2008 Report to Stakeholders Rössing Uranium Limited Remaining on a path of growth

RioTin

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### The purpose of this report

This report aims to give Rössing Uranium's stakeholders a review of our activities from January to December 2008, as well as of the company's interaction with society, the economy and the environment.

The stakeholders of Rio Tinto, Rössing Uranium and the Rössing Foundation are not only the shareholders who

invested in the business, but are all those individuals and institutions that influence the company and whom the mine affects. Stakeholders, therefore, include the mine's employees and contractors; the communities of Arandis, Swakopmund and Walvis Bay; government institutions; service providers; and the mine's customers.



### Rössing Uranium within the Rio Tinto Group

Rio Tinto is a leading international mining group headquartered in the United Kingdom. We employ around 106,000 people, and work in over 50 countries worldwide.

We discover, mine, process and supply the metals and minerals that make modern life work. Our major products are aluminium, copper, diamonds, energy (coal and uranium), gold, industrial minerals (borax, titanium dioxide, salt, talc) and iron ore.

Most of our assets are in Australia and North America, but we also have significant businesses in Africa, Asia, Europe, and South America. Our shares are traded mainly on the London Stock Exchange and the Australian Securities Exchange, as well as in New York, New Zealand and Europe.

Our history begins in an ancient mine in southern Spain named after the local Red River – which is the meaning of our name. This mine once supplied copper to the Roman Empire. Nearly 140 years ago, in 1873, NM Rothschild & Sons of London and De Rothschild Frères of Paris joined

Front page: One of our environmental specialists, Aina Kadhila Amoomo, conducts an air quality test next to the Fine Crushing Plant to determine dust pollution. She is using a dust sampler to determine the level of dust in the air at different points around the mine. investors to buy this loss-making mine from the Spanish Government. Many years later, in 1962, Rio Tinto's Australian company and Consolidated Zinc – which was formed in 1905 to mine in New South Wales – joined forces as Conzinc Riotinto of Australia. Meanwhile, their counterparts formed the Rio Tinto Zinc (RTZ) Corporation in the UK, which changed to Rio Tinto in 1997, reflecting this growth from an international company to one with global scale and reach. In 2007, we acquired the Canadian aluminium producer, Alcan, in a US\$38 billion transaction.

Rio Tinto owns the majority of shares (69 per cent) in Rössing Uranium Limited. Rössing is one of two uranium mines within the Group, with Energy Resources of Australia (ERA) being the other.

Now, as one of the world's largest and most successful companies, we are recognised way beyond our own industry sector. We like to think that Rio Tinto links those miners who produced copper for the Roman Empire to the miners who keep the world in motion today.

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### Rössing Uranium's vision is to maximise the value delivered to our shareholders by being a safe, significant and growing long-term supplier of uranium to the world nuclear power industry.

Globally, nuclear fuel demand is set to increase significantly as concerns about climate change issues and greenhouse gas (GHG) emissions, security of energy supplies, and the increasing cost of fossil fuels encourage a renaissance in nuclear power-generation plants. Many countries are now re-evaluating their energy policies. Nuclear energy, seen by many as a clean, efficient energy source which produces no GHGs, is becoming increasingly popular.

Understandably so, this renewed interest is reflected in the prices obtained for uranium oxide. Several years into a price recovery, the market outlook for uranium and, therefore, for us, remains positive. Although short-term spot and long-term market prices have declined from an all-time high around August 2007, the average price realised showed an increase in 2008. The decline that was experienced can be attributed to the ongoing global financial crisis – from which the uranium market has not been immune.

Nevertheless, the nuclear renaissance is under way and large, experienced suppliers like us are in the best position to benefit.

### Human resources

Gearing ourselves for growth, we began to augment our human resources and machine power from 2007. By the end of 2008, our staff complement totalled 1,307 permanent employees, and an average of 1,000 contractors on site every day. In this context, our training and development programmes received special attention. Nearly 500 participants benefited directly from these programmes, in which a total of N\$17.7 million was invested.

As regards mining output, and in comparison with our output during the past 20 years, we produced a record 4,108 tonnes of uranium oxide, up from 3,046 tonnes the previous year.

To achieve this, 34 million tonnes of waste rock were removed and 13 million tonnes of ore were processed. This we did safely, achieving nearly three million labour hours without a lost-time injury, although considerable work remains to get injuries down to zero. Since we believe all injuries and accidents are preventable, safety will continue to be a key priority, especially amidst increased production activities.

The year under review also saw a major international rebranding exercise for Rio Tinto. Rebranding was implemented at Rössing in October 2008, and led to our new visual identity. This was done within the framework of "One Rio Tinto – Doing it right". The rebranding of Rössing aims to capitalise on Rio Tinto's strong international presence, in order to create new business opportunities and allow the Rio Tinto Group to access new resources in terms of people, land and capital. Our rebranding also marked a new chapter in Rössing's history, and was a perfect opportunity to reposition ourselves as a renewed company, remaining on our path of growth.

### Community

Our community relations continued to receive special attention in 2008, since healthy dealings with our neighbours is one of the pillars of sustainable development on which we build. Active support in the form of donations and sponsorships focused on community activities that promoted development. Our direct donations in 2008 amounted to just over N\$6 million, compared with N\$5.8 million in 2007 and N\$8.7 million in 2006, when the mine celebrated 30 years of production.

The Rössing Foundation, established to implement and facilitate our corporate social responsibility activities within the communities of Namibia, sees to a broad agenda of community development, focusing specifically on education, health, poverty alleviation, innovation, the environment, and enterprise development. The Foundation implements these programmes and projects in various sectors and in partnership with numerous stakeholders.

The Foundation also assisted the Arandis Town Council in its endeavours to diversify the town's economy by 2016, in order to reduce its financial dependence on Rössing and the surrounding mines.

Our payments for goods and services amounted to N\$2.3 billion in 2008, of which N\$1.45 billion was paid to our Namibian suppliers. This represents 62 per cent spent in Namibia, 32 per cent in South Africa and 6 per cent with suppliers in the rest of the world.

In line with our commitment to the Erongo Region, we have spent nearly half of our Namibian expenditure in the Region - just more than N\$700 million. Eighty per cent (N\$563 million) of the spent in the Erongo Region was with our suppliers in Swakopmund, 19 per cent (N\$131 million) in Walvis Bay and 1 per cent (N\$8.7 million) in Arandis.

### Environment

We recognise that our business activities have an impact on the environment in which we operate. Through various environmental programmes identified not only by us but also through stakeholder engagement, we have committed ourselves to specific areas of continuous improvement in order to lessen this impact. Nonetheless, increased production activity led to increased energy and water usage during the review period.

In 2008, energy usage was 140.9 MJ/t of ore processed. This was above the annual target of 117 MJ/t of ore processed set to conform to the predetermined Rio Tinto targets. The GHG emission intensity was 54.2 tonnes  $CO_2$  equivalent ( $CO_2$ -e) per tonne of uranium oxide ( $U_3O_8$ ) produced, with the target being 51.6 tonnes  $CO_2$ -e/t of  $U_3O_8$  produced. Our  $CO_2$  emission per unit



of production was lower than the previous year, and near target due to 4,108 tonnes of uranium oxide having been produced during the year, as well as good grade throughput in the Processing Plant.

Our use of fresh water totalled 3.7 million cubic metres, or 10,048 m<sup>3</sup>/day, against our targets of 3.5 million m<sup>3</sup> or 9,590 m<sup>3</sup>/day. Water consumption for 2008 was higher than expected, therefore, at a rate of 0.29 cubic metres per tonne (m<sup>3</sup>/t) of ore milled, against a target of 0.26 m<sup>3</sup>/t of ore milled. In 2009 we aim to implement various watersaving projects, although future mine extensions will require additional dust suppression – decreasing savings to a projected 0.3 million m<sup>3</sup> per year.

As a major consumer of electricity in Namibia, it is essential that we ensure optimal energy use, since a constant and stable power supply is one of the critical risks to mining operations. To this end, a Power Efficiency Department was established in 2008, with the key responsibility of ensuring efficient electricity consumption by tracking and optimising system efficiencies, as well as assisting in our aim to decrease our energy usage.

Early in the year, a Social and Environmental Impact Assessment and Management Plan for three of the mine's expansion projects was submitted to Namibia's Ministry of Environment and Tourism, whereupon the Ministry issued us with an environmental clearance certificate. These projects include the building of a radiometric ore sorting plant, the mining of a small satellite ore body known as SK4 about 1km to the east of our current open pit, and the building of a sulphur-burning sulphuric acid plant.

The global financial crisis had an impact on the sourcing of a number of our principal consumables with some of our suppliers closing down.

With regard to sulphuric acid, the demand in the market increased drastically, which encouraged us to investigate long-term alternatives, such as constructing our own sulphur-burning sulphuric acid plant on-site, with potential power recovery. We concluded a feasibility study at the end of 2008 with the decision to defer this project until expansion is approved that will require additional acid to make the project more viable.

An achievement for 2008 was the construction of a pilot heap leach processing facility that tests the treatment of previously uneconomical ore and lowers the overall operating cost. We will continue with the feasibility study in 2009.

Historically, our mine lease has been under-explored, compared with levels of exploration around other worldclass ore bodies. The establishment of an Exploration Department in March 2008 allowed significant advances to be made in developing our geologists' technical capabilities, and establishing the foundations for a modern and effective exploration programme. Furthermore, we embarked on an extensive exploration drilling programme in 2008 to increase our understanding of the SK ore body. The SK ore body is adjacent to the main SJ ore body, also known as the mine's open pit. In 2009, our focus will be less on exploration and more on productionrequired drilling. This is partly due to the world financial downturn, but more importantly to the fact that the existing SJ ore body requires more geological information, sourced from drilling, to be collected in the coming year.

With our continued drilling and development programmes, we are well-positioned to expand and further extend the life of our operations. This will enable us to continue to remain a significant uranium producer and a leading contributor to the Namibian economy, as we have been for the past 32 years. At the foundation of this vision is our business approach: we integrate sustainable development into every aspect of the business in order to support sound environmental practices, economic and social development, and corporate governance. This approach is depicted in our Strategic Goals diagram below.

In light of the global financial crisis, we followed a cautious approach in all areas of cash flow management and, especially, capital expenditure. While our outlook for 2009 is positive and the company is sound, the fast-changing conditions around us necessitates that we tighten our belts and slow our pace of expansion, without jeopardising our long-term production capacity.

### **Rössing Uranium's Strategic Goals**

### Core purpose

Maximising the value delivered to our shareholders by being a safe, significant and growing long-term supplier of uranium to the world nuclear power industry

### Strategy

Focusing on excellence in our operations • Concentrating efforts on large-scale, long-life, cost-competitive assets • Keeping the emphasis on the quality of the opportunity, and operating in a responsible and sustainable manner

### **One Rio Tinto**

Collaboration • Supporting a global brand • Integrated planning • Standardised and common processes • Continuous improvement

### Values

Care • Teamwork • Accountability • Innovation and creativity • Ambition • Integrity • Adaptability • Customer focus

Strategic pillars	Health and safety	Operational and financial delivery	Growth and innovation	People	Communities and the environment	Customers and markets
Our aspiration	Zero harm	Value adding operations	Value adding growth	Employer of choice	<ul> <li>Developer of choice</li> <li>Number one corporate citizen in Namibia</li> </ul>	Supplier of choice
Key drivers	Behavioural safety Focus on – • leadership development • interdependent culture Systems and risks Focus on – • process safety • leading indica- tors	<ul> <li>Top quartile margins</li> <li>Continuous net present value growth</li> <li>Sweat assets</li> <li>A major contributor to Namibian gross domestic prod- uct (GDP)</li> <li>Rigorous cost and financial management</li> <li>Ore body stew- ardship</li> </ul>	<ul> <li>Extensive</li> <li>proven reserves</li> <li>Proactive collaboration</li> <li>Unlock additional value from reserves and resources</li> <li>Leverage technology</li> <li>Intellectual property and knowledge management</li> <li>Strategic production planning</li> </ul>	<ul> <li>A great work- ing environment</li> <li>A major contributor to the training and education of Namibians</li> <li>Creative and innovative em- ployees</li> <li>Effective com- munications</li> <li>Performance management and rewards</li> </ul>	<ul> <li>Stakeholder</li> <li>engagement</li> <li>Leading practice in health</li> <li>and environment</li> <li>Embedded</li> <li>sustainable</li> <li>development</li> <li>thinking in our</li> <li>decision-making</li> <li>Climate change</li> <li>and energy</li> <li>strategy</li> </ul>	<ul> <li>Long-term con- tracts underpin- ning life of mine</li> <li>High standards of operation and reliability</li> <li>Contribute to the policy debate</li> <li>World-class, fact-based mar- keting strategy and tactics</li> </ul>

"Economic growth [in Namibia] is forecasted to slow to 1.0% during 2009 from an estimated growth of 2.7% owing to the decline in the diamond output. However, the short-term outlook for uranium mining remains favourable, despite concerns over water availability and the moratorium imposed, as demand and prices remain buoyant."

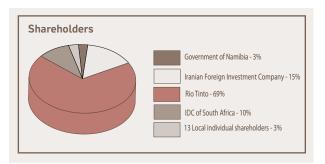
Economic Outlook, Bank of Namibia, February 2009

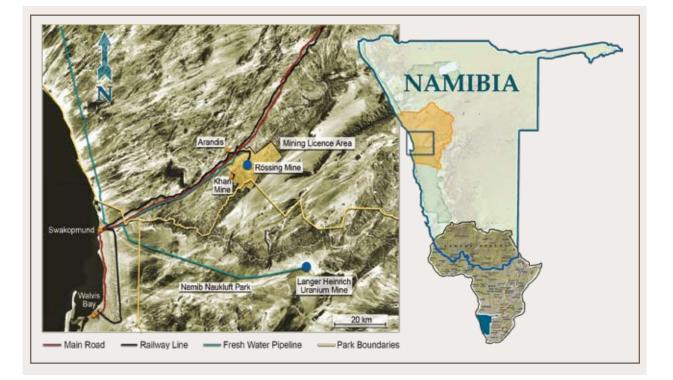
### Location

The mine site is located about 70km north-east of Swakopmund, and encompasses a licence area of about 180km<sup>2</sup>, of which 20km<sup>2</sup> are used for mining, waste disposal and processing. Mining is done by blasting, loading and hauling from an open pit, referred to as the *SJ pit*, that measures 3km by 1.2km, and is 345m deep.

### **Rössing's shareholders**

Rio Tinto owns the majority of shares (69 per cent) in Rössing Uranium Limited. The Namibian Government has a 3 per cent shareholding, but it has the majority (51 per cent) when it comes to voting rights. The Iranian Foreign Investment Company owns 15 per cent, a stake that was acquired during the set-up of the company in the early 1970s. The Industrial Development Corporation (IDC) of South Africa owns 10 per cent while local individual shareholders own a combined 3 per cent shareholding. The shareholders have no uranium product off-take rights.





# Management team



Mike Leech Managing Director



Peter Carlson Chief Financial Officer



Willem van Rooyen General Manager: Operations



Jerome Mutumba Manager: External Affairs



André Genis General Manager: Engineering and Projects



Glynis Labuschagne Manager: Compliance



Bernard Morwe Manager: Processing



Zebra Kasete General Manager: Corporate Services



Werner Ewald Manager: Mining Operations/ Acting Manager: Long-term Planning



Jimmy Gwisai Manager: Business Controls



Brian Gerrell Manager: Innovation



Ebenhard Kandanga Manager: Human Resources



Shambweka Cikwililwa Manager: Engineering Services



Chris Murangi

Frances Anderson Manager: Sustainable Development



Paul Rooi Manager: Health, Safety and Environment



Improvement



Graham Crook Manager: Exploration



Du Preez Calitz Manager: Projects



Edmund Roberts Acting Manager: Service Delivery



Dave Garrard Manager: Development Projects



Noël Mouton Manager: Business Administration



Stoffel Swartz Manager: Business



Dewald Meyer Manager: Technical Innovation



Carlo van Heerden Manager: Power Efficiency







Message from Mike Leech Managing Director 30 April 2009

I have pleasure in presenting to you our 2008 Report to Stakeholders.

The year under review closed off on a positive note for Rössing despite the uncertainties caused by the global financial crisis and the economic slowdown that characterised the business order worldwide.

We continue to emphasise safety. We reached 2.9 million hours without a lost-time injury during the last quarter of the year. Previous records have been around 2 million hours injury-free, and we are delighted to have set a new level of achievement. A concern though, is that our all injury frequency rate increased as a result of a spate of minor hand and finger injuries from drilling-related work in the early part of the year. We made good progress in addressing this through the year, but our overall safety performance was still down on 2007.

Our uranium production in 2008 increased significantly – from 3,046 tonnes in 2007 to 4,108 tonnes, representing an increase of 25 per cent, and surpassing our target for the year. This is the highest production achievement in 20 years and is a solid step on our path back to the nameplate capacity of 4,500 tonnes targeted for 2012.

Rössing's return to growth and profitability over the last few years has meant that we are once again making significant contributions to the Namibian GDP, both directly through taxes and payments, and indirectly through our comprehensive training initiatives and the Rössing Foundation's work in the education and skills development field. These are all covered more fully in the body of this report and I hope you will take the time to read through it. We remain on a growth path. However, we are being impacted by the combination of the progressive decline in the uranium price and the exchange rate, as well as the very strong run-up that we saw in input costs last year.

As we move through 2009, safety will be our primary focus, as always. Cash flow management and costs are the next priorities as our margins tighten and the delicate balance between holding onto our growth trajectory and our current profitability is worked through.

I hope that you find the information in this report useful. Please contact us if you feel there are areas we are missing or that are not receiving enough attention.

1/1 Te Joe



Sustainable development is at the heart of everything we do. In practice, it means securing the future of the environment in which we mine, and the economic and social well-being of the communities in which we work.

We are committed to this not only because it is the ethical way to behave, but also because we think it is the only way to do business on a planet with no resources to waste – be they people, ore, species or clean air. Rössing has earned a reputation for being a responsible company, and we continue to uphold our commitment towards sustainable development. This commitment is evident in our approach, which aims at making sustainable development an integral component of every aspect of our business. Six themes drive Rössing's integration of sustainable development into our business:

1. 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.

2. Communities: By understanding the diversity of the communities within which we operate and through continuous interaction with them, we are able to respond to their concerns and needs.

3. Product stewardship: This theme focuses on expanding our understanding of the impact of our product on society by working with relevant customers, suppliers and policymakers.

4. Economic viability: With the aim of providing the best returns on investment for our shareholders, we have to understand the long-term demand for our product, as well as the associated cost, resource availability, and value creation associated with it.

5. Environmental and asset resource stewardship: We aim to be the leader in environmental stewardship. This can be realised when we correctly understand and appreciate our natural resources, both biotic and abiotic, and utilise them in a sustainable manner.

6. Corporate governance and compliance: We strive to be transparent and proactive in all our business operations. Thus, we have business systems in place which are auditable, and these systems form the backbone of good corporate governance.

We cannot successfully implement these themes without the participation of all relevant stakeholders. Therefore, cooperation and consultation with stakeholders have been, and will continue to be, pivotal to our activities.

Progress made on the implementation of these six themes is discussed in this report.



With our life-of-mine extension to 2021, and in line with our commitment to sustainable development, we realised that business as usual is no longer an option.

We therefore developed a number of efficiency and expansion projects, which will enable Rössing to build on future growth. In order to accommodate this growth within a sustainable development framework, our organisational structure was realigned, and a Sustainable Development Department was established in May 2008.

The core function of this new Department is to lead sustainable development excellence at the mine. To assist in realising this goal, three positions were created:

• An Environmental and Asset Resource Stewardship Specialist, to advance our understanding of the impact of our activities on ecosystems, both nationally and internationally, and provide the technical knowledge and tools needed for responsible action and impact mitigation.

• A Socio-economist, to focus on furthering our understanding of the socio-economic impact we have locally and nationally.

• A Legal Advisor, to provide legal expertise in sustainable development issues.

To deepen our knowledge and awareness as regards sustainable development, we embarked on the development of a Sustainable Development Policy, development and rolling out of a Workforce Induction Programme, conducting of a Training Needs Analysis on Sustainable Development, and implementing Sustainable Development Training Modules.

In order to integrate sustainable development practices and principles into our business activities, the Department participated in several new and ongoing internal and external activities. These included:

- the editing of the Land Use Management Plan Report;
- significant progress was made with a Health Focus Group;

• drafting a simplified Registration, Evaluation and Authorisation of Chemicals (REACH) document and distributing it to key role players;

• launching a pilot project on waste separation at the Procurement Department;

• setting targets for climate change goals and assessing the associated risks;

assessing biodiversity risks;

• conducting various environmental impact assessments, including one on heap leaching and another setting up a desalination plant for NamWater;

• stepping up participation in the local branch of the Chamber of Mines of Namibia; and

• holding discussions with Birdlife International and the National Coastal Management (NACOMA) Project on the future of the Damara Tern as well as the Central Namib Birding Route.

# Our people

Without our employees and contractors, no mining machine would operate, no ore would be extracted, and no product would be delivered to our customers. Across all our operations, their health, safety and well-being lie at the centre of our activities.

Amidst the strong growth phase which Rössing is currently experiencing, the Human Resources Department faces huge challenges in recruiting and retaining employees, especially within the context of a tremendous skills shortage in Namibia.

### Workforce at a glance

At the end of 2008, the staff complement totalled 1,307 permanent employees, 97.6% of whom were Namibians.

The target for 2009 is a staff complement of 1,500 employees.

The male:female ratio was 7:1 in 2008 – an improvement on the 8:1 ratio in 2007.

Although the age profile continues to indicate an ageing work force, there is an improvement due to the younger age of new employees: the average age in 2008 was 40.2 years, compared with 43.1 in 2007. The youngest employee to join the mine in 2008 was 19 years old, while in the same year four employees reached the age of 65.

The ages of the 207 new recruits in 2008 were as follows: 4 were younger than 21; 111 were between 21 and 30; 66 were between 31 and 40; and 26 were older than 40.

The average length of service across the workforce in 2008 was 11 years, compared with 14.8 in 2007 and 15.9 in 2006.

The percentage of female newcomers was 20.8%, while 79.2% were male, compared with 17% female and 83% male in 2007.

A total of 77 employees left the company's employ for various reasons during 2008, with a large number joining uranium mines close to Rössing as well as other uranium exploration operations.

In addition to the mine's permanent employees, an average of 1,014 contractors were on site every day during 2008.



The Processing team members in front of the new auto-titrator unit, installed to save sulphuric acid, are from left: Alfeus Johannes, operator; Brodrick Munyungano, chief metallurgist;

### **Employee relations**

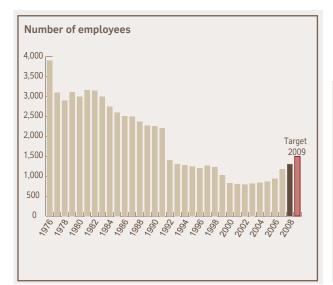
Generally labour relations at the mine are stable, considering that strikes at the mine seldom take place and, when differences do occur, they are promptly resolved. In 2008 an illegal strike ended in an arbitration process.

During 2007/8, the mine and the Rössing Branch of the Mineworkers Union of Namibia (MUN) reached the following agreements for employees in the Bargaining Unit (Grades 1 to 11):

• Basic salaries were increased by 10% from 1 January 2008.

• The minimum and maximum for salary scales were adjusted by 10%.

• The monthly housing allowance was increased by N\$298 for 2008.



Ndapewa Ntinda, senior metallurgist; Sepo Lusepani, process technician; and Nicole Meyer, senior metallurgist.

### **Affirmative Action**

The mine was certified for the ninth consecutive year in 2008 as having complied with the stipulations of the Affirmative Action (Employment) Act, 1998 (No. 29 of 1998).

The mine's Affirmative Action Plan in 2008 focused on increasing the number of employees in designated groups, as depicted in the table below.

Objective	Target (%)	Status in 2007 (%)	Status in 2008 (%)
Increase designated/historically disadvantaged group representation in Senior Management	33	52.9	38.9
Increase female representation in Middle Management	17	16.7	18.2
Increase Namibian understudies and citizens in Specialised/Skilled/Senior Supervisory categories	60	95.6	97.0
Increase female representation in Skilled, Semi-skilled and Unskilled categories	7	8.5	10.7

### The profile of the workforce is as follows:

Workforce profile	2006 (%)	2007 (%)	2008 (%)
Historically disadvantaged Namibian men	78.0	79.8	79
Historically disadvantaged Namibian women	8.6	9.8	11.3
Previously advantaged women	1.1	1.1	1.1
Previously advantaged men	8.1	6.2	5.9
Non-Namibian men	3.5	2.5	2.1
Non-Namibian women	0.2	0.3	0.2
Persons with disabilities – men	0.5	0.3	0.3
Persons with disabilities – women	0.0	0.0	0.0

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### Training and organisational development

We are committed to the growth and development of our existing employees, as well as our future employees currently benefiting from Rössing scholarships. By the end of 2008, through Rössing's financial assistance, 497 employees and students were able to participate in intensive programmes to develop and enhance their capacities.

It is expected that the total number of people benefiting from these programmes will increase over time as additional bursaries are awarded and development positions are filled. Since 2005, the Department has successfully initiated and continues to implement a number of development and training programmes, as outlined below.

### Leadership development programmes

Leadership development is targeted at both current and future leaders at frontline, middle and senior management levels. Rössing partnered up with the Rio Tinto Frontline Leadership Development Programme, which was developed for all Rio Tinto businesses in southern Africa. This programme is currently utilised for future and current frontline leaders, while Rio Tinto Leadership Programmes are utilised for middle and senior management.

### Artisan bursary scheme

Since a number of people are due to retire in the next ten years, coupled with the need for additional artisans in the future, over the years we have gradually increased the number of bursaries offered to students at the Namibia Institute of Mining and Technology (NIMT).

The aim is to have a minimum of 120 students sponsored by us at any given time. During 2008 we sponsored 152 apprentices.



"I'm one of 12 'new generation' employees currently undergoing an intensive skills development programme at Rössing. One of the aims of this programme is to develop

a pool of skilled employees from which to draw whenever needed, for example when people retire or resign. We rotate from one section of the mine to another. I think that we are very fortunate to be part of this programme, since you get some insight and understanding of all the different areas of mining operations – something that you would not normally be able to get if you were just appointed to a specific position." Botha Ellis, Development Position

### In-service training programme

**Technical schooling for employees:** Due to the need for more qualified Namibians, and higher levels of qualification among them, we send a number of in-service employees to technical schools and colleges.

**Part-time study for employees:** Our employees are offered the opportunity of furthering their studies on a part-time basis. We fund correspondence or limited-contact technikon and university studies.

**Equipment simulator**: An equipment simulator is used to develop and enhance skills among staff operating haul trucks. Simulators for other equipment are also being utilised as part of the training curricula.

Antionete Hoeses at the controls of the mine's haul truck simulator for training and upgrading of haul truck drivers. The 180° screen displays 3D real-life moving images of the actual mine areas in which haul truck drivers will operate.

Our people

"As part of my third-year studies in Metallurgical Engineering, I have to do an internship to gain practical experience. Rössing was my first choice, because I felt I could



learn the most from an established mine with well-developed systems. Although the other new mines could maybe offer more opportunities for faster career advancement, at the moment I'm like a thirsty sponge and I want to learn as much as possible. And I was proven right, because the superintendents and managers are highly experienced and I'm learning a lot."

David Olivier, Intern

### **Development positions initiative**

Because of the difficulty in hiring qualified people with mining experience in Namibia, we made a decision in 2005 to hire up to 20 people with no mining experience and develop them for future openings at the mine. The latest development position candidates were taken on board towards the end of 2008.

### **Bursary scheme**

We offer a bursary scheme for tertiary students who wish to qualify in fields that relate to our current and future business operations. Students are absorbed into the employment cadre of the mine upon successful completion of their studies.

### Organisational development projects

The Organisational development section facilitated the following Rio Tinto initiatives:

• The **Work Design** is a project that clusters jobs into job families in order to enable the company to develop career paths within the job families. Employees could either follow a professional/functional stream or the management stream.

• Global Banding is a job evaluation system introduced within the Rio Tinto Group to evaluate all roles, from graduates or professional entry level to the highest level in the organisation. It is known as the Watson Wyatt Global Grading System.

• The **Employee Engagement Survey** is a survey that was carried out at all business units within the Rio Tinto Group. The survey is aimed at knowing the perceptions and views of employees on a number of predetermined elements that have the strongest influence on Rio Tinto's business performance.

The table below summarises Rössing's various training and development programmes and the number of participants in them by the end of 2008.

Number of participants in training and development programmes, 2005–2008	December 2005	December 2006	December 2007	December 2008
Trade bursaries	58	90	104	167
Trade job attachments	10	10	4	10
Apprentice employees	4	4	3	3
College/university bursaries	19	21	37	66
Employees at a technical college (full-time studies)	4	7	9	6
Employees at college/university (full-time studies)	1	6	7	5
Employees involved in correspondence programmes	36	42	22	49
Employees undergoing the Leadership Development Programme	28	54	76	73
Rössing Dependant Scholarships awarded	30	54	69	99
Employees in limited-contact studies in various fields	0	0	6	17
European scholarships awarded	0	0	0	2
Total number of participants	190	288	337	497
Training programme costs (N\$)	4,373,253	8,653,180	13,029,178	17,771,710

### Health and safety management

The health and safety of the people at Rössing will continue to be the foundation of our vision to be a safe, long-term supplier of uranium oxide. Our Health, Safety and Environmental (HSE) Policy (see the inside back cover page) guides us in our quest for excellence in HSE management.

Attesting to this is the fact that one of our Health Management staff members was selected for the World Nuclear University leadership training course held in Canada in 2008. This was a first for Rössing and for Namibia.

### Occupational health management

The Health Management Section focused on two main areas: occupational hygiene and wellness.

### Occupational hygiene: Radiation

*Radiation* is the emission or transfer of radiant energy as particles and electromagnetic waves. Some examples of radiation are light, heat, radio waves, and X-rays. Radiation can be detected in different ways: light can be seen, heat can be felt, while radio waves and X-rays can only be detected by instrumentation. The measurement of radiation at Rössing is done by instrumentation.

As a result of the ore mined and processed at the mine having a low uranium content of around 0.03%, most areas of the mine have a radiation level between 0.0002 to 0.0003 millisieverts (mSv) per hour, which is slightly above the background level measured in the nearby towns of Swakopmund and Arandis. Higher radiation levels are present in areas of the Processing Plant, where the uranium product is concentrated.

Effective controls are in place at the Processing Plant to ensure that radiation exposures to employees are kept well below the Rössing standard for occupational radiation exposure. This standard is the effective dose of 20 mSv per year, averaged over a defined period of five years, and is the same as the international standard set by the International Atomic Energy Agency (IAEA). In 2008, radiation exposure continued to be monitored by way of a randomly selected sample of employees from all similar exposure groups, representative of the workforce. The average annual radiation doses received by employees were between 0.94 mSv for those working in offices, to 5.29 mSv for workers in Final Product Recovery, where the uranium oxide is finally produced and prepared for transport. During the year under review, the occupational exposure limit of 20 mSv per year was not exceeded by anyone working at Rössing.

### Occupational hygiene: Noise

Noise is an integral part of an industry such as mining, where large pieces of equipment and machines are constantly in operation. In order to protect workers, noise has to be managed.

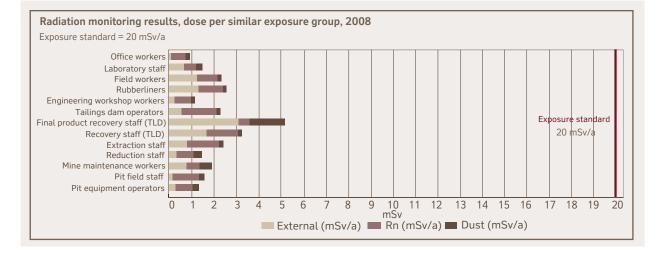
Noise reduction and control has been achieved at the mine by following the hierarchy of control, using substitution, engineering and administrative means, among others. The human ear is most sensitive to sounds at or near the centre of its frequency range; to assess the impact of noise on people, a scale of frequency weighting is used where "A" indicates the basis point. At the mine, where noise levels remain above the occupational exposure limit (OEL) of 85 dB(A), personal hearing protection is provided.

In 2008, a total of 201 personal noise dose measurements were taken from employees and contractors working in similar exposure groups (SEGs). A total of 22 individual cases were recorded where the limit was exceeded, but the annual average personal noise exposure for each SEG remained below the OEL.

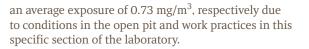
### Occupational hygiene: Dust

The processes of mining, transporting, crushing and milling uranium ore prior to extraction result in dust generation, mainly at the crushers. For control purposes, dust levels are measured at certain dust-generation points.

A total of 203 personal respirable dust samples were taken from employees and contractors representing eight SEGs. The highest average annual exposure of 0.87 mg/m<sup>3</sup> was recorded amongst drill operators and assistants forming part of the Open Pit Field SEG, followed by the Laboratory staff in the Sample Preparation Section, who recorded

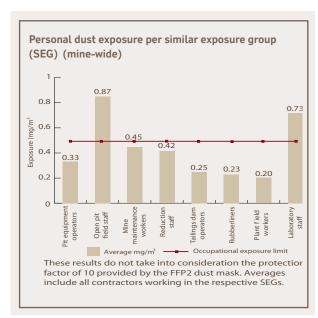


John Clarke, our environmental coordinator, checks one of the *multi-vertical dust samplers* along the western edge of the tailings facility. These samplers have a number of slots running up the length of the 5-m-long device, which collects dust and sand particles that are blown westwards off the tailings facility.



The lowest annual average exposure of  $0.20 \text{ mg/m}^3$  was recorded amongst the Plant Field workers, all of which is measured against the standard of  $0.5 \text{ mg/m}^3$ .

The measured exposure as indicated in the graph below does not take into consideration the protection factor of 10 provided by dust masks.





"It was a great achievement for me to be elected as the best peer educator in the whole of Namibia. And although I won the award, I'd like to share it with the all peer educators because we all work very hard as a team. It makes me proud bringing this award to Rössing." Stefanus Hangula, Peer Educator of the Year

A project to replace the dust extraction system at the Fine Crushing Plant is in progress and a number of dust collectors and ducting systems have already been installed.

### Wellness

Various activities were undertaken during 2008 to support our lifestyle awareness programmes. The Rössing Peer Educator Programme, which was launched in 1996, once again received a noteworthy award in 2008 from the Chamber of Mines' Occupational Health Education and Assistance Programme (OHEAP) with one of our peer educators, Stefanus Hangula being granted the OHEAP Best Peer Educator Award.

A Breast Examination and Pap Smear Clinic was held at the mine and in Arandis in support of Breast Cancer Awareness Month. A total of 252 breast and Pap smear examinations were done. This was a successful campaign arranged by our peer educators in collaboration with the Cancer Association of Namibia.

We were also recognised with a Gold Merit Certificate for supporting the Lifeline/Childline Metropolitan Lollipop Campaign 2008. The mine's peer educators bought 1,900 lollipops, which they donated to three primary schools in Arandis, Swakopmund and Walvis Bay on African Youth Day.

On World Blood Donor Day, the Blood Transfusion Service of Namibia awarded us with a certificate of recognition for actively promoting blood donation and saving lives. Three blood donation clinics were held on site through the initiative of our peer educators.

Our workforce's personal awareness of their HIV status was greatly enhanced, following the HIV Voluntary Counselling and Testing uptake, which increased from 39.3% in 2007 to 71% during 2008.

Our commitment to provide and maintain a safe and healthy working environment for employees was further illustrated through the implementation of our tobacco smoke policy during 2008. This policy is one of partial non-smoking within the confines of all our premises and will be designated into smoking and non-smoking areas.

Two plant technicians, wearing protective suits, take a break after overseeing the pumping of sulphuric acid out of the railway tankers at the mine. Sulphuric acid is used in the leaching process to extract the uranium.



### Safety management

We believe that all injuries are preventable, so our goal is to achieve zero injuries on the mine. We continue to progress towards an illness- and injury-free workplace, without becoming complacent.

The year under review was a successful one with regard to safety and a number of major achievements were recorded:

• A total of 2.9 million hours free of lost-time-injury incidents was achieved.

• In May, a milestone was reached when 2 million tonnes of sulphuric acid were off loaded safely at the Walvis Bay harbour by our contractor, Arandis Services.

• The HSE (Quality) Management System was implemented.

• The HSE Rio Tinto Compliance Audit was conducted in September 2008, with no major non-conformances in respect of safety standards.

• The Rio Tinto Aligning Business Solution (ABS) system was launched in March 2008, with most of the HSE elements being embedded by the end of 2008.

• A Continuous Improvement Programme (CIP) system was introduced for HSE improvements and suggestions.

• Quarterly HSE Representatives' Housekeeping Audits were undertaken.

• National Occupational Safety Association (NOSA) safety training was offered to selected HSE Representatives.

• The Meerkat Safety Campaign was launched. Meerkats, which are highly social animals, demonstrate altruistic behaviour — they always look out for each other. This campaign encourages employees and contractors alike to explore how meerkats survive in the wild against all odds, to consider what we can learn from their behaviour and how we can apply this knowledge to help us improve our own safety and health.

The following safety incidents occurred in 2008:

- Lost-time injuries: 8
- Incidents requiring medical treatment: 15
- Incidents requiring first aid treatment: 33

No fatalities were reported during 2008.

The All Injury Frequency Rate (AIFR) is the rate of occurrence of all injuries across the mine per 200,000 hours worked. All injuries include medical treatment cases and lost-time injuries, but excludes first aid treatments. The AIFR is the amount of all injuries multiplied by 200,000 and divided by the hours of exposure (work) by all employees and contractors.

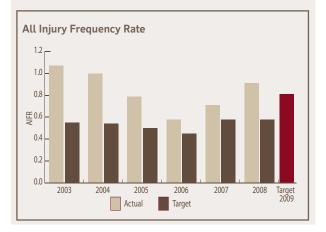
We achieved an AIFR of 0.91 in 2008, which did not meet our aggressive target of 0.58. A target of 0.81 has been set for 2009, which is a 10% reduction in AIFR of 2008. This far more realistic target aims to encourage all at the mine to achieve a zero-injury environment. Many new contractors have been employed and more needs to be done to ensure that they also reach the same high level of safety awareness as our employees.

The focus for safety in 2009 will be on the following aspects:

- Improving compliance with the safety standards;
- Improving driver safety through supervision, and continuing the Safety Skills Mastery Workshops;

• Improving HSE-related skills amongst the HSE representatives via safety improvement and housekeeping competitions; and

• Specific emphasis on contractor performance through improved quality safety interactions and audits.



Rössing has been doing much to build the capacity and long-term sustainability of the community within which we operate. Our External Affairs Department is tasked to manage our reputation and interaction with this community.

### **External affairs**

As a member of the Rio Tinto Group, we have evolved over the years and have developed a unique expertise which is drawn from the experience and commitment of our competent workforce.

Moreover, the Rio Tinto Group has also changed over time – from being a collection of autonomous business units to forming one global organisation. We have developed a range of common values, policies, standards and principles, and have benefited increasingly from sharing best practice across the whole Group.

A review of the Rio Tinto brand confirmed that the Rio Tinto name is a valuable asset, but that we could capitalise more on it by differentiating ourselves clearly from our competitors. By using one corporate identity, we could make the most of our global size and reputation. A strong Rio Tinto brand would create new business opportunities and allow us to access new resources – people, land and capital.

It was therefore decided that all business units within the Rio Tinto Group would be rebranded in order to reflect and enhance the Group's global corporate identity. This was done within the context of "One Rio Tinto – Doing it right".

"Today marks the beginning of a new chapter for Rössing Uranium. We are witnessing the launch of a rebranded company. Change is inevitable. We present a fresh image: working together, communicating better, caring and listening to all our stakeholders."

*Zebra Kasete, General Manager: Corporate Services, at the official launch of our rebranded corporate identity.*  Celebrating the rebranding of Rössing, Ruben Hoaeb, (photo right) one of the longest-serving employees with 34 years of service, lowered the old Rössing flag, and Ndayooka Shikukutu, one of the our newest employees with only three days of service at the time of the event, hoisted the new Rio Tinto flag (photo far right).



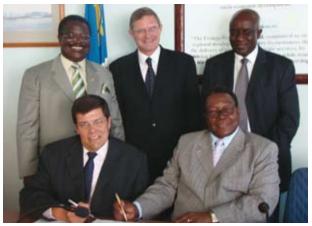
At Rössing, Rio Tinto rebranding commenced in October 2008. This exercise provided the perfect opportunity to reposition ourselves as a renewed company still geared for growth. The essence of the rebranding initiative is our rededication to "Doing it right". This reflects the way we conduct business – with total care and attention to detail. We are a pragmatic, smart business with a commitment to develop resources effectively, efficiently, responsibly and in a sustainable manner.

### Donations and sponsorships

"Doing it right" helps build a good reputation every day; and good community relations are one of the pillars of sustainable development.

Therefore, we actively seek to develop, build and maintain good relations with our neighbours. Support of community activities by way of donations and sponsorships continues to be an important means of achieving this.

The main purpose of the donations and sponsorships programme in 2008 was to assist community groups in the Erongo Region in community activities that would promote development.



The Erongo Development Foundation (EDF) received a substantial donation from Rössing on the same day that a Memorandum of Understanding (MoU) was signed with the EDF, the Rössing Foundation and Bank Windhoek to deliver affordable finance to micro businesses in the Region. Signing the MoU were (back, fltr) Honourable Samuel Nuuyoma, Governor of the Erongo Region; Mike Leech, MD; Rehabeam Hoveka, Chairman of the Rössing Foundation Board of Trustees; and (front, fltr) Chris Matthee, Divisional Head, Specialist Finance, Bank Windhoek; and Asser Kapere, Chairman of the EDF.



Rössing's direct donations in 2008 amounted to just over N\$6 million, compared with N\$5.8 million in 2007 and N\$8.7 million in 2006 when the mine celebrated 30 years of production. Donations and sponsorships made in the Erongo Region, included amongst others, the following:

- *Project Shine*, a litter clean-up campaign conducted with coastal schools during 2008, received a donation to the value of N\$30,000 as part of our contribution towards raising environmental awareness.
- A donation of N\$100,000 was made to the Erongo House of Safety in Swakopmund. The House of Safety serves as a haven to many under-priviledged children. It is one of the projects of the Erongo Development Fund.
- We donated equipment to the value of N\$300,000 to the Namibian Police in the Erongo Region. The equipment will be used in Government initiatives aimed at effective policing in the Erongo Region and strengthening the public—Police partnership in efforts to combat crime effectively. This was done in line with our commitment to the safety of businesses, employees and families in the Region.

• Employees have often highlighted the unsightly picture of broken glass along the main road between Arandis and Swakopmund, as well as plastic bags that are blown into the surrounding areas. The *Wopaleka* Cleaning Campaign (from an *Oshiwambo* word meaning "clean up") was born out of this concern. The campaign saw the private sector, local residents, mine employees and contractors, local authorities, and community groups coming together to improve the vista of our ecologically fragile desert landscape. One contractor made N\$20,000 available to the campaign, along with branded items. It is envisaged that this will become an annual project supported by the mine.

The annual Rössing Marathon has become a big social event for the Swakopmund community. It includes a fun walk in support of the Cancer Association of Namibia.

• The Ministry of Gender Equality and Child Welfare received furniture worth N\$9,000 that was declared redundant on site. The Ministry also received travel bags and T-shirts to the value of N\$15,500 to use during their outreach campaigns and for distribution to children who could not be with their families during the 2008 festive season.

• The Breast Cancer Awareness Programme hosted by our peer educators received support to the tune of N\$2,766.

• Financial support worth N\$17,560 was provided to a community-based sports club. The club works with youth from previously disadvantaged communities in Swakopmund.

• The Namibia Professional Assistants' Association was provided with corporate wear as prizes for their annual Golf Day. Funds raised through this event go towards supporting a disadvantaged student in his or her studies in the field of office administration. The value of the donation was N\$7,800.

• Employees taking part in fundraising activities aimed at supporting community initiatives were assisted by way of paid entry fees for these events and corporate wear. This type of support amounted to N\$4,500.

• We also supported one of the contracted companies on site with their World AIDS Day campaign activities along the Swakopmund–Arandis road. We hired a bus to transport the participants, and provided safety apparel for their campaign. The total value of the sponsorship was N\$4,000.

### Visitors' Programme

Our Visitors' Programme aims to inform the public and specialised groups about our mine operations, the nuclear



industry in general, and the use of uranium as a source of energy. During 2008, a total of 2,600 individuals visited the mine, compared with 1,933 in 2006 and 2,015 in 2007.

General public tours are still conducted on the first and third Fridays of every month. Bookings are taken by the Swakopmund Museum. Visitors pay a fee to the Museum, which we regard as a donation to cover administrative costs. In 2008, the Museum earned about N\$18,000 from these tours. In lieu of a gratis visit to the mine, a number of tour operators and university groups also made donations to the Swakopmund Museum.

In addition to local and international media visits to the mine, we received Namibia's Minister of Health and Social Services, Honourable Dr Richard Kamwi, who was accompanied by the Deputy Director for Public and Environmental Health, Erna Awaseb, and the Environmental Officer in the Ministry's Swakopmund office, Gregory Willemse.

The Minister of Labour and Social Welfare, Honourable Immanuel Ngatjizeko, also visited the mine. He was accompanied by Arandis Regional Councillor, Asser Kapere, and the Mayor of Arandis, Daniel Utapi Muhuura, as well as Government officials. The Mineworkers Union of Namibia's Rössing Branch Executive Chairman, Ismael Kasuto, delivered a message to the Minister on company union relations.



Inspector-General Sebastian Ndeitunga (centre) of the Namibian Police received the donation from Zebra Kasete, General Manager: Corporate Services (right), with Jerome Mutumba, Manager: External Affairs to the left.



A young girl in Grade 5 works hard at her extra Maths class at the new Mathematics and Science learning centre in Arandis, established by the Rössing Foundation.

### Community consultation and engagement

Within the framework of our Social and Environmental Impact Assessment (SEIA), and as part of the activities planned for our Expansion Project, the Arandis, Swakopmund and Walvis Bay communities were engaged in sessions where we shared information on our growth plans. The possible impacts we identified on transport, housing, increased employee numbers, increased demands on water and electricity, together with foreseen impacts on the environment and how best we would mitigate these, were discussed during these sessions, which were well attended.

The feedback received and questions raised were an indication of the interest the communities have in our operations. These sessions also reiterated the value they attached to the growth opportunities made possible by the expansion of our mining activities.

# Environmental stakeholder engagement and education

In 2008, we were involved in interactions with various interested and affected parties who indicated that they wanted to be more well-informed about the health and environmental impacts of uranium mining. These interactions focused on the following:

• The Swakop River Valley community and farmers from plots in the proximity of the mine were involved in stakeholder consultation.

• Earthlife Namibia and the Labour Resource and Research Institute (LaRRI) embarked on a public campaign to inform people about the pros and cons of the uranium industry. To this end, various workshops were held in Arandis, Swakopmund and Windhoek during October 2008. Following the Arandis workshop, a group of about 20 participants visited the mine. Health, safety, environmental and radiation awareness presentations were made to the visitors and they were also taken on a mine tour.

• Our annual bird-watching event was held at the mouth of the Swakopmund River, with 13 high schools participating. Students were assisted by five coastal bird experts who volunteered as guides. In 2008, 26 bird species were identified compared with 34 in 2007.

• The Rössing Biodiversity Action Plan process has seven stages, four of which we completed. These stages involve external and internal biodiversity stakeholder consultations and workshops, and ongoing feedback is being maintained with them.

### The Rössing Foundation

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



Job Tjiho: Director, The Rössing Foundation

The current Board of Trustees consists of Rehabeam Hoveka (Chairman), Job Tjiho (Director), Anne Thandeka Gebhardt, Eliakim Prince Shiimi, Mike Leech, Tom Alweendo, Samuel Nuuyoma, Twapewomaano Kadhikwa, Willem van Rooyen, and Ruth Cloete (Secretary).

The Foundation undertakes a number of activities across a broad spectrum of community development areas. These include local authority support to the town of Arandis, education, health, poverty alleviation, innovation, the environment, and enterprise development. To achieve these corporate social responsibility drives, activities are implemented in collaboration with critical partners such as the Ministry of Education; the Erongo Regional Council; the Ministry of Mines and Energy; the Ministry of Agriculture, Water and Forestry; the Ministry of Environment and Tourism; the US Peace Corps; Voluntary Services Overseas; the University of Namibia; and the Arandis Town Council.

### Education

The Rössing Foundation strategy and input to education rests on a learner-centred educational approach. This is in line with the Ministry of Education's policy, as reflected in the Curriculum for Basic Education. This approach is used to facilitate the learning and teaching process, in preparation for a knowledge-based society.

The Foundation's aim is to improve the quality of teaching and learning through effective teachers in English as the foundation of education, as well as through the development of skills in reading, Mathematics, Science, and Information and Communications Technology (ICT).

At the Ministry of Education's request, the Foundation supports the implementation of the Education and Training Sector Improvement Programme (ETSIP), as envisaged in the achievement of Namibia's 30-year development plan known as *Vision 2030*. By assisting with implementing ETSIP, the Rössing Foundation also indirectly addresses the needs of local industry, in that high-school graduates qualify for employment, or enter tertiary education and training institutions. In 2008, 25 per cent of Grade 12 graduates from the Kolin Foundation Secondary School in Arandis qualified for access to tertiary institutions.

As part of its strategic focus, the Foundation established three Educational Centres in Arandis, Swakopmund and Ondangwa. These centres focus on the effective teaching and learning of English, the development of skills in Mathematics, Science, Libraries, and ICT. During 2008, the centres provided 9,798 learners with educational subjectrelated opportunities. The Foundation's Whole School Development Programme consists of the following interventions:

a school-based teacher support programme;

• project partnerships with the Oshana and Erongo Education Regions were signed and maintained through Steering Groups;

• ten school communities in two Regions were supported in capacity-building in the field of school governance;

• 23 school principals were given the opportunity to improve their school management skills through a twoyear diploma in education offered by the University of Johannesburg;

• 95 teachers were directly supported by the tutor interventions at the ten partner schools;

• after-school development opportunities in Mathematics, Science, Reading, English and ICT reached 5,201 girls and 4,597 boys; and

• scholarships were given to 38 people through the Kolin Fund managed by the Foundation.

# Knowledge and innovation: The Arandis Sustainable Development Project

The town of Arandis, which is located 60km from Swakopmund on the main road to Windhoek, was established in the early 1970s as family accommodation for mine employees. In 1992, Arandis was handed over to the Namibian Government and is currently managed by the Arandis Town Council. At the end of 2005, when the latest demographic survey was done, Arandis had 4,500 residents.

Arandis is still, to a significant degree, economically dependent on the benefits flowing into its economy from Rössing's mining activities. Planning for the long-term sustainability of the community invariably needs to take cognisance of the inevitable closure of the mine sometime in the future, and the associated economic consequences for Arandis and its residents.

It was clear, therefore, that the town's economy needed to become diversified as soon as possible. As a point of departure, a baseline study was commissioned in 2005 to evaluate the town's sustainability. A sustainable livelihood approach was adopted as a result of the study, which also recommended interventions in infrastructure development, human capital development, improved governance and service delivery, and investment. The Rössing Foundation and the mine assist the Arandis Town Council in their bid for socio-economic independence by addressing six key areas, namely:

- Health;
- Education;
- Technical Services;
- Corporate Services, including Local Economic Development;
- Community and Sustainable Development; and
- Finance.

The Arandis Sustainability Development Project (ASDP) was established to ensure the transformation from singular economic reliance on the mining sector to a diversified socio-economic base. The current Project Management Team is made up of the Arandis Town Council, Rössing, and Rössing Foundation representatives.

In 2008 the ASDP achieved the following milestones:

• Water management: Africon, a Windhoek-based engineering company, was contracted in June 2008 to replace the town's fresh-water reticulation system. All auxiliary work on the main sewerage plant has been completed, with work pending for 2009 on the dry beds, grey-water recovery and supply lines.

• **Community service facilities:** A Namibian bank, Bank Windhoek, opened a branch in Arandis.

• Town planning: The subdivision of the remainder of the Arandis town lands into industrial and residential developments was completed, with the Council opting to sell the majority of the plots as unserviced in order to speed up development of the area and to minimise costs to the Council.

• Local economic development: Stakeholder engagement meetings were conducted and informed the process of finalising the Turnaround Strategy, which will complement the Council's town planning initiative.

• **Road to financial independence:** In 2008, more than 60% of revenue recovery was recovered.

• Liaison officer: Approval was obtained to add this post to the staffing structure of the Arandis Town Council. Provision has also been made for it in the budget from the 2009–2010 financial year onwards.

• Mining Museum: A feasibility study with related site identification was completed in May 2008, and the project is proceeding with the involvement of a local architect.

• Finalisation of the high-level ASDP Strategic Plan: In March 2008, the Strategic Plan was completed and subcommittee project leaders were assigned to the six key development focus areas.

• Leadership capacity-building: One of the critical areas in the sustainability of Arandis is to ensure that the town has competent staff to run its affairs efficiently and effectively. Thus the ASDP embarked upon a leadership development programme, which nine managers and supervisors successfully completed.

## Message from the Mayor of Arandis



Daniel Utapi Muhuura, Mayor of Arandis

Four years ago, when I became the Mayor of Arandis, we faced a wide range of challenges to make the town sustainable and independent from Rössing.

Since then we have done a lot of work. We learned valuable lessons and developed various strategic and action plans, all based on solid information gathered during this time.

Today and onwards into the future, we will focus on implementing what we have been working on over the past four years. Now we have a Ten-year Strategic Plan in place, and are in the implementation phase in terms of making Arandis selfsustaining by 2016.

Towards the end of 2008 we established a high-level decisionmaking body known as the Arandis Strategic Committee. It consists of the Arandis Constituency Regional Councillor, Mr Asser Kapere; Rössing's Managing Director, Mr Mike Leech; Rössing's Manager of Corporate Services, Mr Zebra Kasete; the Director of the Rössing Foundation, Mr Job Tjiho; the Town Council's Chief Executive Officer, Ms Florida Husselman; our Technical Manager, Colin Namene; and myself.

We focus on strategic issues, identifying and resolving possible problems that could cause a delay in our sustainability drive. While the Arandis Sustainable Development Project (ASDP) focuses on specific activities within a Five-year Plan that needs to be executed on a weekly or monthly level, the Arandis Strategic Committee concentrates on bigger issues from a holistic perspective.

If the ASDP struggles with a specific activity, like getting a bank to set up a branch in Arandis, the Committee assists on a strategic level to make things happen.

The first results are already visible. Four years ago, we identified the need for a full bank branch and service station for Arandis to enable us to attract meaningful economic investment. Shirley Gawanas, an empowered community member of Arandis, tends to her flourishing crop of oyster mushrooms that are being grown indoors under specially controlled conditions. This project forms part of the Rössing Foundation's initiatives to develop skills and assist with sustainable development within the Arandis community.

• Youth skills development: This initiative commenced as a result of a youth skills assessment undertaken in 2007. A total of 31 young people were trained and became skilled in various vocational fields. Most of them became small-scale entrepreneurs or were employed.

• **Sport and recreation:** Seven sport codes are supported, with a total membership of 197. Events such as the Arandis Sport Weekend have improved the community's social cohesion.

• **Peer Educator Programme:** The Arandis *"Free to Grow"* Peer Educator Programme was launched and implemented. Fourteen peer educators from the community were trained and accredited to facilitate the programme. They in turn trained a total of 533 community members in life skills and financial literacy, as well as addressing changes in attitude and lack of ownership among residents.

Now we have a fully-fledged bank branch, and before the end of 2009 the service station will also be operational.

We also identified the need for the small- and medium-scale enterprises of Arandis to have a place from which they could operate, since most of them were domestically based. We are already busy with the construction of the first phase of an SME park to be completed by the end of April 2009.

A new industrial park is also being constructed. Soon, the first of about 200 new houses will be erected, while we are busy preparing for further extensions of our residential areas.

We took a decision at our last meeting to involve the other mines or exploration companies that are near our town. We invited Valencia and Areva to join us at our next meeting, because we know their input at this strategic level would be vital for achieving our vision of independence.

One must also remember that all of us have learned valuable lessons during the past 30 years, specifically with regard to

providing for the accommodation and other social needs of mine workers. So we are in an ideal position to share those experiences with the new mines in our area. We don't want to repeat the same mistakes. And we can only do that if all of us work together at a strategic level.

I am very positive that the town is on the right track to becoming economically sustainable by 2016. So even after the existing and future mines surrounding Arandis have closed down, we will be an independent town. In the past, the residents didn't regard Arandis as their town – only a place to stay while they worked at Rössing mine.

Now, they are interested in buying houses from the Council and making Arandis their home. We also see many new people coming from outside.

So, systematically, one can see that issues such as dependency and lack of ownership are being resolved. The mindset and attitudes of people are starting to change. Empowered community members tend to their hydroponic vegetable garden, which is part of Rössing Foundation's initiatives in Arandis.

### **Poverty alleviation**

The Rössing Foundation approach is to promote the advancement of the living standards of all the people in Namibia by supporting small-scale miners' initiatives, the Community-based Natural Resource Management (CBNRM) Programme, small- and medium-scale enterprises (SMEs), as well as agriculture projects, in order to significantly contribute towards an increase in household income.

In joint efforts with other stakeholders, the Foundation engages in mobilising rural communities through strengthening their skills and knowledge, building institutional capacity, developing products, adding value, and marketing.

### Agriculture development

The Rössing Foundation, through the ASDP, explored desert agricultural initiatives and commenced piloting vegetable production by using a simplified hydroponic method that is tailored to suit the Arandis situation.

The hydroponic method enables vegetable production with minimal water loss through leaching and evaporation.

This initiative aims to promote intensive agriculture in Arandis in order to create employment, reduce poverty and improve health and nutrition.

There is a cross-fertilisation between community development and formal education programmes as the garden is also being used for science practicals by the local schools' teachers and learners.

Furthermore, the Rössing Foundation promotes agricultural development in the Topnaar community resident in the Kuiseb River area near Walvis Bay. The aim of this initiative is to contribute towards poverty reduction through facilitating the development of viable agricultural projects such as gardening and livestock improvement.

### Small- and medium enterprise development

The Arandis small and medium entrepreneurs' target of 20 units was exceeded by 27, which resulted in supporting and mentoring 47 entrepreneurs through a Windhoek-based consultancy, SME Compete.

### Small-scale miners in the Erongo Region

The Small-scale Miners' Stakeholders Forum, which consists of representatives from Rössing, Basil Read, Major Drilling, Navachab Mine, the Rössing Foundation, the Ministry of Mines and Energy, and the Erongo Regional



Council, continued supporting the Erongo Regional Smallscale Miners' Association in strengthening its leadership and building capacity among its members through training workshops.

### Community-based Natural Resource Management

The Foundation continued its support of the eight conservancies in the Erongo and the north-central Regions. Five communities in the Erongo Region were supported in various ways, especially in capacity-building. Nine craft enterprise groups in the Ohangwena, Omusati, Oshana and Oshikoto Regions were supported by the Foundation, generated an income of N\$266,350.

### Health

As part of the broader work within the Erongo Region, and with due regard to the cumulative impact of the current and upcoming uranium mines in the Region, the Foundation joined hands with the Arandis Town Council to lobby the Government and private health institutions to establish health facilities in the town. The Ministry of Health and Social Services was also lobbied to appoint a social worker to render services to the town's residents. The Foundation supports health interventions by working closely with institutions specialising in health and social issues, including HIV and AIDS, orphans and other vulnerable children, and primary health care. These institutions are the Namibian Parenthood Association, the District AIDS Committee, and Catholic Aids Action.

### Uranium market review

The Rio Tinto Uranium team focuses on the marketing of the uranium produced by Rio Tinto's mines.

"Several years into a price recovery, the market outlook for uranium – and, therefore, for us – remains positive. Existing mined supply continues to lag behind demand, and expectations for new reactor



demand are higher now than at any other time."

Clark Beyer, Managing Director: Rio Tinto Uranium

As a result, primary supply from new mines and the expansion of existing operations are starting to emerge, but will take time to reach the market. In the meantime, the nuclear renaissance is under way and large, experienced suppliers like us are in the best position to benefit from the projected upsurge in demand.

The decline in spot prices that began in August 2007 continued throughout 2008. Financial uncertainty caused by the global credit crisis and variable market sentiment contributed to the continued price downturn. Ux Consulting reported the spot price for  $U_3O_8$  falling from a high of US\$90 per pound at the beginning of 2008 to a low of US\$44 in October, before improving to US\$52 by the end of the year.

The effects of the ongoing global financial crisis have continued to resonate across the world – and the uranium market has not been immune. The collapse of several international banks and the ensuing credit restrictions forced many hedge funds and speculators who were holding significant quantities of physical uranium to liquidate their positions in a falling market. The sudden glut of available material and absence of real demand created a buyers' market and prices subsequently fell.

In contrast, the long-term market – where contract negotiations take place two to three years before the first delivery, and contracts last several years – prices also fell, but not to the same extent. The long-term market price, under which we sell the majority of our production, fell from US\$95 at the beginning of the year to US\$70 by year end. Despite the fall in uranium prices, the average price realised increased in 2008, but continues to lag behind the underlying market price due to the damping effect of a number of long-term contracts signed when the uranium price was considerably lower. These legacy contracts will gradually expire over the next few years and have been replaced by more profitable market-related contracts.

In terms of the market outlook for 2009 and onwards, it is clear that, although prices fell during 2008 and market uncertainty remains, the long-term fundamentals for the uranium market are strong, as supply struggles to meet demand.

A shortage of new primary supply operators (mine production), increasing restrictions on secondary supplies (which currently account for 40% of annual requirements), and growing demand for nuclear fuel, point to sustained higher prices.

Global production is forecast to increase considerably over the next five years, but recent events have emphasised the difficulties of developing new projects. A weaker uranium price, the global credit crisis and, in particular, a lack of funding will restrict the development of many junior operations and force primary producers to reconsider their plans.

The demand for nuclear fuel is set to increase significantly as concerns about climate change issues and GHG emissions, the security of energy supplies, and the increasing costs of fossil fuels encourage a renaissance in nuclear power generation plans on a global scale. Many countries are now re-evaluating their energy policies; and nuclear energy, which is seen by many as a clean, efficient source that produces no greenhouse gas emissions, is becoming increasingly popular. Significant growth is expected from China, Russia, and now India – following the decision by the Nuclear Suppliers Group to allow it access to nuclear fuel supplies, despite not being a signatory to the Nuclear Non-proliferation Treaty.

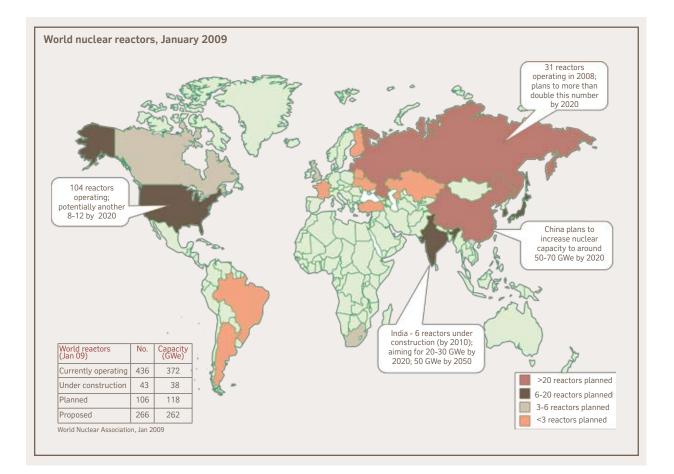
Plans for additional nuclear generation plants in the United States are progressing apace, with several new reactors being proposed or planned, although the ongoing credit crisis could affect the timetable.

In Europe, political opinion has shifted considerably in a very short time, and countries such as Sweden and Germany, which had originally planned to phase out nuclear power, are now re-evaluating its role.

This theme is echoed through south-east Asia, South America, parts of Africa, the Middle East, and even Australia, as governments seek long-term solutions to tomorrow's energy concerns.

Compared with production figures over the past 20 years, Rössing had a record year for uranium sales in 2008, significantly increasing net revenue.

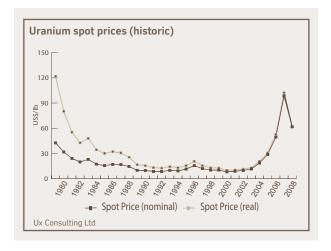
Some of this success can be attributed to prevailing market conditions, but equally important were the strong relationships we have with our long-standing customers.



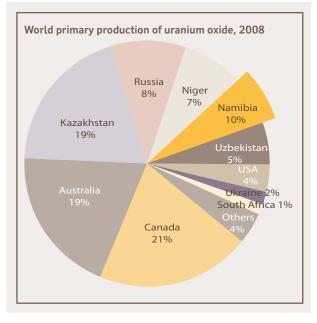
The strength of these relationships, some of which now stretch back over 30 years, have ensured that we are well-placed to optimally meet our customers' requirements.

Despite last year's price decline, the average sales price realised by the marketing team once again increased. We benefited from having strong exposure to the long-term price indicators and also the expiration of some old lowerpriced legacy contracts.

Our exposure to such legacy contracts is now much reduced. Consequently, over the next few years, the



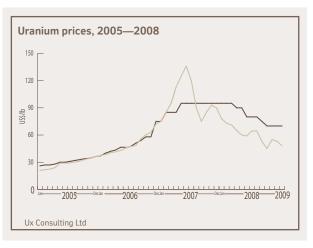




average sales price will reflect the prevailing market prices more accurately.

Although we are committed to seeking new long-term contracts that maintain exposure to future market prices, we also have sufficient downside protection to underpin the long-term investments in extending the mine's life.

In addition, we remain committed to maintaining a diverse international customer base that can provide the greatest total return, while minimising risk and complying strictly with all international safeguard regimes.



### Procurement

Our payments for goods and services amounted to N\$2.3 billion in 2008, of which N\$1.45 billion was paid to our Namibian suppliers. This represents 62 per cent spent in Namibia, 32 per cent in South Africa and 6 per cent with suppliers in the rest of the world.

In line with our commitment to the Erongo Region, we have spent nearly half of our Namibian expenditure in the Region - just more than N\$700 million. Eighty per cent (N\$563 million) of the spent in the Erongo Region was with our suppliers in Swakopmund, 19 per cent (N\$131 million) in Walvis Bay and 1 per cent (N\$8.7 million) in Arandis.

The global financial crisis has had a drastic impact on the sourcing of our major consumables. Some of our critical suppliers closed operations.

Procurement of sulphuric acid remains a critical cost item, and strategic control and management of this commodity remains a priority for us. Supply has been secured for 2009 through great teamwork within Rio Tinto, with reduced prices being agreed upon through skilful negotiation to remain cost-effective.

The price for manganese oxide was not increased in 2008, and the unit price and road transport cost of iron oxide were also successfully negotiated to remain cost-effective.

A constraint experienced in 2008 was the supply of iron oxide, since our preferred supplier collapsed during the fourth quarter of the year and did not recover to full production. However, the sourcing team managed to find a suitable replacement within a week.

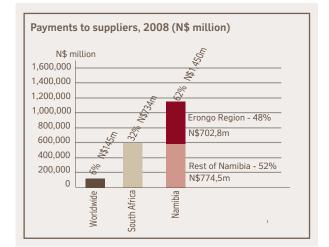
Other success stories within the Procurement Department during 2008 included the following:

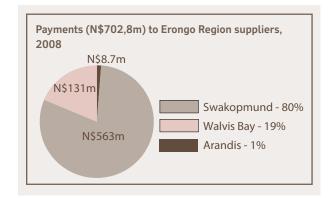
- implementation of a procurement delivery service to all our end users on the mine site to improve efficiency;
- the signing off and implementation of our Procurement Preferential Policy;
- the Namibianisation of safety consumables and clothing; and
- the implementation of 44 improvements in terms of HSE protection measures.

We also made a major contribution to the local community by sourcing Rio Tinto-branded safety clothes from a historically disadvantaged Namibian supplier, Namib Clothing, which is 35% owned by its employees. Rössing's substantial order and its ongoing demand for supplies generate jobs, revenue and other economic spin-offs in the Erongo Region.

The main focus and challenge for 2009 in the current economic environment is to achieve our cost saving target of N\$40 million for the Rio Tinto Group. We can achieve this by partnering with all our suppliers and other stakeholders during these challenging times.

The sourcing strategy and implementation for iron oxide and all major consumables will also be one of our focuses, especially to mitigate possible risks in respect of nondelivery.





One of our haul truck mechanics tightens the bolts on the wheel of one of the newest Komatsu haul trucks.

A3R

Sourcing our safety clothes from a local supplier generates employment, revenue and other economic spin-offs.

KOMATSU

Our Value Added Statement provided below reflects the wealth created by Rössing through the sale of our uranium oxide, payment for services and supplies, taxes to the Government and investments made in the community in which we operate.

Overall, Rössing Uranium is financially sound and continues to generate wealth in Namibia.

In 2008, total wealth of N\$2.8 billion was created. The company incurred expenses of nearly N\$1 billion related to the Government of Namibia and State Owned Enterprises.

N\$1.45 billion was paid to Namibian suppliers during 2008, some of which is reflected in the Statement.

Profit after tax for the year was N\$1.23 billion compared to N\$979 million in 2007.

The company paid N\$650 million tax during 2008, compared to N\$502 million that was paid in 2007.

Employment creation increased significantly over the past two years, as indicated in the rise in employment costs from N\$310 million in 2007 to N\$455 million in 2008.

Other investment in Namibia via the Rössing Foundation increased more than fourfold from N\$15 million two years ago, to nearly N\$60 million in 2008.

	<b>2008</b> 4,492,442	2007	2006	2005	2004
	4,492,442				2004
		3,396,282	1,554,766	926,346	750,332
	1,667,719	1,255,211	647,944	459,053	585,585
	2,824,723	2,141,070	906,822	467,293	164,747
	24,103	31,050	1,844	3,287	3,064
	2,848,826	2,172,120	908,666	470,580	167,811
1	455,241	310,766	233,787	190,205	89,516
	342,441	140,176	-	-	-
	7,128	6,469	6,395	4,917	1,571
2	934,719	736,924	300,816	141,025	55,667
	59,181	48,787	15,103	1,827	-
3	1,050,116	928,998	352,565	132,606	21,057
	2,848,826	2,172,120	908,666	470,580	167,811
	455,241	310,766	233,787	190,205	89,516
	381,748	253,990	188,334	150,989	50,123
	73,493	56,776	45,454	39,216	39,393
	934,719	736,924	300,816	141,025	55,667
			-	-	-
			22,395	26,592	16,339
	95,727	84,531	66,939	65,991	60,952
	1,192	1,374	1,793	1,923	2,092
	762,608	598,454	184,609	25,142	(44,716)
	573,677	502,277	158,096	-	27
	188,930	96,177	26,513	25,142	(44,742)
	3,786	4,258	2,791	2,213	2,294
	33,017	21,689	22,289	19,165	18,706
	1,050,116	928,998	352,565	132,606	21,057
	168,880	94,893	48,848	98,672	96,413
	881,236	834,105	303,717	33,934	(75,356)
	610.067	405 330	272 667	25.97/	10,346
	2	24,103           2,848,826           1         455,241           342,441         7,128           2         934,719           59,181         3           3         1,050,116           2,848,826         2           934,719         381,748           73,493         73,493           934,719         11,943           2         934,719           11,943         26,447           95,727         1,192           762,608         573,677           188,930         3,786           33,017         1,050,116           1,050,116         1,050,116           1,050,116         1,050,116	24,103         31,050           2,848,826         2,172,120           1         455,241         310,766           342,441         140,176           7,128         6,469           2         934,719         736,924           59,181         48,787           3         1,050,116         928,998           2         934,719         736,924           3         1,050,116         928,998           2         848,826         2,172,120           455,241         310,766         381,748           3         1,050,116         928,998           381,748         253,990         381,748           455,241         310,766         381,748           934,719         736,924         11,943           4,724         26,447         21,893           95,727         84,531         11,943           4,724         26,6447         21,893           95,727         84,531         1,192           1,192         1,374         502,277           188,930         96,177         502,277           188,930         96,177         502,277           188,930         96,177	24,103         31,050         1,844           2,848,826         2,172,120         908,666           1         455,241         310,766         233,787           342,441         140,176         -           7,128         6,469         6,395           2         934,719         736,924         300,816           59,181         48,787         15,103           3         1,050,116         928,998         352,565           2,848,826         2,172,120         908,666           455,241         310,766         233,787           455,241         310,766         233,787           381,748         253,990         188,334           73,493         56,776         45,454           381,748         253,990         188,334           73,493         56,776         45,454           411,943         4,724         -           26,447         21,893         22,395           95,727         84,531         66,939           1,192         1,374         1,793           95,73,677         502,277         158,096           188,930         96,177         26,513           3,786         4,25	24,103         31,050         1,844         3,287           2,848,826         2,172,120         908,666         470,580           1         455,241         310,766         233,787         190,205           342,441         140,176         -         -           7,128         6,469         6,395         4,917           2         934,719         736,924         300,816         141,025           59,181         48,787         15,103         1,827           3         1,050,116         928,998         352,565         132,606           2,848,826         2,172,120         908,666         470,580           455,241         310,766         233,787         190,205           381,748         253,990         188,334         150,989           73,493         56,776         45,454         39,216           11,943         4,724         -         -           934,719         736,924         300,816         141,025           11,943         4,724         -         -           26,447         21,893         22,395         26,592           95,727         84,531         66,939         65,991           1,192<

nmental and asset resource stewards

Since we recognise that our business activities have an impact on the environment in which we operate, we aim to minimise this impact.

Through various environmental programmes, identified not only by us but also through stakeholder engagement, areas of continuous improvement have been identified.

### Environmental resource stewardship

An important mechanism to monitor environmental resource stewardship is the International Organisation for Standardisation (ISO) 14001:2004, which specifies requirements for an environmental management system to enable organisations to develop and implement environmental policy and manage their interaction with the environment.

Adoption of this standard implies a constant commitment on our part to improve our environmental monitoring and environmental performance efficiency.

We were again successful in maintaining ISO 14001 certification.

The 2008 audit was conducted by Det Norske Veritas (DNV), the global certification body appointed by Rio Tinto, for the first time.



"Namibia has been blessed with an abundance of mineral resources and a breathtaking, but highly sensitive, natural environment. The Ministry of Mines and Energy is committed

to the development of both for the benefit of the Namibian people, guided by the conviction that this is possible if sound scientific principles are applied."

Dr Gabi Schneider, Director: Geological Survey of Namibia, Ministry of Mines and Energy

### Climate change

Climate change continues to be a hot topic of discussion worldwide. At Rössing, we forged ahead with our Climate Change Action Plans for 2007–2009.

A Climate Change Communications Plan, implemented throughout the mine, aims to:

• raise the profile of the climate change issue, and its importance to society, Rio Tinto and Rössing;

• inform every employee and contractor of the effects of climate change and what they can do to contribute to the climate change solution;

• provide management, operational, technical, engineering and environmental staff with a fundamental understanding of the climate change issues facing Rössing through training programmes;

• raise awareness of the standards and guidelines that aim to address climate change on-site; and

• get employees, contractors and relevant stakeholders actively involved and informed through sharing information and by other means to meet our energy usage and GHG emissions reduction targets.

Another strategic activity was the Climate Change Risk Assessment. Its purpose was to identify priority areas for action within our business from three areas of risk opportunity, namely actions required for the life-of-mine to manage weather-related climate and opportunities; risks from the production process; and market related climate risks.

The output of this risk assessment will be used to inform, review and update our Climate Change Action Plan.

### Energy usage and GHG emissions

In the absence of Namibian legislation on climate change on the local level, we voluntarily quantify and report our GHG emissions. Rio Tinto also requires this from an international perspective.

In 2008, our energy usage was 140.9 megajoules per tonne (MJ/t) of ore processed. This was above the annual target of 117 MJ/t of ore processed set to conform to the predetermined Rio Tinto targets.

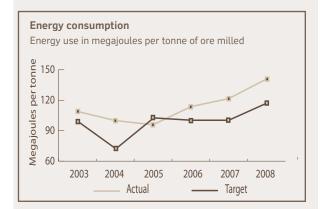
Our CO<sub>2</sub> emission per unit of production was lower than the previous year, and near target due to the record of 4,108 tonnes of uranium oxide having been produced, as well as good grade throughput in the Processing Plant. The GHG emission intensity was 54.2 tonnes of CO<sub>2</sub> equivalent (CO<sub>2</sub>-e) per tonne of uranium oxide (U<sub>3</sub>O<sub>8</sub>) produced, with the target being 51.6 t CO<sub>2</sub>-e/t of U<sub>3</sub>O<sub>8</sub> produced.

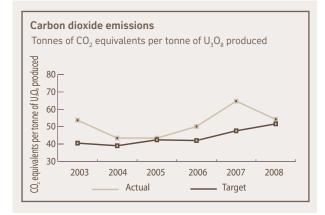
In as early as 2007, we recognised that our 2008 targets would not be met because the life-of-mine extension had been approved. Many factors have contributed to not meeting our targets, but it is predominantly due to the following:

- An increase in the mine's fleet as additional equipment was purchased and put into operation.
- The pit has deepened and narrowed significantly in the last few years and it takes longer and uses more fuel to get from pit bottom to ground level; also, manoeuvring haul trucks with large turning circles becomes more difficult the narrower the pit bottom gets.

• Increased stripping of overburden and waste due to mine expansion.

New climate change targets for 2009–2013 were developed to replace those that had served up to the end of 2008. Accordingly, the targets for 2009 are 21.9 MJ/t material hauled, 47.2 MJ/t of ore milled, and GHG equivalent emission intensity of  $43.9 \text{ t CO}_2$ -e/t U<sub>3</sub>O<sub>8</sub>.





### Land use and rehabilitation

Early in the year, the Social and Environmental Impact Assessment and Management Plan for three of the mine's expansion projects was submitted to Namibia's Ministry of Environment and Tourism, whereupon the Ministry issued us with an environmental clearance certificate.

These projects include the building of a radiometric ore sorting plant, the mining of a small satellite ore body known as SK4 about 1km to the east of our current open pit, and the building of a sulphur-burning sulphuric acid plant.

Rössing's land use inventory, which was compiled during 2007 from detailed geohydrological, archaeological, biodiversity and visual impact studies, was used during 2008 to plan future land use at the mine.

The planned expansion and production increase at the mine, considering new methods of uranium extraction such as heap leaching, also require an expansion of the associated waste storage facilities. In order to consider the environmental constraints during the identification of currently undisturbed sites for the new waste storage facilities, decision-making considered environmental land use aspects on par with technical aspects. The premise of "given the constraints on space, we need to find the optimum arrangement to limit impact on undisturbed ground" was used during site selection.

Land disturbance during 2008 amounted to a total of 45ha compared with 10ha in 2007. Use of new land was related to construction of roads (7ha), exploration drilling (3ha), extension of the open pit (9ha), stockpiles (5ha) and waste rock dumps (21ha). The total area impacted by the mine was 2,440ha at the end of 2008.

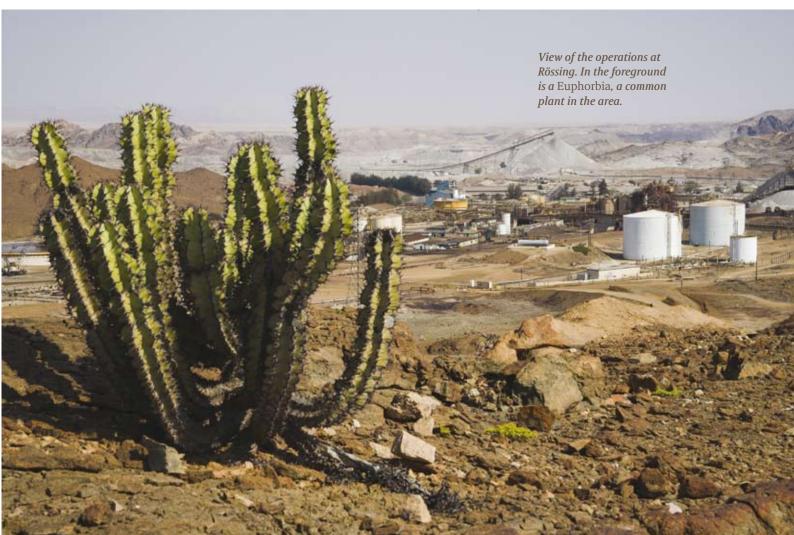
"In areas where conflicting land uses prevail – for example, industry and mining versus tourism and conservation – or where localised impacts of many small



developments may add up to a large, cumulative impact, a strategic approach is called for. Thus, environmental assessments should not only look at individual developments in isolation, but need to put this into the broader context of regional and national, longterm, sustainable development goals and integrate the impacts of planned developments in the surrounding areas. Such assessments not only prevent long-term, irreversible damage to the environment, but can also be powerful tools to guide the planning of supplementary infrastructure in a more coordinated manner. A land use plan for the areas affected by a mine, such as the one in the process of development at Rössing, is an important tool to plan future developments and extensions with the least environmental impact."

### Dr Antje Burke, Environmental Consultant, EnviroScience

Because most previously disturbed ground away from Rössing's operational area had already been rehabilitated in the past, no further rehabilitation work was carried out during 2008.



### Water use

The mine's use of fresh water in 2008 was 3.7 million  $m^3$ , or 10,048  $m^3$ /day, while the operating plan made provision for 3.5 million  $m^3$  or 9,590  $m^3$ /day. Water performance for 2008, therefore, was higher than expected at a rate of 0.29  $m^3$ /t of ore milled, against a target of 0.26  $m^3$ /t of ore milled.

The Processing Plant and the associated tailings disposal operations consume most of the water at the mine. Tailings – which are the remaining crushed and milled ore rock from which uranium is extracted – are pumped as a mixture of sand, fines and water to the tailings facility. The water forms a pond on the tailings facility, and from there it is recovered for reuse in the mills.

Although our water demand depends mainly on the tonnage of ore milled, the demand can be reduced with the implementation of water-savings projects. Various projects that were evaluated in 2008 to reduce fresh water demand

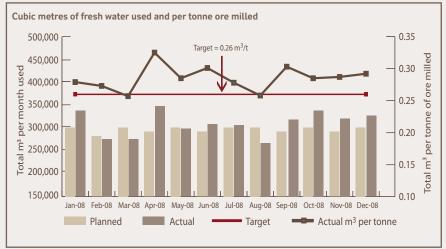
by 0.7 million m<sup>3</sup> per year will be implemented in 2009. These will include the installation of mechanical gland seals on certain slurry pumps, which will save gland-seal water and upgrade the recycled water collection systems.

The predicted fresh water demand for 2009 has been set at 3.2 million m<sup>3</sup>, based on the implementation of the watersaving projects mentioned above. The planned mine extensions will, however, require additional dust suppression, which could decrease savings realised to 0.3 million m<sup>3</sup> per year.



The efficient supply of fresh water continues to be a concern, especially taking cognisance of the cumulative effect of the uranium boom.

The consumption of fresh water by bulk users and the status of aquifers countrywide are continuously monitored by the Namibia Water Corporation Ltd (NamWater) and the Ministry of Agriculture, Water and Forestry's Department of Water Affairs (DWA). The results of these monitoring exercises are provided to bulk users and Basin Management Committees. All bulk users are required to conserve groundwater resources by sharing information and promoting water demand management and/or sea water desalination. We are an active member of the Basin Management Committees and continue to share our experience in reducing fresh water consumption.



# Message from the Chamber of Mines of Namibia



Dr Wotan Swiegers, Principal Advisor, Health and Environment, Erongo Regional Office, Chamber of Mines of Namibia With the renewed interest in nuclear energy as one of the cleanest alternative energy sources, Namibia is geared to benefit from its extensive deposits of low-grade uranium and is now regarded as a region of global importance for this energy resource.

The 'uranium rush' has resulted in unprecedented exploration and mining activities in the Erongo Region. It is clear that these activities could

have a considerable effect on the natural environment as well as a cumulative impact on water and energy requirements, transportation, housing, schooling, and medical services. The potential migration of job seekers to the Region may also create public health and social issues. On top of these pressures, some of the activity is occurring in the Namib Naukluft Park and the West Coast Recreation Area – both of which are sought-after national and international tourist destinations.

For the uranium industry to operate sustainably in the Region, these issues have to be addressed. In response to the growth of the country's uranium industry, Rössing Uranium Limited – a founding member of the Chamber of Mines of Namibia and pioneer of uranium mining in the Region – and the new Langer Heinrich Uranium Mine have championed the need for the Chamber to develop minimum standards for uranium exploration and mining activities, and occupational health and environmental management in Namibia.

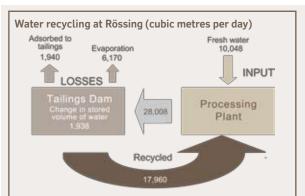
Measures to address the cumulative socio-economic impacts of mining and future mine closure cannot be successful if adopted by one mining company only. Successful measures require a multi-stakeholder forum to establish guidelines for social and community engagement, since any single company's unsustainable practices or actions can negatively impact the entire industry.

### Saline water use and quality

The impact of mining effluents on the water quality of neighbouring areas, especially the Khan and Swakop Rivers, continued to be a public concern.

The DWA and the Ministry of Mines and Energy's Directorate of Geological Survey are in the process of arranging an independent sampling exercise to establish the baseline water quality. The survey will cover monitoring boreholes close to and in the river courses. Each mine located near a river has or will have its own water quality monitoring programme, and will report its analysis results to the DWA, whose task it is to protect people and the environment from any contamination.

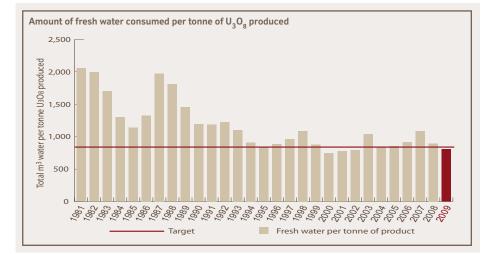
The mines in the vicinity of the Khan and Swakop Rivers are also currently extracting saline groundwater from them for industrial purposes, or have earmarked them for such abstraction.



The figures are for 2008, in units of cubic metres per day. Fresh water is added to recycled water at the Processing Plant, where it is used in the production process of uranium oxide. After the uranium is extracted from the crushed and milled ore, the water and tailings are pumped to the Tailings Dam. Some water is lost due to evaporation and storage within the tailings material. However, more than 62 per cent of the waste water pumped to the Tailings Dam is recovered and returned to the Processing Plant. The addition of fresh water to the process is determined by the extent of water lost to evaporation and adsorption.

### However, excessive

pumping might reduce the availability of water to the farming area along the lower reaches of the Swakop. The monitoring network mentioned above will, therefore, measure water levels in the two rivers to ensure fair usage of the available saline water.



Recognising this danger, Rössing, partnered by Langer Heinrich, proactively led the way through establishing the Uranium Stewardship Committee (USC), a subcommittee of the Chamber of Mines. The USC's primary mandate is to ensure that the country's booming uranium mining sector is able to expand and thrive safely and efficiently. This includes establishing an environment of 'policy certainty', supporting efforts to develop a stable investment climate, and helping develop purposededicated regulatory and compliance arrangements.

The Chamber works closely with the Government to address health and environmental issues by reviewing what is already in place, implementing new measures where necessary, and evaluating the effectiveness of updated intervention strategies.

The implementation of Minimum Environmental and Occupational Health Standards and the initiation of a Strategic Environmental Assessment (SEA) of the Erongo Region were identified as fundamental steps. The SEA is already under way, and will be translated into a Strategic Environmental Plan that will provide scientifically backed insights to assist the Government in managing the uranium industry responsibly. As a developing country, Namibia faces the major challenges of poverty, unemployment, a growing demand for energy, decreased life expectancy, and about 100,000 orphans that need education, health and housing. Namibia must act on these challenges now – and, consequently, it does not have the luxury of keeping its natural mineral resources tucked away in the Namib.

However, this is no reason for the industry to live by anything but the highest standards of environmental and radiation safety management. Ensuring that, worldwide, Namibia continues to be held in high regard for the manner in which it mines its uranium and the standard of its health and environmental management must be a significant driving force behind all uranium-related activities.

Only then will Namibia be able to sustainably sell its uranium on the world market and support its domestic development.

As one of the major electricity consumers in Namibia, it is essential that we use energy optimally.

Two Komatsu haul trucks move slowly out of the open pit with their loads of uranium-bearing ore.

# Environmental and asset resource stewardship

### **External incidents report**

In June 2008, a train that transported acid from the port of Walvis Bay to the mine was hit by a truck at one of the rail crossings outside the port, derailing the two locomotives as well as the first acid tanker.

There were no injuries or spills.

At national carrier TransNamib's request, a Rössing team stepped in to help protect and empty the derailed acid tanker so it could be moved safely. Before work commenced at the scene a full risk assessment and options analysis were carried out.

### **Closure planning**

After the major update of the closure plan in 2005 in order to prepare for closure in 2009, the mine is now planning for expansion beyond 2026. Hence, in 2008, only a financial update of the previous plan was attempted.

The total closure cost projected for the mine in 2008 terms stands at just over N\$896 million. This includes retrenchment and training costs, demolition and tailings rehabilitation, and long-term seepage control and monitoring costs.

The provision for closure in the independent Rössing Environmental Rehabilitation Trust Fund stood at N\$100 million at the end of 2008, and will be increased during the coming years to provide fully for the time of mine closure.

### Asset use and resource stewardship

### Power efficiency

Using energy optimally not only helps to reduce the impact of climate change, but also lessens the shortfall in regional electricity supply. Furthermore, the emphasis on alternative energy in all our operations will intensify in the years to come.

A Power Efficiency Department was established in 2008 to oversee electrical supply and energy efficiency. The Department's key responsibilities are to ensure and optimise electricity consumption by tracking and optimising system efficiencies.

A constant and stable power supply is one of the critical risks to mining. During 2008, operations in Namibia experienced a stable power supply, which was not the case with Rio Tinto's operations in neighbouring countries.

The increasing cost of electricity and the risk of interruption necessitated a review of all operational methodologies and technologies. Communication channels were established to determine the electricity supply risk as well as devise benchmarking energy audits in the operations.

With cash preservation measures during 2009, even more focus will be put on improving system efficiencies in order to lower operating costs. This will be achieved by focusing on detailed energy efficiency studies and implementations in order to improve on electricity consumption. Further projects and studies will include demand-side management, alternative energy sources, and self-generation options. We will also increase our existing back-up generation facilities by installing an additional generation capacity of 15 MVA to provide for the risk of supply interruptions.

### Mining

In 2008 we focused on expansion and growth, since the reason for our existence is to ensure continued uranium production in order to satisfy long-term uranium supply contracts with our global customers.

While waste stripping continued, ore mining concentrated on the eastern sections of the pit. The waste rock removed increased from 21.4 million tonnes in 2007, to 33.9 million tonnes in 2008.

Close to 70 people were recruited during 2008, bringing the Mine Operations Department staff complement to just over 460.

The Department's safety performance in 2008 was similar to its performance in 2007, and with the workforce having increased during 2008, much still has to be done to achieve zero injuries.

A highlight in 2008 was that training initiatives for operators were enhanced by the preparation of a dedicated training area and the use of three retired 730E trucks. This will greatly contribute to improved safety performance.

Other significant safety-related initiatives embarked upon included fitting the haul truck fleet with three-point safety belts and rerouting hydraulic pipes to reduce the risk of fires on the trucks.

New earthmoving equipment introduced during 2008 included ten 730E Komatsu haul trucks, two Pit Viper drills, one PC5500 diesel shovel, two 777 water trucks, and a new diesel-powered motivator, which delivers electricity to equipment such as shovels when these are moved in the pit.

The contractor, Basil Read, expanded its operations in the Phase III mining area with a contract extension to the end of 2009. This contractor now has close to 350 people on site.

The most important focus for 2009 will be to improve safety performance by achieving zero lost-time injuries and medical treatment cases. Specific emphasis will once again be given to dust control in the open pit with the introduction of more water sources and an additional water truck for dust suppression.

Other focus areas for 2009 include the development of the final limits and ramp intersections in the Phase II mining area, while increasing shovel output.

Ramping up the mining output from 45 million to 68 million tonnes while supplying the planned grade and calcium carbonate (calc) to the Processing Plant will be a major challenge, but we are confident that it will be achieved.

## This year our production output was the highest in the past 20 years.

### Processing

The Processing Department's responsibility is to extract the uranium from the mined rock, produce uranium oxide, and securely pack and ship it to our customers for further processing.

A total of 12.8 million tonnes of ore were processed in 2008, slightly more than the 12.6 million tonnes in 2007.

In comparison with output over the past 20 years, we produced a record 4,108 tonnes of uranium oxide, significantly up from 3,046 tonnes the previous year. The target of 4,004 tonnes for the year was, therefore, exceeded. The last time that 4,000 tonnes of uranium oxide was produced, was 20 years ago, in 1988.

The best-ever daily production of 23.2 tonnes was achieved in September 2008, when the daily target of 11 tonnes was exceeded by more than 200 per cent – a major achievement for the mine, especially since it was done safely.



Even though we succeeded in increasing our annual output by 25%, we remain committed to our safety motto, "Safety comes first, then production".

Producing uranium oxide more cheaply to improve efficiency is a constant challenge, and during 2008 it was a key focus area for the Processing plant. We saw high grades of ore throughput sustained at the plant, with good leach extraction. One of the aspects that we will continue to focus on is to extract the maximum uranium from the ore at all times. During most months of 2008, leach extraction had improved.

The *transfer* is the uranium that we extract from the ore at the leach plant. Prior to 2008, we had never transferred more than 16 tonnes of uranium per day on consecutive days. This changed in the middle of the year, when we transferred more than 16 tonnes on five consecutive days.

Despite numerous challenges at this plant, we have gradually improved transfer and even exceeded the daily targets by high margins – the result of a combination of high grade of ore with high throughput.

We also continued upgrading the outdated electrical systems in the Processing Plant.

Considerable progress was made this year in terms of recruiting graduate metallurgists, chemists and sectional operators to deal with the various sections' challenges. Reorganising the processing structure is one of the key drivers currently being reviewed in order to add value to the department's operations.



### Exploration

Historically, our mine lease has been under-explored compared with the levels of exploration around other world-class ore bodies, and this presents opportunities in what is known to be a prospective region for the discovery of uranium resources.

The Exploration Department was established in March 2008 to complete the resource pre-feasibility study at the SK ore body, and to conduct a near-mine (Brownfields) exploration programme over our mine lease area.

During 2008, significant advances were made in developing the technical capabilities of the geologists in the exploration team, and setting up the foundations to enable the execution of a modern and effective exploration programme.

These foundations will lead to value adding opportunities being realised in 2009 in an exploration programme that is scaled to meet our short- and long-term growth objectives.

The Exploration Department, including our contractor, Major Drilling, achieved 414 days free of lost-time injuries up to the end of 2008, bringing the 12-month rolling loss-time injury frequency rate to zero and the 12-month rolling all-injury frequency rate to 0.74. The main factors contributing to this positive performance include:

• phasing out the old Longyear 44 drill rigs and introducing newer, safer CS14 drill rigs;

• training drilling crews and supervisors;

• focusing on leading indicators, especially through safety interactions, pre-task risk assessments, and a positive reporting culture; and

• committed safety leadership and strong, effective communication of our safety beliefs and goals.

Repeating this exemplary performance in 2009 will be challenging, and will require a commitment from all employees and contractors to use the safety tools available, and to continuously identify areas for improvement.

At SK, some 39,680 metre of diamond and reverse circulation drilling were completed in 2008. This drilling was ramped up to record production of 10,000 metre in August, before being scaled back as the programme neared completion. Logistical issues around water supply and steep terrain requiring dozed tracks for access had to be overcome to allow this level of production – which was achieved concurrently with the improvements in HSE management and performance. Mapping of the entire SK prospect at a scale of 1:2,500 was also completed, and significant advances were made in our mineralogical understanding of the ore body. Ore characterisation studies were initiated to assess the processing behaviour of the ore, using our current leach extraction processes.

A programme of mine lease mapping and structural interpretation was launched in 2008, with the objective of rapidly constructing a geological map of the wider mine lease area. The map will provide:

• an improved understanding of the regional geological controls on the locus of known significant tonnage ore bodies within the mine lease (primarily SJ, SK and SH);

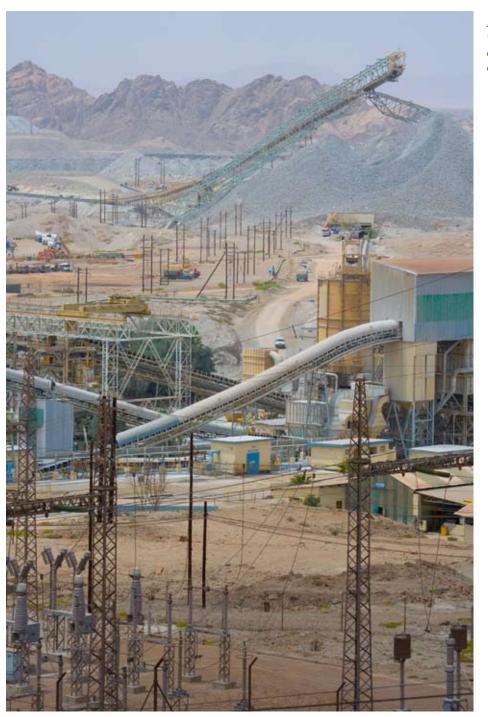
• a framework for regional structural interpretation and new target generation; and

• the geological context for ranking both historical and new target areas.

Excellent progress has been made to date with the compilation of historical mapping and mapping of numerous control traverses. This work will continue in 2009 with the addition of new data sets and more fieldwork.

Exploration activities will be scaled back in 2009 in line with business requirements, but will continue to seek value opportunities and additional uranium resources for delivering growth to the business.

Critical areas will include maintaining and continuing the improvements in HSE management, maintaining high levels of production from our drill crews, and managing the throughput of samples and drill cores in the core yard and through the laboratory.



Mining activity at Rössing with a view of the coarse ore stockpile and the fine crushing plant.

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A blast in progress on the northwestern side of the open pit, observed from "Hill Jim", one of the viewing points.

### **Development Projects**

2008 saw the implementation of a Strategic Production Planning process which focuses on what the mine can deliver under various productivity and economic assumptions. This, together with the creation of the new Development Projects Department, will expedite the evaluation and approval of major and strategic projects.

In 2009, the focus will be on the Heap Leach Project, which shows the greatest potential for our expansion objectives. The plan is to conduct a feasibility study to support the construction of a new heap leach processing facility as a means of treating previously uneconomical ore and lowering the overall operating cost.

The feasibility study of a new on-site acid plant was concluded at the end of 2008 with the decision to defer this project until expansion is approved that will require additional acid to make the project more viable.

### Engineering

Rio Tinto embarked upon an "Improving Performance Together" (IPT) programme as a way to improve performance within all business units.

The four focus areas identified at the programme launch were mining, processing, asset management, and marketing. The phased rolling-out of this programme throughout Rio Tinto operations then followed. We requested and were granted resources from Rio Tinto's Technology and Innovation Department to roll out the Asset Management Improvement (AMI) portion of the IPT programme, which we completed in February 2008.

AMI covers aspects of how machinery and equipment should be maintained and operated. Good practices were learnt and applied, performance tracked, and corrective measures implemented on an ongoing basis. Tracking of AMI performance was facilitated by the introduction and roll-out of Rio Tinto's business solution, the ABS.

There has been a steady improvement in the way we manage our assets. This culminated in a major achievement when we reached our global target from September 2008 onwards. This was a team effort amongst various role players, namely the maintainers, operators, stores personnel, procurement officers, finance staff and contractors associated with asset management.

Some significant improvements that can be attributed to AMI are as follows:

- The durations of rod mill re-lines have been reduced.
- The reliability of the plant and, thus, the ability to handle planned production targets have improved.
- Discipline in managing assets and the way resources are used have been enhanced.

Achieving nearly three million losttime injury-free hours in October was a major milestone.

> Mine employees direct a Marion rope shovel that is being moved out of the open pit in preparation for a blast.

### **Engineering projects**

The challenge for 2008 was to establish a project team that could define and launch the implementation of a large number of projects within the shortest time possible. This team consisted of various sections, including Project Management, Design, Project Support and Construction Supervision.

Six engineers were appointed, while two students are currently accommodated to undergo their practical training with us.

Project management and control procedures are being developed to ensure proper project programming, execution and financial control.

The following projects were undertaken during 2008, and will continue into 2009:

• Heap leaching was identified as one of the options to expand our production. The major advantages of heap leaching technology include the possibility to reduce operating costs, and to treat ore that is not currently economically viable to be processed within the existing tank leach plant. Finalisation of the mine plan and mine schedule is of critical importance to the project as this will confirm the types and quantities of ore available to be treated in the heap leach plant. Heap leaching also requires a lower capital start-up cost, and could be used in the development of a process for new ore bodies.

• The design and construction of a Heap Leach Pilot Plant started during 2008. The construction of the civil, mechanical and electrical portions of this project is scheduled to be completed by the end of July 2009. The stacking of two 25,000-tonne pilot heaps will start in August 2009, utilising results from the column test programme.

• A column test facility to carry out test work in support of heap leaching was designed and constructed in-house. The first tests started towards the end of 2008. The bulk of the test work is scheduled to be completed by the end of July 2009.

• The Fine Crushing Plant upgrade project was awarded to Matomo Projects during 2008. Most of the design and fabrication work was completed, and the first installations began towards the end of 2008. Some delays occurred during the design phase due to this being a near-mine (Brownfields) project. All measurements had to be confirmed on site, making sure that any modification that had been made during the past 30 years of operation was taken into account. The majority of the installations are planned for 2009, and will be executed on module days when the plant is stopped for routine maintenance, which means production will not be affected. • A project to reduce dust emissions at the Fine Crushing Plant was approved, and the contract was awarded to Bateman Engineering Technologies. The execution phase of this project will take approximately 18 months, while project completion is envisaged during 2010.

• Six generators were procured as a result of the possible energy shortage in the Erongo Region to act as back-up during periods of short supply. The installation of these generators is planned for early 2009.

• Various projects were identified to increase the health and safety aspects of the acid transport infrastructure from the port at Walvis Bay to the plant. The upgrades to the acid-loading facilities at the port have started, and installation will be finalised as soon as the conversions to all rail tankers have been completed. This is envisaged to be in early 2009. Procurement of an acid-loading arm to reduce the current risks when offloading acid from ships was approved for 2009, as was the expansion of acid storage facilities on site.

• Various near-mine projects like the replacement of the Delkor resin screens, replacement of the SX fire protection system, upgrading of all electrical substations, and replacement of the drum filter at Final Product Recovery are ongoing, and will be completed during 2009. The major challenges to all these issues are their integration with the existing plant, taking modifications made over the past 30 years into consideration while limiting down time to planned module days.

The challenge for 2009 is to achieve the goals set in 2008 with regard to the execution of processing plant upgrade projects as well as reaching longterm expansion goals with the limited funds available. Other challenges include recruitment and retention of engineers and competent project and construction management resources.

The current economic climate is actually seen as beneficial since this creates the opportunity to capitalise on the availability of resources like engineering, manufacturing and construction skills.

### **Business improvement**

The Aligning Business System (ABS) program is a Rio Tinto business improvement initiative to establish leading global business processes. The program aims to build common ways of working via a single business system throughout Rio Tinto, thus increasing efficiency and effectiveness.

A key enabler of much of this improvement, the ABS program, is a standard set of Rio Tinto business processes based on SAP software.

The ABS provides all connected Rio Tinto businesses with the best ICT platform that the Group can offer in terms of quality and cost. Rio Tinto's business processes include a wide range of activities like payroll, HSE, human resources, maintenance planning, and paying suppliers.

The year under review saw the first phase of the ABS successfully implemented at Rössing.

The Business Improvement Department, established in 2007, focused on introducing ways to embed the process of participation and empowerment throughout Rössing. Our strategic goals were aligned with the operational plan, and new targets for 2009 and for 2010–2013 were set.

The Balanced Scorecard concept was introduced in 2008. The *Balanced Scorecard* is a strategic planning and management system that is used extensively in business worldwide to align business activities to the vision and strategy of an organisation, improving internal and external communications, and monitoring the performance of the organisation against its strategic goals.

### **Board of Directors**

The governance policies and procedures of Rio Tinto, our holding company, form the foundation of our own corporate governance practices. An independent Board of Directors is accountable to our stakeholders for the achievement of our implied and stated business objectives and those of our controlled entities.



Rehabeam Hoveka Chairperson of the Rössing Board of Directors

The Board of Directors are constituted as follows:

- Non-executive Chairperson: RR Hoveka;
- Managing Director: MD Leech;

• Executive Directors: PD Carlson (Chief Financial Officer); WJ van Rooyen (GM Operations); EA Genis (GM Engineering and Projects); ZK Kasete (GM Corporate Services);

• Shareholder Representatives: SN Ashrafizadeh (Iranian Foreign Investment Company); BH Beath (Rio Tinto); PS Chiaro (Rio Tinto); EJ Dorward-King (Rio Tinto); AV Kalantari (Iranian Foreign Investment Company); CJ Kinnell (Rio Tinto); MKK Mhopjeni (Ministry of Mines and Energy);

• Independent Non-executive Directors: EHT Angula; F Fredericks; MM Kapia; VB Moll;

• Non-executive Directors: JS Louw; GP Louw (alternate); JA Bester (IDC of SA);

- Company Secretary: GD Labuschagne; and
- Other Non-directors: CA Asubonten; CV Kauraisa; C Beyer.

Board of Directors and Subcommittee meetings were held quarterly during 2008.

Three Board subcommittees exists which are all chaired by Non-executive Directors. These subcommittees are:

• a sales committee that reviews the pricing policy and market condition assumptions used in the uranium marketing strategy;

• a nominations and remunerations committee that reviews the recruitment, effectiveness and remuneration of Board Members as well as succession planning; and

• an audit committee that reviews the effectiveness of the risk management process and the accuracy of external reporting, is the custodian of the company's standards of business conduct, and ensures compliance with all the relevant laws in the territories where we operates.

We have established a Rössing Environmental Rehabilitation Fund that will be used to rehabilitate the environment as per the legal requirements established by the Government of the Republic of Namibia.

New Directors are given an orientation regarding our businesses, corporate governance and reporting procedures and are updated on such matters on a continuing basis by the Company Secretary.

In addition, Directors are advised with respect to policies and procedures applicable to the Board and subcommittee meetings, and the rights and responsibilities of Directors. Various information reports are sent to the Board in order to keep them informed of Rössing's businesses. Directors are also encouraged to attend appropriate outside continuing education programmes, the costs of which are borne by Rössing.

It is our policy to facilitate communication between stakeholders and other interested parties and the Board of Directors and its various subcommittees. Stakeholders that may raise matters of concern or may wish to communicate with any Director, any committee of the Board or to the Board as a whole, may do so by submitting such communication in writing and sending it by regular mail for the attention of the appropriate party or to the attention of the Chairperson of the Board.

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### Rössing'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 or uranium oxide  $(U_3O_8)$ . It must be processed before it can be used as a fuel for a nuclear reactor where electricity is generated to produce steam and drive a turbine connected to a generator.



1. Drilling and blasting Through drilling, blasting, loading and haulage, the uranium ore at Rössing 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 19mm. 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 4.3m 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 Rotoscoops 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 uraniumbearing solution ('pregnant' solution) overflows from the thickeners while the washed slime is mixed with the sands and pumped to the tailings area.



7. 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.



8. 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 where an acid wash removes the uranium from the beads. The resulting eluate is a purified and more concentrated uranium solution



9. Precipation 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 plant can produce 4,000 tonnes of uranium oxide each year. This step completes Rössing production process.



**13. Conversion** The uranium oxide is converted to uranium hexafluoride crystals. Conversion plants operate commercially in Canada, China, France, the UK, and the USA. (Photo www.areva.com)



**14. Enrichment** This step increases the concentration of the isotope U<sup>235</sup> from its naturally occurring level of 0.7% to higher levels required for nuclear reactors about 3%. (Photo: www.areva.com)



15. Fabrication

Enriched uranium is converted into uranium dioxide, formed into solid cylindrical pellets, sealed in metal fuel rods, and bundled into fuel assemblies. (Photo: www.areva.com)



**16.** Power generation Fuel assemblies are loaded into nuclear reactors where the U<sup>235</sup> fissions, producing heat and steam used to generate electricity. (Photo: www.areva.com)

Performance data table	Target for 2009	Target for 2008	2008	2007	2006	2005	2004
Employees							
Number of employees	1,500	1,300	1,307	1,175	939	860	833
Production							
Uranium oxide produced (tonnes)	4,018	4,004	4,108	3,046	3,617	3,711	3,582
Ore processed ('000 tonnes)	13,253	13,133	12,858	12,613	12,008	12,027	10,972
Waste rock removed ('000 tonnes)	52,236	33,654	33,899	21,396	16,835	7,483	8,139
Ratio of ore processed to waste rock removed	0.25	0.39	0.38	0.59	0.71	1.61	1.35
Health, safety and environment							
No. of personal annual radiation exposures above 20 mSv/annum	0	0	0	0	0	0	0
New cases of pneumoconiosis	0	0	0	1	1	0	1
New cases of dermatitis	0	0	0	0	1	0	0
New cases of hearing loss	0	0	0	0	0	0	0
New cases of chronic bronchitis	0	0	0	0	0	0	0
Lost-time Injury Incident Rate (LTIIR)	0.0	0.0	0.34	0.71	0.35	0.89	0.08
No. of lost-time injuries	0	0	8	9	6	8	1
Source dust levels at Fine Crushing Plant (mg/m <sup>3</sup> )	0,9	1	1,52	0.93	1.49	1.12	1.03
Fresh water consumption ('000 m <sup>3</sup> )	3,200	3,509	3,700	3,300	3,315	3,170	3,003
Fresh water per tonne of ore processed (m <sup>3</sup> /t)	0.26	0.26	0.29	0.26	0.28	0.27	0.27
Ratio of fresh water:total water	0.31	0.32	0.36	0.32	0.35	0.37	0.33
Seepage water collected ('000 m <sup>3</sup> )	3,058	3,194	2,740	3,050	2,736	2,018	2,381
Energy use on site (GJ x 1,000)	1,650	1,537	1,812	1,534	1,366	1,152	1,096
Energy use per tonne of ore processed (MJ/t)	124	117	140.9	121.6	113.7	95.8	100
CO <sub>2</sub> total emission (kt CO <sub>2</sub> equivalent)	252.9	206.6	222.6	197	181.2	161	155.7
CO <sub>2</sub> equivalent emission per tonne of production (t/t uranium oxide)	43,9	51,6	54.2	64.7	50.1	43.4	43.4
Product and customers							
Uranium spot market price (US\$/lb) (average)	No target	No target	61	99	49	29	19

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### Verification of the 2008 Report to Stakeholders

Our vision is to undertake our business with integrity, honesty and fairness at all times, building from a foundation of compliance with relevant laws and regulations and international standards, as well as being in line with various guidelines on best business practices, such as *The way we work*.

Various verification processes are conducted throughout the year on much of our work. In this sense, for example, our financial figures are checked by auditors, which means that financial figures quoted in this report are audited figures. In the same manner, environmental figures are audited annually by an external environmental auditing company. Auditing companies, Government bodies and other institutions that checked the company's practices and figures in 2008, were as follows:

- PricewaterhouseCoopers (external audits)
- Ernst & Young (internal audits)
- Det Norske Veritas (ISO 14001:2004 certification)
- International Atomic Energy Agency (IAEA)
- Metago Environmental Engineers; Aquaterra Consulting; and Steffen, Robertson & Kirsten (SRK) (annual review of tailings and associated environmental aspects)
- Environmental Resources Management Ltd (Rio Tinto operational and business unit assessment)
- Ministry of Labour and Social Welfare Affirmative Action (Employment) Act, 1998 (No. 29 of 1998)
- Ministry of Health and Social Services
- Ministry of Agriculture, Water and Forestry (effluent management)
- Ministry of Mines and Energy, and
- Ministry of Finance.

### List of references

The way we work	Our statement of business practice
The way we buy	Our statement of procurement practice
Human rights guidance	Guidance for managers on implementing the human rights policy in The way we work
Compliance guidance	Programme guidance and guidelines for Group managers on implementing Group
	policies, including those contained in The way we work
Business integrity guidance	Guidance to Group managers implementing the policies on business integrity and political
	involvement set out in The way we work
Corporate governance guidance	Guidance to Group managers on Rio Tinto's corporate governance policies and procedures

Antitrust policy and guidance Our key relationships

Sustainable development

Corporate standards – Safety

Corporate standards – Occupational health

Corporate standards – Environment

Corporate standards - Communities

Corporate standards – Closure

These reference documents are all available electronically from the Rio Tinto website – www.riotinto.com – or in hard copy by writing to Rio Tinto, 5 Aldermanbury Square, London EC2V 7HR, United Kingdom.

# **HSE** Policy

### Health, Safety and Environmental (HSE) Policy

Excellence in HSE management is one of the foundations of Rössing's vision to be a safe, long-term supplier of  $U_3O_8$  to the nuclear power industry around the world. This is in line with our commitment to corporate citizenship, social responsibility and sustainability.

To accomplish this, Rössing will:

• recognise that nothing is more important than the protection of the health and safety of our stakeholders, specifically our employees, contractors, host communities, clients and shareholders;

• commit to operating our business with respect and care for both the local and global environment in order to prevent and mitigate residual pollution;

• be in full compliance with all applicable legislation, standards and requirements;

• seek continual improvement in HSE performance and adopt leading practice where applicable and feasible;

- provide adequate training and resources to employees, contractors and visitors;
- 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 awareness of HSE issues in our host communities;

• regularly review our performance and publicly report our progress, and

• communicate our commitment to this HSE Policy to all our stakeholders and ensure that the Policy is readily available to all our stakeholders.

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

This Policy is complemented by the HSE Strategy, which is also readily available to all our stakeholders.

Managing Director Rössing Uranium Limited

### **Rössing Uranium Limited**

Registered in Namibia No. 70/1591

**General queries** 

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### **Corporate Office**

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