

SOUTH AFRICA

WEST WITS

For the year ended 31 December 2005



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About this report:

AngloGold Ashanti is committed to reporting to a broad range of stakeholders. In addition to its operational and financial performance the company also reports on its economic, social and environmental performance – the so-called triple bottom line.

This country profile forms part of a broader group Report to Society, which is available on the company's website, or from the contacts detailed below.

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Message from Robbie Lazare

Change has been a feature of the past year at the South African operations where the continuing transformation of the country, and the ongoing downsizing in, and uncertainties regarding the future of, the gold mining industry have had an effect on the economies of the surrounding communities. This has been exacerbated in recent times by the prevailing strength of the rand against the US dollar which has resulted in a declining revenue base in rand terms, placing greater pressure on margins at an operational level.

The recent welcome upturn in the gold price should allow the cost management strategies implemented in 2005 to have a positive impact on life-of-mine plans in 2007 which, in turn, should see an improvement for the South African operations and the lives of those affected by those operations.

It is widely understood that the South African gold mining industry is not the force it once was. Our own company employs fewer people and produces less gold at its South African operations than was once the case, but these developments must be put into context.

South Africa remains the most significant gold producer in the world. AngloGold Ashanti's South African operations remain the mainstay of the group, producing 43% of the company's gold in 2005. Of the group's total mineral resources and ore reserves, 49% and 42% respectively are held in this country. The group's capital expenditure of R2.208 billion (\$347 million) in South Africa in 2005 accounts for 48% of the group's total and is a good indicator of the confidence that the management and board of the company have in the long-term viability and importance of these operations.

We reported in 2005 that Savuka mine was reaching the end of its life and that it was planned to close by March 2006. However, the mine underwent a full restructuring at the end of 2005 and this has returned Savuka to profitability. As a result of the restructuring exercise and the higher gold price, the decision to close the mine has been deferred. At Mponeng and TauTona mines sufficient reserves and resources exist to allow operations to continue at current levels for at least the next decade and beyond.

It is essential to plan production going forward; it is also essential to address those issues that are important to our employees and their communities. While we hold the well-known view that the 'business of business is business', we also believe that business has an important role to play – particularly in South Africa – in bringing about economic development, in supporting the welfare of our communities and in driving the transformation of our still-new democracy.

Robbie Lazare
Executive Officer: South Africa

Introduction

In South Africa, AngloGold Ashanti operates seven underground mines which are located in two geographical regions on the Witwatersrand Basin. The mines are:

- Mponeng, Savuka and TauTona which comprise the West Wits operations; and
- Great Noligwa, Kopanang, Tau Lekoa and Moab Khotsong which make up the Vaal River operations.

This report focuses on the West Wits operations which are situated near the town of Carletonville and straddle North West Province and Gauteng. Savuka and TauTona share a processing plant while Mponeng has its own processing plant and a gold plant, which serves the entire West Wits region.



Geology of the Witwatersrand Basin

The Witwatersrand Basin comprises a 6-kilometre-thick sequence of interbedded argillaceous and arenaceous sediments that extend laterally for some 300 kilometres north-east/south-west and 100 kilometres north-west/south-east on the Kaapvaal Craton. The upper portion of the basin, which contains the orebodies, outcrops at its northern extent near Johannesburg.

Further west, south and east the Witwatersrand Basin is overlain by up to 4 kilometres of Archaean, Proterozoic and Mesozoic volcanic and sedimentary rocks. The basin is late Archaean in age and is considered to be around 2.7 to 2.8 billion years old.

Gold occurs in laterally extensive quartz pebble conglomerate horizons or reefs that are generally less than 2 metres thick and are widely considered to represent laterally extensive braided fluvial deposits. Separate fan systems were developed at different entry points and these are preserved as distinct goldfields.

There is still much debate about the origin of the gold mineralisation in the Witwatersrand Basin. Gold was generally considered to have been deposited syngenetically with the conglomerates but there has been a swing to an epigenetic theory of origin.

However, the most fundamental control to the gold distribution in the basin remains the sedimentary features, such as facies variations and channel directions. Gold generally occurs in a native form

associated with pyrite and carbon, with quartz being the main gangue material.

Geology of West Wits

Two reef horizons are exploited at the West Wits operations: the Ventersdorp Contact Reef (VCR), located at the top of the Central Rand Group and the Carbon Leader Reef (CLR) near the base. Owing to non-conformity in the VCR, the separation between the two reefs increases from east to west, from 400 to 900 metres. TauTona and Savuka exploit both reefs while Mponeng only mines the VCR. The structure is relatively simple with rare instances of faults greater than 70 metres.

The CLR consists of one or more conglomerate units and varies from several centimetres to more than 3 metres in thickness. Regionally, the VCR dips at approximately 21°, but may vary between 5° and 50°, accompanied by changes in thickness of the conglomerate units. Where the conglomerate has the attitude of the regional dip, it tends to be thick, well-developed and accompanied by higher gold accumulations. Where the attitude departs significantly from the regional dip, the reef is thin, varying from several centimetres to more than 3 metres in thickness.

Mponeng

Ownership: 100% owned by AngloGold Ashanti

Location: Mponeng lies on the West Wits Line, close to Carletonville in Gauteng and about 65 kilometres from Johannesburg.

Geology: Mponeng is located on the north-western rim of the Witwatersrand Basin. The VCR is a gold-bearing quartz-pebble conglomerate of intermediate grade, capping the last angular Witwatersrand unconformity. A characteristic of this orebody is the pronounced palaeomorphology where thick reef is preserved in the form of terraces separated by thin inter-terrace slope reef.

Mining and processing: Mining at Mponeng is conducted at an average depth of 2,800 metres. The mine operates two vertical hoisting shafts, a sub-shaft and two service shafts. The hoisted ore is milled and smelted at the processing plant which comprises a crusher, mill, carbon-in-pulp (CIP), zinc precipitation and smelting facilities.

Performance in 2005: Gold production increased by 17% to 512,000 ounces. Total cash costs decreased by 13% to \$279 per ounce. In rand terms, total cash costs were exceptionally well maintained at R57,084 per kilogram.

Gross profit adjusted for the effect of non-hedge derivatives rose by 345% to \$49 million. Capital expenditure was \$47 million, a decrease of 24% compared with the amount spent in 2004.

Growth prospects: The Mponeng Shaft Deepening Project involves the deepening of the sub-shaft system and the development of

access tunnels to the VCR horizon on 113, 116 and 120 levels (from 3,172 to 3,372 metres below surface). This project is expected to produce 4.8 million ounces of gold over a period of 13 years until 2016. Total capital expenditure is estimated at \$210 million (at closing 2005 exchange rate), with some \$4.2 million (at the closing 2005 exchange rate) remaining. The average project cash cost over the life of mine is expected to be approximately \$231 per ounce in 2005 real terms. Stopping operations started in May 2004 and good progress continued to be made with this project in 2005.

Outlook: Production at Mponeng in 2006 is expected to decrease to between 495,000 and 515,000 ounces at a total cash cost of between \$278 and \$290 per ounce. Capital expenditure, to be spent mostly on ore reserve development, will be between \$46 and \$48 million.

Mponeng

		2005	2004
Gold production	000oz	512	438
Total cash costs	\$/oz	279	322
Total cash costs	R/kg	57,084	66,437
Total production costs	\$/oz	363	386
Total production costs	R/kg	74,309	79,718
Capital expenditure	\$ million	47	62
Capital expenditure	R million	301	402
Total number of employees		5,574	5,876
Employees		4,897	5,164
Contractors		677	712



TauTona

Ownership: 100% owned by AngloGold Ashanti

Location: TauTona lies on the West Wits Line, close to Carletonville in Gauteng and about 70 kilometres south-west of Johannesburg.

Geology: The vertical separation of the VCR from the CLR varies between about 900 metres and 1,200 metres with the VCR lying above the CLR. The CLR lies on a shallow dipping unconformity and is a laterally continuous, ologomictic, small-medium pebble conglomerate. Channel widths vary from a few centimetres to a little over 1 metre. The CLR is underlain by 10 metres of coarse-grained quartzite with locally discontinuous pebble bands. The VCR exhibits highly erratic morphological and grade characteristics.

* Throughout this report \$ refers to US\$.

Mining and processing: Mining at TauTona takes place at depths ranging from 1,800 to 3,500 metres, where the world's deepest stopping section is found. The mine has a main shaft system as well as a secondary and a tertiary shaft. It is predominantly a longwall operation. The TauTona and Savuka mines share a processing plant which uses conventional milling to crush the ore and a CIP plant. Once carbon has been added to the ore, it is transported to the plant at Mponeng for electro-winning, smelting and final recovery of the gold.

Performance in 2005: Gold production decreased by 12% to 502,000 ounces. Total cash costs in local currency rose by 3% to R52,158 per kilogram. In dollar terms, cash costs increased by 4% to \$256 per ounce.

Gross profit adjusted for the effect of unrealised non-hedge derivatives decreased by 24% to \$44 million. Capital expenditure, at \$74 million, was higher year-on-year, rising by 14%.

Growth prospects: There are three projects:

- **The CLR Shaft Pillar Extraction Project** allows for stoping operations up to the infrastructural zone of influence. Production started in 2004 and the project is expected to produce 545,000 ounces of gold over a period of six years (2004 to 2009), at a capital cost of \$45 million (converted at the 2005 closing exchange rate). Of this, \$38 million has been spent to date. The expected average project cash cost is \$112 per ounce.
- **The VCR Pillar Project** aims to access the pillar areas situated outside the zone of influence (top and eastern block). Production started in 2005 and the project is expected to produce 162,000 ounces of gold over a period of eight years (2005 to 2012), at a capital cost of \$19 million (at the 2005 closing exchange rate).
- **The CLR Below 120 Level Project** is accessing the reserve block via a twin decline system into its geographical centre, down to 125 level. Production will commence in 2009 and is expected to produce 2 million ounces of gold over a period of nine years (from 2009 to 2017), at a capital cost of \$154 million of which \$44 million has been spent to date.



Savuka

Ownership: 100% owned by AngloGold Ashanti

Location: Savuka lies on the West Wits Line, close to Carletonville in Gauteng and about 65 kilometres from Johannesburg.

Geology: At Savuka, the CLR constitutes the largest portion of the resource available to mine. This conglomeratic auriferous and uraniferous horizon is sub-divided into a high-grade eastern zone and a lower-grade western zone.

Mining and processing: Savuka mines both the CLR and the VCR with mining conducted from sub and tertiary shaft systems. A combination of mining methods is used: longwall, conventional and sequential grid mining. Savuka shares a processing plant with TauTona. This plant follows the conventional mill circuit which feeds into the CIP circuit. The product from here is transferred to the Mponeng gold plant for final elution and smelting of the product into gold bars.

Performance in 2005: As planned, gold production declined by 20% to 126,000 ounces. Total cash costs were well maintained following the introduction of severe cost-saving initiatives and replanning of the mine. In local currency, cash costs decreased by 7% to R87,200 per kilogram; in dollar terms, cash costs were down by 5% to \$430 per ounce. Although Savuka recorded a gross loss of \$8 million after adjusting for non-hedge derivatives, the mine

Outlook: Production at TauTona is expected to remain constant at between 491,000 and 511,000 ounces while cash costs are expected to rise to between \$267 and \$277 per ounce. Capital expenditure of between \$73 and \$75 million is planned, the bulk of which will be expenditure on the below 120 level project and ore reserve development.

TauTona

		2005	2004
Gold production	000oz	502	568
Total cash costs	\$/oz	256	245
Total cash costs	R/kg	52,158	50,531
Total production costs	\$/oz	364	311
Total production costs	R/kg	74,418	64,085
Capital expenditure	\$ million	74	65
Capital expenditure	R million	468	416
Total number of employees		5,455	5,498
Employees		4,459	4,673
Contractors		996	825

returned a profit in the fourth quarter. This meant that the loss for the year was less than that incurred for the previous year. There was minimal capital expenditure which, at \$6 million, was down by 25% on 2004.

Outlook: The business plan for Savuka for 2006 was to close the mine at the end of March. However, following a successful restructuring programme implemented in late 2005, the decision to close Savuka has been deferred to at least the end of 2006 as the mine has been returning good economic performances.

Savuka

		2005	2004
Gold production	000oz	126	158
Total cash costs	\$/oz	430	455
Total cash costs	R/kg	87,200	94,036
Total production costs	\$/oz	517	523
Total production costs	R/kg	105,194	108,457
Capital expenditure	\$ million	6	8
Capital expenditure	R million	38	54
Total number of employees		2,325	3,229
Employees		2,178	3,001
Contractors		147	228

Mineral resources and ore reserves

Mineral Resources and Ore Reserves are reported in accordance with the minimum standard described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 edition), and also conform to the standards set out in the South African Code for the Reporting of Mineral Resources and Mineral Reserves (the Samrec 2000 Code). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

AngloGold Ashanti had Mineral Resources of 175.8 million ounces and Ore Reserves of 63.3 million ounces as of 31 December 2005. Of these, West Wits accounted for Mineral Resources of 39.4 million ounces and Ore Reserves of 9.8 million ounces (the respective numbers for the South Africa region as a whole are 86.9 million ounces and 26.8 million ounces).



		Metric			Imperial		
		Tonnes million	Grade g/t	Contained gold tonnes	Tons million	Grade oz/t	Contained gold million oz
Mineral resources (as at 31 December 2005)							
Mponeng	Measured	9.5	10.70	101.8	10.5	0.312	3.3
	Indicated	43.1	15.19	655.2	47.5	0.443	21.1
	Inferred	0.2	10.53	1.6	0.2	0.307	0.1
	Total	52.8	14.37	758.5	58.2	0.419	24.4
Savuka	Measured	0.9	13.06	11.2	0.9	0.381	0.4
	Indicated	2.1	12.42	25.7	2.3	0.362	0.8
	Inferred	-	-	-	-	-	-
	Total	2.9	12.61	36.9	3.2	0.368	1.2
TauTona	Measured	1.9	27.59	52.2	2.1	0.805	1.7
	Indicated	13.2	27.56	363.6	14.5	0.804	11.7
	Inferred	1.6	8.42	13.3	1.7	0.246	0.4
	Total	16.7	25.74	429.1	18.4	0.751	13.8
Ore reserves (as at 31 December 2005)							
Mponeng	Proved	1.9	7.01	13.1	2.1	0.204	0.4
	Probable	16.4	7.79	127.6	18.1	0.227	4.1
	Total	18.3	7.71	140.7	20.1	0.225	4.5
Savuka	Proved	-	8.27	0.2	-	0.241	-
	Probable	-	9.02	0.3	-	0.263	-
	Total	0.1	8.74	0.4	0.1	0.255	-
TauTona	Proved	0.9	11.66	10.5	1.0	0.34	0.3
	Probable	14.1	10.92	153.5	15.5	0.318	4.9
	Total	15.0	10.96	164.0	16.5	0.32	5.3



Economic performance

Government remittances

AngloGold Ashanti's operations in South Africa paid an amount of US\$42 million (R267.5 million) in corporate taxes in the 2005 financial year.

New order mining rights

In August 2005 AngloGold Ashanti became the first mining company to be granted new order mining rights by the Department of Minerals and Energy (DME) for all its mining operations in terms of the Mineral and Petroleum Resources Development Act (MPRDA). The company lodged its applications for these rights in July 2004, shortly after the new act became operational in May the previous year.

In terms of the MPRDA, mineral rights vest in the state, with the state holding the right to issue prospecting, mining and other rights to applicants. A five-year transitional arrangement gives current operators the right to apply for the conversion of old order rights into the so-called new order mining and prospecting rights.

The act required the company to submit in its applications, among other things, mining works plans for the company's seven South African mining operations for the rest of their lives, including environmental management plans, social and labour plans for each of the two geographical areas covered by the mines, and details of previous and planned future black economic empowerment

transactions. The two last-mentioned sets of documents are designed to satisfy the department that the company has plans to comply with the Broad-Based Socio-Economic Charter, and has the capacity and intent to implement these plans.

The charter is an adjunct to the MPRDA and was published by the DME to provide more specific guidelines for socio-economic transformation of the mining industry.

A key component of AngloGold Ashanti's submission was that, in addition to recognition of sales of assets made by the company to the black-owned Armgold between 1988 and 2002, the company committed itself to the development of an Employee Share Ownership Plan (ESOP) with a value equivalent to approximately 6% of its South African assets. As of January 2006, the company started consultations with representative trade unions at its South African operations on the development of the ESOP.

AngloGold Ashanti considers the new mineral rights regime in South Africa to be a proper and appropriate method of dealing with the country's mineral resources and political legacy. The company believes the new regime is likely to play a significant part in enhancing socio-economic stability and progress by encouraging equitable participation in the economy and thereby improving the lives of those citizens previously disadvantaged by apartheid. A failure on the part of government to have implemented such measures would have endangered prospects for political and economic stability.



Community

A fundamental philosophy of the company is that its operations and activities should contribute towards long-term sustainable development and that communities should be better off for AngloGold Ashanti having been there. Total corporate social investment expenditure in 2005 was \$8,752,407, of this amount \$4,150,254 was spent in South Africa.

In South Africa, the company's corporate social investment programme is overseen by the AngloGold Ashanti Fund and Trust. The fund is managed by Tshikululu Social Investments, a non-profit management company which is a specialist corporate donor support agency. The AngloGold Ashanti Fund is directed by a Board of Trustees which, in turn, is supported by local area committees at the operations which are closer to and can be more responsive to the more immediate needs of the community.

The trustees of the fund consider many proposals each year. Certain criteria are used to assist in making decisions: key among these are the sector into which a particular project falls, the location of the beneficiaries and the sustainability of the venture. The fund focuses on funding education, health, and arts and culture projects. In 2005 more than R18 million was distributed to a wide range of projects.

Since its establishment more than seven years ago, the fund has

concentrated on education, believing that support given here has the most potential to make a real difference to the lives of individuals and their communities. In 2005, 60% of the funding available went to education. Other fields to which the fund gives priority are those of welfare and development, HIV/AIDS, health and skills training/job creation, and last year's spending reflects this (see accompanying chart).

Another guiding principle is to focus on the areas where the company has operations and the regions from which it draws large numbers of employees (and where the families of many of those employees live). With three mines near Carletonville and four near Klerksdorp, projects in the provinces of Gauteng (49%) and North West (19%) were significant beneficiaries. Employees who do not reside near AngloGold Ashanti operations come primarily from the Eastern Cape and northern KwaZulu-Natal in South Africa, and from Lesotho and Mozambique beyond the borders of the country, and so most of the remaining funding (32%) was distributed in these areas.

Regarding the issue of sustainability, the trustees have to be convinced that the project will be sustainable and benefit the recipients in the long term. The level of community participation and ownership is a crucial factor in ensuring this (as is the degree of involvement by the relevant public sector bodies).

A major project of the past year in the Carletonville area – the second phase of building at the Boiteko School for the Severely Handicapped – serves to illustrate the points above.

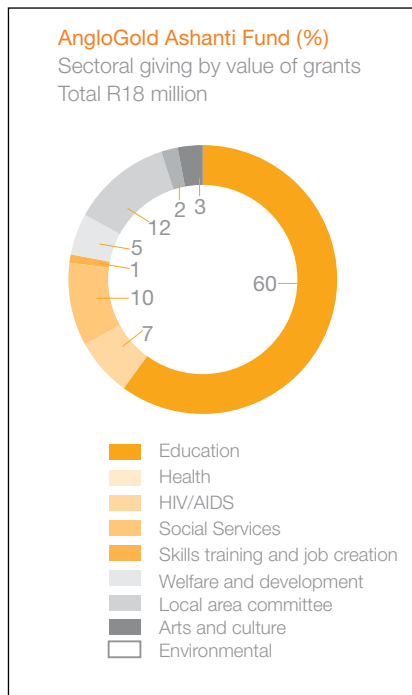
Boiteko School for the Severely Handicapped

The AngloGold Ashanti Fund first became involved in Boiteko – a Sotho word meaning ‘we are trying very hard’ – in 1999. The school was already in existence but housed in the backyard of a municipal property. The fund was approached by the school’s governing body with a request for support to build proper premises. The trustees did not need much convincing about the track record of those involved or the worth of the proposal. An amount of R1.8 million was granted for phase one of the project during which eight classrooms, ablution facilities, a kitchen/workshop and a multi-purpose hall were built. The official opening took place in mid-2000.

It was recognised at the time that this was just the start and that more accommodation would be necessary. The school has an enrolment of 180 severely mentally handicapped and 20 profoundly handicapped children and young adults. They range in age from three to 21. People who are severely handicapped require the assistance of others for every aspect of their daily lives. Their physical activities are greatly compromised as is their capacity for being educated. Those who are profoundly handicapped have a mental age of under a year; they are unable to talk; and they cannot benefit from any formal education.

In 2003 the fund approved the second phase of the building programme which provided for another block of eight classrooms, ablution facilities and a therapy centre for occupational therapy and physiotherapy.

The fund made a grant of R2.65 million – to cover this phase and a third phase – and the Gauteng Department of Education contributed R1 million. In the first phase the department had been fully consulted and had facilitated the provision of land for the school. The second phase, which was completed in 2005, marked the start



of a real partnership between the fund and the education department.

The manager of the project, Siphohle Mahlangu, is convinced that this type of private-public partnership makes a big difference to the viability of a project. Given that Boiteko is a special needs school, government participation goes beyond the Department of Education. It includes the Department of Health which takes responsibility for the provision of a social worker, an occupational therapist and a physiotherapist, and the Department of Social Development which administers the children’s welfare grants.

The fund, together with the school governing body, has worked particularly closely with all three departments in the planning of phase three which is the building of a centre for the profoundly handicapped. From the time that the fund was first approached in 1999 it was decided that something needed to be done for this group. It is possible, with the right equipment and aids, and sufficient staff, to give

these children some measure of independence by teaching them to move and to feed themselves.

Since a centre for the profoundly handicapped has never been built before in South Africa, the planning has been an intensive process in which the three departments have been deeply involved with the fund. The Department of Education has contributed a further R500,000 towards this centre and building will start in early 2006.

With its support for the three building phases and a grant of some R95,000 for the training of caregivers, the AngloGold Ashanti Fund has made an investment of R5.4 million in Boiteko. This makes it one of the fund’s biggest projects to date.

Siphohle Mahlangu explains that the AngloGold Ashanti Fund is changing its focus from supporting many small projects (some with amounts around the R50,000 mark) to concentrating on larger ventures that will have a more significant impact on the regions in which they are located. Boiteko illustrates this trend as well as the increasing importance being attached to initiatives that are located in areas close to AngloGold Ashanti operations where many employees and their families live. Finally, it illustrates the fund’s concern to work with government to secure the long-term future of projects.



Labour practices

There were 11,534 employees and 1,820 contractors at the West Wits operations during 2005. Approximately 95% of all South African employees are either represented by unions or catered for by the agency shop agreement. The four unions that are recognised are the National Union of Mineworkers (NUM), the United Association of South Africa (UASA), Solidarity and the South African Equity Workers' Association (SAEWA).

One industrial dispute took place in South Africa during the period, the first industry-wide strike since 1987. A four-day wage strike affecting all gold mine companies that are members of the Chamber of Mines of South Africa was launched on the evening of Sunday, 7 August 2005, by the NUM and Solidarity. At issue was a wage dispute, in which unions demanded 12% against the industry's offer of increases of between 4.5 and 5%. The strike ended on 11 August 2005, with three full production shifts having been lost.

Employee participation

Emphasis is placed on employee participation at the South African operations, besides the normal meetings and management briefing sessions for regulating the interaction with the unions and associations. The NUM Steering Committee is the body that interacts with management at corporate level on general company level issues. Company level interaction with the other unions and associations also takes place in the form of bilateral meetings on a regular basis, as and when the need arises. Other forums include the HIV/AIDS Committee, the Accommodation Forum and the Skills/Equity Committee. Interaction at operational/business unit level largely takes place through the West Wits NUM Branch Committee and NUM Shaft Committees for each of the mines at the West Wits operations.

Reporting in line with the Mining Charter in South Africa

The Broad-Based Socio-Economic Charter for the Mining Industry and its accompanying scorecard requires that the company reports on an annual basis against targets set in its Social and Labour Plans once the conversion of mineral rights is finalised. With this process near completion in the first quarter of 2006, the first formal report will likely be due in 2007.

The employment of Historically Disadvantaged South Africans (HDSAs) remains a particular priority and AngloGold Ashanti has an employment equity and equal opportunity programme in place. Employment equity and/or equal opportunity targets are set and

their achievement is monitored by a board sub-committee, the Employment Equity and Skills Development Committee. Employment targets and achievements are reported to the South African Department of Labour on an annual basis, and reporting will also be provided in terms of the charter from 2007.

Within South Africa, 33% of management comprises HDSAs (2004: 32%) while HDSAs make up 18% of the board (2004: 20%).

The advancement of women is a key focus area. Of all permanent employees in the country, 6.42% are women (2004: 6%) while 14% of employees at managerial level are women (same percentage as in 2004). Women make up 5.9% of the board. A Women in Mining Audit was undertaken during 2005 and the results of this are being used to shape the company's plans to recruit, advance and retain women in the South Africa region. Many of these recommendations were already in place and this research has simply supported them.

Foreign migrancy is reported in South African operations in line with the spirit of the charter. The percentage of foreign migrant employees was 36% as at 31 December 2005 (2004: 37%).

Social and Labour Plans are in place for all the South African operations and have been accepted by the Department of Minerals and Energy (DME).

Training

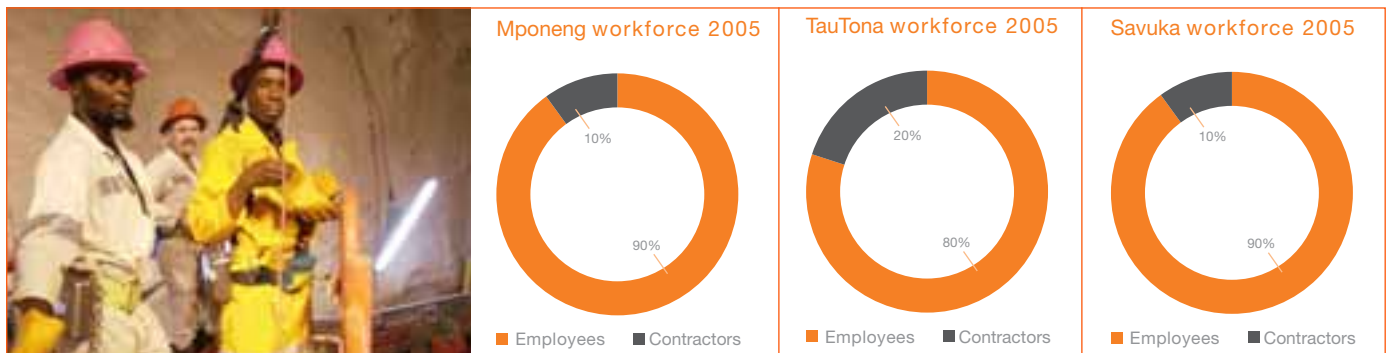
Five broad areas of training can be identified:

ABET: In 2005, 3,892 employees participated in ABET training in South Africa at a cost to the company of R7 million. The company estimates that 72% of its South African employees have a qualification at ABET Level I and higher. Full-time and part-time courses are held at the ABET centres and at the mines.

Vocational training: The provision of vocational training is an important part of the company's Social and Labour Plan. AngloGold Ashanti is registered with the Mining and Minerals Sector Education and Training Authority (Seta), and the Mining Qualifications Authority (MQA). The region's centralised training venue provides accredited technical training in mining, mining services, engineering, metallurgy, and the management of occupational environment, safety and health.

Management training: The Talent Management Programme identifies and develops management for the future. The programme has three areas of intervention, namely: development, retention, and monitoring of talent.

Graduate training: The South Africa region supports students in full-



time studies at university and technikon. The bursary scheme is open to employees (in-service bursary scheme) as well as to the general public. The company currently supports 91 students studying towards tertiary qualifications.

Training for life: Training for life equips employees or ex-employees with skills to ensure their continued employability or ability to be self-employed after employment by the company and in preparation for career endings, as a result either of ill health or of mine closure. Employees who are retrenched are offered re-training in a skill that will assist them to remain economically active within their community.

Housing and health care

While programmes are in place to encourage home ownership, many employees are housed in company accommodation. There are

plans to renovate many of the hostels, to decrease room density and provide residents with improved facilities and a greater degree of privacy. Meals are provided to all employees who reside in hostels. Menus are reviewed by committees made up of management and unions, and the nutritional value is regularly monitored by an independent nutritionist.

Access to health care is provided to all employees and, in certain circumstances, to their families. All employees not covered by formal medical scheme arrangements have access to health care at company facilities. AngloGold Health Service (AHS), a subsidiary of AngloGold Ashanti, operates in South Africa. The West Wits and Vaal River areas both have a central hospital providing secondary, and to some extent tertiary level care, surrounded by a network of peripheral primary health care and occupational health clinics.

Taking training to the community

As the mines reach maturity and start preparing for closure, the focus is now shifting to building communities that will be sustainable after mining operations have ceased. One initiative has seen the extension of the ABET initiative from the company's employees to the surrounding communities in the West Wits and Vaal River areas. During 2005, 156 community members enrolled in the programme. Of these, 137 wrote the relevant exams and 106 passed. Starting in January 2006, full- and part-time classes for ABET Levels I, II and III (equivalent to grades 2, 5 and 7 respectively) are scheduled for both West Wits and Vaal River. With approximately 20 to 25 learners per class, some 400 students are expected to undergo training annually.

Another initiative involves AngloGold Ashanti's Training and Development Department (ATDS) which has been engaging with the human resources departments of the various business units, along

with the Department of Labour and community leaders, to explore ways of providing people with so-called 'portable' skills to enable them to make a living outside the mining industry. ATDS has developed this training for four target groups: those who have been retrenched; members of the community; employees who have retired through medical incapacitation; and existing AngloGold Ashanti employees. The programme started at Savuka mine in September 2005 and 117 people have been trained in a range of basic skills. Plans are in hand to extend this initiative to the other South African operations.

Courses focus on basic skills such as bricklaying, welding and carpentry. ATDS is liaising with the Department of Labour with a view to arranging some form of joint funding mechanism and is in the process of putting together a prospectus for submission to the DME.

Occupational safety and health

In 2005 the lost-time injury frequency rate (LTIFR) per million man-hours for the West Wits operations was as follows:

Mponeng	12.20
Savuka	14.13
TauTona	10.76

While AngloGold Ashanti is committed to eliminating accidents in the workplace, regrettably 17 employees died at the South African region. Of those seven were from the West Wits area (three at Mponeng and four at TauTona).

Managing safety and health

The primary causes of fatalities in the South Africa region remain falls of ground (88%), with seismically induced falls of ground accounting for 41% of all fatalities. Falls of ground workshops are held every quarter in the South African region.

Monitoring safety performance

AngloGold Ashanti operations use both 'leading' and 'lagging' indicators in monitoring safety performance. The lagging indicators are those that have traditionally been used to measure actual performance. These include: LTIFR, serious injury frequency rate (only in South Africa), fatal injury frequency rate (FIFR) and severity frequency rate. Through the enterprise-wide risk management programme that has been implemented within the region, it is now possible to identify at operational level most of the significant risks and then to establish the related leading indicators – those that indicate a predisposition to an event or situation that could precipitate or be conducive to an accident or incident.

Occupational health threats

The most significant occupational health threats to AngloGold Ashanti are noise-induced hearing loss (NIHL) and occupational lung disease (OLD). In South Africa, pulmonary tuberculosis (TB) in silica-exposed employees is also considered to be an occupational disease.

Awards

- Savuka mine won the South Africa Region Underground Operations Safety Shield Competition for 2005 for the second consecutive year. This followed an excellent performance in respect of the serious injury rate which was a 5% improvement on the best rate recorded in the last five years. The mine, which is amongst the deepest mines in the world, has not experienced a fatal accident since October 2004.
- Mponeng reached achieved 1 million fatality-free shifts for the first time in January 2005.



- 175 new cases of NIHL were identified in South Africa during 2005, which is a rate of four per 1,000 employees. This is a decrease of 41% on the previous year's rate of seven per 1,000 employees.
- 316 cases of OLD were identified in South Africa during 2005, which is a rate of seven per 1,000 employees, a 1% decrease from the figure reported in 2004.
- 1,043 new cases of TB were detected and treated during the year, which is a rate of 25 per 1,000 employees, down from a rate of 35 detected the previous year.
- Dust (silica) control on the South African mines continued to improve, although the agreed industry target, for which 95% of all individual samples must be below the legal limit of 0.1mg/m³ by 2008, has not yet been achieved. In 2005 the average silica dust concentration was 0.04mg/m³, with the 95th percentile at 0.13mg/m³.

Medical surveillance

Medical surveillance is an integral part of the management of occupational safety and health. Two occupational health centres are in place, one at West Wits and one at Vaal River. A total of 57,015 occupational medical surveillance examinations (initial, periodical, transfer and exit) were performed in the South Africa region during 2005 in accordance with the requirements of the Mine Health and Safety Act. Medical surveillance and health care are handled by AngloGold Health Service (AHS), which provides health care services to employees and their dependants. Each AHS hospital has medical, surgical and maternity wards, an intensive care unit, operating theatres, casualty and outpatient facilities, as well as radiography, occupational therapy and physiotherapy services.

Employee participation

Each operation has its own agreement with the union representative of the majority of employees, the NUM, but these agreements are normally extended to all the unions represented in the company. Joint health and safety committees are in place at every operation, in line with the Mine Health and Safety Act, and all working places are covered by such agreements. A total of 2,030 workplace and 24 full-time safety and health representatives have been trained, designated and appointed.

Taking TB control a step closer to employees

Digital diagnostic radiology (DDR) has revolutionised the application of TB examinations in recent years, facilitating earlier detection of the disease. The fixed digital radiology units at each of AngloGold Ashanti's two occupational health centres can handle up to 450 X-ray images per day. Although the capital costs associated with these systems are high, running costs are significantly cheaper and, most important, their technological benefits are proving to be significant.

In late 2005 approval was given for the purchase of a mobile DDR unit for the three mines in the West Wits area. This unit will be commissioned in the first quarter of 2006. The benefits of DDR, compared with standard X-ray technology are that the radiation dose that was present in the mass-miniature X-rays previously used is virtually eliminated; only one image is taken and then digitally manipulated; no developing of film is required as images are stored digitally; and this in turn saves the cost of potentially hazardous chemicals used in the developing process, as well as the cost and space involved in storing conventional X-ray films over time.

Pioneering TB research programme launched in gold mining industry

It has become increasingly apparent in the last 15 years that, despite meeting World Health Organization (WHO) targets for the detection and cure of TB, the rates of TB in the South African gold mining industry have risen sharply. This is largely attributable to silicosis together with the escalating HIV/AIDS epidemic, which compounds the incidence of TB.

A pioneering research programme to identify appropriate strategies to reduce the incidence of TB in the gold mining industry in South Africa was launched nationally at the end of October 2005, followed by regional launches on 1 November 2005. The local programme is part of a global research programme to find a solution, in the face of escalating TB infection, to reducing the incidence of the disease. The programme is based on the premise that administering TB preventive therapy to an entire community, and not just affected individuals, may result in a significant reduction in the incidence of the disease.

The objective of the research is to compare the efficacy of nine months of TB preventive therapy using the drug Isoniazid offered on a community-wide basis in addition to the standard TB control programme, with that of the standard TB control programme currently practised in the gold mining industry.

Around 68,000 miners will participate in the study. Participating mines were allocated, by public lottery either to be control sites or sites which would receive community-wide preventive treatment. The process of enrolling participating mines and individuals and the administration of therapy began in January 2006 and should last 15 months.



Symptom screening is done on site and the X-ray can be read immediately, speeding up the diagnosis of TB patients who need to be hospitalised.

Emergency management

Emergency preparedness plans, both in respect of employees and community members, are in place in the South Africa region. The approach to identifying and preparing for emergency situations is governed by the risk management process and OHSAS 18001.

Emergency preparedness plans include preparation for fires, hazardous material accidents, biological threats, high angle rescues and bomb threats. Different emergencies are treated by different response teams. Each of these is trained to be effective within its area of activity. Among others, there are teams for asset protection services, fire and emergency services (both surface and underground), ambulance services, mine-based rescue teams and the Mines Rescue Service (MRS).

All employees receive a level of basic training and paramedics are available at the operations to ensure a quick response. Refresher training is held at prescribed intervals, as are emergency drills and review processes.

The emergency Asset Protection Emergency Control Centre and the Mponeng Control Centre are the bases from which fire and emergency services are dispatched to the West Wits and Vaal River operations. For employees, each of the two South African geographical regions has contracted International SOS (ISOS) to run their ambulance services. These are based at the two hospitals and manned round the clock by advanced life support paramedics. This service is available to the public in the event of a major disaster in the area, as is the use of the two hospitals, which have trauma facilities, theatres and ICU.

Integrated Seismic Systems International

AngloGold Ashanti uses seismic systems developed by Integrated Seismic Systems International Ltd (ISSI) to assess 'ground behaviour', in an effort to reduce fall of ground incidents and accidents at its mines. The seismic systems are a network of seismic stations that detect and record energy releases in the ground. This information is then transferred to the surface where it is processed, entered into a database, analysed and interpreted. All ground movement is measured with sophisticated sensors, whose number varies according to the mine's seismicity, the intensity of monitoring and size of the lease area.

Two types of seismic event are measured – earthquakes, where ground moves typically along faults or other geological-type structures; and rock bursts where mining-induced stress exceeds the

rock's strength causing it to explode. ISSI's seismologists work closely with AngloGold Ashanti's rock engineers in linking seismic data with mine design. Mine design and layout is implemented in such a way that predicted large events are either mitigated or eliminated. Support systems are then installed to withstand these large events. The location, or epicentre, is an important aspect; this refers to the point on the earth's surface directly above where an earthquake has occurred, whereas the hypocentre measures the depth at which it occurred. Where monitoring shows that seismic activity is building up in a certain area, the mining methodology and strategy is revised.

Fall of ground management in South Africa

The majority of injuries and fatalities are attributed to falls of ground. Of the 17 fatalities recorded at AngloGold Ashanti for 2005, 15 (or almost 90%) were related to falls of ground. In 2002 the company initiated a holistic five-point fall of ground management strategy to address the incidence of these accidents and fatalities. This strategy concentrates on:

- mine design;
- mine support standards;
- mindset;
- monitoring; and
- research.

The focus in 2002 was on the prevention of adverse rock conditions by looking at mine design and mine layout. In 2003 the emphasis was placed on the stage at which one controls the conditions that have been created in the mine design and layout phase. Stringent auditing systems were introduced during 2004, including the concept of 'Rock Stars' – whose job is to complete regular audits so that information is immediately fed into a database, prior to analysis and implementation of remediation strategies. The third stage, which is about changing and managing 'mindset', was the key focus in 2005 and looks at performance standards, education, training, knowledge, attitude and level of compliance. World-renowned safety training organisation DuPont was tasked with implementing a peer-on-peer safety management and auditing technique (SMAT), which is being implemented top-down at all mines. Research, development and technology, which make up the fifth stage, are ongoing elements of the whole strategy and are an essential precursor to mine design and layout, the starting point for actual operations. AngloGold Ashanti interacts with a number of industry bodies which deal with developing systems, methodologies and technologies – for example, the Council for Scientific and Industrial Research (CSIR), the Safety in Mines Research Advisory Council (Simrac) and ISSI.

Having reinforced the four operational fall of ground management pillars, AngloGold Ashanti's focus for 2006 is on the revitalisation and integration of those components.



HIV/AIDS

HIV/AIDS remains a challenge at the South African operations where AngloGold Ashanti estimates a 2005 HIV prevalence rate of 30% among its workforce. The company has played an active role in developing programmes to combat the spread of HIV/AIDS and to deal humanely with its consequences, while at the same time minimising the economic cost to the company. Although the company's programme is primarily aimed at employees, in many instances voluntary counselling and testing (VCT) and home-based care have been extended to communities surrounding operations or from which employees have been drawn.

Engaging with unions

AngloGold Ashanti has in place an HIV/AIDS policy which is supported by an agreement signed with all the recognised trade unions in July 2002. Both the policy and agreement provide for:

- the creation of a conducive environment in the workplace to eliminate the stigma associated with the disease and unfair discrimination, and to uphold the dignity and rights of affected employees;
- education and training related to the infection;
- the distribution of condoms and the treatment of sexually transmitted infections (STIs);
- VCT and the Wellness Programmes, including the provision of anti-retroviral therapy (ART); and
- care for employees while they are working for the company and after they retire.

AngloGold Ashanti's HIV/AIDS Programme

The company's HIV/AIDS Programme has as its aim the reduction of new infections, and the efficient management of those already infected. To achieve these objectives, the programme is based on three fundamental pillars: prevention, treatment and support.

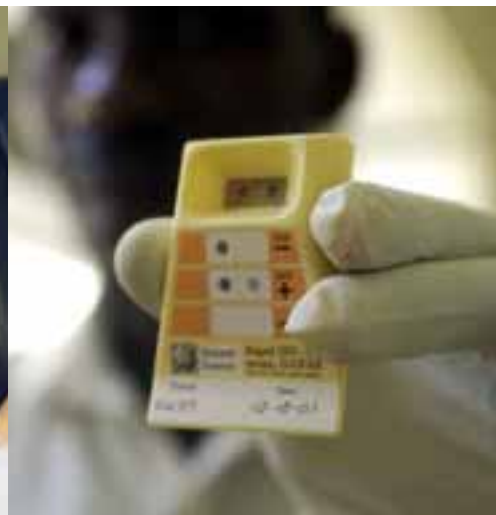
Prevention: the primary aim of this segment of the programme is the reduction of the rate of new infections amongst the workforce by effecting behavioural change. A key element is to encourage employees to know their HIV status. During 2005, 10,219 visits were recorded at AngloGold Ashanti's VCT centres, an increase of 150% on those recorded in 2004. By the end of December 2005, 32.4% of the workforce had undergone VCT, 22% of whom tested positive for HIV while 78% were HIV-negative. Importantly, 77% of those who

underwent VCT in 2005 had the test taken for the first time. Greater emphasis was placed on the training of peer educators during the year.

Treatment: central to the campaign is the effective management of those already infected with the HI virus. The programme includes early identification of the disease, prophylactic treatment for opportunistic infections and ART where appropriate. The company has provided wellness clinics for HIV-infected individuals since 1999, with the provision of ART having been introduced in November 2002. During 2005, 1,267 employees were registered for the first time on AngloGold Ashanti's Wellness Programme, an increase of 35.5%. The cumulative number of employees remaining registered with the programme by the end of 2005 was 3,254. A total of 653 employees were enrolled in the ART programme in 2005, bringing the cumulative total of employees currently on ART to 934. Importantly, 63% of those who started ART remain on the treatment.

Support: This starts with the appropriate placement of personnel through objective assessment and early retirement on the grounds of ill-health for individuals unable to continue working. This is followed by palliative care where possible. In 2005, 274 employees in West Wits applied for and received ill-health retirement benefits from the company although not all of these applications can be ascribed to AIDS. Also during 2005, 225 employees were known to have died in hospital from AIDS.

AngloGold Ashanti is involved in numerous home-based care programmes for employees who are AIDS-ill, including The Employment Bureau of Africa (TEBA) Home-based Care, Carletonville Home- and Community-based Care, North West Hospice, Bambasini Home-based Care and Rudo Home-based Care. The company was instrumental in establishing the Lusikisiki Village Clinic, which now provides both primary health care and ART to a broad range of community members. The clinic was run by AngloGold Health Service (AHS) until December 2004, when it was handed over to the Eastern Cape's Department of Health for use as a community clinic. This move is in alignment with AHS's own revised strategy – while AHS will provide health care only in areas in which the company operates, AngloGold Ashanti will continue to fulfil its social responsibility obligations by forming partnerships with host communities, including those from labour-sending areas.



HIV/AIDS research projects

AngloGold Ashanti, together with the Aurum Institute for Health Research, has been involved in a wide range of research projects aimed at improving understanding of the disease and, in particular, the use of ART specifically in the mining environment. In 2005, six research projects related to ART were undertaken by Aurum. These include:

- Resistance Study – an analysis of viral load specimens for patients who have failed the first-line regimen; and ensuring the appropriate second-line regimen is being followed;
- Efavirenz/Rifampic Interaction Study – undertaken in collaboration with the University of the Western Cape and involving an analysis of blood drug level testing to determine the interaction between the two drugs being used as part of the ART regimens;
- Efavirenz Early Side-effects Study – to examine the early neuropsychiatric effects of the drug at Western Deep Levels Hospital;
- Directly observed therapy (DOT)-highly active ART (DOT-HAART) Trial – this involves the use of DOT using peer-nominated supporters. The trial is funded by the National Institute of Health of the United States and is being undertaken in collaboration with the Johns Hopkins University and the University of Cape Town;
- Functional Work Capacity Study – to assess the fitness for work of patients on ART; and
- Adherence Study – to assess factors that have an impact on adherence to the ART programme.

Delivering ART at AngloGold Ashanti

A concerted campaign to encourage attendance at VCT, which started at the beginning of 2005, has resulted in an increase in the number of people presenting for ART. New patients embarking on ART increased steadily during the year, averaging 53 new patients per month in 2005, compared with a monthly average of 26 in 2004. Although the numbers taking up ART are less than ideal, they are still encouraging. As at 31 December 2005, a total of 3,254 patients were enrolled in the Wellness Programme, 934 (29%) of whom are currently on ART. The use of ART has led to significant improvements in the immune status of HIV-infected individuals. In the West Wits region, 87% of patients on ART have been declared fit for work by their attending doctor.

A new approach to HIV/AIDS – the Mponeng Mine Workplace Programme

Mponeng mine has developed a comprehensive workplace programme to encourage more employees to undergo VCT. Every induction presentation (for new employees and those returning from annual leave) now includes a comprehensive presentation on HIV/AIDS, its causes and effects, the treatment available within AngloGold Ashanti, and an overview of the company's HIV/AIDS policy. This induction includes generic pre- and post-test counselling. Should employees opt for an immediate test, qualified testers and appropriate facilities are available on site. HIV-negative employees are requested to undergo a follow-up test in three months' time, to cater for the possibility of their having been in the 'window period' (the interval between becoming infected and the infection becoming apparent in a test). HIV-positive employees are referred to the Wellness Programme for additional counselling, managing of TB and other infections, lifestyle and diet counselling, and, when medically indicated, ART. All staff involved in VCT, and the Wellness Programme of counselling and treating HIV-positive

employees, are employed by AHS, and not the mine, to maintain confidentiality. With 50.4% of employees presenting for VCT in 2005, Mponeng mine has exceeded its 20% target. It is now aiming for a referral rate of 70% in 2006.

New impetus for peer education to combat HIV/AIDS

AngloGold Ashanti is aiming to increase its number of peer educators in an effort to encourage early diagnosis of the disease and responsible management of treatment in those infected. Formal accredited in-house training is now being established, using the bridging services of an external provider, Education Training and Counselling (ETC), which has South African Qualifications Authority (SAQA) accreditation. The effectiveness of peer educators in encouraging people to undergo VCT is also being measured. Although the majority of VCT referrals in 2005 were as a result of promotions and campaigns, the company believes that peer education is ultimately one of the most sustainable prevention programmes. As such it is aiming for a much higher percentage of peer education referrals in 2006 by increasing its ratio to 1:60 peer educators from its current 1:110 ratio. Between April (when the courses started) and November 2005, 265 peer educators completed training. ETC has also developed a 36-week programme for peer educators to take into the workplace after training. This programme is currently being piloted at the AHS hospital at West Wits. There is also a move to integrate HIV/AIDS into health and safety programmes, so that peer education is recognised and supported by workplace supervisors.



Environment

All the South African operations have approved Environmental Programme Reports (EMPs) in place as required in terms of South African environmental and mining legislation. All policy issues that can be addressed at a business unit level are included in the EMP management actions: radiation management, waste management, air quality management, land management, surface water management and groundwater management. The EMPs are updated every two years.

Environmental training in South Africa

All business units have included environmental policy issues in their induction programmes. Management teams are made aware of their responsibilities through the implementation of a one-day awareness training course.

ISO 14001

AngloGold Ashanti formally adopted ISO 14001 as the standard for the group's environmental management system during 2005 and has set itself the target of achieving certification of its operating mines by the end of 2006.

The South Africa region's environmental policy was modified during the year to comply with the requirements of ISO 14001, regarding such issues as pollution prevention, legal compliance, continual improvement and policy availability to the public. Implementation has been integrated into the region's Enterprise Wide Risk Management System, since environmental management is viewed as yet another risk that a business unit faces.

Environmental incident reporting

AngloGold Ashanti's reporting protocol enables the company to identify and manage the risks and impacts of environmental incidents, as well as their associated costs. In line with this protocol, a major incident report must be made within 24 hours to the corporate office. For purposes of reporting, a major environmental incident is defined as 'an event, action or non-conformance with a procedure that results, or has the potential to result, in an adverse impact on the surrounding environment; or any event, action or occurrence which is contrary to the AngloGold Ashanti business principles'.



During 2005 one high-level incident occurred at West Wits when there was an illegal discharge of process water from the North Boundary Dam into the Wonderfontein Spruit in January. The finalisation of the clean/dirty water separation project in February 2006 will ensure that this does not happen again.

Risk management

Risk management forms an integral part of AngloGold Ashanti's environmental management systems. Each operation undertakes its own risk assessment in respect of environmental issues and these risks are then managed at an operational level.

The use and management of cyanide

The use of cyanide in the recovery of gold is a core concern for the gold mining industry and is critical to its viability. AngloGold Ashanti has been actively involved in the development of the International Cyanide Management Code and was one of the first signatories announced in November 2005. The code is a voluntary industry initiative developed under the auspices of the United Nations Environment Programme (UNEP) and the now International Council on Mining and Metals (ICMM).

The code has two major parts:

- a commitment by signatories to manage cyanide in a responsible manner; and
- the practices that must be followed to ensure this.

AngloGold Ashanti is well on its way to compliance with the code and internal audits have been concluded at all operations in anticipation of external audits.

Reclamational and environmental obligations

In all the jurisdictions in which AngloGold Ashanti operates, the company is required to provide financial assurance, in a form prescribed by law, to cover some or all of the costs of the anticipated closure and rehabilitation for the operation. Rehabilitation refers to the process of reclaiming or restoring mined land to that which existed prior to mining or to a predetermined, agreed use post-mining. The company devises closure plans prior to the start of operation and these are updated regularly to take into account life-of-mine projections.

AngloGold Ashanti South Africa – environmental statistics 2005

Environmental liability	\$ million	145.3
Cyanide use	kg	7,182,330
Water usage	m ³	27,086,783
Energy use	GJ	14,880,141

About ISO 14001

The International Organization for Standardization (ISO) is a voluntary not-for-profit network of national standards institutes from 146 countries with a Central Secretariat in Geneva, Switzerland, that co-ordinates the system. ISO 14001 focuses specifically on environmental management systems, and was first published in 1996. It applies to those environmental

aspects over which the organisation has control and over which it can reasonably be expected to have an influence.

ISO 14001 certification is the only ISO 14000-series standard against which it is currently possible to be certified by an external certification authority. Based on regular auditing by an appropriately accredited external body, an organisation may state that it is ISO 14001 certified.



In South Africa, the newly enacted Mineral and Petroleum Resources and Development Act (MPRDA) has emphasised the need for companies to cover all decommissioning, closure and rehabilitation financial liabilities at all times during the operational phases of the mines. The shortfall between the presently declared environmental liabilities and the present balance in the Trust Fund, designed to cover these liabilities, is R305 million.

Negotiations have taken place over a period of time with the government over this issue, and it has recently been agreed with the Department of Minerals and Energy (DME) that a joint task team will address the issue by revisiting an original agreement formulated three years ago.

This agreement described certain environmental and financial criteria that must be achieved by a mining company if that company wants to use the Trust Fund mechanism solely for funding up to the closure date of the mine. The DME finalised a guideline document for the estimating of closure costs at the beginning of the year. The document was revised with input from the mining industry. The adoption of this guideline has not significantly increased the closure estimate.

The new act and regulations place particular emphasis on the design, construction, operation and closure of tailings storage facilities and waste rock dumps.

Resource use and waste generation

AngloGold Ashanti is committed to reducing the use of, and improving the efficient use of, scarce environmental resources such as energy, water, timber and other materials. Apart from the environmental advantages of reducing the use of such raw materials, the group can also potentially achieve significant cost savings. Environmental targets are set by the individual operating mines or business units and information on resource use and waste generation is collected and recorded at site level.

Energy is a major cost driver, particularly in underground mining. In its efforts to conserve energy, AngloGold Ashanti is focused on ensuring the efficient use of energy and on developing and implementing renewable energy sources.

Hydrogeology

Hydrogeology – the study of the interaction of groundwater with surface water bodies, soil and rock formations and waste rock bodies – forms part of AngloGold Ashanti’s integrated water management plan as prescribed by South African legislation.

Hydrogeology falls under the Water Management section of the South African Environmental Management Department.

The main objectives of hydrogeology in the South Africa region are to:

- identify pollution sources and potential pollution sources (e.g. tailings dams, dirty water separation dams, stormwater dams);
- carry out risk assessments and classification of pollution sources; and
- mitigate the paths of pollution sources to prevent their ingress into unpolluted water;

Biodiversity

The loss of biodiversity and ongoing threats to habitat continue to be the subject of global debate. AngloGold Ashanti, through its participation in the Biodiversity Taskforce of the ICMM, is engaged with the IUCN (World Conservation Union) in a dialogue on mining and biodiversity.

In South Africa, a first-phase biodiversity assessment (desktop study) was completed for the West Wits operations. No formally defined protected areas or sensitive areas were found to exist here.

However, the South African operations are all situated within the highveld grassland biome which is considered to be one of the most threatened regions in South Africa, with 60-80% irreversibly transformed, mainly by agriculture and residential development, and only 2% formally conserved. A number of preliminary Biodiversity Management Units (BMUs), which are areas with homogenous biodiversity (for vegetation, terrestrial and aquatic fauna), have been identified in the West Wits area.

The next phase, which will start in 2006, will identify specific objectives, programmes and targets for the management of biodiversity.



- identify receivers of pollution (e.g. rivers and other natural water sources) and mitigation options; and
- establish the effect of mine dewatering.

Data obtained from the integrated ground and surface water monitoring network has enabled the compilation of a number of formal monitoring reports in the South Africa region. This has allowed for the construction of a detailed groundwater model and predictive simulations to identify potential groundwater risk. Groundwater

contaminant flow transport models were constructed to quantify possible pollution impacts over a period of, for example, 20 years. The transport models were ranked according to their salt load allocation (the higher the salt load, the more polluted the water) and the distance over which the pollution travels.

From an identification of groundwater risk, AngloGold Ashanti has been able to pinpoint potential problem areas, and to implement mitigation strategies.

Complying with stringent new air quality legislation in South Africa

South Africa's new National Environmental Management: Air Quality Act 39 of 2004, which repeals the Air Pollution Prevention Act of 1965, came into effect on 11 September 2005 with exclusions of certain sections such as the licensing of listed activities. (Until these sections are included, the relevant sections of the Air Pollution Prevention Act will remain in force.)

The new act introduces a system based on ambient air quality standards and corresponding emission limits to achieve them. The act prescribes air quality standards at national level for ozone, nitrogen dioxide, sulphur dioxide (SO₂), lead (Pb), particulate matter and total suspended solids. Linked to the new Air Quality Bill are two standards set by the South African National Standards (SANS), namely SANS 69 which defines the basic principles of a strategy for ambient air quality management in South Africa, and SANS 1929 which gives limit values for common pollutants.

In order to ensure compliance with new legislation, AngloGold Ashanti drew up an Air Quality Impact Assessment and Development of Air Quality Management Plan Framework in August

2004. The starting point was the compilation by a task team of an emissions inventory at the West Wits and Vaal River operations to examine all air pollutants, including SO₂, Pb, PM10 (particulate matter smaller than ten microns which is a health risk), and total suspended solids. The task team, comprising the company's South African environmental departments and business units, in conjunction with an external consultant, prioritised emissions after which management and monitoring plans were put in place.

Running almost concurrently with the above Air Quality Impact Assessment was an identification and compliance assessment by an external consultant, Airshed, of 'scheduled processes' – those which require permission to operate. Following application, provisional registration certificates were granted in 2005 for the assay laboratories at West Wits where lead is used in the analysis of gold samples. Provisional registration was granted with the proviso that compliance is proven within a year. Unlike the previous legislation which imposed certain limits on emissions, the new act legislates in terms of ambient concentrations measured in ten-minute averages, hourly averages and yearly averages.

