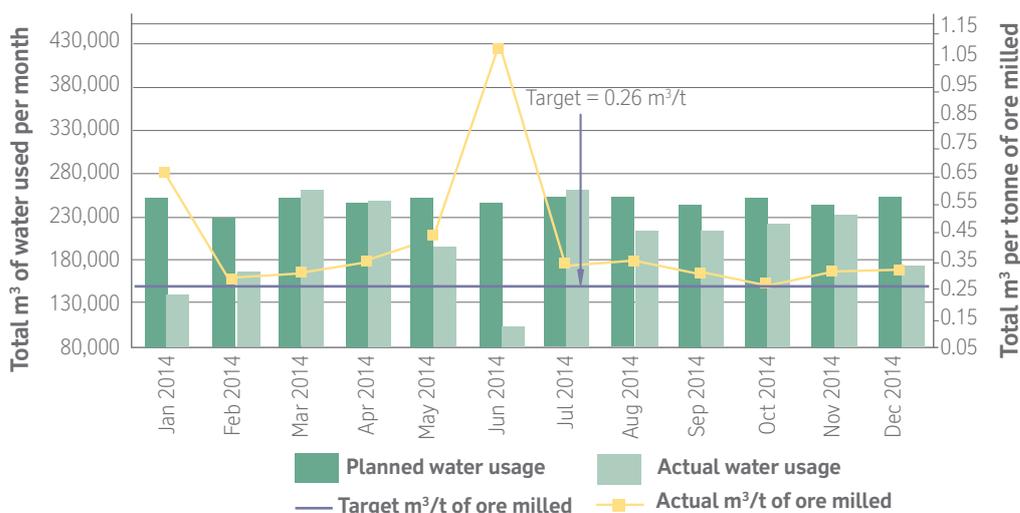
Sustainable management of fresh water remains a key challenge for us, with issues relating to periodic supply interruptions from the bulk water supplier, interruptions in the functioning of pumping systems, unavailability of parts, and a lack of adequate storage capacity for the water in circulation. In view of the above, various campaigns were implemented among our employees and contractors to heighten awareness about reducing demand and using supply sustainably during the year. We therefore continued our internal Water Bucket awareness campaign published in the mine's in-house newsletter, the *e-Rössing Bulletin*, to flag important issues to all water users.

Other activities, such as the reed elimination project, came into effect in an effort to reduce water loss through evapotranspiration by reeds. Another was the recommissioning of the solar-powered boreholes project located in the Upper Panner Gorge area, where there is no electricity supply from the national grid.

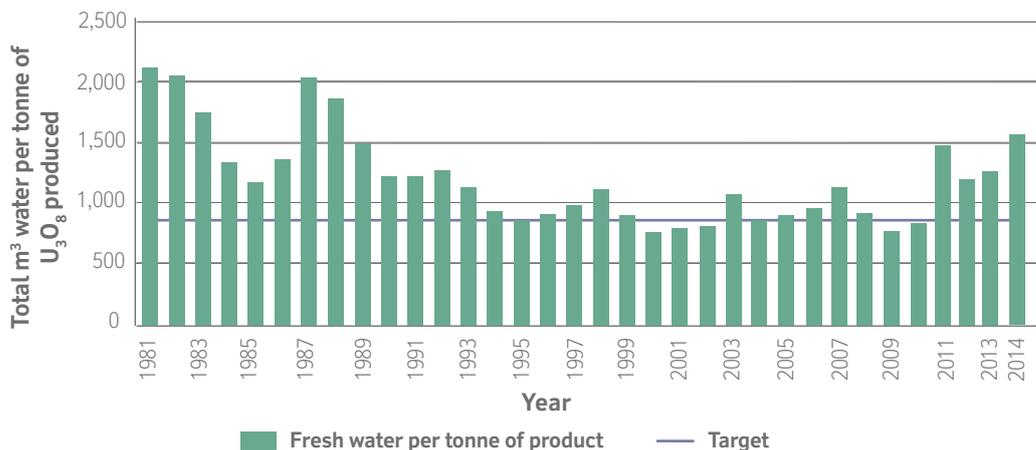
We were prompted to look into other water conservation alternatives when promising water reduction test work carried out at the tailings pumping system was unsuccessful. These other alternatives included the TSF Dewatering System Project and the TSF Water Extraction Project, aimed at maximising the recovery of groundwater from the TSF. These projects included the installation of replacement boreholes in the TSF Dewatering System and TSF Water Extraction bore fields, and were implemented and completed in 2014, with active monitoring still ongoing. Both these projects are expected to yield much-needed low-quality water, which will in turn result in a significant replacement of freshwater consumption in the Processing Plant.

Other projects which commenced in 2014 and are expected to yield results in 2015 include the Mechanical Seals Project, where seals are installed on the slurry pumps at the slimes station in an effort to reduce freshwater consumption within the Processing Plant, and the Storage Lake Cleaning Project, which aims at increasing our storage capacity for poor-quality water to be used in the Processing Plant. Another example is the Pumping Systems Upgrade Project.

### Freshwater use per month, 2014



### Volume of fresh water consumed per tonne of U<sub>3</sub>O<sub>8</sub> produced, 1981—2014



## Case study

### Tailings Storage Facility Water Extraction Project

The Erongo Region, where the Rössing Uranium Mine is located, is a water-scarce environment. Water for our operations comes at a considerable financial cost. For this reason water recycling and reuse from the foundation of our Water Savings Programme.

During the previous reporting year, our Water Management and Tailings Storage Facility (TSF) Section joined hands with our Land Use Management Section and embarked on a project of drilling production boreholes on the TSF, where most of the mine's water management takes place. Towards the end of 2013 we initiated the TSF Water Extraction Project. Its implementation was completed by January 2015.

Since the late 1970s, when the TSF was built, tailings solution has been continuously entrained in the 402 million tonnes of tailings slurry deposited. Some tailings layers are now coarse enough to allow us to pump the liquid back out, using a method similar to that for pumping water from a groundwater aquifer. The extraction project will not only allow an extra source of water to become available for reuse at the mine, but it will also simultaneously reduce the length of time required to recover seepage after the mine closes down.

We are currently running a number of tests to establish whether or not water abstraction can be maintained over the long term. If the results are positive, our water-use plans can be updated accordingly and overall freshwater consumption reduced.

In order to benefit from the stored water reserves mentioned, eight boreholes were drilled into the TSF during the reporting year. A specialised water-well drilling contractor carried out the drilling, supervised by a professional geohydrologist. All holes reached depths of at least 3 m into bedrock, as per specification. In some cases, we successfully intersected the sand fill of the old river channels underlying the TSF.

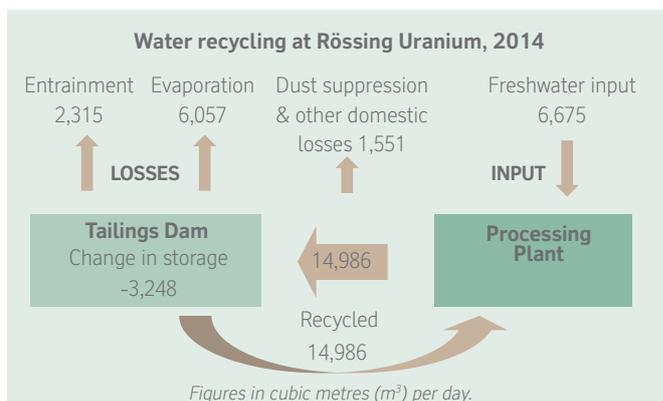
According to the recommendations by geohydrological consultants, we installed casing and gravel filters in the boreholes. Only the bottom parts of the holes have borehole screens; this is to prevent chemical precipitation when the water is pumped. The reporting year saw the completion of borehole development and test pumping from all the holes.

This initiative aims at identifying the quickest and most efficient way of ensuring a sustained supply of water of the correct quality for reuse in the Processing Plant.

This will drive down costs associated with purchasing fresh water. Since the well field is likely to produce 1,000 m<sup>3</sup> of additional water per day, it will contribute substantially towards achieving the aims of the TSF Water Extraction Project.



*(Top and bottom) The stability of the Tailings Storage Facility (TSF) forms the cornerstone of the safe operation of our entire asset, and the fact that it continued to increase in height prompted us to embark on two major stability reinforcement projects. The construction of the starter embankments on the north-to-north-eastern part of the TSF can be seen in the top photo. The construction of a buttress on the western side of the facility can be seen in the bottom photo. These are both necessary projects, not only with regard to extending the life of the TSF, but also to ensure its fundamental stability. Both projects are short-term, with expected completion dates set for September 2015.*



## Our environment

During the reporting year, we also conducted a social and environmental impact assessment (SEIA) for the construction and management of a desalination plant to supply the mine's water needs. The report was made public in December 2014 and included studies done by environmental specialists. The report can be accessed on the mine's website.

We will review the SEIA and a related Social and Environmental Management Plan after we have solicited and received comment from the public. We then submit these documents and the feedback on them to the Ministry of Environment and Tourism for review and eventual decision on whether or not we can implement the proposed desalination project from a social and environmental perspective.

### Khan River water use and quality

Rössing Uranium resumed its abstraction of saline groundwater from the Khan aquifer in August 2011 to suppress dust in the open pit. Such abstraction continued until June 2014, when our permit expired. We expect a new permit to be issued soon.

The mine allows for a daily abstraction of up to 800 m<sup>3</sup>. This is lower than the permitted 2,383 m<sup>3</sup>/day, and lower than the aquifer's sustainable yield. We continue to monitor the vegetation and water levels in the Khan and Swakop Rivers to prevent over-abstraction. In accordance with the conditions of our abstraction permit we send annual reports derived from our monitoring programme to the Ministry of Agriculture, Water and Rural Development's Department of Water Affairs.

### Air-quality management

The current Air Quality Management plan guides the way we manage environmental dust at the mine. We document all air quality standards applied at the mine and keep an inventory of all air emissions.

#### Environmental dust: PM<sub>10</sub> results and new stations

Dust is measured in particulate matter (PM) ranging in diameter from 10 to 50 micrometres. Activities such as mining and crushing are the principal emitters of dust at Rössing Uranium. PM<sub>10</sub> is the measure of particles in the atmosphere with a diameter of less than or equal to a nominal 10 micrometres.

Rössing Uranium measures dust emissions to ensure not only that exposure levels do not exceed prescribed occupational limits, but also that existing and newly introduced controls efficiently detect differentiation as a result of process changes.

Because of public concern, we continuously monitor PM<sub>10</sub> dust levels at the nearby town of Arandis. The emissions recorded for 2014 showed that dust levels were much lower than the standard of 0.12 mg/m<sup>3</sup>, as indicated in the graph alongside, with average emissions at 0.011 mg/m<sup>3</sup> for the year.

Two more PM<sub>10</sub> dust samplers are located at the mine: one at the mine boundary towards the west, and one to the east of the TSF. They are relocated as needed to help us understand the dust emission intensity in various areas at the mine.

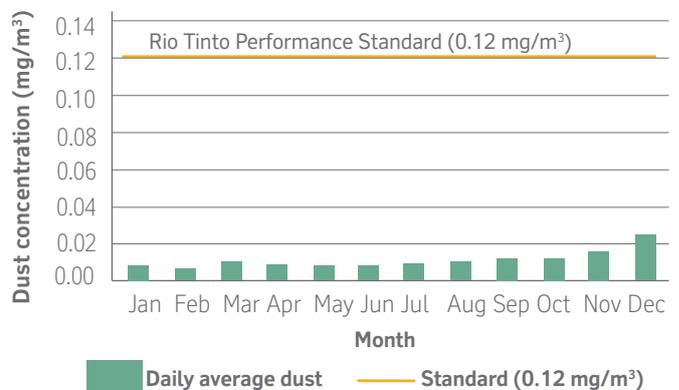
A Dust Monitoring Programme is also under way to quantify the emission of total suspended dust from the TSF during east wind events. This is achieved by measuring dust movement along a section of 17 samplers along the western edge of the facility. A 2-km-long transect of dust fallout samplers determines how much of this dust is deposited downwind from the tailings area to the west. Late 2014 saw the completion of sampling for the year's east wind season; data will be reported on in the next review period.

### Noise and vibration

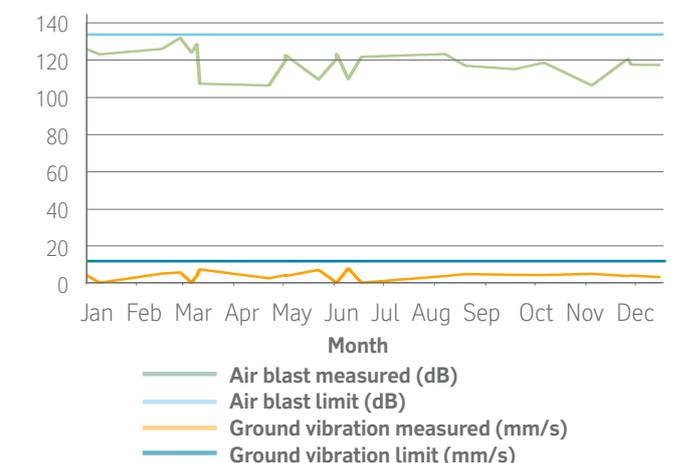
We monitor environmental noise to minimise it to threshold levels and to identify events when such levels are exceeded. The information gleaned is necessary for assessing Rössing Uranium's compliance with various standards and for addressing public concerns about excess noise or blast vibration. Our Geotechnical Section also utilises the feedback to investigate the impact of blast vibration on the stability of the pit.

During 2014, blast noise and vibration stayed in compliance with the set standards and no concerns were raised by the public.

#### Dust concentration measured at Arandis Valve House, 2014

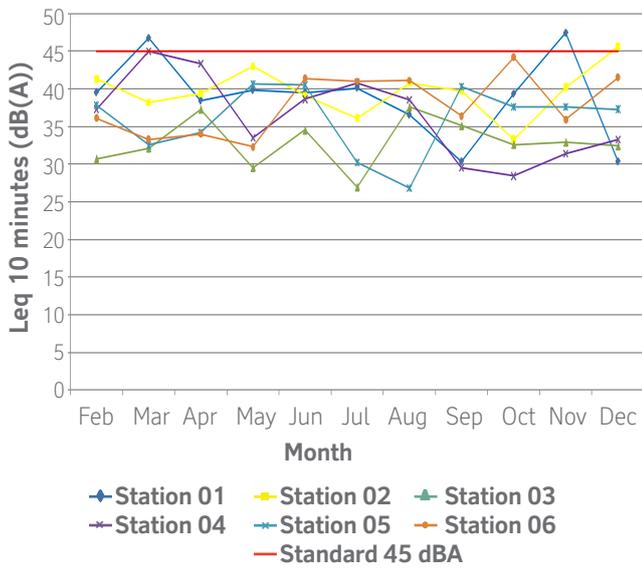


#### Air blast (dB) and ground vibration (mm/s), 2014



Our environment

Environmental noise over a period of 10 minutes, February—December 2014



Noise generated by the routine operations of the mine is compared to the 45 dBA daytime limit for rural districts in accordance with the South African National Standards code of practice, SANS 10103:2008. Higher noise levels in March and November 2014 measured at the communication centre outside the mine (Station 01) were caused by vehicles driving past the monitoring station during monitoring. This does not require any corrective action.

*Environmental Adviser, Inekela Iiyambo, inspecting instruments to monitor air blast and ground vibration. We monitor air blast and ground vibration as a result of our blasting activities to minimise it to threshold levels and to identify events when such levels are exceeded. The information gleaned is necessary for assessing Rössing Uranium's compliance with various standards and for addressing public concerns about excess noise or blast vibration. Our Geotechnical Section also utilises the feedback to investigate the impact of blast vibration on the stability of the pit.*



## Energy efficiency and greenhouse gas emissions

Rio Tinto regards efforts to stabilise global atmospheric concentrations of greenhouse gases (GHGs) at lower levels as a priority. In keeping with this, we measure and manage our emissions.

At the mine, sources of GHG emissions include electricity and fuel consumption, the transportation of reagents and of uranium, blasting (explosives), waste management areas (Sewage Plant and landfill site), and the extraction and processing of ore. The intensity of emissions is reported per unit of uranium oxide produced.

In 2014 the total energy consumption of the mine was 1,108,877.4 GJ. This converts to an annual energy consumption of 721.93 GJ per tonne (GJ/t) of uranium oxide produced, which is 63.72 per cent above the target of 454.12 GJ/t set in 2008. Due to lower grade and a lower throughput of ore, the target was exceeded in 2014.

Emissions of carbon dioxide (CO<sub>2</sub>) per unit of production in 2014 amounted to 82.00 tonnes of CO<sub>2</sub> equivalent per tonne (CO<sub>2</sub>-e/t) of uranium oxide (U<sub>3</sub>O<sub>8</sub>), which is above the target of 56.65 tonnes CO<sub>2</sub>-e/t of U<sub>3</sub>O<sub>8</sub> for the year.

Substantially curtailed production resulted in Rössing Uranium's energy consumption and GHG emissions per unit of production being higher than the five-year targets originally set.

# Case study

## Energy efficiency improvements: Compressor optimisation

Rössing Uranium operates four central air compressors, each fitted with a 430-kW engine. The central system provides compressed air for critical controls in the Processing Plant, actuators in the Fine Crushing Plant, grid blasting, and general compressed air use in the mining area, thus resulting in a complex dynamic compressed air consumption profile.

Each compressor has an on-board controller to maintain a pre-set output air pressure by regulating the air intake. In some instances, should the air pressure still be too high, the controller will vent the compressed air.

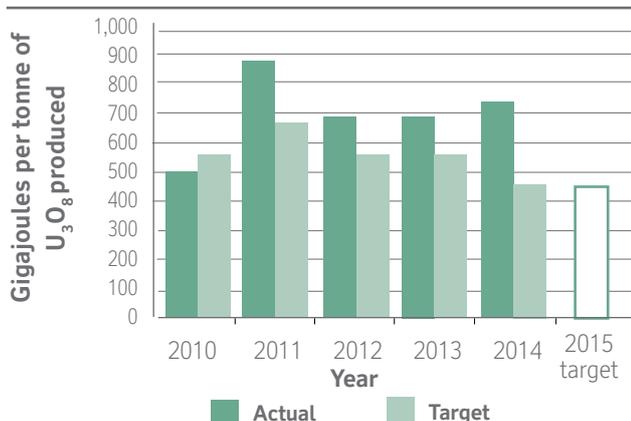
These compressors were operated manually in a mutually exclusive configuration, thus allowing multiple compressors to be started without considering the current system pressure or dynamic environment.

The lack of a combined control system resulted in significant compressed air wastage when multiple compressors were running, although most of the air was being vented.

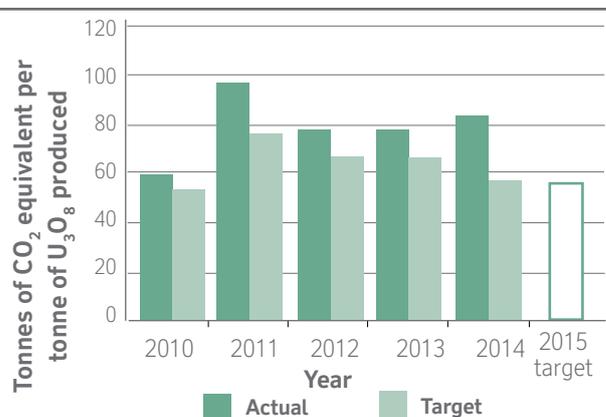
Rössing Uranium has since implemented a remote control system in order to facilitate remote start and stop commands and trend diagnostics. Operators now make use of the Supervisory Control and Data Acquisition (SCADA) System to automatically start and stop a compressor based on predetermined start and stop criteria.

This innovation has significantly reduced the compressors' running hours, resulting in a direct energy saving as well as an indirect cost saving due to reduced compressor running hours, since each compressor has a limited useful life of 50,000 hours.

Energy consumption, 2010—2014



Carbon dioxide emissions, 2010—2014



## Waste management

### Mineral waste

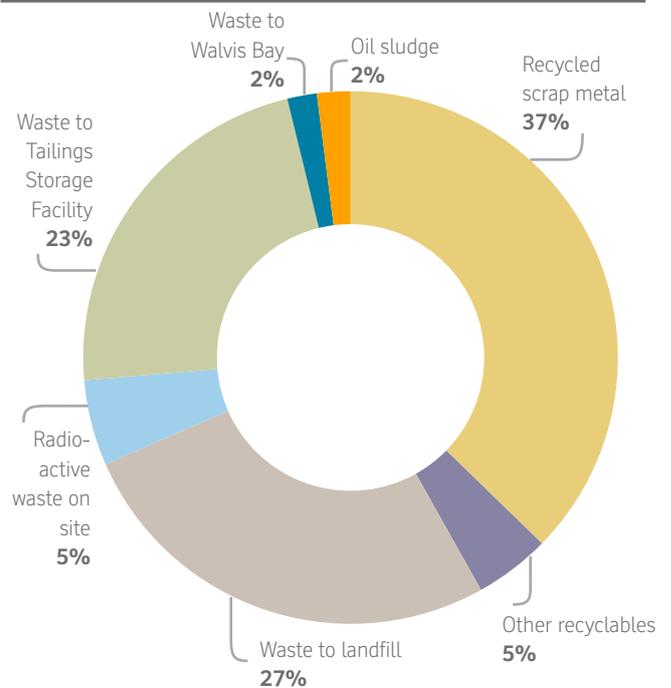
During 2014 a total of 23 million tonnes of mineral waste were generated by the mine. This includes 16 million tonnes of waste rock and 7 million tonnes of tailings. The significant reduction from 37 million tonnes generated in 2013 is due to the curtailment of production linked to uranium market forces. The total cumulative mineral waste stored on-site at the end of December 2014 amounted to 402 million tonnes of tailings and 911 million tonnes of waste rock. Mineral waste facilities cover a total area of 1,372 ha north-west of the Khan River. A similar tonnage of waste generation is projected for 2015.

### Non-mineral waste

Recycling of waste at the mine continued during 2014. In total, 481 tonnes of waste (mainly scrap metal) were removed by the waste management contractor employed by Rössing Uranium. Of the recyclable materials generated during 2014, 59 tonnes are still stored on-site. These materials include paper, plastic containers and batteries. A total of 26 tonnes of oils were sent off for recycling. The mine's landfill site received 342 tonnes of domestic and light industrial waste.

Hazardous waste generated on the mine includes radioactively contaminated materials, oils and greases, and other items such as fluorescent tubes and batteries. In total, 23 tonnes of hazardous waste were disposed of at the Walvis Bay hazardous waste site, 42 tonnes of oil sludge are being stored in the bioremediation facility on the tailings dam, 67 tonnes of radioactively contaminated hydrocarbons are still stored on-site, and 291 tonnes of hazardous waste were disposed of in the hazardous waste site on the Tailings Storage Facility.

Breakdown of waste generated and disposed of (%), 2014



### Land use management

#### Changes in total land use

As mining progresses, the SJ open pit gets deeper every year, while the Rock Dumps area and Tailings Storage Facility (TSF) gain in height. A decision was made to extend these mineral waste storage facilities in height rather than increasing their footprint areas. Although this results in conserving undisturbed land, it increases the visual impact mining has on the land. The TSF, for example, has become more visible from the B2 main road as its height increases.

The total area covered by the mine's activities at the end of 2014 was 2,544 ha. By conforming to the policy of maintaining the smallest footprint possible, the mine has ensured minimal annual increases in total land disturbed. In 2014, the footprint area increased by 0.1 per cent (2.8 ha), compared with 4.3 ha in 2013.

#### Biodiversity management

From the biodiversity knowledge base built up over the nearly four decades of the mine's life, it became clear that we needed a better understanding of the bigger picture in which our mining operations were set, that is, the entire landscape, particularly the ecological connections, patterns, processes and services provided within it.

A programme of monitoring of invertebrates found in the wider landscape further away from the mine continued during 2014. After three years of monitoring, we now have a sizable data set which a Namibian invertebrate specialist will review and interpret in early 2015. We expect that a number of species previously classified as critically endangered (due to single finds in the 1984 ecological survey) can now be reclassified to a lower category of vulnerability, and their geographical range of existence determined.

Impact avoidance is a preferred alternative to impact mitigation and subsequent rehabilitation. We therefore exercised impact avoidance in preparing new tailings deposition areas on the north-western side of the TSF. Since we decided to discontinue the development of a heap leach plant on top of this facility in 2013, the earmarked area had become available for further tailings deposition.

Construction of tailings embankment walls started during 2014. We carried out the embankment designs in such a way that we could avoid ground disturbance at the nearby populations of the stone plant, *Lithops ruschiorum*. Up to one quarter of the global population of lithops, which are endemic to Namibia, can be found at Rössing Uranium. The densest of these populations on the mine are behind the TSF, so it is crucial to avoid impacting them.

### Closure planning

Current life-of-mine plans foresee cessation of production at the end of 2024. Principally, we will not backfill the open pit with rock: it will remain a mining void in the future. On the other hand, we will cover the TSF with waste rock to prevent dust emissions and stormwater erosion. We will continue pumping tailings seepage, but instead of reusing it for mining processes, it will be allowed to evaporate. Rössing Uranium will also break down the Processing Plant and the mine's infrastructure, and decontaminate it before selling it or disposing of it safely.

To achieve these objectives and targets, we have developed implementation plans for mitigatory measures and calculated the necessary closure costs. A major technical update of the plan will take place in 2016.

The establishment of the Rössing Environmental Rehabilitation Fund, which provides for the mine's closure expenditure, complies with statutory obligations and stipulated requirements of both the Ministry of Mines and Energy and the Ministry of Environment and Tourism. Thus, clause 15.2 of the Fund Agreement states that "The mining company shall [,] before the end of its financial year concerned, pay to the Fund a contribution towards the estimated cost of implementing the measures so approved". At the end of December 2014, the Fund had a cash balance of N\$415.1 million. The mine will make additional payments to the Fund each year to provide for the eventual total cost of closure by 2024.

#### Closure Project Implementation Plan

Development of the first of three parts of a Closure Project Implementation Plan began in December 2014. The outcome of the exercise will provide a schedule of activities between 2015 and 2024 to allow prioritised and focused closure planning work in a currently financially constrained environment.

#### Tailings cover test section

A test section of the tailings cover is planned to be constructed for mid-2015 in order to test the practicality of the cover's design and its effectiveness. Discussions with the Mining Department took place in order to arrange stockpiling of crushed waste rock at the TSF during the 2015 mid-year shutdown. A contractor to be appointed in early 2015 will do the cover placement.



Our value addition

# Adding value to Namibia, benefiting all Namibians



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## *Our value addition*

Our Value Added Statement (on page 58) reflects the wealth created through the sale of our uranium oxide production, payments for services to suppliers, taxes to the Namibian Government, payments to employees, and investments made in neighbouring communities.

*We add value in the neighbouring communities in which we operate to give a significant 'multiplier effect' where the spending by one company creates income for and further spending by others. In 2014 Rössing Uranium paid N\$674 million in total employee expenses.*



## **How Rössing Uranium adds value**

Sustainable development is underpinned by sustainable economies. Our continuing operations are based on our ability to secure access to land, people and capital. We use our economic, social, environmental and technical expertise to harness these resources and create prosperity for our shareholders, employees and communities, as well as for the Namibian Government and our business partners.

As a major employer and purchaser of goods and services, we make a significant annual contribution to economic development in the Erongo Region particular and to Namibia at large.

During the reporting year the uranium price continued to be under pressure. The significantly lower uranium price – combined with a much lower uranium oxide production of 1,543 tonnes in 2014 compared with 2,409 tonnes in 2013 – resulted in our revenue decreasing by 19 per cent since the end of the previous reporting year, ie from N\$3 billion in 2013 to N\$2.4 billion in 2014. A net loss after tax of N\$91 million was realised from normal operations, compared with a net profit after tax of N\$32 million in 2013.

Despite the current financial strain under which we operate, we invested N\$21 million in our neighbouring communities during 2014, totalling N\$151 million over the past five years.

The review period also saw us continue to demonstrate our value to Namibia through contributions to the fiscal authorities. Rössing Uranium paid the Receiver of Revenue N\$57 million in royalty tax, and N\$98 million in pay-as-you-earn tax on behalf of employees. Payments to state-owned enterprises such as NamWater and NamPower amounted to N\$355 million, which includes a N\$4.75-million training levy paid to the National Training Authority.

Due to our curtailed production – we changed from a 7-day, 24-hour to a 5-day, 24-hour operation – we unfortunately had to reduce our workforce. Employment costs decreased accordingly, namely from N\$783 million in 2013 to N\$674 million in 2014.

In 2015, the mining operation will continue to focus on various cash-generation initiatives as part of an aggressive cost-reduction campaign to gear the mine for the weak uranium market.

The graphs on page 57 summarise the highlights of various value additions Rössing Uranium has made since 2010. Cash flows to the various stakeholders are set out in our Value Added Statement on page 58.

## **Complying with NEEEF**

Namibia's socio-economic and political environment places significant value on the advancement of persons regarded as disadvantaged by past discriminatory laws or practices. With the aim of securing economic growth, prosperity and the human dignity of all Namibians, the Government developed the national, broad-based New Equitable Economic Empowerment Framework (NEEEF).

NEEEF targets various private sector industries in order to ensure that socio-economic benefits created through their local operations are distributed to those regarded as previously disadvantaged.

The framework is designed to be an incentive-driven set of policies to encourage businesses to take transformation more seriously.

The Namibian Government established a Commission to promote and administer the NEEEF. Companies are scored by the Commission according to the following 'pillars of empowerment':

- Ownership/shareholding
- Management control and employment equity
- Human resources and skills development
- Procurement and enterprise development
- Community investment

The mine's Community and Social Investment Steering Committee was established with an advisory and coordinating function to Rössing's Board of Directors and management, who are to ensure the implementation of its community and social responsibility intent in Namibia. The Steering Committee meets on a quarterly basis and provides monthly update reports and quarterly update papers to the Board of Directors.

## **Our procurement spend**

Rössing Uranium gives rise to a significant 'multiplier effect' – the phenomenon where spending by one company creates income for and further spending by others.

In 2014, we spent N\$1,597 million on goods and services, of which N\$1,086 million was procured from registered Namibian suppliers, representing 68 per cent of total spend.

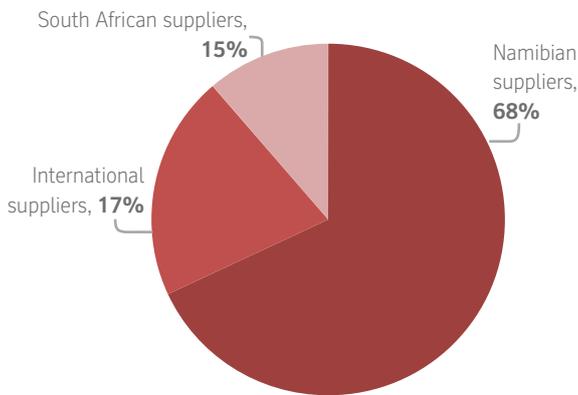
Our activities in Namibia lead to a long chain of value addition throughout the economy.

### Summary of Rössing Uranium's value addition

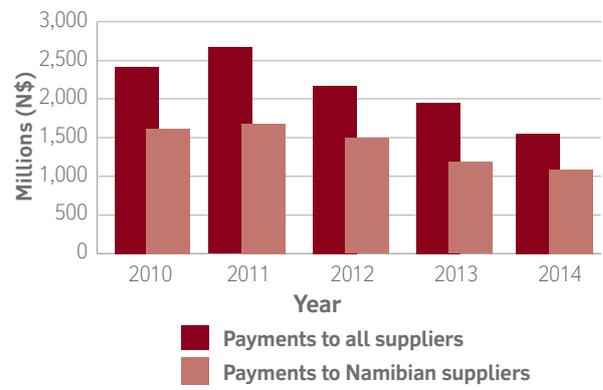
We believe that our business provides a strong base for economic growth in the communities around us, in the Erongo Region, and in Namibia as a whole. Our economic contribution comprises the value we add by paying wages, employee benefits and Government taxes and royalties, as well as by making dividend and interest payments and by retaining capital to invest in the growth of the

mine. In addition, we make significant payments to our suppliers of goods and services, both locally and nationally. The graphs shown here highlight some of the key socio-economic contributions we have made to Namibia over the past five years, ie from 2010 to 2014.

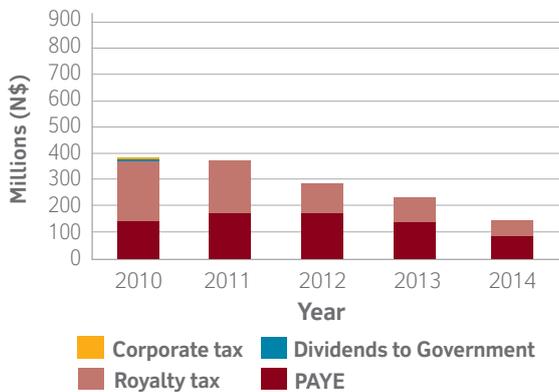
#### Distribution of Rössing Uranium's procurement spend, 2014



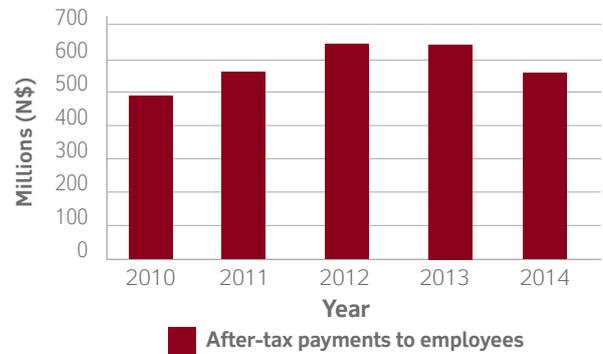
#### Payments to suppliers, 2010—2014



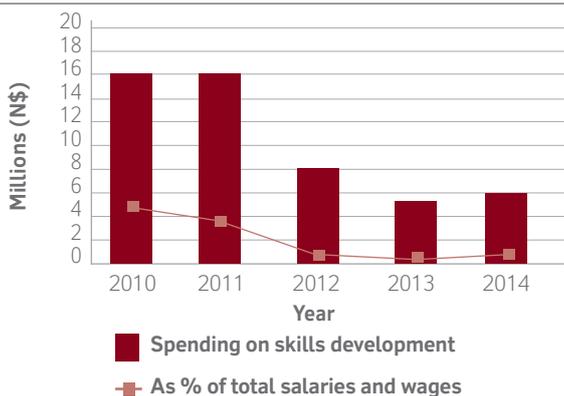
#### Contribution to Government revenue, 2010—2014



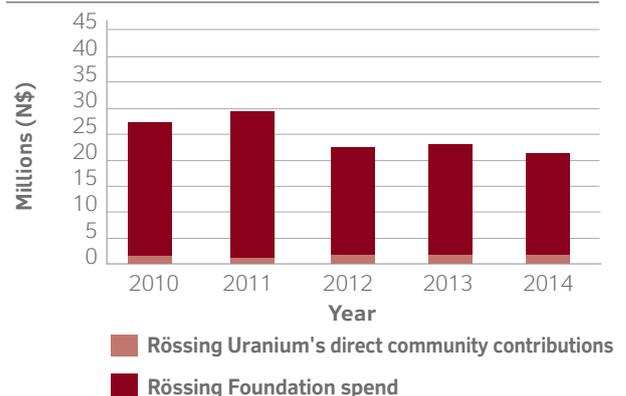
#### After-tax payments to employees, 2010—2014



#### Contribution to skills development, 2010—2014



#### Contribution to neighbouring communities, 2010—2014



## Our value addition

Stakeholders' Value Added Statement <sup>1</sup>	Notes	N\$'000	N\$'000	N\$'000	N\$'000	N\$'000
For the year ended		2014	2013	2012 (Restated)	2011 (Restated)	2010
Turnover		2,405,747	2,969,440	2,880,339	3,265,170	3,609,020
Less: Purchased materials and services from non-stakeholders		1,597,397	1,894,295	2,171,879	2,679,865	2,416,434
<b>Total value added</b>		<b>808,350</b>	<b>1,075,145</b>	<b>708,520</b>	<b>585,305</b>	<b>1,192,586</b>
Investment income		38,735	22,733	17,098	30,935	6,214
<b>Total wealth created</b>		<b>847,085</b>	<b>1,097,878</b>	<b>725,618</b>	<b>616,240</b>	<b>1,198,800</b>

Employees	1	674,138	783,332	817,032	736,316	626,597
Providers of equity capital		-	-	-	-	127,215
Providers of loan capital		-	-	-	6,002	15,799
Government	2	414,288	394,774	385,224	427,035	414,056
The Rössing Foundation		1,394	-	-	-	-
Reinvested in the Group	3	(242,735)	(80,228)	(476,638)	(553,113)	15,133
<b>Total wealth distributed</b>		<b>847,085</b>	<b>1,097,878</b>	<b>725,618</b>	<b>616,240</b>	<b>1,198,800</b>

<sup>1</sup> **Stakeholders** in this context: Shareholders, Government, lenders, employees and the Rössing Foundation

Notes to the Stakeholders' Value Added Statement						
<b>1. Employees</b>		<b>674,138</b>	<b>783,332</b>	<b>817,032</b>	<b>736,316</b>	<b>626,597</b>
- Net salaries and wages		576,379	640,039	640,842	557,655	481,610
- Pay-as-you-earn (PAYE) taxes		97,759	143,293	176,190	178,661	144,987
<b>2. Government</b>		<b>414,288</b>	<b>394,774</b>	<b>385,224</b>	<b>427,035</b>	<b>414,056</b>
- Dividend		-	-	-	-	4,437
- Erongo Regional Electricity Distributor		2,584	2,599	2,630	2,481	Not reported separately
- Mining royalty tax		56,828	85,240	110,183	196,046	213,619
- NamWater		142,392	59,716	39,488	37,948	25,577
- NamPost		-	-	25	7	Not reported separately
- Namport		2,064	1,658	1,897	2,688	Not reported separately
- NamPower		183,188	214,639	189,428	137,570	125,508
- Rates, taxes and licences		2,492	1,948	2,408	1,670	1,404
- Namibia Training Authority		4,756				
- Receiver of Revenue		-	-	-	-	1,299
Current tax		-	-	-	-	1,299
- Road Fund Administration		1,229	1,084	1,123	1,204	Not reported separately
- Telecom Namibia		3,843	4,671	5,777	7,153	7,517
- TransNamib		14,912	23,219	32,265	40,268	34,695
<b>3. Reinvested in the Group</b>		<b>(242,735)</b>	<b>(80,228)</b>	<b>(476,638)</b>	<b>(553,113)</b>	<b>15,133</b>
- Depreciation		262,876	228,627	243,860	202,669	224,159
- Retained earnings		(90,877)	31,586	(193,887)	(61,356)	(174,690)
- Deferred stripping capitalised		(340,564)	(355,305)	(455,603)	(645,720)	-
- Deferred tax		(74,170)	14,864	(71,008)	(48,706)	(34,336)

# Meeting our integrity and compliance commitments

## Rio Tinto Integrity and Compliance Programme

We adopt the Rio Tinto Integrity and Compliance programme which ensures that we meet the Group's integrity and compliance commitment set out in *The way we work*, our global code of business conduct, which applies to all employees and contractors.

## The Board of Directors

Our Board of Directors executes the mandate they have received from our shareholders to ensure that Rössing Uranium Limited is a world-class and responsible Company by putting an executive team in place with certain targets to be achieved. Furthermore, the Board is responsible for ensuring that the Company is run in accordance with its mandate as defined in Rössing Uranium's Articles of Association, and that the various stakeholder interests are balanced and receive the required attention.

Rössing Uranium has a unitary board. The roles of the Chairperson and Managing Director are separate and distinct, and the current number and stature of the independent Directors serving on the Board ensure that sufficient independence is applied when members make significant decisions. The Board is constituted with the appropriate mix of skills, experience and diversity to serve the interest of the Company and its stakeholders.

The Board of Directors and Board Committees are constituted as indicated on the table on page 60, with four meetings having been held during 2014.

## Functions of the Board

A Board Charter governs the workings of the Board of Directors, while the Nomination and Remuneration Committee monitors the Board's performance. The Board is responsible for adopting a corporate strategy, major plans of action and major policies and for monitoring operational performance. This includes identifying risks which impact on the Company's sustainability as well as monitoring risk management and internal controls, compliance management, corporate governance, business plans, key performance indicators, non-financial criteria and annual budgets.

The Board is also responsible for managing successful and productive stakeholder relationships. All Directors carry full fiduciary responsibility and owe a duty of care and skill to the Company.

## Special purpose vehicles

The Company has established two special purpose vehicles, namely the Rössing Foundation and the Rössing Environmental Rehabilitation Fund, which are managed independently from Rössing Uranium by their own sets of trustees. Rössing Uranium Board Members are among these trustees.

Rössing Uranium Limited established the Rössing Foundation in 1978 through a Deed of Trust to implement and facilitate its corporate social responsibility activities within the communities of Namibia.

The trustees of the Rössing Environmental Rehabilitation Fund review the closure plans and trust funds to make provision for expenditure which it will have to incur to comply with statutory obligations, as well as the requirements of the Ministry of Mines and Energy and the Ministry of Environment and Tourism arising from its past and future operations.

## Financial statements

The Directors are responsible for monitoring and approving the Company's financial statements to ensure that they fairly present its affairs and profits or losses at the end of each financial year. Independent auditors are responsible for expressing an opinion on the fairness with which these financial statements represent the Company's financial position.

Rössing Uranium's management prepares the financial statements in accordance with the International Financial Reporting Standards and in the manner which the Companies Act requires. The Company bases its statements on appropriate accounting policies that it applied consistently and which are supported by reasonable and prudent judgements and estimates.

## Our corporate governance

Directors and date of appointment	Role	Rössing Uranium Board	Board Audit and Risk Committee	Nomination and Remuneration Committee
J Gawaxab (August 2014)	Chairman, Independent Non-executive Director	1		1
W Duvenhage (August 2013)	Managing Director, Executive Director	4		
ASI Angula (February 2013)	Independent Non-executive Director; Chairman - Board Audit and Risk Committee	3	3	
EHT Angula (February 2000)	Independent Non-executive Director; Chairman - Nomination and Remuneration Committee	3		3
NV Firth (October 2014)	Rio Tinto plc Shareholder Representative, Non-executive Director	1		1
M-C Mwelu Kaninda (alternate to NV Firth) (October 2014)	Rio Tinto plc Shareholder Representative, Non-executive Director	3		3
F Fredericks (August 2005)	Independent Non-executive Director	4	4	2
JS Louw (November 1972)	Non-executive Director	3	3	
HP Louw (alternate to JS Louw) (May 2009)	Independent Non-executive Director	0	0	
EI Shivolo (May 2013)	Government of Namibia's Shareholder Representative, Non-executive Director	3		
CWH Nghaamwa (alternate to EI Shivolo) (May 2013)	Government of Namibia's Shareholder Representative, Non-executive Director	1		
SC Wensley (November 2010)	Rio Tinto plc Shareholder Representative, Non-executive Director	2		
SJ Ellinor (alternate to SC Wensley) (November 2013)	Rio Tinto plc Shareholder Representative, Non-executive Director	2		

Regular invitees in attendance at these meetings are:

W Duvenhage	Managing Director, Rössing Uranium		4	4
S van Schalkwyk	Chief Financial Officer	4	4	
MA Shanjengange	GM Organisational Resources		4	4
M Tjipita	GM Operations		1	
C Beyer	Managing Director, Rio Tinto Uranium	3		
KPMG	Internal Auditors		3	
PricewaterhouseCoopers	External Auditors		3	

The following resignations of Directors took place during the year:

Director	Reason	Date
RR Hoveka	Article 70: Acting Chairman until November 2014	May 2014
VB Moll	Article 70: Mentored Board Audit and Risk Committee Chairman until November 2014	May 2014
RJ Fagen	Transferred to Rio Tinto Copper Product Group	August 2014
M-C Mwelu Kaninda	Resigned as alternate to RJ Fagen	August 2014

### Independence of external auditors

The independent auditors PricewaterhouseCoopers audited the Group's annual financial statements. The Company believes that the auditors have observed the highest level of professional ethics and has no reason to suspect that they have not acted independently from the Company. The Board Audit and Risk Committee have confirmed the independence of the external auditors for the reporting period.

### Company Secretary

The Company Secretary, GD Labuschagne, is suitably qualified and has access to the Company's resources to effectively execute her duties. She provides support and guidance to the Board in matters relating to governance and compliance practices across the Company. All Directors have unrestricted access to the Company Secretary.

### Risk Report

Risk management is a fundamental part of the Company's business. The Company keeps risk management at the centre of its activities and has cultivated a culture in which risk management is embedded in the daily management of the business. The Board acknowledges its overall responsibility for the process of risk management as well as for reviewing its effectiveness. Executive management accounts to the Board for designing, implementing and monitoring the process of risk management as well as for integrating it with the Company's day-to-day activities. To this end, the Company has fully adopted and implemented the Rio Tinto Group risk policy and methodology.

### Internal audit

The Company's internal audit function performs an independent appraisal activity with the full cooperation of the Board and management. It has the authority to independently determine the scope and extent of work to be performed. Its objective is to assist executive management with the effective discharge of their responsibilities by examining and evaluating the Company's activities, resultant business risks and systems of internal control. The mandate of the internal audit function requires it to bring any significant control weaknesses to the attention of management and the Board Audit and Risk Committee for remedial action.

The internal audit function is outsourced to KPMG. The internal audit reports functionally to the Company's Audit and Risk Committee and administratively to the manager dealing with compliance and legal services.

### The Corporate Governance Code for Namibia (NamCode)

Rössing Uranium has accepted the NamCode, effective from 1 January 2014, and based on international best practices and the King Code of Governance for South Africa, 2009. Deviations from the NamCode are listed in the table below.

### Internal control

Internal control comprises methods and procedures that management has implemented to ensure:

- compliance with policies, procedures, laws and regulations;
- authorisation, by implementing the appropriate review and approval procedures;
- reliability and accuracy of data and information: Information used in the decision-making process at Rössing Uranium needs to be accurate, timely, useful, reliable and relevant;
- effectiveness and efficiency: All operations at Rössing Uranium need to be effective and efficient, with the most economical use of resources, while adding value to the economy. Rössing Uranium accomplishes this by continuously monitoring its goals and by embodying the credo that "That which is measured is controlled"; and
- safeguarding of assets: Assets need to be protected from theft, misuse and use for fraudulent purposes and/or destruction.

The Directors are responsible for maintaining an adequate system of internal control. It is understood that such a system reduces, but cannot always entirely eliminate, the possibility of fraud and error.

Deviations from the NamCode	
NamCode 16.1: The chairman should be appointed by the Board every year after carefully monitoring his independence and factors that may impair his independence.	Rössing Uranium Articles of Association Art. 82: Chairman elected for a period to hold office determined by the Directors. If no period determined then Chairman shall hold office until otherwise determined by the Directors.
NamCode 16.10: There should be a succession plan for the position of the chairman.	Nomination and Remuneration Committee: An agenda item has been added for August 2015 to consider the appointment of a Deputy Chairman as part of a succession plan.
NamCode 18.12: As a minimum two executive Directors should be appointed to the Board, being the Chief Executive Officer (CEO) and a Director responsible for the finance function (CFO). This will ensure that there is more than one point of contact between the Board and management.	In line with the Board decision to reduce its size. The Chief Financial Officer is available at all the meetings to answer questions and make representations to the Board.
NamCode 18.17: Independent Non-executive Directors may serve longer than nine years if, after an independence assessment by the Board, there are no relationships of circumstances likely to affect, or appearing to affect, the director's judgement. A statement to this effect should be included in the integrated report.	Rössing Uranium Board Charter: The length of service which a Non-executive Director may serve is to be limited to three terms of three years each and a prescribed retirement age of seventy with the Directors' discretion to overrule if deemed fit.
NamCode 19.9.3: The education, qualifications and experience of the Directors to enable shareholders to make their own informed assessment of Directors should be disclosed in the integrated report.	Directors' Curriculum Vitae: Curriculum vitae of all Directors up for appointment in terms of Article 62(a) or re-election in terms of Article 70 of the Articles of Association are included with the Annual General Meeting notification.
NamCode 22: Evaluation of the Board, its committees and individual Directors should be performed every year.	Nomination and Remuneration Committee: Independent evaluation was conducted by Institute of Directors, SA in 2012 Planned evaluations to be conducted in 2015 by Nomination and Remuneration Committee.
NamCode 26: Companies should provide full individual disclosure of each individual Executive and Non-executive's remuneration. Remuneration policies and executive employment contracts are to be included in an integrated report.	Annual General Meeting: The remuneration of Directors and senior management is disclosed to shareholders. Rössing Uranium does not propose to disclose this information to the public.
NamCode 27: Shareholders should approve the company's remuneration policy.	Annual General Meeting: Remuneration is reviewed in detail by the Nomination and Remuneration Committee and approved in principle by shareholders.

# Our condensed financial statements

## Condensed annual financial statements

### Condensed statement of financial position as at 31 December 2014

	Notes	Audited 2014 N\$'000	Audited 2013 N\$'000
<b>ASSETS</b>			
<b>Non-current assets</b>			
		<b>3 663 108</b>	3 480 243
Property, plant and equipment	5	<b>3 169 492</b>	3 038 705
Defined benefit pension asset		<b>78 551</b>	108,099
Rössing Environmental Rehabilitation Fund		<b>415 065</b>	333 439
<b>Current assets</b>			
		<b>3 935 188</b>	4 018 604
Inventories	7	<b>564 825</b>	824 272
Trade and other receivables		<b>163 252</b>	590 556
Rio Tinto Finance Limited		<b>2 374 509</b>	2 139 820
Cash and cash equivalents		<b>775 026</b>	408 634
Restricted cash		<b>57 576</b>	55 322
Assets held for sale	5	<b>4 496</b>	13 226
<b>Total assets</b>		<b>7 602 792</b>	7 512 073
<b>EQUITY AND LIABILITIES</b>			
<b>Capital and reserves</b>			
		<b>5 729 172</b>	5 544 641
Share capital		<b>223 020</b>	223 020
Retained earnings		<b>5 506 152</b>	5 321 621
<b>Non-current liabilities</b>			
		<b>1 328 323</b>	1 367 213
Interest-bearing borrowings	8	<b>11 809</b>	12 739
Deferred tax liabilities		<b>287 993</b>	362 163
Provision for closure and restoration costs		<b>1 014 081</b>	973 245
Post-employment obligation		<b>14 440</b>	19 066
<b>Current liabilities</b>			
		<b>545 297</b>	600 219
Bank overdraft		<b>-</b>	3 528
Trade and other payables		<b>544 367</b>	595 847
Current portion of interest-bearing borrowings	8	<b>930</b>	844
<b>Total equity and liabilities</b>		<b>7 602 792</b>	7 512 073

### Condensed statement of changes in equity for the year ended 31 December 2014

	Share capital N\$'000	Retained earnings N\$'000	Total N\$'000
<b>Balance at 1 January 2014</b>	223 020	5 321 621	5 544 641
Total comprehensive income and expenses	-	184 531	184 531
<b>Balance at 31 December 2014</b>	<b>223 020</b>	<b>5 506 152</b>	<b>5 729 172</b>
<b>Balance at 1 January 2013</b>	223 020	4 888 363	5 111 383
Total comprehensive income and expenses	-	433 258	433 258
<b>Balance at 31 December 2013</b>	<b>223 020</b>	<b>5 321 621</b>	<b>5 544 641</b>

## Our condensed financial statements

### Condensed annual financial statements

#### Condensed statement of comprehensive income and expenses for the year ended 31 December 2014

	Notes	Audited 2014 N\$'000	Audited 2013 N\$'000
<b>Continuing operations</b>			
Revenue		2 405 747	2 969 440
Other income		13 024	10 903
		<b>2 418 771</b>	2 980 343
Operating costs		(2 287 373)	(2 626 528)
Depreciation, amortisation and impairment charges		(262 876)	(228 627)
Other net gains		285 457	506 315
Royalties - mining		(56 828)	(85 240)
<b>Operating profit</b>		<b>97 151</b>	546 263
Finance income		38 735	22 733
Finance costs		(65 552)	(67 267)
<b>Profit before income tax</b>		<b>70 334</b>	501 729
Income tax	4	74 170	(14 864)
<b>Other comprehensive income for the year</b>			
Actuarial gains/(losses) on defined benefit pension asset		40 027	(53 607)
<b>Total comprehensive income for the year attributable to equity holders of company</b>		<b>184 531</b>	433 258

#### Reconciliation of total comprehensive income for the year to net (loss)/profit after tax from normal operations

<b>Total comprehensive income for the year as above</b>		<b>184 531</b>	433 258
- Actuarial gains/(losses) on defined benefit asset		(40 027)	53 607
- Forex gain on Kalahari and Extract funds		(235 381)	(455 279)
<b>Net (loss)/profit after tax from normal operations</b>		<b>(90 877)</b>	31 586

#### Condensed statement of cash flows for the year ended 31 December 2014

	Notes	Audited 2014 N\$'000	Audited 2013 N\$'000
<b>Cash flows from operating activities</b>			
Cash generated by operations		686 822	627 953
Finance income		38 735	22 733
Finance costs paid		(2 291)	(5 439)
<b>Net cash generated from operating activities</b>		<b>723 266</b>	<b>645 247</b>
<b>Cash flows from investing activities</b>			
Purchases of property, plant and equipment	5	(79 356)	(99 364)
Proceeds from sale of fixed assets		21 697	3 748
Investment made at Rio Tinto Finance Limited		(234 689)	(61 112)
Contributions made to Rössing Environmental Rehabilitation Fund		(57 900)	(61 372)
<b>Net cash utilised by investing activities</b>		<b>(350 248)</b>	(218 100)
<b>Cash flows from financing activities</b>			
Decrease in interest-bearing borrowings		(844)	(1 819)
Net cash utilised by financing activities		(844)	(1 819)
<b>Increase in cash and cash equivalents</b>		<b>372 174</b>	425 328
<b>Cash and cash equivalents at beginning of year</b>		<b>460 428</b>	35 100
<b>Cash and cash equivalents at end of year</b>		<b>832 602</b>	460 428

## Our condensed financial statements

### Notes to the condensed annual financial statements for the year ended 31 December 2014

#### 1. Reporting entity

Rössing Uranium Limited is a company domiciled in the Republic of Namibia. These are the condensed annual financial statements of the Company as at and for the year ended 31 December 2014. The audited annual financial statements of the Company as at and for the year ended 31 December 2014 are available upon request from the Company's registered office.

#### 2. Statement of compliance

These condensed annual financial statements have been prepared in accordance with the framework concepts and the measurement and recognition requirements of IFRS and disclosure requirements of IAS 34, Interim Financial Reporting and the requirements of the Companies Act of Namibia. They do not include all of the information required for full annual financial statements, and should be read in conjunction with the annual financial statements of the Company as at and for the year ended 31 December 2014.

#### 3. Significant accounting policies

The accounting policies applied by the Company in these condensed annual financial statements are the same as those applied by the Company in its annual financial statements as at and for the year ended 31 December 2014. The accounting policies and methods of computation applied in the preparation of the condensed consolidated financial report are consistent with those applied for the period ended 31 December 2013.

#### 4. Taxation

	2014 N\$'000	2013 N\$'000
Namibia - current taxation	-	-
Namibia - deferred taxation	(74 170)	14 864
	<u>(74 170)</u>	<u>14 864</u>

#### 5. Property, plant and equipment

Net book value at beginning of the year	3 038 705	2 845 559
Additions	79 356	99 364
Deferred stripping capitalised	340 564	355 305
Disposals	(3 832)	-
Assets classified as held for sale	-	(13 226)
Depreciation and impairment	(262 876)	(228 627)
Decrease in closure provision	(22 425)	(19 670)
Net book value at end of the year	<u>3 169 492</u>	<u>3 038 705</u>

#### 6. Assets held for sale

Net book value at beginning of the year	13 226	-
Additions	-	13 226
Disposals	(8 730)	-
Net book value at end of the year	<u>4 496</u>	<u>13 226</u>

During 2013 the Company decided to develop and service a block of residential erven situated in Ocean View, Swakopmund, with the intention to sell the properties in the open market. After completion of the civil works to service the erven, all plots were made available for sale to the public. At year end, 24 of the 54 erven had been sold at values higher than cost. Another 4 erven are in the process of being transferred. It is expected that the 26 remaining erven will be sold during the 2015 financial year. No material liabilities associated with the assets held for sale existed at the financial year end.

## Our condensed financial statements

	<b>2014</b>	2013
	<b>N\$'000</b>	N\$'000
<b>7. Inventory</b>		
Inventory is stated after		
- Providing for obsolescence		
- Raw materials	<b>28 169</b>	26 320
<b>8. Interest-bearing borrowings</b>		
Non-current liabilities		
Capitalised finance lease agreements	<b>11 809</b>	12 739
Current liabilities		
Capitalised finance lease agreements	<b>930</b>	844
	<b>12 739</b>	13 583
<b>9. Capital commitments</b>		
Capital expenditure contracted but not yet incurred as at 31 December 2014	<b>17 042</b>	16 861
<b>10. Unconditional purchase obligations</b>		
The Company has entered into minimum offtake agreements with the suppliers of sulphuric acid for the next five years. The total undiscounted amount at the year end amounted to N\$1,272,098,164 (2013: N\$1,047,506,345). The Company also entered into a new desalinated water offtake agreement with NamWater, which includes the commitment to offtake certain quantities of water for the next 10 months. The total undiscounted amount at the year end amounted to N\$61,079,876 (2013: N\$24,300,443).		
<b>11. Guarantees</b>		
During the year the Company entered into a new desalinated water offtake agreement with NamWater. The agreement includes the provision of a bank guarantee of N\$12,975,138 (2013: N\$16,321,547). The updated offtake agreement is valid until 15 October 2016.		
<b>12. Related parties</b>		
The Company is controlled by Skeleton Coast Diamonds Limited, which owns 68,60 per cent of the Company's issued shares. The remaining 31,40 per cent of the shares are widely held. The ultimate holding company is Rio Tinto plc, a company registered in the United Kingdom.		
<b>Summary of related parties transactions</b>		
Sales to related parties	<b>1 247 305</b>	-
Purchase of product and services	<b>278 996</b>	463 202
Receivables from related parties	<b>8 426</b>	196 180
Payables to related parties	<b>65 951</b>	49 130

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## Our condensed financial statements

### Company operational and financial review

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#### Financial performance

Revenue decreased by 19 per cent compared with the previous year due to significantly lower market prices and lower sales volumes due in turn to the curtailed operational plan, which led to a net loss after tax of N\$91 million (2013: net profit of N\$32 million) from normal operations. Further details of the Company's financial performance are set out in the condensed statement of comprehensive income.

#### Operations

Production of uranium oxide for the year was 1,543 metric tonnes compared with 2,409 metric tonnes in 2013. A total of 23,265,359 metric tonnes (2013: 35,822,290 metric tonnes) were mined from the open pit and 7,040,278 metric tonnes (2013: 10,076,755 metric tonnes) of ore were milled. The mine is currently operating on an approved Life-of-Mine Plan to 2024. There are current drilling initiatives and existing mineral resources which could expand mining beyond this period into the next decade.

After the leach tank failure of December 2013, operations were gradually restarted during the first quarter of 2014. During the first half of 2014, uranium market prices deteriorated even further from 2013 levels, which led to a Board decision to curtail operations from August 2014. The curtailed operational plan involves moving to non-continuous operations in both the mine and the Processing Plant, with the objective of producing only enough uranium oxide to meet long-term sales commitments.

#### Dividend declaration

No dividends were declared during the year (2013: N\$ NIL).

#### Subsequent events

A dividend of 69.9 cents per share was approved at the February 2015 Board meeting to the value of N\$115 754 400.

At approximately 13:00, on 12 February 2015, a fire broke out in the Final Product Recovery area. All personnel were safely evacuated from the immediate and surrounding areas. There were no injuries. The fire was brought under control at approximately 15:30 the same afternoon and was contained to this area only, but with extensive damage to the roasters. High-level initial assessments indicate that the Company will be unable to produce final product for the ensuing three months, until the roasters are restored. The rest of the plant remains unaffected and the Company will be able to produce product up to the point before roasting and stockpile this product for the interim period. The roasters have sufficient excess capacity to enable the Company to catch up on dry production within a further three months from reinstatement. This will only affect timing of cash flows throughout the year and sufficient cash resources and overdraft facilities are available to the Company to ensure liquidity during this period. The property damage is currently estimated not to exceed N\$50 000 000. No other material events or circumstances have occurred between the year-end date and the date of this report.

#### Auditor's review opinion

The condensed results for the year ended 31 December 2014 have been reviewed by PricewaterhouseCoopers. The auditor's unqualified review opinion is available for inspection at the Company's registered office.

#### Directors

J Gawaxab (Chairman), W Duvenhage\* (Managing), ASI Angula, EHT Angula, NV Firth (alternate M-C Mwelu Kaninda\*\*), F Fredericks, JS Louw\* (alternate HP Louw\*), EI Shivolo (alternate CWH Nghaamwa), SC Wensley\*\*\* (alternate SJ Ellinor\*\*\*).

\*South African \*\*Congolose \*\*\*Australian

#### Company Secretary

GD Labuschagne, PO Box 22391, Windhoek

#### Auditors

PricewaterhouseCoopers, PO Box 1571, Windhoek



## Assurance and list of references

### Assurance

Our vision is to carry out our business with integrity, honesty and fairness at all times. We build from a foundation of compliance with relevant laws, regulations and international standards, and are in line with various Rio Tinto and Rössing Uranium guidelines on leading business practices, such as *The way we work*, Rio Tinto's global code of business conduct.

Much of our work is subjected to various external assurance and verification processes throughout the year. For example, external auditors audit our financial statements, while an external environmental auditing company audits our environmental figures each year. The following auditing companies, Government bodies and other institutions reviewed the Company's practices in 2014:

- PricewaterhouseCoopers (Rio Tinto Corporate Annual Report data assurance, designed to provide limited assurance over selected items; in Rössing Uranium's case, AIFR data);
- KPMG (internal audits);
- Rio Tinto Corporate Assurance (internal audits);
- Det Norske Veritas (ISO 14001:2004 certification and Rio Tinto HSEQ Management System business conformance);
- International Atomic Energy Agency (industry control);
- Metago Environmental Engineers (annual review of tailings and associated environmental aspects);
- Environmental Resources Management Limited (Rio Tinto operations and business unit assessment);
- Ministry of Labour and Social Welfare: Affirmative Action (Employment) Act, 1998 (No. 29 of 1998) (compliance verification in respect of labour-related Acts);
- Ministry of Health and Social Services (compliance verification in respect of health and related Acts);
- Ministry of Agriculture, Water and Forestry (compliance verification in respect of effluent management and water-related Acts);
- Ministry of Mines and Energy (compliance verification in respect of mining-operation-related Acts); and
- Ministry of Finance (compliance verification in respect of income tax and finance-related Acts).

### List of references

*The way we work*: Rio Tinto's global code of business conduct

*The way we buy*

*Human rights guidance*

*Compliance guidance*

*Business integrity guidance*

*Corporate governance guidance*

*Antitrust policy and guidance*

*Our key relationships*

*Sustainable development*

*Rio Tinto HSEQ Management System Standard*

*Performance Standards – Safety*

*Performance Standards – Occupational health*

*Performance Standards – Environment*

*Corporate Standards – Communities*

*Corporate Standards – Closure*

These reference documents are all available electronically at [www.riotinto.com](http://www.riotinto.com), or in hard copy by writing to Rio Tinto, 2 Eastbourne Terrace, London, W2 6LG, United Kingdom.

## Performance data table

	2014	2013	2012	2011	2010
<b>Employees</b>					
Number of employees	850	1,141	1,528	1,637	1,592
<b>Production</b>					
Uranium oxide produced (tonnes)	1,543	2,409	2,699	2,148	3,628
Ore processed ('000 tonnes)	7,040	10,076	12,127	10,729	11,598
Waste rock removed ('000 tonnes)	16,225	24,448	31,737	39,913	41,955
Ratio of ore processed to waste rock removed	0.43	0.41	0.38	0.27	0.28
<b>Health, safety and environment</b>					
New cases of pneumoconiosis	0	0	0	0	0
New cases of dermatitis	1	2	3	0	1
New cases of hearing loss	1	0	0	0	0
New cases of chronic bronchitis	0	0	0	0	0
All-injury Frequency Rate (AIFR)	0.81	0.96	0.49	0.81	0.89
Number of lost-time injuries	8	13	4	11	14
Source dust levels at Fine Crushing Plant (mg/m <sup>3</sup> )	2.03	2.95	2.35	2.55	4.02
Freshwater consumption ('000 m <sup>3</sup> )	2,436	2,914	3,103	3,060	2,870
Fresh water used per tonne of ore processed (m <sup>3</sup> /t)	0.35	0.29	0.26	0.29	0.25
Ratio of fresh water:total water	0.43	0.41	0.38	0.39	0.31
Seepage water collected ('000 m <sup>3</sup> )	1,848	2,060	2,387	2,349	2,680
Energy use on site (GJ x 1,000)	1,108	1,007	1,852	1,897	1,996
Energy use per tonne of ore processed (MJ/t)	148.88	174.79	153.03	182.90	172.1
CO <sub>2</sub> total emission (kt CO <sub>2</sub> equivalent)	118.31	187.82	211.6	208.08	221.0
CO <sub>2</sub> equivalent emission per tonne of production (e/t uranium oxide)	82.00	78.04	78.41	97.37	60.70
<b>Product and customers</b>					
Uranium spot market price (US\$/lb) (average)	33.17	38.17	48.70	56.75	46

# Rössing Uranium's production of uranium oxide and the nuclear fuel cycle

Uranium is a relatively common element that is found in the earth all over the world, mined in many countries and processed into yellow cake, ie uranium oxide ( $U_3O_8$ ). Uranium oxide has to be processed before it can be used as a fuel for a nuclear reactor, that is, where electricity is generated to produce heat and steam in order to drive a turbine connected to a generator.

## Rössing Uranium's operations



**1. Drilling and blasting**  
Through drilling, blasting, loading and haulage, the uranium ore at Rössing Uranium is mined. Due to the erratic distribution of minerals in the ground, waste and ore are often mixed. Radiometric scanners measure the radioactivity level of each truckload, determining whether the material is sent to the primary crushers or to the low-grade stockpile. Waste is transported to a separate storage area.



**2. Crushing**  
Ore is delivered to the Primary Crushers by haul truck and then by conveyor to the Coarse Ore stockpile. It passes through a further series of crushers and screens until the particles are smaller than 19 mm. After weighing, the fine ore is stored on another stockpile.



**3. Grinding**  
Wet grinding of the crushed ore by means of steel rods reduces it further to slurry with the consistency of mud. The four rod mills, which are 4.3 m in diameter, are utilised as required by production levels and operate in parallel.



**4. Leaching**  
A combined leaching and oxidation process takes place in large mechanically agitated tanks. The uranium content of the pulped ore is oxidised by ferric sulphate and dissolved in a sulphuric acid solution.



**5. Slime separation**  
The product of leaching is a pulp containing suspended sand and slime. Cyclones separate these components and, after washing in Rotoscopes to remove traces of uranium-bearing solution, the sand is transported via a sand conveyor to a tailings disposal area.



**6. Thickening**  
Counter current decantation thickeners wash the slimes from previous stages. A clear uranium-bearing solution ('pregnant' solution) overflows from the thickeners, while the washed slime is mixed with the sands and pumped to the tailings area.



**7. Continuous ion exchange (CIX)**  
The clear 'pregnant' solution now comes into contact with beads of specially formulated resin. Uranium ions are adsorbed onto the resin and are preferentially extracted from the solution. Beads are removed periodically to elution columns. There the acid wash removes the uranium from the beads. The resulting eluate is a purified and more concentrated uranium solution.



**8. Solvent extraction (SX)**  
The acidic eluate from the Ion Exchange Plant is mixed with an organic solvent which takes up the uranium-bearing component. In a second stage, the organic solution is mixed with a neutral aqueous ammonium sulphate solution which takes up the uranium-rich 'OK liquor'. The acidic 'barren aqueous' solution is returned to the elution columns.



**9. Precipitation**  
The addition of gaseous ammonia to the 'OK liquor' raises the solution pH, resulting in precipitation of ammonium diuranate, which is then thickened to a yellow slurry.



**10. Filtration**  
The ammonium diuranate is recovered on rotating drum filters as yellow paste — known as 'yellow cake'.



**11. Drying and roasting**  
Final roasting drives off the ammonia, leaving uranium oxide. The product is then packed into metal drums. Neither ammonium diuranate nor uranium oxide are explosive substances.



**12. Loading and despatch**  
The drums of uranium oxide are loaded and exported to overseas converters for further processing. At full capacity, the Processing Plant can produce 4,500 tonnes of uranium oxide each year. **This step completes the Rössing Uranium production process.**

## Our customers' operations



**13. Conversion**  
The uranium oxide is converted to uranium hexafluoride crystals. Conversion plants operate commercially in Canada, China, France, the UK, and the USA. \*



**14. Enrichment**  
This step increases the concentration of the isotope uranium-235 ( $^{235}U$ ) from its naturally occurring level of 0.7 per cent to higher levels required for nuclear reactors — about 3 per cent. \*



**15. Fabrication**  
Enriched uranium is converted into uranium dioxide, formed into solid cylindrical pellets, sealed in metal fuel rods, and bundled into fuel assemblies. \*



**16. Power generation**  
Fuel assemblies are loaded into nuclear reactors where the  $^{235}U$  fissions, producing heat and steam used to generate electricity. (\*Photos: www.aveva.com)



Many faces of Rössing Uranium around the mine and in the community.

Please contact us for any feedback, comments, concerns or suggestions about this report. You can either send us a text message to +264 81 143 3627, e-mail to [yourcontact@rossing.com.na](mailto:yourcontact@rossing.com.na) or fax to +264 64 520 1506.

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