

SUSTAINABLE DEVELOPMENT

MESSAGE FROM THE CHIEF EXECUTIVE

The concept of sustainable development is not, at first glance, one that is easily associated with a mining company as every day we mine a portion of our reserve that is non-renewable. This concept may seem especially foreign for a mining company that is a mid-tier producer (Northam is the fifth largest producer of PGMs in the world) and does not take account of our significant employee base, the role we play in our relatively isolated community or the innovations that we have pioneered.

That we have turned to account our orebody at depth has required perseverance and persistence, and we have done it in such a way as to continually extend the life-of-mine. That is not to say that we have always got it right, but that – in line with the changing environment in our country and in the international mining sector – we have got better at doing things and at reporting them.

Last year, in our first Global Reporting Initiative (GRI) informed sustainability

report we provided a baseline account of our systems, processes and performance which govern our employee and host community relationships, their well being, safety and health, and our impact on the environment – the very resources needed to sustain our business and its continued economic viability.

Continued disclosure of our triple bottom line performance underpins our commitment to good and responsible corporate citizenship, which for us means making a discernible difference to the quality of life of the people and communities touched by our business, within the context especially of local needs and priorities.

Importantly, responsible, sustainable and successful management practices have the added benefit of reducing risk, thereby translating into long term cost benefits and reputational advantage, resulting in a win-win situation for all stakeholders.

A critical area of progress in securing the economic sustainability of the business during the year was the submission of our application to the DME for the conversion of our mining rights to 'new order' mining rights.

In this report we provide some insight into the way in which we manage sustainable development at Northam. For convenience we have included an index to our response to the Mining Charter Scorecard and a GRI Index on pages 55 and 56.

As far as possible we have provided quantitative data for the the 2006 financial year and comparable data for the prior year. Where this is pertinent, forward planning is based on the five and 10 year targets of the Mining Charter.

We have been encouraged during the year by our admission to the JSE's Socially Responsible Investment Index (SRI). We remain committed to making incremental progress in these areas, disclosing both our shortcomings and successes.

Glyn Lewis
Chief Executive
15 September 2006

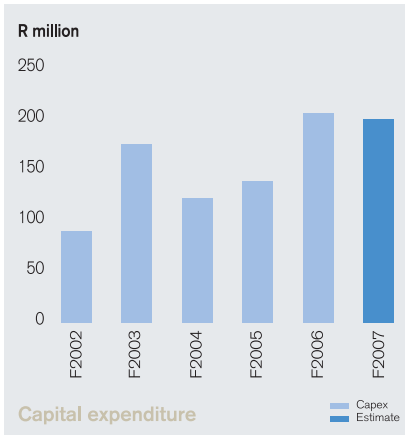
Irrigating spinach plants at the Northam Life Centre



ECONOMIC IMPACTS

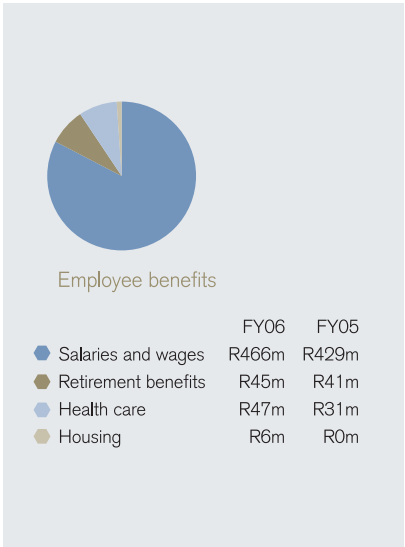
Shaft sinking at Northam began in 1986, with first metal sales in 1993. The company paid its first distributions to shareholders in 1999. To date Northam has returned R2.5 billion to shareholders, as evidence of its track record of paying excess cash to shareholders, after having made provision for growth and operational requirements. In the past record year the total dividend for the year was 280 cps, 300% higher than the 70 cps paid in F2005.

One of Northam's major shareholders is Mvelaphanda Resources, following one of the first empowerment transactions in the South African resources sector.



Northam receives certain rebates from government on its investment in human resource development. The total benefit received for the 2006 financial year was R3.6 million (F2005: R3.2 million) for the following items:

Training benefits	F2006	F2005
Skills grant:	R2.8 million	R1.2 million
Student grants:	R0.8 million	R1.7 million
Tax benefits:	–	R0.3 million



As a mature, single-mine operation Northam consistently invests in capital development, infrastructure and upgrading of equipment, engineering work and on metallurgical plants. The past year saw capital expenditure rising to R211 million (F2005: R139 million).

Year on year the value distributed to employees has grown by 9.7%, reflecting the increases in wages and salaries following the conclusion of the annual 2005 wage negotiations and the higher medical contributions which now include a once off contribution of R13 million as provision of pre-funding trust funds in order to bring all

employees onto the Platinum Health Medical Scheme.

PROCUREMENT

Northam is committed to the transformation of South African society and development of a broad based economy that will be sustainable. Northam's interventions in this area are focused on:

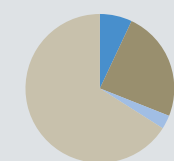
- Local economic development
- Active support of emerging HDSA entrepreneurs
- Preferential access to HDSA-owned or HDSA-empowered vendors.

The company's supplier base is diverse; none of Northam's suppliers represents 10% or more of the company's total procurement expenditure. The progress reported on the company's supplier database has continued, and Northam is now able to report on capital and consumables expenditure from HDSA suppliers.

As at the end of June 2006 total BEE procurement expenditure totaled R267.1 million, representing 33% of the total procurement expenditure of R743.3 million.

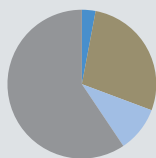
SUSTAINABLE DEVELOPMENT CONTINUED

HDSA PROCUREMENT EXPENDITURE



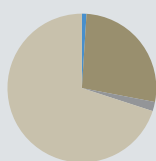
Services

- HDSA owned 7%
- HDSA empowered 24%
- HDSA influenced 3%
- Without HDSA 66%



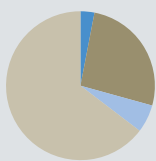
Consumables

- HDSA owned 3%
- HDSA empowered 27%
- HDSA influenced 10%
- Without HDSA 60%



Capital

- HDSA owned 1%
- HDSA empowered 27%
- HDSA influenced 2%
- Without HDSA 70%

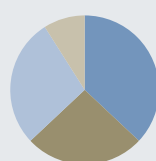


Total

- HDSA owned 4%
- HDSA empowered 26%
- HDSA influenced 6%
- Without HDSA 64%

ADDING VALUE TO OUR PRODUCTS

Northam's precious metals refining partner Heraeus is making good progress in establishing a precious metals refinery in Port Elizabeth in South Africa's Eastern Cape



Revenue by geographic market segment

	FY06	FY05
● Europe	37%	38%
● Japan	26%	28%
● North America	28%	23%
● South Africa	9%	11%

Province. Final metal from the refinery will be available to the adjacent chemical and autocatalyst plants for local downstream beneficiation initiatives.

Northam's metal is currently sold to established customers in North America, Europe and Japan. Revenue by geographic market segment is illustrated in the accompanying graph.

Final drafts of anticipated beneficiation legislation will provide further clarity on targeted levels of beneficiation for mining companies.

CLASSIFICATION FOR HDSA PROCUREMENT

HDSA-owned companies	>50.1%
HDSA-empowered companies	>25.0%
HDSA-influenced companies	5.0% to 25.0%



CASE STUDY: SUPPORTING LOCAL BUSINESS



SUPPORTING LOCAL BUSINESS

In a drive to promote local business and entrepreneurship, Northam has been instrumental in the establishment of a chrome recovery plant at the company's mine, in partnership with a local HDSA company, Northam Chrome Producers (NCP).

The agreement with NCP was concluded in 2005, with construction commencing in June 2005. The chrome plant, which was successfully commissioned in January 2006, currently treats and recovers chrome from the tailings emanating from Northam's UG2 concentrator plant.

In terms of Northam's empowerment strategy, and to secure the sustainability of the project, the following conditions underpin the implementation of the project:

- > A minimum 51% shareholding of HDSAs;
- > No option to dilute any BEE shareholding;
- > Support of employment equity;
- > Skills development and community development.

Northam provided premises for the project on mine property, and further facilitated the establishment of the plant by providing facilities, services, resources and technical and metallurgical advice on the initial test work, and through to the commissioning stage. NCP secured external funding to cover the total

capex of R12 million for the project, while Northam supplies water, electricity and consumables at cost. Northam has also guaranteed the rehabilitation of the area affected by the plant should NCP not be in a position to do so.

NCP currently employs 25 full-time staff members, while a further ten indirect full-time jobs have been created through this initiative. Eighty-five per cent of the employees are HDSAs, with the majority drawn from the surrounding community. Plans are in place to increase the employee complement by about 15% in the next year, along with an anticipated build-up of production volumes. NCP employees are subject to Northam's health, safety and environmental practices, for which Northam also provides training.

The NCP plant produces at a rate of 13 000 tonnes per month and is ramping up to steady state levels of 15 000 tonnes, expected by the end of the first quarter of the new financial year. Two types of chrome are produced; chemical grade chrome used in the production of chemicals, and metallurgical grade chrome used in stainless steel manufacture.

Northam and NCP plan further co-operation in extending training facilities for NCP employees, while NCP is also looking at partnering with Northam's CSI initiatives to create additional meaningful assistance for the surrounding communities.

VALUE ADDED STATEMENT

FOR THE YEAR ENDED 30 JUNE 2006

	Note*	2006 % R000	2005 % R000
Sales revenue	24	2 386 326	1 554 501
Less: Purchase of goods and services in order to operate mine and produce refined metal	12	(695 045)	(672 538)
Value added by operations		96.6 1 691 281	89.4 881 963
Add: Investment income	14	2.2 39 075	3.0 29 269
Net sundry revenue	15	1.2 19 820	7.6 75 367
Total value added		100.0 1 750 176	100.0 986 599
Value distributed			
Employees	12	28.4 497 931	46.0 453 911
Salaries and wages		26.6 465 889	43.5 429 332
Contributions to retirement benefit funds		2.5 44 610	4.2 412 227
Contributions to health-care funds		2.7 46 555	3.1 30 805
Pay-as-you-earn deducted		(3.4) (59 123)	(4.8) (47 453)
Government		24.7 431 910	18.1 177 803
Mining and non-mining tax	16	16.4 287 537	11.2 110 063
Deferred tax	16	1.8 32 334	(0.7) (7 097)
Secondary tax on companies	16	2.7 46 735	2.5 24 603
Royalties		0.4 6 181	0.3 2 781
Pay-as-you-earn deducted from employees		3.4 59 123	4.8 47 453
Providers of capital			
Dividends		21.4 373 880	19.9 196 822
Total value distributed		74.5 1 303 721	84.0 828 536
Retained by company		25.5 446 455	16.0 158 063
Depreciation	12	6.6 114 713	10.5 103 646
Decommissioning provision to meet statutory obligations	12	0.1 2 384	0.3 2 726
Retained income		18.8 329 358	5.2 51 691
		100.0 1 750 176	100.0 986 599

*Notes to the annual financial statements



The NCP chrome plant

More than 90% of NCP chrome is exported to China, while the remaining 10% is absorbed by the domestic market. Only six months since commissioning, the NCP plant is already making profits.

SOCIAL IMPACTS

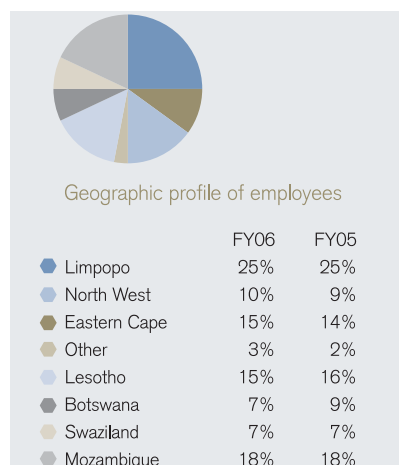
NORTHAM AS AN EMPLOYER

Northam employs a total of 8 473 people (6 889 full time and 1 584 contractors) (2005: 6788 full time and 1 310 contractors). Some 25% of employees are drawn from the Limpopo Province, with the balance from other provinces within South Africa, and also from neighbouring countries within the South African Development Community (SADC). A total of 47% of employees are migrants who originate from rural labour-sending areas and live in mine-provided accommodation. Northam subscribes to the Charter's requirement on non-discrimination against foreign labour, who are recruited through TEBA. These relationships are governed by inter-country agreements such as the corporate permitting process. The company is conscious also of its responsibility to provide employment opportunities in the community where its operation is based.

Northam management engages with traditional authorities in the recruitment catchment areas where appropriately skilled individuals are targeted.

POLICY, PRINCIPLES AND HUMAN RIGHTS

Northam subscribes to the principles of fair employment practices based on equal opportunity in a working environment free of discrimination on



the basis of race, religion, political affiliation, age or disability. The company recognizes employees' rights to freedom of association within the bounds of the laws of the country, collective bargaining agreements and with regard to the rights of others. These principles are incorporated in the company's human resources policy and the code of ethics which is available on the Northam website at www.northam.co.za.

The company operates within the sophisticated South African labour relations regime. Northam is opposed to the practices of child and forced labour, and its employment policies and practices prohibit this. The company is committed to compliance with national labour legislation, which is informed by the South African government's ratification of the ILO conventions.

Relevant legislation

The Labour Relations Act, No 66 of 1995

The Basic Conditions of Employment Act, No 75 of 1997

The Employment Equity Act, No 55 of 1998

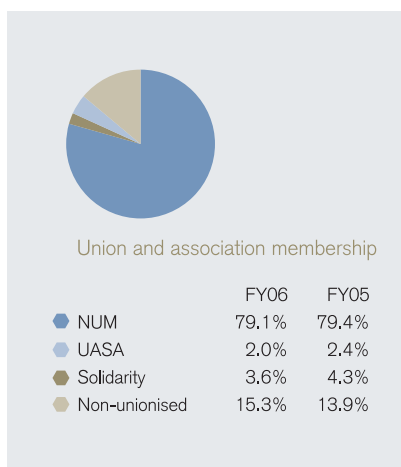
The Minerals and Petroleum Resources Development Act, No 28 of 2003

LABOUR/MANAGEMENT RELATIONS

Northam respects the rights of all employees to freedom of association. Relationships with employee associations and trade unions are regulated by collective bargaining agreements. As is standard practice, unions are required to demonstrate 33.3% representivity within their bargaining units for recognition purposes. The National Union of Mineworkers (NUM) is traditionally the strongest union at Northam, and represents some 79.1% (2005: 79.4%) of the workforce. Other unions are United Association of South Africa (UASA), and Solidarity. Union representatives are an integral part of a number of participative forums eg health and safety, employment equity and housing. Wage increases and other conditions of employment are negotiated on an annual basis.

A management and labour forum meets quarterly to discuss matters related to safety, training, human resources and production. During the year the company made good progress in these areas, securing

SUSTAINABLE DEVELOPMENT CONTINUED



commitment and support from all three representative unions with regard to the various safety initiatives launched at the mine.

Two separate and national COSATU-led stayaways during the year, affecting the entire NUM bargaining unit resulted in two days' lost production.

DISCIPLINE AND GRIEVANCE

Disciplinary procedures and action are fair and lawful, and are regulated

Labour turnover	2006	2005
Number of resignations	199	122
Percentage voluntary labour turnover	2.85	1.79
Number of retrenchments	6	17
Number of dismissals	247	273
Other	148	132
Total percentage labour turnover	8.62	7.96
New engagements	829	612

by South African labour legislation, specifically by the Labour Relations Act. In terms of this legislation and an established appeal process employees are protected against arbitrary employer action. The company's procedure is documented in a code of conduct which is subject to the Code of Good Practice of the Labour Relations Act.

Grievance procedures are available to employees and are communicated in employment contracts, during the

induction process and in the disciplinary code of the employee manual. Furthermore the company's code of ethics (available in print and on the website) encourages employees to use established grievance procedures to alert management to any dissatisfaction or feelings of injustice arising out of their employment. Employees have access also to an employee hotline which secures both anonymity and confidentiality.

Skills training at the Northam Life Centre





The number of woman employed has more than doubled since 2005

DIVERSITY AND OPPORTUNITY

In the context of human resource development The South African Mining Charter Scorecard requires companies to offer employees the opportunity to be functionally literate and numerate by 2005 and to provide training opportunities; to implement career paths and skills development plans for HDSA employees; and to develop systems through which empowerment groups may be mentored.

In terms of its employment policies and practices and in line with the Skills Development and Employment Equity Acts, the company has developed a process to attract appropriately qualified individuals

from HDSA backgrounds, and provides opportunities for them for development and growth.

OPERATIONAL REORGANIZATION

A review of the company's service department competencies during the financial year has resulted in a reorganization of these departments' structures and functions so as to provide optimal support to the company's core mining and metallurgical processes.

The consultative process which followed was informed by the results of an audit of competencies and the identification of areas which could be improved. Employees affected were offered other positions within the organization. Retraining and re-skilling services were provided. The

company also offered counselling and other practical support services for affected employees. A total of eight employees have accepted retrenchment packages as a result of this process.

FUNCTIONAL LITERACY AND NUMERACY

Through its adult basic education and training programme (ABET), established in 1994, Northam Platinum has created ongoing training opportunities and facilities offering all employees, by 2005, the opportunity to be functionally literate and numerate.

Functional literacy is assessed at the ABET centre using National Department of Education tests. An industry-wide panel of examiners, moderated by the

EMPLOYEE PASS RATE (ACTUAL)		
Description of Course		
	F2006	F2005
Breakthrough to literacy	79	102
ABET Level 1	232	202
ABET Level 2	158	125
ABET Level 3	95	75
ABET Level 4	72	0
Total	636	504

SUSTAINABLE DEVELOPMENT CONTINUED

North West Province Department of Education sets examinations for all ABET levels. All assessments and examinations are subject to stringent quality assurance from legislative bodies such as the Mines Qualification Authority (MQA).

The company has implemented a system for assessing employees for ABET. In conjunction with these tests, a learning potential assessment is conducted. These results will be used for the purposes of career planning and to determine fast-tracking potential. Those employees who do not meet ABET level 4 standards are offered the opportunity to attend ABET courses on a part-time basis.

Taking the current training initiatives into account it is anticipated that 55% of the total workforce will be literate and numerate at ABET level 4 in 2010. In addition to the current ABET programmes, Northam

Platinum plans progressively to revise its current minimum education requirements, at recruitment, for lower level occupations to at least ABET level 4.

With the growing demand for ABET, the training centre continues to expand and is staffed by six full time facilitators with tertiary qualifications. Apart from additional classrooms built at the centre, a further 40 computers were installed during the year, bringing the total number to 65, catering for a learner centred education and training approach. Plans are in place for further expansion in the first half of the new financial year. The ABET centre can accommodate 1 000 students per study block and offers daily classes from 06:00 until 20:00 to cater for employees who work shifts.

The promotion of ABET to the workforce by both management and union leadership has not been without

its difficulties. Reasons for this range from a lack of motivation, to the difficulty of travelling to classes, although this has been addressed by offering classes before or after shifts.

During the year:

- > The company installed a system, known as Quest Works, which is used to generate assessments internally for examinations;
- > The curriculum was extended to include a mining overview course, life orientation and environmental awareness modules.

CAREER PATHS, SKILLS DEVELOPMENT AND MENTORING FOR HDSA EMPLOYEES

Employees are given the opportunity, within the performance management system, to discuss their career development with their line managers. This is formally documented, with employees' training needs based on potential

Vegetable farming at the Northam Life Centre





Community members at the Northam Centre being trained to make rubber hand guards for underground use

career progression paths. The company maintains a formal documented succession plan based on the business plan requirements and the Employment Equity (EE) targets that take into account the expected changes in demographic profile of the organization in line with the commitments made in the Social and Labour plan and the Employment Equity Act.

PROMOTING LEARNING AND DEVELOPMENT

Learnerships are currently provided for 124 employees (2005: 59) in the disciplines of engineering, metallurgy and junior/middle management. This number is expected to grow by 3% per annum.

Through the company-sponsored bursary and study assistance scheme, a total of 41 employees are

currently studying at tertiary institutions mainly in the disciplines of mining and metallurgy.

EMPLOYMENT EQUITY

In respect of Employment Equity, the scorecard poses the following questions:

- > Has the company published its employment equity plan and reported on its annual progress in meeting that plan?
- > Has the company established a plan to achieve a target for HDSA participation in management of 40% within five years and is it implementing the plan?
- > Has the company identified a talent pool and is it fast-tracking it?
- > Has the company established a plan to achieve the target for

women's participation in mining of 10% within the five years and is the plan being implemented?

Northam submits employment equity progress reports to the Department of Labour on an annual basis, as required by section 22 of the Employment Equity Act. The employment equity forum, comprising management and union representatives, continues to play an enabling role in ensuring the success of the company's workplace skills development plans and affirmative action measures in terms of the Act. The forum monitors departmental progress against targets and if necessary recommends remedial action. Ultimately, the employment equity strategy is seen as a business imperative.

ABET: key data	2006	2005
No of learners enrolled	636	504
Pass rate (all levels)	53%	61%
Expenditure	R1 546 563	R1 037 918
Functional literacy and numeracy (%)	33	36
Number of facilitators	6	5
Classrooms	6	5
Computers	65	25

SUSTAINABLE DEVELOPMENT CONTINUED

Seen against specific annual targets, Northam is optimistic that the requirement of 40% HDSA representivity in management positions by 2010 is achievable through its training initiatives and bursary programmes, and by way of external recruitment of qualified staff. Nevertheless, this must be seen against the background of tough competition for skills, and the company's single operation status, which limits opportunities for further growth.

TALENT POOL MANAGEMENT

In light of the general scarcity of skills and relevant experience and in order to meet the HDSA management targets, Northam Platinum has identified a HDSA talent pool and has detailed skills development requirements for identified individuals as well as departmental succession plans.

These candidates are developed through job rotation and fast-track learning programmes and Northam Platinum also assists promising

young employees in obtaining tertiary qualifications in technical, scientific and commercial disciplines.

WOMEN PARTICIPATION

Among the challenges being addressed within the mining industry is the historical gender imbalance in the industry as determined by past legislation. In order to promote the employment of women in the industry, the Mining Charter has identified a target of 10% representation of women by 2009 – so to improve the quality of women's lives and those of their dependents. Companies are encouraged to give preference to women with regard to preferential procurement expenditure. (Further information on Northam's procurement expenditure may be found in the Economic Impacts section of this report on page 27).

At the end of the 2006 financial year women represented 2.8% of the total employee complement. Although this is still well below the 10% target, year

on year the number of women employed by the company has more than doubled from 103 in 2005 to 208 in 2006. Similar increases are planned in the years ahead in order to reach this target. The company has embarked on a local recruitment initiative in the surrounding communities. Women currently in service are provided with opportunities for management and skills development.

In respect of mine community and rural development, the scorecard poses the following questions:

Has the company co-operated in the formulation of integrated development plans (IDP) and is the company co-operating with government in the implementation of these plans for communities where mining takes place and for communities in major labour-sending areas?

Has there been an effort on the side of the company to engage the

Training by occupational level	Total employees	Total training hours	Average training hours/person
Senior management	36	864	24
Middle management	137	4 932	36
Technical/production	5 571	265 976	48
Engineering/maintenance	962	34 632	36
Administration	257	2 056	8
TOTAL	6 963	308 460	44



local mine community and major labour-sending area communities?

INTEGRATED DEVELOPMENT PLANS AND ITS IMPLEMENTATION IN THE MINING COMMUNITY AND MAJOR LABOUR SENDING AREAS.

In order to align Northam Platinum's current Corporate Social Investment (CSI) projects and initiatives with the respective municipalities' Integrated Development Plan (IDPs), Northam regularly meets with representatives of Limpopo Province, Waterberg Municipal District and Thabazimbi Local Municipality.

The development initiatives within these areas set a foundation for economic growth and development targets and highlight certain activities

that the company can adopt to enhance the local economy.

In the area, emphasis is placed on agriculture, mining and tourism for economic growth. Northam Platinum is engaged with other organizations in the implementation of the labour sending municipalities' IDPs. Representatives from the company are also involved with the Limpopo Premier's office in discussions to establish a training farm.

Both the host and labour sending areas target enterprise or business development, to transform the various key economic sectors, while also ensuring that they grow the respective economies. This presents an opportunity for the

mine to facilitate the provision of portable skills in support of SMME development.

The mine's efforts have in the 2006 financial year targeted the following main CSI thrusts:

- > Education
- > Land and housing
- > Health and welfare
- > Community projects
- > Food security
- > Infrastructure

CSI expenditure for 2006 totalled R4.9 million. Plans are in place to increase this allocation annually over the next five years.

Over a number of years Northam has developed constructive and supportive relationships with targeted schools

HDSA EMPLOYEE NUMBERS						
	Actual 2006	2007	2008	Forecast 2009	2010	2011
Senior management	3	3	3	4	4	4
Middle management	6	15	22	28	29	30
Junior management	50	57	68	78	82	83
Total HDSA	59	75	93	110	115	117
Total management	251	280	265	265	265	265
Total management %	24	27	35	42	43	44

SUSTAINABLE DEVELOPMENT CONTINUED

and community projects in the area. Contributions made by the company towards the improvement of school facilities in the neighbouring communities include the building of classrooms, renovating buildings, and the supply of material and equipment.

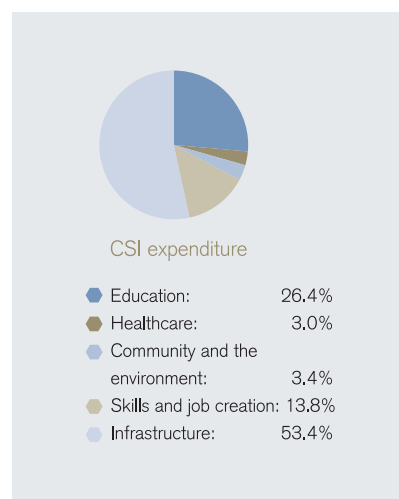
Health services are provided by the company's clinic facilities and the HIV information and learning centre to the broader employee body and the neighbouring community. During the year the company donated a prefabricated structure that is used as a clinic for Chromite village.

Northam Platinum Life Centre, established in 2004, has grown from a small project staffed by volunteers, into a viable and dynamic community centre in the area with a total of 25 staff members – two of whom are funded by the company. The centre provides skills training for women from the local community, who are trained in sewing and handcrafts, with

the intention that once they have completed training they will transfer their knowledge to other women in the community and be in a position to start their own businesses.

The Life Centre also comprises a recycling initiative where local community members are taught to make timber trellising and gates from scrap wood from the mine. Vegetable gardens are planted for food security at the centre, while soup is distributed to Jabulani informal settlement, which is in close proximity to the centre.

During the past financial year Northam contributed some R680 000 to the Life Centre, adding capacity and infrastructure. Since the establishment of the project the vegetable garden has grown from a small plot measuring some 60m² to two hectares. Plans are in place to increase this to three hectares in the next financial year.

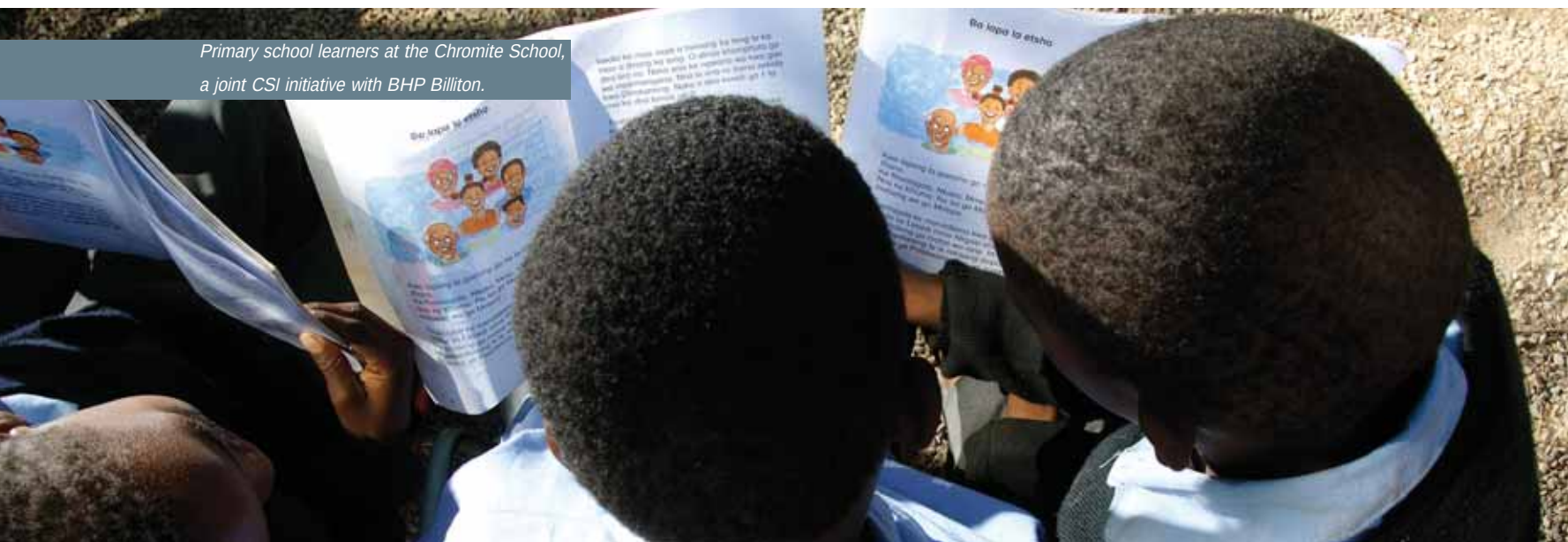


EDUCATION

CHROMITE SCHOOL

The Chromite village is an informal settlement in close proximity to the mine, and has been earmarked by the DME as a priority area for social upliftment. The results of a needs analysis survey in the area have indicated that of the estimated 22 000 people (or 9 000 households) who live in the

Primary school learners at the Chromite School, a joint CSI initiative with BHP Billiton.





settlement, up to 12% of the population is employed by Northam.

Northam has been involved in the area for a number of years, when it first established a clinic in the village – in an effort to make health care more accessible.

With education being an important CSI focus area, Northam followed this up with the renovation of the Chromite Primary School in a joint project with BHP Billiton. Renovations comprised a general upgrade of the buildings and the addition of a computer room. Tiles for a new roof were donated by a local business, Cashbuild.

This project is an excellent example of what can be achieved in remote communities when businesses work in partnership with the authorities, and where joint involvement can really add the critical mass in delivering sustainable and value-adding social upliftment.

NALETSANA SCHOOL

When allocating funding and resources for projects, the Northam CSI committee evaluates their sustainability, the level of community initiative and engagement, buy-in, and the effectiveness of the intervention. The Naletsana School at Koedoeskop is an excellent example of community members

and parents getting involved with a project – when refurbishing classrooms for example, parents provided services to the school and received training in a number of skills areas. For a number of years Northam has provided resources, material and equipment. The company has recently upped its level of support with the construction of an additional classroom to serve as a computer centre, a facility which will be enormously beneficial particularly in this isolated and remote community.

COMPUTER PROJECT

During the year the company established the Northam Platinum Educational Trust, precipitated by non-executive director Michael Beckett, who is donating his director's fees to this fund in order to finance educational facilities and an internet project at five local schools. Northam will also contribute to the fund, by matching Mr Beckett's contributions.

With the frequent lack of library facilities it is hoped that this facility will serve to provide learners with educational material previously provided by school libraries. In the new financial year Northam will assist the schools in upgrading their computer rooms, and equipping and installing the equipment needed to

convert these facilities into appropriately resourced media centres.

At Thabazimbi primary school Northam has already provided support to expand the computer facility, enabling them to add a further ten computers. Northam has also provided facilities at the Frikkie Meyer High School which has expanded its curriculum to include a module on catering.

KAGISO TRUST

The company made a R50 000 contribution to the Kagiso Trust during the year, following the death of Mr Eric Molobi (see page 11).

INFRASTRUCTURE

In partnership with the Limpopo Provincial Government Northam has funded the construction of a 2.46 km stretch of road between Northam and Thabazimbi. The financial contribution made by Northam Platinum to the project was R2.4 million.

In respect of housing and living conditions, the scorecard poses the following questions:

- > For company-provided housing, has the mine (in consultation with stakeholders) established measures for improving the standard of housing – including the upgrading of hostels,

conversion of hostels to family units, and promotion of home ownership options for mine employees? Companies will be required to show what they have done to improve housing, a plan to progress the issue over time, and how the plan is being implemented.

> For company-provided nutrition, has the mine established measures for improving the nutrition of mine employees? Companies will be required to show what they have done to improve nutrition, a plan to progress the issue over time, and how they are implementing the plan

Some significant progress has been made in attempting to de-intensify the company-provided hostel accommodation in the Madiba village. Since the previous reporting period a further 216 employees have taken up the company's living out allowance of R1 000, bringing the total number to 951, an increase of 30%.

The company has concluded the purchase of 380 stands in the Thabazimbi municipal area, specifically in the town of Northam, and has engaged the services of a local BEE compliant contractor to build houses for employees. Some 60 houses are currently being constructed. The balance is planned to be completed by the end of the 2006 calendar year. The company is also engaged with a number of financial institutions to

secure favourable funding mechanisms for employees.

In spite of the impetus to secure more appropriate employee accommodation, the demand for hostel accommodation continues, particularly from the newly employed women recruits. A total of 26 women contractors are resident in the hostel. A drive is under way to secure more appropriate accommodation, and over a period of time to convert the single status hostel accommodation into family units. In keeping with the company's commitment to the Mining Charter regarding the employment of women, the increase in living-out employees is a function of the higher number of women.

Parallel to the company-assisted housing project Northam is also investigating ways of assisting employees in qualifying for government housing subsidies. A task team comprising representatives from the Provincial Department of Housing, the Thabazimbi Local Municipality and Northam Mine is in the process of verifying beneficiaries who qualify for government's first time home-owner subsidies.

Furthermore the mine village has been extended with 40 additional houses/rental units.

NUTRITION

Established nutritional principles and guidelines, available research and the input of a clinical dietician are used to prepare meal plans that

provide adequate nutrition to ensure the well being of the mineworkers.

A weekly menu is drawn up in consultation with a dietician, management and organized labour, taking into account energy and nutritional requirements. This menu is revised on a regular basis, depending on the season. Strict quality control of nutritional intake continues, monitored also by regular visits from dieticians from Platinum Health and by inspectors from the Department of Health. Fresh seasonal fruit is served once a day as part of the breakfast meal. Two cooked vegetables and a fresh salad are provided at each main meal.

The company's induction programme contains a course on nutrition for employees returning from leave and new recruits. Employees who suffer from chronic medical conditions are provided with information about healthy and better nutritional choices.

SAFETY

LEGISLATIVE COMPLIANCE

Safety and health management is governed by compliance with a number of legislative requirements. Northam monitors its compliance and progress by way of self-audits and visits by health and safety inspectors.

MINE HEALTH AND SAFETY LEGISLATION

> South African Mine Health and Safety Act 1996 (MHSA),

- > Basic Conditions of Employment Act 1997,
- > Occupational Health and Safety Act 1993,
- > Compensation for Occupational Injuries and Diseases Act 1993
- > Mineral and Petroleum Resources Development Act 2002

PROGRESS REVIEW

In terms of sections 10 and 11 of the MHSA, Northam introduced a Fall of Ground Management strategy during the year to add further impetus to the drive to reduce fall of ground accidents.

Improvements were effected to the seismic monitoring network. This comprised increasing the number of monitoring sensors underground (now numbering 31) and improving their strategic positioning in order to ensure effective coverage of all working places.

Employees involved with self-propelled mobile machinery were trained and issued with the code of conduct on tramming operations, known as the 'Five Golden Rules of Safe Tramming'.

The Mine Health and Safety Council (MHSC) has set milestones for the elimination of silicosis and noise induced hearing loss (NIHL) in the industry, with incremental targeted milestones (agreed between employers, government and employees) to be reached by December 2008 and again by December 2013. Although silicosis is not prevalent among Northam's workforce (owing to the absence of silica in the mining environment), mineworkers who were previously employed in the gold mining industry may well have been exposed. Northam has responded vigorously to this initiative with an established working group looking after these coordinated efforts. The medical surveillance department, health and

safety representatives and occupational hygienists meet regularly to discuss progress and address shortfalls. Members of the working group also pay visits to the working areas of affected individuals where conditions are monitored and assessed. Individual employees receive counseling and corrective training. Quarterly feedback on progress is submitted to the DME.

RECORDING, NOTIFICATION AND INVESTIGATION OF OCCUPATIONAL ACCIDENTS AND DISEASES

The conventions of the ILO promote the improvement of people's working lives throughout the world. Through the South African government's ratification of all the core ILO conventions, including Convention 176 on safety and health in mines, and Convention 155 on occupational health and safety, government is committed to ensuring that national legislation is in accordance with the principles of the conventions.

Employee housing development at Northam



Northam complies substantially with the ILO Code of Practice on Recording and Notification of Occupational Accidents and Diseases and has systems in place for recording all accidents, classified as lost time (between one and 13 days), reportable (14 days or more) and fatal accidents. Other minor accidents which do not result in injury or any lost time are also recorded. Codes of practice, comprehensive and detailed accident records and investigations are forwarded to the DME as required in terms of legislation. The same practice applies to occupational diseases.

The effective recording, notification and investigation of all occupational accidents, occupational diseases and dangerous occurrences are of utmost importance to Northam Platinum in the drive for continuous improvement in health and safety.

In September 2005, following a fatal accident the DME imposed a section 54(1) of the MSHA ruling on the mine, requiring a cessation of work in a contained area. This was followed by risk assessments in all working places to prevent a similar occurrence.

GOVERNANCE AND REPORTING STRUCTURES

The board SHE committee is ultimately responsible for ensuring compliance with legislation and providing advisory services with regard to health and safety. The committee, comprising three non-executive directors, meets on a quarterly basis.

Safety and health is accorded priority amongst all disciplines and activities. A mine-wide review process of all the support and service functions was initiated during the year, with the first phase focused on the safety and training functions. This initiative, known as 'Operation Excellence' or 'OPEX' has resulted in the safety and training departments being reorganized into a best practice department. OPEX is based on the principles laid down by the ILO and international best practice.

Overall co-ordination of the safety function vests with the best practice manager who reports directly to the general manager. The best practice department is tasked with the overall training and optimization function. Risk management is an integral part of this structure, and the risk management processes are used to drive the revision of standards and updating of training material. Safety officers audit the requirements as defined by the standard procedures and the training of employees as specified by the training material.

A best practice manager, safety co-ordinator, two chief safety officers and six additional safety officers fulfil safety functions across the mine, while safety and training coaches/instructors are involved in cross-auditing working areas for hazard identification. They are supported by a risk and standards coordinator and a risk officer.

In addition to the above, crack squads have been constituted and deployed in

the underground working areas to enforce the adherence of working to standards. This is achieved through a process of coaching and training in the workplace.

A joint health and safety committee, represented by management, employees and unions is responsible for overseeing and reviewing policy, agreeing and implementing strategy and planning safety training in response to requirements and performance. Employee participation in the health and safety initiatives was expanded during the year, with 465 workplace safety representatives appointed to complement the effort of the full time health and safety representatives. Training to improve the performance of the health and safety representatives has borne fruit, and members have demonstrated greater participation in risk assessment processes.

ACCOUNTABILITY

It remains the responsibility of various supervision levels to lead the safety effort in a sustained and consistent manner, establishing goals and demanding accountability for safety performance. In line with the company's firm stance against transgressions of safety standards, a total of 292 safety-related disciplinary actions were taken during the year.

SAFETY PERFORMANCE

Northam regrets to report that five people lost their lives in the reporting period, four of them owing to mining-related accidents.



HEALTH AND SAFETY POLICY

Northam Platinum Limited is a deep level platinum mine, with underground workings between 1 200 and 2 200 metres below surface. Platinum ore is extracted from different reefs, and backfill, packs and elongates are used for support. Hydropower is used to clean stope faces and to power rock drills and mechanical loaders. The ore is treated on surface in the processing plants to release the intrinsic metal values.

To carry out the above mining operations effectively, the health and safety of all employees is of paramount importance and is a business priority for the company in respect of its operations.

The management and employees of Northam Platinum agree and declare that:

- 1 Injuries and accidents can be prevented and health and safety risks can be controlled. We commit ourselves to achieving this.
- 2 We are all equally responsible for implementing health and safety measures. Every employee must take reasonable care to protect his/her own health and safety, and ensure adherence to standards and conditions to provide for a safe working environment without undue risk to the health of any employee. Adherence to health and safety measures and this policy is a condition of employment. Both management

and employees acknowledge that non-adherence will not and must not be tolerated.

- 3 Employees must be trained to identify the hazards associated with their jobs and must report any hazards so as to ensure work can take place in a safe and healthy environment. Employees must use and take proper care of protective equipment.
- 4 Audits are very important to identify sub-standard health and safety practices, conditions and deficiencies, and all the non-compliances must be corrected promptly.
- 5 The health and safety of contractors and suppliers who could be affected by mining operations is equally important.
- 6 This health and safety policy must be adhered to. The joint health and safety committee must review the policy at intervals determined by it in the interests of the company and its stakeholders.

The personal involvement of each and every employee is essential to achieve the successful implementation of this policy. The effort of each employee is worthwhile as it will not only achieve a reduction in injuries, accidents and health and safety risks, but will also improve the quality of life for every employee both at work and in the community.

SUSTAINABLE DEVELOPMENT CONTINUED

Three employees were killed in a tragic blasting accident in February 2006, while another employee died earlier in the year after sustaining injuries in a fall. The company is awaiting the results of an investigation into the cause of death of an employee who died in unexplained circumstances in October last year.

A more positive safety trend is beginning to emerge however, and in May 2006 the mine recorded two million fall of ground fatality free shifts. This achievement was followed by further success in August, after the year end, when Northam recorded one million fatality free shifts.

The number of lost time injuries reported in the year rose to 188 (2005: 113) and the number of reportable injuries increased to 105 (2005: 77). Although falls of ground continue to be the main cause of injuries, there has been a very gratifying reduction in fatalities owing

to falls of ground. The two million fall of ground fatality free shifts recorded in May 2006 reflects the efficacy of a continued strong focus on support standards which are reputed to be of the most stringent amongst South African platinum mines.

The board and management are deeply concerned about any loss of life or injury at work. In the year ahead further robust effort will be devoted to creating a safe working environment on the one hand, and in providing safety training interventions to ensure a continuous awareness on the part of employees about the risks related to the mining environment.

FALL OF GROUND MANAGEMENT

The fall of ground management system, developed and applied to synthesise rock engineering efforts and controls in the process of eliminating falls of ground was introduced in June 2006. This

development is supplementary to and supports Northam's existing thrust in safety. The system will be driven internally by the rock engineering and production departments. It will be linked to the Northam safety management system.

The initiative focuses on five strategic areas:

- > prevention of adverse mining induced local rock mass conditions through mine design, planning and systems, documentation and adherence;
- > protection against local failures through support design, derivation of mining standards, and adherence;
- > fostering an appropriate mindset through education, training and influencing attitudes;
- > monitoring the rock mass response to design, planning and support strategies;
- > from continuous audits of successes and failures, address



MHSC INITIATIVE TO ELIMINATE SILICOSIS AND NIHL		
Industry target	Milestone 2008	Milestone 2013
Zero rate of injuries and fatalities	Achieve constant and continuous improvements	Achieve constant and continuous improvements
Elimination of silicosis (not applicable at Northam – see above)	By Dec 2008, 95% of all exposure measurement results will be below the occupational exposure limit for respirable crystalline silica of 0.1 mg/m ³	No new cases of silicosis will occur amongst previously unexposed individuals
Elimination of noise induced hearing loss NIHL (present noise exposure limit specified in regulation is 85dB(A))	After Dec 2008, the hearing conservation programme implemented by industry must ensure that there is no deterioration in hearing greater than 10% amongst occupationally exposed individuals.	By Dec 2013, the total noise emitted by all equipment installed in any workplace must not exceed a sound pressure level of 110dB(A) at any location in that workplace

knowledge gaps through research and development.

AUDITS

The company makes extensive use of internal audits to monitor its safety systems and procedures. In a drive to achieve best practice, plans are in place to engage the services of an internationally accredited health and safety consultancy to perform an independent audit of the OPEX process and its results, once complete.

The DME's Mine Health and Safety inspectorate conducts periodic inspections of underground and surface working areas. During the past year Northam was subject to two such inspections, in October last year and again, post the financial year end in July.

A mine-wide monthly internal cross audit programme has been implemented where safety standards across sections are compared and evaluated.

OBJECTIVES FOR THE YEAR AHEAD

- > Zero fatalities
- > LTIIR – less than 1.5
- > RIIR – less than 0.72

HEALTH

Platinum Health continues to provide occupational and primary health care and medical services to Northam. Firmly established, with services to Northam stretching over more than two years, Platinum Health has made good progress in improving the systems which provide an interface between the medical station and the mine. This has resulted in better

record keeping, and promotes tighter control and treatment of employees with chronic medical conditions.

Since 2005 the medical staff complement has grown, and now numbers 38 full time staff members (2005: 35) including four doctors, 16 nurses and a full time social worker. During the year 14 additional paramedics were employed by Netcare (which provides emergency response services), and delivery was taken of another emergency response vehicle. A full time social worker, who also renders broader community services at the Northam Life Centre, was employed in June 2006 at the Setaria Village clinic.

Three of the four full time doctors completed advanced life support courses during the year. These developments are in line with the

SUSTAINABLE DEVELOPMENT CONTINUED

ongoing drive to improve emergency care and life support standards are now on a par with those of the American College of Physicians.

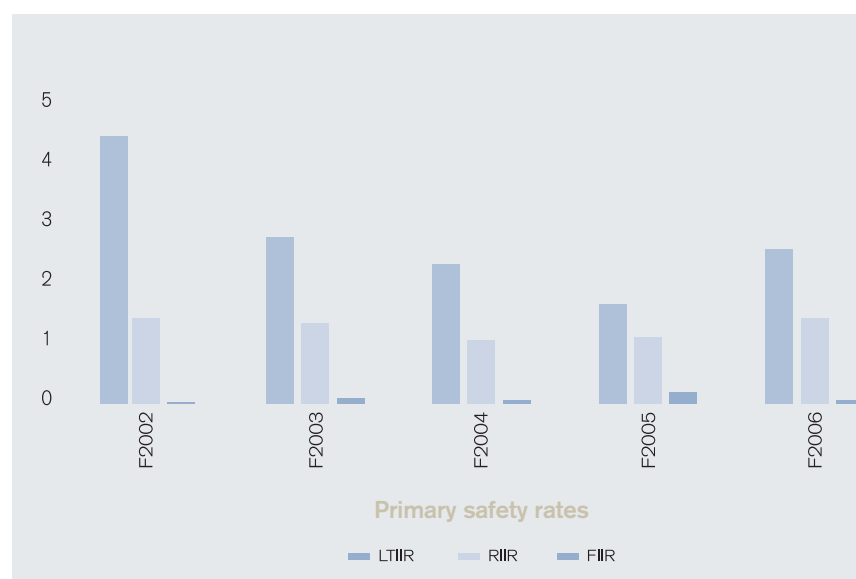
An inspection by the DME in September 2005 identified the need for additional occupational health facilities for medical examinations. As a result a new occupational health wing was built during the year at a cost of R800 000, and is equipped with a new spirometer used for lung function testing. The new centre was opened in April 2006 and has already helped to provide improved privacy for patients, enhances patient flow and service delivery.

PROGRESS REVIEW: MEDICAL SURVEILLANCE

In line with legislative requirements, a number of surveillance exercises are conducted on the mine. These include regular medical

examinations for full time and contractor employees; lead tests; monitoring for noise induced hearing loss (NIHL); heat tolerance testing (HTT) (the virgin rock temperature

at the deepest levels may reach 75°C owing to the high heat gradient of the Bushveld Complex) and monitoring for tuberculosis. Northam performs additional



- > Fatal injury incidence rate (FIIR): injuries resulting in death per 200 000 hours worked
- > Lost time injury incidence rate (LTIIR): injuries resulting in one to 13 days' absence from work per 200 000 hours worked
- > Reportable injury incidence rate (RIIR): injuries resulting in 14 or more days' absence from work per 200 000 hours worked



Underground support

Northam makes extensive use of backfill in underground panels to enhance stability and regional support. It also serves to control ventilation in working areas and reduces transmission of heat from surrounding rock.

surveillance, exceeding legislative requirements, in that it tests water for cholera, traces of salmonella and other dangerous bacteria (owing to the exclusive use of hydro-power). A kitchen and food handlers' survey is conducted on a monthly basis.

- > A total of 10 889 medical examinations were performed during the year (2005: 10 044). These are performed when employees join the mine, at periodic intervals, at the exit stage and before promotions. The medical department has put enormous effort into persuading contractors to report for these examinations. This has been a difficult process, but by the last quarter of the year the situation had improved markedly with good co-operation from contractors.
- > 41 lead tests were performed during the year (2005: 30) on potentially at-risk employees. One case of an employee demonstrating higher than normal permissible lead levels as recommended by SIMRAC, resulted in the affected employee being removed from the smelter environment until his levels had normalized. No long lasting effects have been indicated and the affected employee was able to resume his duties in a fairly short period of time. Owing to this stringent, tightly controlled programme, further exposure which may then become dangerous, is prevented.
- > A total of 78 patient cases (2005: 107) were submitted for

NIHL compensation. The lower number reflects the results of the tighter controls and is evidence of the increased efforts aimed at complying with the DME targets and milestones for eradication of NIHL and silicosis. In the third quarter of the year, an encouraging decline was beginning to manifest, with only six submissions for the period (F2005: 19). Northam remains committed to the DME's drive to eradicate silicosis and NIHL in mining operations, with an established working group looking after these coordinated efforts

- > A monthly average of 43.5 patients (2005: 44.8) received treatment for pulmonary tuberculosis (TB) during the year. A total of 119 patients (2005: 124) were referred for compensation. The Directly Observed Treatment (DOT) programme continues to deliver good results with the number of TB cases remaining constant.
- > No traces of salmonella or other life-threatening bacteria were detected in water tests.
- > The kitchen and food handlers' survey is conducted monthly and has been expanded to local retail outlets. The first local supermarket was inspected in January 2006.
- > The medical department also regularly inspects the first aid training programme, which was found to be appropriate and well managed.

PROGRESS REVIEW: PRIMARY HEALTH CARE

The drive to promote primary health care has showed encouraging signs of success over the year, owing in many cases to the fact that consultations and examinations are not subject to levies. In addition the efficiency of the system has also promoted its popularity.

AUDITS

An audit of the medical surveillance programme by an independent occupational health consultant was highly successful, with a mark of 92% achieved, representing a significant improvement on the previous year's score of 87%.

This audit was followed in February 2006 by the Department of Health's annual licensing inspection, which again resulted in an excellent score, with a commendation from the medical inspector on the standard of the programme. No shortfalls were identified in any areas.

As a self assessment of services rendered TWYG (SA) was engaged to conduct a comprehensive patient satisfaction survey. An excellent score was achieved in every aspect.

HIV/AIDS

HIV/AIDS continues to present a serious challenge for management. It is estimated that a total of 1 800 employees are HIV positive. In the past year an additional 325 new HIV cases were documented at Northam.

CASE STUDY: AURUM



AURUM

The Aurum Institute for Health Research (AURUM) is an independent, medical scientific organisation conducting research into and treating epidemic and other diseases in developing countries, where public health and management capacity challenges place a severe strain on individuals, communities and whole economies. Aurum has earned an international reputation for work in the fields of tuberculosis and HIV/AIDS.

Aurum was officially founded in 1998 as a wholly owned subsidiary of the then AngloGold Limited to gather together into a single institution the large body of ad hoc research, results of treatment and knowledge generated by scientists working in the South African gold mining industry.

The origins of this research and knowledge can be traced back to almost the start of the gold mining industry in South Africa. Local mining corporations,

whose operations were often in remote areas, far from either state or private health services, established their own medical services to care for and attend to the medical needs of their employees. Such services have been run by these companies for close on 100 years.

Upon its founding, Aurum was tasked with the research, surveillance, treatment and management of epidemic, occupational and other diseases that occur among mineworkers and their dependents. Aurum subsequently expanded its activities beyond the needs of the mining industry, especially in response to international demand for quality treatment, research sites and programme development around HIV/AIDS-related projects.

Aurum is acknowledged by funders, companies, non-government organisations and communities as a partner capable of conducting ethical research and delivering reliable results.

Source: Aurum annual report 2005

SUSTAINABLE DEVELOPMENT CONTINUED

To date the company's prevention programme has continued to focus on reducing STIs, peer education and training, and a wellness programme which comprises a voluntary counselling and testing (VCT) service. Good progress has been made in promoting this facility, and, to date more than 600 employees are participating in the wellness programme.

In a move to provide medical aid to all employees, Northam has contributed an amount of R13 million to pre-fund the medical scheme, in compliance with the legislation of the Registrar of Medical Schemes.

This development has opened the way to embark on the next phase of managing the HIV pandemic by providing anti-retroviral treatment (ART) to employees who make use of the diagnostic VCT regimen and wellness programme. ART is now a prescribed minimum benefit of the scheme.

In anticipation of the ART rollout, Northam medical staff have been sent to the AURUM Institute for Health Research for training. The rollout of ART started on 1 July 2006, with more than 30 patients on active ART. This number is expected to grow incrementally, with plans in place to expand the treatment regimen by 30 patients per month.

CUSTOMER HEALTH AND SAFETY

Currently Northam's precious metals are refined by Heraeus in Hanau, Germany. The Heraeus refinery operates within strict EU guidelines which regulate its performance in terms of social and environmental responsibility. Refined metal, sponges, ingots, and powders are packaged in accordance with international standards and each numbered lot of metal to customers is accompanied by a unique Certificate of Assay as issued by Heraeus, with material safety data

sheets made available to customers.

Refined PGMs are sold on a contract basis to a well-established customer base in Japan, North America and Europe. Platinum and palladium are guaranteed to be of London-Zurich Good Delivery Status at a minimum purity level of 99.95%.

Nickel sulphate, a by-product which emanates from the BMR process at Northam's mine site, is sold to a customer base in South Africa, and is accompanied by safety data sheets for the information of transporters, handlers and customers.

No instances of compromising customer health and safety have been reported to Northam.

Northam's marketing department maintains regular weekly contact with its customers, with at least annual customer meetings and hosting customer visits to the company's plants.

Medical examinations	2006	2005
Initial	2 005	1 541
Periodic	6 766	7 029
Exit	1 118	964
Pre-promotion	966	501
Proto teams	34	28

CASE STUDY: REACH



REGISTRATION, EVALUATION AND AUTHORISATION OF CHEMICALS (REACH)

As a company which exports its precious metals output to countries within the European Union (EU), Northam keeps a watching brief on the developments of REACH, or the Registration, Evaluation and Authorisation of Chemicals movement within the EU. REACH proposes to develop a regulatory system that is intended to protect human health and the environment from exposure to dangerous chemicals.

In terms of proposed REACH legislation, importers and manufacturers of chemical and metal products will be required, amongst others, to gather comprehensive information on the properties of substances produced or imported in volumes exceeding one tonne per year. The necessary information will need to be submitted in a registration dossier to the European chemicals agency. The regulations become effective in the 2007 calendar year.

Failure to register will mean the substance cannot be imported to or manufactured in the EU market.

Northam's response to this proposed legislation is on three levels:

- > The company is a member of the International Platinum Association (the IPA – a global association of leading PGM producers and

fabricators dedicated to the promotion of PGMs and fostering a better understanding of the metals' uses) which keeps abreast of developments in the EU, and which has established a lobbying platform for the benefit of the industry.

- > Northam, through its partnership with Heraeus, a highly reputable refinery based in Europe will have access to the capacity and resources to enable it to prepare for and comply with relevant EU regulations.
- > In South Africa Northam is represented by the Chamber of Mines working group which has raised its concerns with the EU and assists local companies to prepare for REACH compliance.

A recent EU study on the impact of REACH on African countries concluded that 'coping with forthcoming chemical legislation in the EU, REACH is not likely to cause any substantial problems to economies in African, Caribbean and Pacific countries.'

The Chamber of Mines is concerned that the legislation could threaten the mining industry through the inclusion of ores, concentrates and minerals. It has suggested that the study does not comprehensively explore the costs of authorization, nor does it consider the economic impact which will be especially felt by smaller entry-level black-owned mining companies that are currently being encouraged by the South African government.

ENVIRONMENTAL IMPACTS

OPERATIONS AND INFRASTRUCTURE

Northam's current mining property covers an area of 5 183 hectares in the Thabazimbi municipal area in South Africa's Limpopo Province. Underground mining activities are conducted via a twin shaft system at depths of between 1 200m – 2 200m below surface. Virgin rock temperatures vary between 45°C and 75°C and have necessitated the extensive use of backfill and hydropower technologies.

Chilled water is sent underground to the workings at 5°C and is used to provide positional cooling and to power the equipment. Hydropower application has been proven to minimise the use of electricity as a result of reduced compressed air consumption and lower overall water consumption leading to lower pumping requirements.

Processing and treatment of ore takes place on surface at two concentrator plants through crushing, milling and flotation in order to separate the waste from the precious minerals which are released in concentrate form. Concentrate is then dried, smelted and converted in the smelter plant, and the gangue is separated from the matte in the furnace. On-mine processing infrastructure includes a base metals removal plant where further leaching, copper electrowinning, pressure acid leaching, iron precipitation, counter

current decantation (CCD), platinum and other PGE precipitation processes further separate the base metal by-products from the PGMs. Enhanced precious metals refining currently takes place at Northam's offshore partner Heraeus's refinery in Hanau, Germany.

As part of the company's drive to promote local business and economic development in the area, surface infrastructure was extended during the 2006 financial year to include a chrome recovery plant, which is independently managed by Northam Chrome Producers (NCP) a local black empowerment company. Northam has provided a guarantee for rehabilitation of the area to the DME in the event of NCP not being in a position to do so.

Northam operates a tailings dam with two compartments, a waste rock dump and a slag retreatment plant and dump. In total these waste disposal facilities cover some 161.4 ha. Tailings are deposited at a rate of 140 000 tons per month with the balance of approximately 60 000 tonnes per month pumped underground as backfill to provide support in underground workings.

The tailings dam is largely vegetated to minimise aesthetic impact and to reduce dust levels. Waste is dumped at a rate of approximately 25 000 tonnes per month. Natural vegetation is currently establishing itself on the old portion of the waste dump.

With the commissioning of the slag

retreatment plant the slag dump has reduced by 2%, contributing to the depletion of a pollution source. The dump is expected to be completely removed within five years. Tailings from the slag plant are mixed with current run of mine tailings and disposed of on the tailings dam.

Leased farm land covers 276 hectares, or 3.6% of the total area. A further area of 808 hectares (10.6% of the total area) is leased to Anglo Platinum and forms part of a game and nature reserve, externally managed and monitored by professional rangers. The leased area covers 14% of total land and 50% remains as natural habitat.

None of the company's activities are situated in IUCN (World Conservation Union) protected area and heritage sites or biosphere reserves. Furthermore, no red data species (the IUCN's system of identifying species at high risk of global extinction) have been identified on or adjacent to mine property by the EIA process associated with the compilation of the EMPR.

LEGISLATIVE COMPLIANCE

In terms of the Minerals and Petroleum Resources Development Act (MPRDA) of 2002, Northam's potential and existing environmental

impacts and management systems are documented in the mine's Environmental Management Programme Report (EMPR), which is approved by the Department of Minerals and Energy (DME) and the Department of Water Affairs and Forestry (DWAf). Compliance with the EMPR is monitored by self-assessment, third party auditors and by the relevant authorities. Self-audits are conducted annually by independent third party specialists.

In 1999 Northam was granted an exemption in terms of Section 21(4)(a)(i) of the now repealed Water Act, No 54 of 1956 by the DWAf, which expired in December 2005. This exemption allowed the mine to discharge excess industrial water subject to compliance with the conditions of the exemption. During the year Northam submitted an application to the DWAf for a water use licence as required in terms of the National Water Act 1998, which will replace the Section 21(4) exemption.

Northam manages its emissions of sulphur dioxide (SO₂) and particulate emissions within permit requirements. Registration in terms of the Atmospheric Pollution Prevention Act No 45 of 1965 has been completed for scheduled processes – the selenium process and the roasting process.

MANAGEMENT AND REPORTING STRUCTURES

Environmental management vests with the engineering manager at Northam. He is assisted in the implementation of strategy, monitoring of processes and systems and proactive management of potential and existing impacts by the Engineering, Metallurgical, Technical Services and Ventilation departments. Quarterly environmental progress reports are submitted to the CEO for review at the quarterly meetings of the safety, health and environment (SHE) board committee which comprises four non-executive directors who are tasked with overseeing overall compliance with legislation in terms of safety, health and environment. The SHE committee makes recommendations to the board on issues relating to these matters.

PERFORMANCE

Northam measures its environmental performance by way of self-assessments and third party audits. The most recent audit, planned for January 2006 was delayed owing to exceptionally high summer rainfall, and was completed in April 2006. A number of improvements in environmental performance were noted in the audit, these pertaining to control over land usage, eradication of alien vegetation, control of waste, water quality management and the management and monitoring of emissions.

WATER MANAGEMENT

Northam's water management strategy is based on the principles of adhering to relevant national legislation; optimizing the use of water from supply authorities to minimise demand; and preventing discharge of polluted industrial water into adjacent watercourses.

Water consumption is monitored at all the strategic consumer points. Residential water usage was calculated to be 26m³ per capita, slightly higher than the 22m³ reported in 2005, but on a par with consumption in areas with a similar demographic profile.

Owing to the new chrome recovery plant, expanded mining activities and additional houses in the village, total water consumption during the period increased by 3.2 to 16.7 million m³. However, the fresh water consumption from Magalies Water was only 13% higher, and still only represents some 12% of the mine's total water usage.

Discharges of water to the nearby Crocodile River and Bierspruit were well controlled during the year, even though the summer rainfalls were protracted and unusually high. Contributing to this was additional stormwater cut off drains. In addition, continuous monitoring devices have been installed at the outflow points of the settling dam, the sewage maturation plant, the evaporation dam and at another watercourse that discharges run-off into the Bierspruit catchment.



Northam leases 808 hectares for conservation purposes.



The biomonitoring programme has revealed that target pH ranges in the Crocodile River were not exceeded, and that dissolved oxygen levels in the Bierspruit and Crocodile Rivers are well below the median guideline value of 5 mg/l. In general, and in terms of longer term trends, there was a discernible improvement in the biotic conditions at the downstream monitoring point in the Crocodile River and the Bierspruit.

EMISSIONS AND PARTICULATES

The mine's objective is to manage its emissions of SO₂ and particulates (dust) to the atmosphere within the required legal parameters. Northam's monitoring system to gauge SO₂ levels comprises 12 sulphation plate monitoring stations on the property and three in the neighbouring towns of Koedoeskop, Northam and Thabazimbi.

Monitoring station results indicate that SO₂ emission levels continue to be well within the South African limit of 50 parts per billion (ppb). The highest value recorded was

13 ppb at a location far from the plant.

The surface tailings dam, a potential source of dust, is progressively vegetated, thereby minimising the mobilization of dust. In the plant dust emissions are reduced through the use of electrostatic precipitators and a Dyna Jet Scrubber.

For the selenium process, off-gases from the roasters are vented to the scrubber where volatilised selenium is removed. Selenium concentrations are regularly measured at the fences.

Currently, four of the mine's eight refrigeration plants use the environmentally acceptable R134A, while the other four use R22. The consumption of refrigerants is carefully monitored to minimise usage.

Some CFCs may still be emitted by domestic appliances, but these are considered to be at low levels and are not monitored.

NON-MINERAL WASTE

Redundant radio-active nuclides used in measuring devices at the process plants are disposed of via

accredited service providers (Secony) at Pelindaba. Quantities are limited to measuring devices only. The use of the nuclides is registered in terms of the Hazardous Substances Act (Act 15 of 1973).

BIODIVERSITY

An objective of the EMP is to minimise any impact on endemic animal and plant life. Anti-poaching measures have been stepped up during the year, with some arrests having been made. It is hoped that these actions will further discourage these activities.

ENVIRONMENTAL AWARENESS

Raising awareness of environmental issues has been upgraded during the year, with an environmental training module developed specifically for mine conditions. Contractor employees have access to these training courses, and plans are in place to put further pressure on contractors specifically with regard to environmental housekeeping.

Recycling initiatives gained some impetus during the year, particularly at

SUSTAINABLE DEVELOPMENT CONTINUED

the mine's community project, the Northam Life Centre, where community members have been using underground waste wood from the salvage yard, and chipping it, with kraal manure to make compost. Re-usable pieces of wood are recycled for further use after washing. The silt removed in the washing process is fed into the concentrator plants for further platinum recovery. Used oil is also recycled.

STAKEHOLDER ENGAGEMENT

Northam continues to pursue good relationships with its neighbours and other stakeholders. However, attendance at open days, which are advertised in local media, has been disappointing. The environmental department is currently considering ways of more proactive engagement with local community members.

CLOSURE LIABILITIES

The Northam Platinum Restoration Trust Fund was established in 1996 to provide for rehabilitation costs. These costs are reviewed annually and are approved by the DME. Rehabilitation and pricing schedules are reviewed by an external consultancy, Thuthuka Project Managers.

PROGRESS AGAINST 2006 TARGETS

- > A contaminant flow and transport model has been developed
- > An environmental training programme has been developed and implemented
- > The amendment to the EMP to reflect a more up to date ground water monitoring system has been delayed owing to the application and submission for a water use licence. The issuing of this licence may affect requirements for a ground water monitoring programme
- > The step-in was constructed on the tailings dam and grassing continues

LOOKING AHEAD

- > Improving the accuracy of the flow and transport model with the six-monthly gathering of new data.
- > Working towards implementation of the ISO14001 management system.

Environmental Impacts		
	2006	2005
Materials produced/accumulated/used	tonnes	
Rock mined (000)	2 644	2 331
Ore milled (000)	2 303	2 150
Coal	5 194	4 978
Grease	46	46
	litres	
Fuels	814 392	812 654
Lubricating and hydraulics oil	274 741	269 564
	Gigawatt hours	
Energy from electricity purchased shafts	418.9	415.7
Energy from electricity purchased plant	127.8	126.8
	000m ³	
Water used for primary industrial activities	14 701	11 667
Potable water from an external source	1 983	1 759
Groundwater used	11 296	8 566
Water recycled in processes	14 701	11 667
	Hectares	
Land under mine charge	5 183	5 183
Land utilized for current mining and related activities	1 242	1 242
Total tailings dam area	149	149
Total waste rock dump area	11.7	11.7