

PROJECTS IN PROGRESS 2009

March 2009



Project Index

Industrial Projects

AIRPORTS AND AVIATION PROJECTS

New international airport at La Mercy	5
OR Tambo International Airport expansion	7

ELECTRICITY PROJECTS

Eskom's return-to-service project	10
Eskom solar power demonstration plant	11
Eskom wind farm development	12
Fluidised-bed power plant	13
Gas One	14
Ingula	15
Kusile	16
Medupi	18
Mmamabula Energy Project	22
Pebble-bed modular reactor project	23
Sasol gas-fired power plant	24

INDUSTRIAL PROJECTS

ArcelorMittal South Africa capital expenditure programme	26
Coega aluminium smelter project	27
Consol glass factory	28
PPC cement capacity-expansion project	29

PETROCHEMICALS PROJECTS

Project Mafutha	31
Project Mthombo	32

PROPERTY DEVELOPMENT PROJECTS

Fleuhoff integrated housing development	34
-----------------------------------------	----

SPORTS INFRASTRUCTURE PROJECTS

Ellis Park stadium	36
Free State stadium	37
Green Point stadium	38
Loftus Versveld stadium upgrade	39
Mbombela stadium	40
Moses Mabhida stadium	41
Nelson Mandela stadium	43
Peter Mokaba stadium	44
Royal Bafokeng stadium upgrade	45
Soccer City upgrade	46

TELECOMMUNICATIONS PROJECTS

Neotel	48
Seacom	49
Telkom's next-generation network project	50

TRANSPORT AND LOGISTICS PROJECTS

Cape Town port infrastructure upgrade and expansion	52
Coal-line export channel expansion programme	53
Coega Industrial Development Zone	54
Durban port upgrade	56
East London Industrial Development Zone	57
Gauteng Freeway expansion programme	58
Gautrain rapid-rail link	59
Iron-ore export channel expansion programme	63
Majuba rail	64
Mozambique-South Africa pipeline project	65
Port of Ngqura and container terminal development	66

Richards Bay Coal Terminal	67
----------------------------	----

WATER PROJECTS

Lesotho Highlands Water project phase	69
Olifants River Water Resource Development Project	70
Vaal River Eastern Subsystem Augmentation Project	71

Mining Projects

COAL PROJECTS

Douglas Middelburg optimisation project	74
Goedegevoonden project	75
Grootegeluk coal mine expansion	77
Klipspruit coal mine	78

FERROUS METALS PROJECTS

Buffelsfontein ferrochrome plant and smelter	80
----------------------------------------------	----

GOLD PROJECTS

Burnstone gold project	82
Doornkop South Reef	83
Modder East	84
South Deep gold mine expansion	85
TauTona carbon leader project	86
Yalea underground project	87

IRON-ORE PROJECTS

Khumani mine	89
Sishen expansion project	90
Sishen South project	92

NICKEL PROJECTS

Nkomati nickel mine phase 2	94
-----------------------------	----

OTHER MINING PROJECTS

Kgalagadi Manganese	96
---------------------	----

PLATINUM PROJECTS

Amandelbult East Upper upper-group 2 project	98
Bafokeng Rasimonet	99
Blue Ridge platinum	100
Booysendal platinum	101
Frischgewaagd-Ledig platinum project	102
Impala No 16 shaft	103
Impala No 17 shaft	104
Impala No 20 shaft	105
Limpopo platinum smelter	107
Paardekraal 2 shaft project	108
Pilanesburg platinum project	109
Potgietersrust Platinum North expansion project	110
Rustenburg upper-group two phase 2 project	112
Styldrift	113
Twickenham project	114
Unki	115
Western Bushveld Joint Venture	116
Zimplats expansion	117

URANIUM PROJECTS

Dominion Uranium	119
Ezulwini uranium	120

INFRASTRUCTURAL INVESTMENT TO PROJECT ECONOMY'S RESCUE



South Africa's infrastructural investment programme preceded those of both new US President Barack Obama and Chinese President HU Jintao. South Africa is now far into its significant energy, transport and sports infrastructure investment ahead of the 2010 FIFA World Cup, whereas the latest US and Chinese fiscal stimulus packages have, by contrast, been hurriedly put in place in order to counteract the world's financial meltdown. All infrastructural investment, however, is music to the ears of the project economy. While the ongoing South African expenditure provides direct opportunity to companies active in the South African economy, the US and the Chinese infrastructural investment initiatives offer South African practitioners indirect opportunity, stemming from the ability of such expenditure to create new demand for South Africa's mining industry, which, other than in the case of gold-mining and, to a lesser extent, coal-mining, has been hurt by the global financial meltdown. Of important local significance on the energy front is the statement by Eskom executive Ras Myburgh that South Africa needs to take a decision in 2009 on a third power station, in addition to Medupi and Kusile, which are both already under construction. On gold, both seasoned gold forecaster and Dundee Wealth Inc chief economist Martin Murenbeeld, as well as the highly regarded US Global Investors precious-metal-fund executive Ralph Aldis, are very bullish on gold, which is of particular South African significance. Of less South African significance, but also an important indicator of a potential upturn in global markets, is iron-ore demand. Although the world's big-three iron-ore producers have cut back their iron-ore production, it is most interesting to note that South Africa's Kumba Iron Ore (KIO), which is the world's fourth-largest producer, has not cut back and, market permitting, will not cut back. Instead, KIO is opting to dash into the gap that the cutbacks by the majors have created, and is planning to increase its iron-ore output in 2009 by a not-inconsiderable 10%. KIO CEO Chris Griffith says that his company is already feeling the benefit of the Chinese fiscal stimulus package, in that China, to which KIO sells half of its iron-ore, is buying "quite substantially more than its contractual volumes". In fact, iron-ore that Europe and Japan have failed to take up has been successfully rerouted into China, Griffith reports. Moreover, KIO GM: commercial Timo Smit says that the Korean offtake of KIO ore is on a slight rise. Moving from the microeconomic end of the economic scale to the macroeconomic end, it is encouraging to note that President Obama will spend 21% of the \$825-billion US fiscal stimulus package – some \$174-billion – on energy, transport and other improved infrastructure. Aldis calculates that, for every \$1-billion that Obama spends on infrastructure, 35 000 jobs will be created and \$6.2-billion in economic activity generated. Overall, the amount allocated should create a total of 6,1-million jobs, Aldis says. Simultaneously, China's President Jintao will be spending \$3,1-trillion over five years, nearly one-half of which – 45% – will go on infrastructure. While that spending is encouraging, it has to be borne in mind that a crucial element of the reflationary effort is bank lending, which needs to normalise. Aldis, who in the past has accused banks of "throwing pennies around as if they were manhole covers", senses that bank normalisation is gradually under way. He reports that new bank lending in China hit a record level in December and that the US Citibank and others are also beginning, albeit slowly, to lend more. At the time of going to press, however, both debt and equity were still not easy to come by, even on local markets. But the funded real economy is soldiering on, amidst the encouraging prospect of the emergence in South Africa of independent power producers, the possibility of public-private partnerships in rail, a new emphasis on renewable energy, and an impending global economic summit in Europe in April, where world leaders are expected to hammer out a clear map of the economic road ahead.

Martin Creamer
Publishing Editor



Projects in Progress 2009

The material contained in this report was compiled by Sheila Barradas and the Research Unit of Creamer Media (Pty) Ltd, based in Johannesburg, South Africa. The information contained in this report has been compiled from sources believed to be reliable, but no warranty is made to the accuracy of such information.

INDUSTRIAL PROJECTS

Airports and Aviation

Electricity

Industrial

Petrochemicals

Sports Infrastructure

Telecoms

Transport and Logistics

Water



AIRPORTS AND AVIATION PROJECTS

As a result of the steadily increasing passenger numbers that will be passing through South Africa's airports leading up to the 2010 FIFA World Cup and beyond, the Airports Company South Africa (Acsa) is making a huge capital investment in infrastructure developments at its network of ten airports across the country. Valued at about R22-billion, the investment programme will include major capacity projects, the replacement and refurbishment cycle, efficiency and technology investments, and safety and security and regulatory procedures. The largest capital injection will go into two projects, namely the OR Tambo International Airport, in Gauteng, on which Acsa is expected to spend an estimated R11,4-billion; and on the new international airport at La Mercy, in KwaZulu-Natal, on which Acsa is expected to spend an estimated R7,2-billion.



AIRPORTS AND AVIATION PROJECTS

La Mercy International Airport

Name and Location

New international airport at La Mercy, KwaZulu-Natal (KZN), South Africa.

Project Description

The project entails the development of the Dube TradePort (DTP), incorporating, as its anchor component, the King Shaka International Airport.

The DTP will combine the airport with an adjacent trade port, consisting of a trade zone linked to the airport's airfreight component; a support zone consisting of hotels, conference facilities and business parks; as well as an agricultural zone, which includes land for the cultivation of high-value farming products and facilities designed to promote agricultural production and export.

An information technology platform is also being developed as part of the DTP to provide a platform for trade and transport. The airport will include a 7,5-million-passenger-a-year terminal and a 3,7-km runway that will accommodate the latest new-generation large aircraft, including the A380 Airbus and the Boeing B747.

Space has also been allocated for the potential lengthening of the runway to 4 km.

The new airport will be built, owned and operated by Airports Company South Africa (Acsa), while the DTP will develop the nearby trade zone. The airport, which is referred to as the King Shaka International Airport by the national government, will need to undergo a name application process in order to obtain its new name. The name-changing process will be managed by local or provincial government.

Value

R6,7-billion.

Duration

The project is expected to be completed in mid-2010.

Client

The KZN Department of Economic Development and Tourism (KZN) has established the DTP to spearhead the project. The DTP company will manage the proposed industrial development zone, of which the airport forms an integral part.

Key Suppliers and Contracts

Main Engineering, Procurement and Construction Contractor:

Ilembe Airport Construction Services comprising Group Five, WBHO, the Total Facilities Management Company, DLDMIC Construction, Izinyoni Trading, Mantombana Enterprises, Kuhle Utility Services, Tarice Trading, Greenmile Investments, Zethembe Maintenance and General Services, Pandev, PG Mavundla Engineering, AKhatech, Turquoise Moon Trading, M Kunene Trust and the S'Khona Disabled Empowerment Forum.

Main Civil Subcontractor:

Ilembe Civil Construction Joint Venture (JV) comprising WBHO, Group Five Sanyati, Edwin Construction and Izinyoni.

Main Building Subcontractor:

Ilembe Building JV comprising Group Five, WBHO, PGM Projects, Mantombana Enterprises, Kuhle Utility Services, Tarice Trading, Greenmile Investments, Zethembe Maintenance and General Services, Pandev, S'Khona, DLDMIC, and Turquoise Moon.

Specialist Installation Subcontractors:

Glidepath New Zealand (baggage handling); Thyssen Krupp Spain (air-bridges and 400-Hz power), ICM Germany (cargo handling), Alcatel-Lucent Italy (electronic systems), Edison Power (bulk electrical and aircraft ground lighting).

Professional Team:

Turner & Townsend and Gumede Development Group (project management services); Ilembe Cost Management JV compris-

To page 6

AIRPORTS AND AVIATION PROJECTS

From page 5

ing Turner & Townsend, Letchmiah Daya Mandindi, Vaughan Charles & Associates and LH Kunene (cost managers); Ilembe Architectural JV comprising Osmond Land & Partners, Ruben Reddy Architects, Shubangu Architects, NSM Designs, Mthulisa Msimang Architects (architects); Ilemebe Engineering comprising PD Naidoo & Associates, Goba, BKS, and Young & Satharia (civil and structural engineers); CMBK JV comprising CA Du Toit & Partners, Matla Consulting Engineers, BFBA Consultants and Khanyisa Africa Consulting Engineers (mechanical and electrical engineers), DTM and Spoomaker JV (HVAC engineers); Encon Moshwana Joint Venture (fuel installation engineers);

Latest Developments

October 2008

The Minister of Environmental Affairs and Tourism Marthinus van Schalkwyk has dismissed appeals lodged against the granting of environmental authorisation for the building of the new airport.

Meanwhile, the DTP has opened the bidding process for the appointment of a company to operate and manage the cargo terminal for a fixed period. The closing date for the tender is December 1, 2008.

Contact Details for Project Information

DTP, tel +27 31 307 2857, fax +27 31 307 2636
or email info@dubetradeport.co.za.

AIRPORTS AND AVIATION PROJECTS

OR Tambo International Airport expansion

Name and Location

OR Tambo International Airport expansion, Gauteng, South Africa.

Project Description

Following the successful completion and commissioning of the R450-million new domestic terminal in mid-2003 at OR Tambo International Airport (formerly Johannesburg International Airport), the development focus at this airport has now shifted to the international segment.

The expansion project will include: a central terminal building; a multistorey parkade, the Terminal A departures upgrade and upper roadway relocation; will accommodate the high growth in international passenger traffic and relieve the congestion currently being; a new international pier and the Echo apron development.

More recently, it has been reported that a new R8-billion terminal will be built to accommodate growing passenger numbers and air-traffic movement.

Also included in the plan is the construction of a new cargo facility to meet the ever increasing growth rate of just-in-time shipments in and out of the country.

Value

Total capital expenditure is estimated at R11,4-billion.

Duration

All projects are expected to be completed by mid-2010.

Client

Acsa.

Key Contracts and Suppliers

Echo apron development:

Africon/PD Naidoo & Associates (structural engineers), comprising Africon, PD Naidoo & Associates, BN Buziba & Associates, Gama Gamedz Associates, DMG/DGA Construction, WBHO, Rainbow and Lesedi; and Gibb Africa (mechanical consultants).

Multistorey Parkade 2:

Focus Project Management (project management), Urban Edge Gauteng (architect), Bham Tayob Khan Matunda in association with Schneid Libera (quantity surveyors); Nnodana Consulting Engineers (structural/civil engineers); Nala Consulting Engineers (electrical engineers, lifts/escalators, fire protection, HVAC consultants); Wac Projects

From page 11

(lifts/escalators); JIALD (traffic engineers); Building Code Consultants, and Kuphalela Consulting Engineers (fire protection); and DTMC (HVAC Consultants).

Perimeter Security Gates:

Multi-Pro Cost Engineering (quantity surveyors) and Pro-Plan Consulting Engineers.

To page 8

AIRPORTS AND AVIATION PROJECTS

Terminal A Departures Upgrade:

Henrey Molefe Managers (project managers); Martinez Architects/Makhane & Associates joint venture (architect); Abakail (quantity surveyor); iNtatakusa Africa (civil/structural engineer); CA Du Toit/Khatima Engineering Services (electrical engineer, escalators/lifts); Africon Palace (mechanical engineer); Protection Projects (fire engineers); Schindler Lifts (lifts); and Trencon (contractor).

CTB A1/A2:

Arup, Bovell Freeman Holley, Diagonal Projects (project managers); Bentel Associates/Siyakha Architects, Osmond Lang Architects, Shabangu Architects (architect); Bham Tayob Khan & Matunda QS, Davis Langdon Farrow Laing, Pentad Quantity Surveyors (quantity surveyors); Africon, Pure Consulting, and KAYP/Axis (civil/structural engineer); TCU and USIZO (electrical engineers); Arcus Gibb, K Bakker Associates and DTM/KBA JV (mechanical engineers); and Protection Projects (fire protection and Siyakha).

Gautrain/OR Tambo Station:

BKS, Arcus Gibb, Kuthele Projects, Tech IQ and Arup.

International Pier:

SIP Project managers in association with Seloane Consulting (project manager); Boogertman & Partners in association with Urban Edge Architects and True Architects; Davis Langdon Schumann Smith (façade); Letchmiah Daya Mandindi in association with Abakail (quantity surveyors); Bigen Africa in association with iNtatakusa Consulting (civil/structural engineer); CA Du Toit in association with Khatima Engineering Services (electrical and mechanical engineer); and WSP Consulting in association with Ubunye Engineering Services (HVAC engineers).

Latest Developments

September 2008

Construction at the airport is over 70% completed.

Contact Details for Project Information

Acsa, manager: communications, **Solomon Makgale**,
tel +27 11 723 1520 or fax +27 11 388 3897.

ELECTRICITY PROJECTS

State-owned power utility Eskom is pursuing a number of projects to boost its capacity, and is expected to spend over R340-billion to 2013, mostly on generation-related investments. In terms of Eskom's build programme, 16 304 MW of generating capacity will be delivered by 2017. Of this, 4 644 MW will come on stream within the next five years, including capacity from the recommissioning of three mothballed coal-fired stations, extensions to the two open-cycle gas-turbine stations – Ankerlig and Gourikwa – as well as the first units of the Medupi and Ingula power stations, which are expected to come on line in 2012/13.

Eskom is also looking into the option of additional independent power producers (IPP). The utility anticipates that the IPP programme will increase South Africa's power generation capacity by up to 4 500 MW by 2017, thereby reducing prevailing electricity supply shortages. Further, Eskom is investigating crossborder IPP opportunities, most notably in Botswana, to alleviate the electricity crisis.



ELECTRICITY PROJECTS

Eskom's return-to-service projects

Name and Location

Eskom's return-to-service projects, South Africa.

Project Description

The projects involve the demothballing of three coal-fired stations – Camden, Grootvlei and Komati.

Value

Published sources estimated the initial cost of the return-to-service projects at around R12-billion, but they are now expected to come in at around R16-billion, a 34%, or R4,1-billion, increase.

Duration

The three mothballed power stations will be returned to service by October 31, 2009.

Client

Eskom.

Key Contracts and Suppliers

The following companies are involved at the Camden power station: Steinmüller Engineering Services (boiler plant refurbishment), South African Compensators (SAC) (manufacture of economisers), ABB (common plant switchgear and the switchgear protection), Siemens Building Technologies (control and instrumentation equipment, and installation of fire-detection system), AquaPlan (water plant and sewage plant operation), Howden Africa Holdings (the return-to-service and upgrade of the unit 6 precipitators), Stefanutti & Bressan (station control room, battery room and equipment room; refurbishment and upgrading of compressors and compressed-air system), Loesche (unit 6 milling plant refurbishment – five mills).

The following companies are involved at the Grootvlei power station: Fluor, in a joint venture with Pangaea (engineering, procurement and construction management services), Honeywell (distribution control system), VWS Envig (refurbishment of potable and demineralisation water treatment plants), Alstom SA (modernisation, refurbishment and replacement of the turbine control and protection system for all six generator units and four steam-feed pump turbines at Grootvlei power station, as well as the retrofitting, refurbishment and upgrade of the gas-cleaning systems for all six generation units at the power station), and Mapelastic Smart (waterproofing).

Latest Developments

January 2009

The first unit of the Camden power station was commissioned in July 2005, and the last unit was commissioned in July 2008. The power station was in full commercial operation at the end of July 2008. Grootvlei's first unit was commissioned in March 2008 and the last unit is expected to be commissioned in October 2009. The first unit at the Komati power station was expected to be commissioned in October 2008, and the last unit is expected to be commissioned in October 2011.

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850 or email mediadesk@eskom.co.za.

ELECTRICITY PROJECTS

Eskom's solar power demonstration plant

Name and Location

Eskom's solar power demonstration plant, Northern Cape, South Africa.

Project Description

Eskom proposes to generate thousands of megawatts of base-load power from solar energy, with the initial construction of a 100-MW solar demonstration power plant.

If the demonstration plant proves to be commercially feasible the utility could then construct a 1 000-MW plant.

Eskom is conducting a study on the maximum power it could generate through solar power.

Eskom's current objective is to include 1 600 MW of renewable energy into its power generation by 2025, through solar, wind, hydro and biomass.

Value

The construction of the demonstration plant is estimated at R5-billion.

Eskom will contribute R3-billion to the project and the balance will be sourced through other funding.

Duration

The plant is expected to be operational by 2014.

Client

Eskom.

Key Contracts and Suppliers

Sarens (mobile crane hire).

Latest Developments

Although the demonstration plant has already received environmental approval, Eskom is struggling to obtain support for the project.

On Budget and on Tme?

Too early to state.

Contact Details for Project Information

Eskom Media Desk, tel +27 11 800 3304, fax +27 11 800 3805
or email mediadesk@eskom.co.za.

Eskom National Call Centre, tel 0860 037 566.

ELECTRICITY PROJECTS

Eskom's wind-farm project

Name and Location

Eskom's wind-farm project, Western Cape, South Africa.

Project Description

The project will involve the development of a wind farm with an initial capacity of 100 MW, which is likely to be increased to 200 MW. The plant will enable the storage of renewable energy for use during the evening peak demand.

A 132 kV distribution line will connect the wind energy facility to the transmission Juno substation close to Vredendal.

The wind farm will be South Africa's second commercial wind farm, following the launch of the first such wind farm near Darling, in the Western Cape in May 2008.

Value

In February 2008, Eskom signed a financing framework agreement for a 20-year €100-million loan with French development agency Agence Française de Développement (AFD) for partial financing of the wind-farm project.

Duration

The project is expected to be operational early in 2010.

Client

Eskom.

Key Contracts and Suppliers

AFD (loan finance) and Sarens (mobile crane hire).

Latest Developments

January 2009

Eskom has reported that no contracts for the project have been awarded to date.

August 2008

Recruitment problems and long-lead times are threatening to delay Eskom's wind energy project.

Meanwhile, the land acquisition for a third property has been concluded and the National Energy Regulator of South Africa has held public hearings on the project.

Eskom has also reported that, as far as it is aware, the Department of Environmental Affairs and Tourism has, to date, not received any notices of intention to appeal in terms of the environmental authorisation record of decision, which was made on

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850 or email mediadesk@eskom.co.za.

Eskom national call centre tel 0860 037 566.

ELECTRICITY PROJECTS

Gas One

Name and Location

Gas One, Mossel Bay and Atlantis, Western Cape, South Africa.

Project Description

Advanced preparatory work is under way for the doubling up of Eskom's 1 050-MW open-cycle gas-turbine (OCGT) capacity in the Western Cape to around 2 100 MW.

The 600-MW Ankerlig OCGT plant in Atlantis, and the 450-MW Gourikwa OCGT station in Mossel Bay, were released for commercial production in June 2007.

The intention is to add five 150-MW units at Atlantis and raise the station's capacity to 1 350 MW.

A smaller expansion plan has also been approved for the 450-MW facility at Mossel Bay. There, an additional two 150-MW units will be commissioned, raising the plant's capacity to 750 MW.

Also under investigation, is the possible conversion of the OCGT plants to so-called combined-cycle gas-turbine technology, which will involve the deployment of off gas into a steam unit, which will raise fuel efficiency and capacity. However, this decision will be based on an assessment of whether the plant needs to be used beyond the one to two hours a day currently envisaged. The OCGT plants, which can move from a standing start to full capacity in ten minutes, are extremely expensive to run, not least, owing to the fact that they use diesel as a primary fuel source. In fact, their operating costs are around R1,60/kW as compared with the Eskom average of below 16c/kW.

The scaling-up of the projects has been dubbed 'Gas One' by Eskom.

Value

The Ankerlig and Gourikwa OCGT plants cost some R3,5-billion.

The capacity increases at the two OCGT plants will cost an estimated R4,2-billion.

Duration

The construction of the additional capacity at the two power stations started in September 2007 and the project was expected to be completed in 2008.

Client

Eskom.

Key Contracts and Suppliers

Roshcon (main civil contractor), with Lesedi Nuclear Services (Lesedi) (structural installation work at Ankerlig); Siemens and Lesedi (structural installation work at Gourikwa); Lesedi (main electrical contractor on balance of plant); Lesedi (main mechanical contractor).

Latest Developments

The project was expected to be completed in 2008.

On Budget and on Time?

Not stated.

Contact Details for Project Information

For more information on the OCGT and GasOne projects please call: Lesedi Nuclear Services' marketing and communications manager, **Shane Pereira**, tel +27 21 5511049.

ELECTRICITY PROJECTS

Fluidised-bed power plant

Name and Location

Fluidised-bed power plant, KwaZulu-Natal, South Africa.

Project Description

The proposed project will establish a fluidised-bed power plant of up to 540 MW in the KwaMbonambi area, in KwaZulu-Natal. The power plant will use discard coal from the existing and decommissioned mines in KwaZulu-Natal and Mpumalanga to power four 135-MW circulating fluidised boilers, which will provide steam to traditional steam driven turbo alternator units.

The proposed power station will occupy an area of 60 ha and will comprise a fuel crusher, storage silos, a circulating fluidised bed combustor and a water treatment centre.

Electricity will be fed into the distribution system of the Eskom Invubu substation and should result in a significant stabilisation in electricity supply in Richards Bay.

The project forms part of Eskom's cogeneration programme.

Value

The project is expected to cost between R5-billion and R8-billion, depending its size.

Duration

The project was expected to come to financial close in February 2009, followed by the start of construction in April. Commercial operations are expected to start in June 2012.

Client

Umbani Power Company comprising Aldwych International (50%); the Industrial Development Corporation (IDC) (25%); African Infrastructure Investment Fund (AIIF) (20%); and Rainbow Millennium Power (5%).

Key Contracts and Suppliers

Acer (Africa) Environmental Management Consultants (environmental-impact assessment (EIA))

Latest Developments

None stated

On Budget and on Time?

Too early to stated.

Contact Details for Project Information

Aldwych International, tel +44 20 7634 9520, fax +44 20 7332 0912

or email contact@aldwych-international.com.

IDC, tel +27 11 269 3000 or fax +27 11 269 3116.

AIIF, tel +27 21 670 1234.

For information relating to the EIA contact: Acer (Africa) Environmental Management Consultants, **Debbie Steenberg** or **Nathi Ncube**, tel +27 35 340 2715, fax +27 35 340 2232 or email umbani@acerafrica.co.za.

ELECTRICITY PROJECTS

Ingula (previously Braamhoek)

Name and Location

Ingula (previously Braamhoek) pumped-storage scheme project, situated within the Drakensberg mountain range, on the border between the Free State and KwaZulu-Natal, South Africa.

Project Description

The pumped-storage scheme will comprise an upper dam (Bedford) and a lower dam (Braamhoek). The distance between the upper and lower reservoirs will be 4,6 km and the elevation difference about 470 m.

The dams will be connected by underground waterways, through an underground powerhouse, which will house four 333-MW pump turbines, with a total capacity of 1 332 MW.

The twin waterways, consisting of part concrete and part steel-lined headrace tunnels, pressure tunnels and shafts, will link the upper reservoir with the pump/turbines. Steel-lined extended draft tubes and a single concrete-lined tailrace tunnel will connect the pump/turbines to the lower reservoir.

The upper reservoir will be a concrete-faced rockfill embankment dam 41-m high, with an active water storage volume of 19,3-million cubic metres. The lower dam will be of roller-compacted concrete, 39-m high, with an active storage volume of 21,9-million cubic metres.

The upper reservoir will store enough water to generate electricity continuously using all four units for 16 hours. Pumping the water back from the lower reservoir will take about 21 hours, giving an overall efficiency of 76% for the scheme.

Value

R8,9-billion.

Duration

The station is planned to be fully operational by mid-2013. The scheduled completion date for the Braamhoek dam is March 2010, with its impoundment expected in August 2009, while the Bedford dam is scheduled for completion in September 2010.

Client

Eskom.

Key Contracts and Suppliers

The Braamhoek Consulting joint venture (JV) – consisting of Arcus Gibb, Knight Piesold and Stewart Scott – (design monitoring and supervision); Murray & Roberts (exploratory tunnel); Grinaker-LTA (access roads); CMC Mavundla (main access tunnel); Afriscan (water supply, sewage treatment, small access roads and building of temporary Eskom offices); B&E Quanza Group (aggregate quarry); Acer (Africa) (environmental consultants); Braamhoek Dams JV, comprising Concor Roads and Earthworks, WBHO, Edwin Construction and Silver Rock (dam contract); and Voith Siemens Hydro Power Generation (equipment contract).

Latest Developments

September 2008

Eskom has awarded a contract to Voith Siemens Hydro Power Generation for the equipment supply to the Ingula project. The contract is valued at €140-million (R1,65-billion).

The contract calls for the supply of four 342-MW pump turbines, four motor generators and the automation and control system for the plant.

Voith Siemens Hydro Power Generation's German and Japanese operating units, which are joint partners in the project will design and manufacture the equipment. The motor generators will come from Kawasaki, in Japan, while the pump turbines will be supplied from the company's workshops in Heldenheim, Germany.

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850

or email mediadesk@eskom.co.za.

Eskom national call centre tel 0860 037 566.

ELECTRICITY PROJECTS

Kusile (formerly Project Bravo)

Name and Location

Kusile (formerly Project Bravo), Witbank area, Mpumalanga province, South Africa.

Project Description

Kusile will be a six-unit, greenfield, mine-mouth, coal-fired power plant, with about 4 818 MW of gross output.

Value

The project's cost has escalated from about R80-billion to an estimated R111-billion.

Duration

The first 803-MW unit will enter commercial operation in 2013, with the subsequent five units being commissioned at eight-month intervals thereafter. The last unit is expected to be in commercial operation in 2017.

Client

Eskom.

Key Contracts and Suppliers

Ninham Shand Consulting Services (environmental-impact assessment), geotechnical investigations and traffic impacts), AirShed Planning Professionals (air-quality impacts), Jongens Keet Associates (noise impacts), Strategic Environmental Focus (visual impacts), Makecha Development Association (impacts on terrestrial fauna and flora), Golder Associates through Ecosun (aquatic-ecosystem impacts), Groundwater Consulting Services (ground water impacts), Ilitha Riscom (risk assessment), Northern Flagship Institution (archaeological impacts), University of the Free State (impacts on agricultural potential), Urban-Econ (socioeconomic impacts), Seaton Thomson & Associates (planning implications), Mark Wood Environmental Consultants (process review), Eskom, in partnership with Black & Veatch (project management), Hitachi Power Africa (boiler contract), Alstom (turbine island works), Murray & Roberts (boiler construction contract), Roshcon, a subsidiary of Eskom (terracing contract), and the Kusile Civil Works Joint Venture (JV) (main civil works).

Latest Developments

January 2009

The cost of the Kusile project has increased from an initial R80-billion to R111-billion.

Eskom has stressed that the increase in the cost of the project is not a case of "cost overruns", but rather a function of closing the gap between initial price estimates, and the real contracted prices, including the expected price escalations.

December 2008

Eskom has issued a request for proposal (RFP) for the construction of the water pipeline for the Kusile power station. The closing date for the RFP is January 9, 2009.

Meanwhile, the main civil works contract for the power station has been awarded to the Kusile Civil Works JV, comprising Stefanutti Stocks Civils, Group Five Civil Engineering and WBHO Construction. Stefanutti Stocks Civils will lead the JV. Construction for the civil works for the project will start in January 2009.

November 2008

Eskom has issued a request for quotation (RFQ) for the pipe jacking contract for the project. The pipeline is from Kendal to Kusile, crossing three major roads and a railway. The traffic volumes and strategic nature of these roads dictate that it cannot be interrupted. These roads are the R555, the N12 freeway and the R545.

The closing date for the RFQ is December 11, 2008.

October 2008

Eskom has issued RFPs for the construction of an access road (enquiries should be directed to **Jannes Duvenage**, tel +27 11 800 3927, fax +27 11 800 3673 or email djuvenaj@eskom.co.za); for the complete design, fabrication, construction, supply, installation and commissioning of the coal stockyard materials handling systems project (enquiries should be directed

To page 17

ELECTRICITY PROJECTS

From page 16

to **Thandiwe Gxabuza**, tel +27 11 800 6537 or email coalstockyard@eskom.co.za); for the terrace materials handling systems (enquiries should be directed to **Thembeke Madlala**, tel +27 11 800 6538 or email madlaltf@eskom.co.za); for the manufacture, supply, and delivery for the power station's raw water supply (enquiries should be directed to **Ulaina Reddy**, tel +27 11 800 4362 or email Ulaina.Reddy@eskom.co.za); as well as for the supply of security services (enquiries should be directed to **Lunga Manci**, tel +27 11 800 6536, fax +27 86 665 2881 or email lunga.manci@eskom.co.za).

September 2008

Eskom has issued a RFP for chimney construction at the Kusile power station.

The contract will include the complete design, supply, construction, installation and commissioning of equipment for two 220-m high reinforced concrete multiflue chimneys, which will transmit flue gas desulphurisation (FGD) flue gases. The contract will include, but is not limited to, reinforced concrete windshield structures, enclosing three steel flues in each associated insulation; foundations and piles (as required) and associated facilities for the project.

technology, if such a technology was to emerge and if suitable storage areas could be discovered.

On Budget and on Time?

The cost of the Kusile project has increased from an initial R80-billion to R111-billion.

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850
or email mediadesk@eskom.co.za.

Eskom national call centre, tel 0860 037 566.

ELECTRICITY PROJECTS

Medupi

Name and Location

Medupi, Limpopo province, South Africa.

Project Description

Medupi, formerly code-named projects 'Alpha' and 'Charlie', will be a dry-cooled coal-fired generating plant, comprising six units, with a 4 800-MW installed capacity.

The power station will use high-tech supercritical boilers, which will operate at higher temperatures and pressures than older boilers, giving greater efficiency.

The base-load plant, made up of six 800-MW units, will be commissioned in phases.

It is the first base-load, coal-fired station to be built in South Africa in over 20 years and its delivery on schedule is viewed as critical.

The project will form part of the utility's integrated strategic electricity plan.

Value

R100-billion.

Duration

The first unit of the Medupi power station could be operational by mid-2012. The remaining units are scheduled to be commissioned at nine-monthly intervals, so the last units are expected to be commissioned by March 2016.

Client

Eskom.

Key Contracts and Suppliers

Exxaro Resources (coal agreement), Roshcon (civil engineering), Murray & Roberts MEI (structural steel fabrication and erection, and mechanical installation works, boiler construction and civil works contract), the Hitachi consortium (boiler contract), Alstom (turbine power islands), SPX Corporation (pulse-jet fabric filters and air preheaters, and the manufacture of pressure parts), GEA (design, manufacture, supply and erection of the air-cooled condensers), Afrimat in partnership with local suppliers Chobe Crushers (supply of aggregate), BroKrew Industrial (fabrication, corrosion protection and delivery of ducting, for six air-cooled condenser sections of Medupi), Genrec Engineering (awarded a number of projects by Murray & Roberts MEI, which is contracted to Hitachi Power Africa, to conduct connection design, to detail, fabricate and supply structural steel for the boiler island, auxiliary bay structures, ash transverse conveyors, coal incline conveyors, and the primary and secondary coal conveyors), SSI (engineering services), and Sarens (mobile crane hire).

From page 27

Latest Developments

January 2009

The cost of the Medupi project has surged from an initial R80-billion to R100-billion.

Eskom has stressed that the increase in the cost of the project is not a case of "cost overruns", but rather a function of closing the gap between initial price estimates, and the real contracted prices, including the expected price escalations.

However, Eskom has admitted that there have also been some scope changes, the most significant being the inclusion of flue-gas desulphurisation systems on three of Medupi's six units, to improve air quality management.

To page 19

ELECTRICITY PROJECTS

December 2008

Despite the current slow progress being made on the development of the site of the Medupi power station, Eskom is confident that the power station will be delivered on time.

Eskom has indicated that the current progress is based on a five-day work schedule. Efforts are being put into place to accelerate the work schedule.

Eskom says that the rock foundation conditions encountered at Medupi have not been as expected.

Specifically, it has been found that although normal blasting removed the rock, it also resulted in the shattering of rock some distance away from the intended areas. It has, therefore, been necessary to resort to the use of controlled blasting through the use of more, but significantly smaller, explosive charges.

This, however, has not delayed the completion of the site preparation and terracing work and the site was handed over to the main civils contractors on the agreed date.

Current indications from Eskom indicate that the first unit should be ready for commercial operation in April 2012.

Meanwhile, appeals against the environmental go-ahead given for the construction of transmission power lines from the Medupi power station, have been dismissed by the Minister of Environmental Affairs and Tourism **Marthinus van Schalkwyk**.

The authorisations issued by the Department of Environmental Affairs and Tourism (Deat) DG on March 6, for the construction of the Medupi/Marang 400-kV transmission line, and on March 27, for the construction of the Medupi/Dinaledi 400-kV transmission lines, have therefore been confirmed by the Minister.

The grounds for appeal were dismissed, as the mitigation measures proposed in the environmental-impact report and the conditions contained in the two records of decision were deemed adequate to mitigate the impact of the transmission lines to acceptable levels.

Further, Eskom has invited a request for proposal (RFP) for the engineering, design, manufacturing, quality assurance and inspection, and the testing at the contractors' works, and the supply and setting for work on the uninterrupted power supply (dc systems) of the Medupi power station.

The closing date for the RFP is January 15, 2009. Queries relating to the RFP should be directed to **Takalani Nemavhulani**, tel +27 11 800 3198 or email mp16com@eskom.co.za.

September 2008

Eskom and diversified miner Exxaro Resources have formally signed the coal supply agreement for the utility's base-load power station. The agreement states that Exxaro's Grootegeluk mine will supply an average of 14,6-million tons of power station grade coal over the next 40 years.

The technical and commercial teams have also negotiated an agreement that has been ratified and approved by both the boards of Eskom and Exxaro.

August 2008

Afrimat has secured a R90-million contract to supply coarse and fine aggregate for phase 1 of the Medupi project. The company is partnering with local suppliers Chobe Crushers. The contract requires 560 000 t of crushed aggregate and about 250 000 t of natural sand to be delivered over a 42-month period. Further, SA French has received a R50-million purchase order for two tower cranes that will be used for the construction of Medupi. The cranes will be shipped from France and will take about 30 days to erect and commission once they have arrived on site.

June 2008

Eskom has invited suitable main contractors to prequalify for the design, supply, construction and commissioning of the complete hydrogen and nitrogen supply systems for the Medupi project.

From page 28

Eskom also has invited suitable main contractors to prequalify for the design, supply, construction and commissioning of the complete terrace coal and ash system for the project.

Meanwhile, Alstom has notified Eskom that its three subcomponents, related to the Medupi turbine order, might be affected by the recent earthquake in China. The precise impact, if any, of the earthquake and aftershocks on the turbine orders for the project, is yet to be determined.

The contract between Eskom and Alstom binds the two parties in processes that will seek to mitigate the impact.

The key component on the "critical path" for Medupi relates to the forgings for the outer casings of the turbines, which now might

To page 20

ELECTRICITY PROJECTS

need to be placed with alternative suppliers.

It has been indicated that Eskom could well approach alternative suppliers from Europe, but has noted that most power equipment facilities on the continent faced significant order backlogs.

Both sides remain committed to keeping the build programme on schedule.

May 2008

A consortium led by Murray & Roberts has won the civil works contract for the Medupi power station. The contract is valued at an estimated R3-billion.

The contract includes all civil engineering work and the construction of roads, drains, foundations, column supports, floor slabs and basements.

Also included, are a utility spine and connectors beneath an auxiliary bay, the boiler house and the turbine hall.

The initial terracing of the site is almost completed and the Murray & Roberts consortium is expected to begin work on site shortly. The consortium includes Grinaker-LTA as a 33% stakeholder, as well as Concor.

April 2008

Eskom has issued an invitation to prequalify for the design and construction of the chimney and silos at the Medupi power station.

Further, Eskom has issued an invitation to prequalify for the design, supply, construction and commissioning of the complete Package 31 – Reservoirs.

March 2008

Eskom has reported that the tar road running through the site has been closed and that the bypass road will be used.

The main civil works are still in progress. The forty-sixth blast took place this month.

Further, Eskom has put out a request for proposals for accommodation to be built for staff and contractors within a 50-km radius of Lephale.

Meanwhile, appeals have been lodged against the environmental go-ahead given for the construction of transmission power lines from the Medupi power station,

The major grounds of appeal include: inadequate public participation; technological solutions proposed by the appellants have been inadequately considered; insufficient information has been provided to serve as a basis for the decision on the preferred route option; the possible implementation of the 'utility corridor' concept has been ignored; unacceptable impacts on biodiversity
From page 31

in general and on certain bird species in particular; the environmental-impact assessments (EIAs) for these lines should have been integrated with the EIAs for the 765-kV lines, which are planned for construction during later phases of the provision of infrastructure for the Medupi plant; and the independence of the environmental consultant has been questioned.

From page 20

January 2008

Hitachi has awarded the boiler construction contract for the Medupi and Bravo coal-fired power station to Murray & Roberts. The contracts are valued at about R15-billion.

Hitachi will supply the boilers and Murray & Roberts will do all the structural work, which includes the construction of the boiler house, piping, electric and related structural work.

Murray & Roberts also is likely to be considered for the Medupi civil contract, worth some R2,5-billion. The contract is currently under adjudication by Eskom.

Further, Eskom hopes to conclude coal contracts for the second phase of the Medupi project within the next six months.

To page 21

ELECTRICITY PROJECTS

Meanwhile, the first 800-MW unit of the 4 800-MW Medupi power station that was scheduled to start up by September 2010 could be delayed until mid-2012, as a result of the later-than-expected delivery of turbines and boilers. This is the second revision of the schedule for the power plant. The project was originally scheduled to be operational in September 2010, but was delayed by up to nine months, as a result of environmental challenges.

On Budget and on Time?

The cost of the Medupi project has surged from an initial R80-billion to R100-billion.

Further, the first unit of the project originally scheduled to start operating in September 2010, is now expected to be operational only in mid-2012.

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850

or email mediadesk@eskom.co.za.

Eskom national call centre, tel 0860 037 566.

ELECTRICITY PROJECTS

Mmamabula energy project (MEP)

Name and Location

Mmamabula energy project (MEP), Botswana.

Project Description

CIC Energy Corp is developing three projects at its Mmamabula coal field. The most advanced project is a new integrated coal mine and coal-fired base-load power plant called the MEP.

Phase 1 of the MEP is being designed for a 1 320-MW capacity comprising two units of 660-MW each and a 4,5-million metric sales tons a year coal mine. This project is being planned with provisions for expansion in multiple phases.

At full production, a total of about six-million tons of run-of-mine coal a year will be required to support the phase 1 power station.

Value

CIC Energy's estimated equipment costs for the MEP have been revised for the resized 1 320-MW project. The estimated capital equipment and infrastructure costs related to the power station and mine are currently about \$3-billion.

CIC Energy has changed its disclosure practice related to project cost estimates for the MEP given the volatility of certain components of the cost estimate (such as estimated interest payments, hedging costs and foreign currency translation, and the like). By disclosing capital costs rather than total project costs, investors can more easily compare the MEP's costs with other new power projects taking place globally. In addition, these cost estimates will not be dependent upon global financial markets or the company's ability to forecast these markets. The total project cost will only be established at financial close, when the loan agreements have been negotiated.

Duration

CIC Energy intends to be generating electricity by late 2012 or early 2013.

Client

CIC Energy Corp.

Key Contracts and Suppliers

Consultants participating in the Mmamabula energy complex development include Snowden Mining Industry Consultants (resource estimates); ERM and Digby Wells & Associates (water and environmental solutions); DRA (mine beneficiation plant designs); Gibb Africa (surface water studies); Africon (design of common infrastructure); Clifford Chance (project legal counsel); Jacobs Engineering Group, Toyo Engineering, Lategan & Bouer and VGI (technical studies); MRN Runge and DRA (Export Coal Project mine planning & design); Shell Global Solutions International (value-chain study), Shanghai Electric Group (SEC) (EPC contract; Parsons Brinckerhoff (PB) (owner's engineer) and NM Rothschild & Sons (MEP financial advisers).

The expected participants in the power purchase agreements (PPAs) are Eskom and the Botswana Power Corporation (BPC).

Latest Developments

December 2008

SEC has been selected as the preferred EPC contractor for the first power station. As a result, CIC Energy has entered into a preliminary agreement with SEC in respect of the MEP. Further, CIC Energy has appointed PB as owner's engineer for the project. In early 2009, CIC Energy expects to: submit formal bids to Eskom and the BPC for long-term PPAs; to reach agreement with an independent power producer (IPP) partner; to conclude a definitive EPC contract for the power station; to submit an IPP licence to the government of Botswana; to award infrastructure construction contracts; and to start the procurement process for the construction of the coal mine.

On Budget and on Time?

The project's schedule has already been moved back a number of times, more recently in January 2008, when the company reported that it expected to be producing commercially from the first unit of the plant by late 2012 or early 2013.

Contact Details for Project Information

Tau Capital Corp vice-president: investor relations **Erica Belling**,
tel +1 416 361 9636 or email EBelling@taucapital.com.

ELECTRICITY PROJECTS

Pebble-bed modular reactor project

Name and Location

Pebble-bed modular reactor (PBMR) project.

Project Description

The PBMR project involves the development of a pebble-bed modular nuclear reactor – a high-temperature, gas-cooled reactor, which advances on previous international nuclear designs.

The project also envisages the construction of a demonstration power plant at Koeberg, near Cape Town, and a pilot fuel plant at Pelindaba, near Tshwane.

Value

R20-billion, including contingency and commercialisation costs.

Duration

PBMR Company is aiming to begin construction activities for the so-called 'fourth generation' demonstration PBMR alongside the existing Koeberg nuclear site by the end of 2010, with fuel to be loaded in 2013 and actual reactor start-up in 2014.

Client

The PBMR Company has the following investors: Eskom, the South African government, the Industrial Development Corporation (IDC) and the US company Westinghouse.

Key Contracts and Suppliers

Arcus Gibb and Acer Africa (environmental-impact assessment (EIA) consultants); IST Nuclear (supply of three key systems: fuel handling and storage, reactivity control and shutdown, and gas conditioning and control); the South African Nuclear Energy Corporation (Necsa) (fuel fabrication); M-Tech (computer analyses and development of PBMR power conversion unit test rig); MHI, of Japan (turbines); GEA (heat exchange); SGL Carbon of Germany (core structure ceramics and graphite feedstock material); RWE-Nukem of Germany (fuel technology); DCD-Dorbyl (valve blocks, heavy wall pressure vessels); Ilitha Project Services (Hazop); WEC (automation safety subsystems); Equipos Nucleares SA (design and manufacture of main power system pressure boundary for the Generation IV reactor), INM (irradiation and postirradiation testing), Murray & Roberts SNC-Lavalin Nuclear (MRSLN) (engineering, procurement and construction management (EPCM) services PBMR demonstration plant), and Kaefer Thermal (conceptual design of the insulation system for the pilot plant PBMR).

Latest Developments

February 2009

The PBMR Company has placed certain of its contracts with suppliers on hold, as the company is considering changing its product strategy. The current concept for the demonstration power plant at Koeberg is specifically intended for electricity generation. Under consideration is a system that can produce both electricity and process heat.

There are a large number of industrial processes that require super-heated gases or steam.

A PBMR will have outlet temperatures of up to 950° C and so will be able to produce the necessary superheated gases.

The process steam delivery is the near-term market entry application, with hydrogen production as the follow-on.

Given the limited funding available, the PBMR Company is considering whether it can build a more versatile reactor that can do both electricity and process heat.

The company is having continuing conversations with a number of potential clients on process heat applications for the PBMR. These include South Africa's coal-to-liquids and petrochemicals group Sasol, and Canadian oil sands companies.

On Budget and on Time?

Construction of the demonstration plant awaits regulatory approvals.

Contact Details for Project Information

PBMR communications consultant, **Tom Ferreira**,
tel +27 12 641 1132 or email tom.ferreira@pbmr.co.za.

ELECTRICITY PROJECTS

Sasol gas-fired power plant

Name and Location

Sasol gas-fired power plant, Secunda, Mpumalanga, South Africa.

Project Description

Sasol has approved plans to build a 280-MW gas-fired power station at its Secunda plant. The power plant will eventually use mainly flare gas, but will be commissioned with natural gas supplied from its operations in Mozambique.

Value

R2,5-billion.

Duration

A timeframe for the project has not been confirmed.

Client

Sasol.

Key Contracts and Suppliers

None stated.

Latest Developments

None stated.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Sasol investor relations, tel +27 (11) 441 3113
or email investor.relations@sasol.com.

INDUSTRIAL PROJECTS

Significant capital expenditure is taking place on a number of large industrial projects that will boost South Africa's capacity to produce key commodities for which demand is strong. In boosting South Africa's productive capacity, these and other similar investments will go some way towards supporting economic growth in the country.

One of the largest industrial projects under development is ArcelorMittal South Africa's R13-billion investment on expanding its steel production capacity to ten-million tons a year, and improving its environmental performance. In addition, Consol Glass is increasing its capacity, with a R1,5-billion investment in a greenfield glass factory, in Gauteng, which will increase the manufacturer's output to over one-million tons a year.

Further, PPC is undertaking a multibillion-rand project to expand its capacity to produce cement by one-million tons a year, with cement consumption currently sitting at record levels, and expected to remain strong.

Some projects, however, have been suspended, such as Rio Tinto Alcan's Coega Aluminium project. Owing to South Africa's power constraints, the company has indicated that it expects the aluminium smelter to only come on line in 2012.



INDUSTRIAL PROJECTS

ArcelorMittal South Africa's capital expenditure programme

Name and Location

ArcelorMittal South Africa, capital expenditure (capex) programme, South Africa.

Project Description

Steel producer ArcelorMittal South Africa has cut back on its capital expenditure plans in the wake of the impact that the economic crisis has had on demand for steel products, both globally and in South Africa. The company had planned to boost its output of liquid steel from its current nameplate capacity of eight-million tons to ten-million tons by 2013.

These plans have now been postponed and will only be revisited when the market for steel returns to a sustainable growth situation. Even then each project will be re-evaluated on whether it is still needed in a post-crisis market environment. At the moment the company has not given any timelines for a resumption of the growth plan given the continued volatility in global and domestic steel markets.

Value

The cost of the company's capex programme was last year stated at R11,8-billion. In addition to the growth orientated projects the company had also planned to generate its own electricity in gas-powered cogeneration power stations at a cost of about R4-billion. However, owing to the global economic crisis ArcelorMittal South Africa will now limit its capital investment strategy to projects that improve the safety of the operation or that are required in terms of its environmental commitments. In 2009, its total capex budget has been set at R1,4-billion, which also includes maintenance expenditure. In 2008 and 2007 the company had spent just over R1,8 billion each on capital projects.

Duration

The company's capex plans have been postponed and will be revisited when the market for steel returns to a sustainable growth situation.

Client

ArcelorMittal South Africa

Key Contracts and Suppliers

None stated.

Latest Developments

February 2009

The biggest project that will have to be re-evaluated is the N6 blast furnace at Newcastle, which has been estimated at between R2,5-billion and R3-billion. Other projects that have been postponed include galvanising and colour lines at Newcastle and Vanderbijlpark.

Most of the projects that had been started as part of the capex programme were completed in 2008 or are near completion. They include the construction of two new direct reduction kilns at Vanderbijlpark, which are nearing completion. They are responsible for the bulk of the R800-million spent at Vanderbijlpark in 2008. The rest was spent on a sinter off-gas treatment plant.

The relines of the Corex and Midrex plants at the company's Saldanha operation at a cost of R225-million.

The mini reline at Blast Furnace N5 at Newcastle. This cost about R300-million.

The sinter plant rebuild at Newcastle for about R100-million. Two environmental capex projects, namely the R110-million installation of dust extraction systems at Vereeniging Works' steelmaking plant. This is on track for completion in 2010; and the Coke Gas and Water Cleaning project at Vanderbijlpark, which has experienced some commissioning delays, but will be operational in this quarter and reduce sulphur-dioxide emissions by 46% at the operation.

On Budget and on Time?

The company's capex plans have been postponed.

Contact Details for Project Information

ArcelorMittal South Africa GM corporate affairs, **Sven Lunsche**, tel +27 16 889 2425, cell +27 83 260 9279 or email sven.lunsche@arcelormittal.com.

INDUSTRIAL PROJECTS

Coega aluminium smelter project

Name and Location

Coega aluminium smelter project, Eastern Cape, South Africa.

Project description

The project entails the construction and operation of a primary aluminium smelter incorporating two potlines, each with 336 pots (electrolytic cells); a carbon plant and rodding sop for the production of carbon anode blocks; and a casthouse for the casting of aluminium ingots.

The nominal capacity will be 735 000 t/y of aluminium metal using the latest version of Alcan's proprietary AP35 series smelting technology, developed by Aluminium Pechiney.

Other facilities associated with the aluminium smelter include an electrical substation on the site to provide power to the smelter; facilities for materials handling and storage, including storage silos for the storage of raw materials (alumina and petroleum coke); and loading and unloading facilities at the port. A conveyor will be used for the transport of alumina and petroleum coke from the harbour to the smelter.

The total area of the site is 120 ha. Of the 120 ha, 42,5 ha will consist of buildings and other hardened surfaces, such as roads, parking and paved areas.

Value

The cost of the project is estimated at \$3,25-billion.

Duration

The project has been suspended. Rio Tinto Alcan has indicated that it expects the smelter to only come on line in 2012.

Breakdown of Main Contracts

Not stated.

Client

Rio Tinto Alcan inherited the project in 2003 when it took over French rival Pechiney, which had committed to the project. Alcan's current intention is to retain between 25% and 40% of the equity of the project and seek partners for the balance. The Industrial Development Corporation (IDC) has expressed an interest in up to 15% of the project.

Latest Developments

May 2008

Rio Tinto Alcan has indicated that it expects its Coega aluminium smelter to only come on line in 2012.

South Africa's power constraints have meant that the energy-intensive project has been temporarily suspended.

On Budget and on Time?

The smelter has been on the cards for several years but its construction has hinged on Alcan's securing a long-term, reliable and competitively priced energy supply.

Contact Details for Project Information

CDC, tel +27 41 507 9111 or fax +27 41 585 5445.

CDC office of the CEO, **Ongama Mtimka**, tel +27 41 403 0487.

Rio Tinto Alcan communications and external relations,

Corey Copeland, tel +1 514 848 8399 or email investor.relations@alcan.com.

INDUSTRIAL PROJECTS

Consol glass factory

Name and Location

Consol glass factory, Gauteng, South Africa.

Project Description

Consol Glass will increase its capacity, with an investment in a greenfield glass factory. The additional capacity will increase the manufacturer's yearly output by a further 25%, taking its total glass production to over one-million tons a year (over four-billion glass containers).

The new glass factory's key services and infrastructure is being designed to support a four-furnace facility. The initial phase will establish a two-furnace operation, each with an output of 400 t/d. This will equip Consol Glass to produce an additional 220 000 t/y of glass.

Value

R1,5-billion.

Duration

Site establishment is expected to begin in 2009. Subject to confirmation of continued market growth and demand, the first furnace is expected to be commissioned in late 2009 or early in 2010, with the second furnace to follow shortly afterwards.

Client

Consol Glass.

Key Contracts and Suppliers

Capex Projects (project management); Meprotech (process plant); BSM Baker (civil and structural consultant) and W&L consultants (environmental consultants).

Latest Developments

The overall plant design has been completed and long lead-time plant, equipment and services have been secured.

The various environmental-impact assessment studies and processes have been completed and final submissions have been made to the Gauteng Department of Agriculture Conservation and Environment and other local government departments. A record of decision is expected imminently.

On Budget and on Time?

Too early.

Contact Details for Project Information

Consol head office, tel +27 11 874 0000
or email information@consol.co.za.

INDUSTRIAL PROJECTS

PPC Cement capacity expansion projects

Name and Location

PPC Cement capacity expansion projects, South Africa.

Project Description

The capacity expansion projects include the installation of a new 1,25-million tons a year kiln line and related infrastructure at PPC's existing Dwaalboom cement factory dubbed 'Batsweledi' (first production was achieved in October 2008), and the recommissioning and upgrading of the existing cement-milling facility at the Jupiter factory, in Johannesburg (completed in 2006). The project further includes the inland cement milling expansion project plans at Hercules dubbed 'Ntshafatso' and the proposed Riebeeck cement factory expansion and upgrade, in the Western Cape, dubbed 'Se Kika'.

Value

The Batsweledi project will cost R1,4-billion; the Jupiter kiln R48-million, the Ntshafatso project will cost R604-million and the Se Kika project R4-billion.

Duration

The Jupiter kiln was commissioned in 2006. First production was achieved at Batsweledi in October 2008. The Ntshafatso project is scheduled to come on stream in mid-2009. The Se Kika project is expected to be delayed until 2010.

Client

PPC Cement.

Key Contracts and Suppliers

At the Ntshafatso Project:

Loesche (mill package supplier), TWP (engineering, procurement and construction management (EPCM)), Consultauri Design (specialist civil and structural engineering); Kentz Automation & Drives (electrical, control and instrumentation engineering); Turner & Townsend (quantity surveying and cost engineering services); Gauteng Piling Project (piling); Concor Holdings (civil works contract); Ishikova Projects Transfer (construction of new store facilities and Tshwane electrical substation).

At the Batsweledi Project:

FL Smidth (main plant); Bateman Africa (supply of the raw material handling equipment, clinker transport and handling systems and modifications to the existing plant and clinker road load-out station); Lime Civils (construction campus for contractors); FFEM (mechanical equipment installation); DMCE (erection – subcontractor), Consultauri (civil and structural consultants); Semanya Furumele Transportation Engineers (Koedoeskop road project); Optin (control system) and Concor Civils (civil contractor).

Latest Developments

November 2008

The Riebeeck West expansion project continues to be delayed by the environmental-impact assessment (EIA) and regulatory approval process. PPC expects construction of the new cement plant to be delayed until 2010, owing to the long delays and the company does not expect to start production until 2013.

On Budget and on Time?

Most of the projects are on track and within budget except for the Riebeeck West project, which has seen a cost escalation of R1-billion and an eight-month delay, owing to the EIA report.

Contact Details for Project Information

PPC Cement, tel +27 11 386 9000, fax +27 11 386 9001.

PETROCHEMICALS PROJECTS

Based on the current rate of demand growth, it is estimated that the demand for fuel in South Africa will justify a new crude-oil refinery within the next five to seven years. Demand for automotive fuels in the country already exceeds local production capacity and the country is becoming increasingly dependent on importing refined automotive products.

A new crude-oil refinery will go a long way in alleviating the country's dependence on imported crude or imported refined products.

In its quest to ensure security of liquid fuel supply, the government's Energy Security Master Plan – Liquid Fuels, which was gazetted by the Department of Minerals and Energy in 2008, has recommended that PetroSA procure at least 30% of all crude oil consumed in South Africa. In direct response to this mandate, PetroSA is conducting a feasibility study into a 400 000-bbl/d crude-oil refinery, in the Eastern Cape, dubbed Project Mthombo.

Further, Sasol is completing a prefeasibility study into a possible new coal-to-liquids facility in Limpopo province, in South Africa. The envisioned project, with a potential capacity of about 80 000 bbl/d, has been dubbed 'Mafutha'.



PETROCHEMICALS PROJECTS

Project Mafutha

Name and Location

Project Mafutha, South Africa.

Project Description

The proposed project will involve building a new coal-to-liquids (CTL) facility in South Africa. The envisioned project, with a potential capacity of about 80 000 bbl/d, has been dubbed 'Mafutha' – the Zulu word for oil.

The project also will include other processing units, utilities and off-site facilities necessary to support the development.

A figure for the quantity of coal that will be required for the plant has not been confirmed, and more details on the volumes of coal required will only become available once Sasol has finalised the location of the site.

Further, the plant will be built ensuring that it is carbon-capture and storage (CCS) ready.

Three potential sites with abundant coal reserves were initially considered, namely the Free State, Limpopo and Mpumalanga provinces. Sasol has since selected a coalfield in the western part of Limpopo province, as part of its prefeasibility study into the proposed project.

Value

Sasol has still to put a price tag on the development of Project Mafutha.

Duration

If the project proves to be economically feasible, it could come on stream in 2016.

Client

Sasol and the Industrial Development Corporation (IDC).

Key Contracts and Suppliers

Foster Wheeler South Africa (prefeasibility study).

Latest Developments

January 2009

The Department of Minerals and Energy's (DME's) controller of petroleum products has reported that Sasol has submitted an application for a licence in Steenbokpan, near Lephalale in Limpopo province.

The application was made in accordance with Regulation 28 of the Petroleum Products Act (Act No 120 of 1977), which requires Sasol Mafutha to publish such a notice before starting with the feasibility assessment of the proposed project.

The DME has also noted that interested and affected parties can view the application documentation, and should any objections to the issuing of this licence arise, they should be lodged with the department before February 14.

Sasol has said that the licence application itself does not confirm in any way that the project is to proceed or that a final decision has been made on the location or viability of the project.

Contact Details for Project Information

Sasol investor relations, tel +27 11 441 3113

or email investor.relations@sasol.com.

PETROCHEMICALS PROJECTS

Project Mthombo

Name and Location

Project Mthombo, Coega, Eastern Cape, South Africa.

Project Description

South Africa State-owned firm PetroSA plans to build a 400 000-b/d oil refinery, in the Eastern Cape, to meet the growing demand for fuel in the country.

Value

The project may cost up to \$11-billion.

Duration

Construction of the refinery is expected to be fast-tracked, starting in 2010, with the plant to come on stream by 2014.

Client

PetroSA.

Key Contracts and Suppliers

KBC Advanced Technologies (the project's technical/commercial adviser), HSBC (project finance advisory service provider), and KBR (feasibility and front-end engineering and design (FEED) study services).

Latest Developments

December 2008

PetroSA has appointed US-based and NYSE-listed engineering firm KBR as the engineering contractor for the proposed project. KBR has been contracted to work with PetroSA to provide feasibility and FEED study services for the project. The contract is estimated to be worth close to R1-billion. As part of the contract, the project will have a 25% black economic-empowerment (BEE) partner, which will be announced shortly.

The feasibility phase of Project Mthombo is anticipated to start this month. KBR will deliver the feasibility study on a fast-tracked basis by September 2009, at the request of PetroSA.

Final board approval for the investment will be sought in late 2010, after which construction will begin. Construction of the refinery is anticipated to begin in early 2011.

October 2008

PetroSA has been granted a manufacturing licence for Project Mthombo.

The granting of the licence is a significant milestone in fast-tracking the project.

The licence allows PetroSA to manufacture refined petroleum products at the Coega site, but this is still subject to certain other conditions, such as environmental permits.

Further, PetroSA shortly is expected to award an engineering contract, which will start off the feasibility study and the FEED phases of the project.

The company has also announced that it has appointed KBC Advanced Technologies as the project's technical/commercial adviser.

Contact Details for Project Information

PetroSA manager: external communications, **Thabo Mabaso**,

tel +27 21 929 3000, fax +27 21 929 9294 or email thabo.mabaso@petrosa.co.za.

PROPERTY DEVELOPMENT

The South African government's ongoing infrastructure investment programme, valued at almost R600-billion, is serving as a buffer for construction companies which are otherwise facing a general realignment to slower growth. In addition, several construction companies are continuing to benefit from property development projects. A project encompassing government's social development priorities and property development is the Fleurhoff integrated housing development. FNB and Calgro M3 are developing the project, in Johannesburg, in a public-private partnership, which will comprise 1 650 Reconstruction and Development Programme and low-cost housing units and 3 850 affordable housing units. The project adheres to the "Breaking New Ground" principles of the Department of Housing, which seeks to alter housing patterns in South Africa by integrating communities and placing them closer to areas of economic opportunities.



PROPERTY DEVELOPMENT PROJECTS

Fleurhoff integrated housing development

Name and Location

Fleurhoff integrated housing development, Johannesburg, South Africa.

Project Description

The project will involve the development of a 5 500-unit integrated housing development in a public–private partnership. The development will comprise 1 650-reconstruction and development programme and low-cost housing units, and 3 850-affordable housing units.

Value

R1,6-billion, which will be funded by First National Bank (FNB).

Duration

The project is expected to start construction in mid-2008 and is expected to be completed by 2012.

Client

FNB and Calgro M3. Calgro M3 will handle the full spectrum of requirements for the development, including land procurement and financing (secured from FNB), project management, housing construction and marketing.

Key Contracts and Suppliers

None stated.

Latest developments

None stated.

On budget and on time?

Too early to state.

Contact Details for project information

Envisage Communications on behalf of Calgro M3, **Nicole Katz**, tel +27 11 325 5944 or +27 11 325 5942.

SPORTS INFRASTRUCTURE PROJECTS

With less than 500 days until South Africa hosts the 2010 FIFA World Cup, construction on the ten stadiums selected by FIFA and the Local Organising Committee to host the event, is well advanced and the stadiums are expected to be completed before the end of 2009. Five new stadiums are being built or rebuilt and five existing stadiums are being refurbished and upgraded, to be used when South Africa hosts the event. The stadiums being rebuilt are: the Peter Mokaba stadium in Polokwane; the Moses Mabhida stadium in the eThekweni metro and, in the Western Cape, Cape Town's Green Point stadium. A new stadium will be built in Mbombela, in Mpumalanga, as well as in the Nelson Mandela Metro, in the Eastern Cape. The five stadiums being upgraded are: Soccer City, Ellis Park and Loftus Versfeld in Gauteng; the Royal Bafokeng stadium in the North West province, and the Vodacom Park in Mangaung (Bloemfontein).



SPORTS INFRASTRUCTURE PROJECTS

Ellis Park stadium upgrade

Name and Location

Ellis Park stadium upgrade, Johannesburg, South Africa.

Project Description

The Ellis Park stadium already satisfies most of FIFA's requirements to host the semi- and quarter-final matches of the 2010 FIFA World Cup, so the upgrade to the stadium will be mostly cosmetic in nature.

The project entails the refurbishment of all existing ablution units, the construction of new ablution facilities, conference facilities, a hall of fame, a museum, a FIFA hospitality suite, seating for disabled people, club facilities, as well as a 1 100-bay parkade. The stadium's lighting and change-room facilities will also be upgraded.

The estimated capacity of the stadium, once completed, will be 61 000.

The general area around the precinct also is set to benefit from a R2-billion upgrade.

Value

R81-million.

Duration

The upgrade of the stadium was expected to be completed in 2008.

Client

City of Johannesburg.

Key Contracts and Suppliers

Rainbow Construction and Trencon Construction (main civil contractor); Leetek (main electrical contractor); and Kone (main mechanical contractor).

Latest Developments

January 2009

All the major refurbishments to the Ellis Park stadium have been completed. The host city now is focusing on the final cosmetic upgrades, as well as putting the final touches on the pitches and on the precinct infrastructure.

On Budget and on Time?

Yes.

Contact Details for Project Information

Ellis Park project manager, **Rod Pearce**, tel +27 11 381 0396.

LOC, tel +27 11 567 2010.

Rainbow Construction, **Terry Thorp**, tel +27 11 444 4063, cell +27 82 370 3951 or fax +27 11 444 1388.

Trencon Construction, **Adrian Purcell**, tel +27 11 974 4464, cell +27 78 150 4008, or fax +27 11 974 3188.

SPORTS INFRASTRUCTURE PROJECTS

Free State stadium upgrade

Name and Location

Free State stadium upgrade, South Africa.

Project Description

The Free State stadium will be upgraded from its current seating capacity of 38 000 to 46 000. To achieve this seating capacity, only the current grandstand will be upgraded.

The upgrade comprises: a new top tier accommodating the bulk of the additional seating, and a cantilever roof structure extending over the written media seats; the upgrade of the floodlighting to the minimum 2 000 lux required by FIFA; new crowd control facilities, including access and egress; the upgrade of the internal layout of the existing grandstand to accommodate additional VIP and VVIP facilities, FIFA and 2010 organising committee offices, medical and doping control facilities, upgraded dressing rooms and much improved horizontal and vertical circulation; a ticketing system; an accreditation centre; and a temporary media centre and an outside broadcasting compound..

Value

The total budget for the stadium upgrade has been revised from R241-million to R305,5-million, with the construction portion totalling R252-million.

Duration

Construction on the project started on September 1, 2007. The building work at the Free State stadium is practically completed. Temporary facilities such as the stadium media centre, outside broadcasting equipment, video screens, will be installed over the next few months to ensure that the stadium will be 100% ready by June 2009.

Client

The Mangaung local municipality

Key Contractors and Suppliers

RMIP Joint Venture (JV), comprising Ruwacon, Meyker Re-teng Construction, Ikaneng Developments, and Promania 128 (main contractor).

Latest Developments

January 2009

All the major refurbishments to the Free State stadium have been completed. The host city now is focusing on the final cosmetic upgrades, as well as putting the final touches on the pitches and on the precinct infrastructure.

There are very few outstanding items and these will be completed by the end of February 2009.

The grass for the pitch was fully planted in December 2008, however, a period of six to eight weeks is required for the grass to become fully grown. The latter will be achieved by the end of February 2009.

Some of the items such as landscaping and IT&T have to start after the building work has been completed and construction equipment removed from site. These items will also be completed in February 2009.

The manufacturing process outside South Africa has delayed the delivery of the turnstile system. The turnstiles will be installed in February 2009.

Together with the Local Organising Committee, the municipality has already started with the operational planning phase for the stadium, in preparation for the FIFA Confederations Cup.

On Budget and on Time?

As a result of longer site establishment, unscheduled matches and rainfall – the project experienced some delays at its start.

The budget for the project remains unchanged.

Contact Details for Project Information

The Mangaung local municipality, tel +27 51 405 8675 or fax +27 51 405 8589.

SPORTS INFRASTRUCTURE PROJECTS

Green Point stadium

Name and Location

Green Point stadium, Cape Town, South Africa.

Project Description

As part of South Africa's preparations for the 2010 FIFA World Cup the Green Point stadium is to be transformed into a completely new 68 000-seater, all-weather, multipurpose, environmentally sustainable, modern, technologically advanced, world-class stadium.

The new multipurpose sports facility will include a dome, which will be able to open and close to guard against Cape Town's unpredictable weather.

Value

The stadium budget, which was estimated at R3-billion, has now increased to an estimated R4-billion, as a result of cost increases in building material and subcontracts, and the booming construction industry.

Duration

The stadium is expected to be handed over to FIFA for inspection by December 2009.

Client

City of Cape Town.

Key Contracts and Suppliers

Murray & Roberts/WBHO (main contractor); ABE Painters (painting); Birdair/Pfeifer joint venture (JV) (roof); DSE (fabrication and delivery of structural steel and platework components); Buro Centrum Ya-Rona (seats); Dimension Data (electronics package); Dracon National (drywall partitions and ceilings); Emabassy/Installair JV (air conditioning); Grinstead Plumbing (plumbing); Hulsman Doors (roller shutters); Improvair Environmental Solutions (ventilation system); Jolind Construction (substation); Just Seats (precast seat supply); MASS JV comprising Mammoet and Sea & Shore (precast seat placement); the Nowy Styl Group (stadium seats); Otis (lifts); Peninsula Plumbing & Engineering Works (plumbing); Scheltema & Company (external façade); SBBS JV/Brand Engineering (electrical); The Green Point Stadium Post-Tensioning JV (post tensioning); Tile Master (tiling); Vangate Fire JV (sprinklers and hydrants); Winlite (aluminium shop fronts); and Sarens (mobile crane hire).

Latest Developments

January 2009

Construction at the stadium has reached the halfway mark, with the procurement of subcontractors remaining "on track".

August 2008

The project is currently on track, with 36% of the works completed.

Achieved milestones include subframe 1, which was completed on March 7, 2008 and the completion of subframe 2 on July 4, 2008.

The next milestone is expected to be achieved on September 18, 2008, with the completion of the frame (all pylons topped out).

On Budget and on Time?

The project is on track to be completed by December 14, 2009, six months ahead of the July 11, 2010, World Cup kickoff.

Contact Details for Project Information

Murray & Roberts/WBHO project director, **Andrew Fanton**,
tel +27 21 430 0300 or email Andrew.fanton@murrob.com.

SPORTS INFRASTRUCTURE PROJECTS

Loftus Versveld upgrade

Name and Location

Loftus Versveld upgrade, Pretoria, Gauteng province, South Africa.

Project Description

There are no plans to increase seating at Loftus Versveld.

The floodlights, the sound system and the scoreboard will be upgraded and designated media areas will be constructed on the lower level of the stand.

Value

R99-million has been budgeted for the refurbishment of the stadium.

Duration

The project is expected to be completed by October 2008.

Client

City of Tshwane.

Key Contracts and Suppliers

Homeless Building Construction (additions and alterations); Otis Lift (new lift contract); Redfab/Impact Engineering (new roof contract); and TDC Africa (sound and evacuations contract).

Latest Developments

January 2009

All the major refurbishments to the Loftus Versveld stadium have been completed. The host city now is focusing on the final cosmetic upgrades, as well as putting the final touches on the pitches and on the precinct infrastructure.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Project manager, **Anil Parshotam**, cell +27 82 4187 2530
or email architect@iafrica.com.

The Local Organising Committee, tel +27 11 567 2010.

SPORTS INFRASTRUCTURE PROJECTS

Mbombela stadium

Name and Location

Mbombela stadium, Nelspruit, Mpumalanga province, South Africa.

Project Description

The proposed project will involve the construction of a sports venue for use during the 2010 FIFA World Cup. The stadium has been designed as a multisport, entertainment and exhibition venue and will be built seven kilometres north of Nelspruit at the Mataffin site adjacent to the N4/7. The stadium will seat 42 000 people, although only 25 000 seats will be permanent. The infrastructure around the stadium will include parking and related facilities. The new stadium will host first- and second-round matches.

Value

R875-million.

Duration

The stadium is expected to be completed by the FIFA target date of December 2009.

Client

Mbombela municipality.

Key Contracts and Suppliers

Mbombela Stadium Joint Venture (JV) comprising Bouygues Travaux Publics and Basil Read (main civil contractor); Beckers Electrical (electrical subcontractor); Blue Hemisphere (mechanical subcontractor); CADCON/A Leita JV (structural steel); Lafarge South Africa Aggregates & Readymix (concrete - 80 000 m³ of various grades); WSP Civil & Structural Engineers (projects in and around Mbombela municipality) and Sarens (mobile crane hire).

Latest Developments

January 2009

Construction work on the Mbombela stadium is still on schedule despite a recent storm causing damage to some parts of the stadium. A severe storm in the month caused a crane being used in the construction of the stadium to fall onto the northern stand area of the stadium.

This, however, will not delay construction, as the repairs will be done while construction continues.

The stadium is already 60% completed.

On Budget and on Time?

The Government Communication and Information System Department has reported that construction remains on schedule and should be completed by October 30, 2009.

Contact Details for Project Information

Mbombela municipality, tel +27 13 759 9111 or fax +27 13 759 2070.

Mbombela Stadium JV, **Kobus van Biljon**, tel +27 11 418 6306.

SPORTS INFRASTRUCTURE PROJECTS

Moses Mabhida stadium project

Name and Location

Moses Mabhida stadium project, Durban, South Africa.

Project Description

The stadium will have the capacity to hold 70 000 spectators during the 2010 FIFA World Cup and 54 000 spectators in legacy mode thereafter.

Further, 150 suites, containing a total of 7 500 seats will cover a range of different hospitality options.

The grand centre arch, 106-m high, will become a world first tourist attraction, thanks to a high-tech cable car designed to take visitors up to its highest point. The 350 m long free-span steel arch weighs 2 600 t. The arch is not only a design feature, but also forms performs an important structural function, holding up tensile roof by means of a space-age web of steel cables.

The roof, consisting of Teflon coated glass fibre membranes – 46 000 m² in total – are attached to the arch by 95 mm diameter steel cables. Around the perimeter of the stadium structure is an 880 m long steel compression ring that maintains the structure of the roof.

Value

R1,83-billion, with the city council and provincial government to provide an additional R900-million.

Duration

FIFA's final completion date for the project is October 31, 2009.

Client

eThekweni Municipality.

Key Contracts and Suppliers

Ibhola Lethu Consortium (professional team); WBHO-Group Five-Pandev joint venture (main contractor); BKS, Singatha Africa Mangement Services, and LDM Consulting (project mangers); BKS, Schlaich Bergermann & Partners, Goba and PD Naidoo & Associates (structural engineers); Ibuya Consulting Engineers, Igoda Projects, Khanyisa Africa and Palace Consulting (electrical engineers); Iliso Consulting Engineers (civil engineer); LSG International, Mahesh Khoosal & Associates; Emanzi Consulting Engineers (mechanical engineers), Lafarge South Africa's Aggregates & Readymix (construction materials), DSe (structural steel) and Sarens (mobile crane hire).

Latest Developments

October 2008

Reports indicate that the stadium construction is progressing well and that the stadium will be completed by the October 2009 FIFA deadline.

The different teams involved in construction had a busy September, making significant advancements in numerous areas. The stadium's many supporting structures are now largely completed, including the piling and ground beams, the retaining walls, the supporting columns and the floor slabs on each level.

As work continues on the stadium bowl, the placing of the precast seating is more than 82% completed. The amphitheatre is also taking shape and has progressed to 60% completion. The stadium arch is now 60% in place, with the compression ring that runs around the perimeter of the roof at 45% completion.

In October, the work continued on all these elements, with an added focus on the external works. This involves the underground storm water lines, which are now 95% completed, the parking garage structure and the podium on Level 3, the area surrounding the stadium from where spectators enter and exit.

SPORTS INFRASTRUCTURE PROJECTS

The podium is being implemented in different areas as, owing to its size, the slabs cannot be poured simultaneously. Podium A has progressed to 60% completion, Podium B has progressed to 31%, Podium C has progressed to 17%, and Podium H is now 20% completed. Podium I, in the retail area, has progressed to 30% completion. The team has also made good progress on the finishes, including plaster, ceilings, shop fronts, doors, vanity tops. On level 1, these are at about 41%, level 3 is at 40% and level 4 is at 7%.

September 2008

During July and August, a significant amount of work was completed on the more aesthetic elements of the Moses Mabhida stadium – those that give the stadium its shape and show what the finished stadium will look like.

Meanwhile, work continues on the structural components of the project. The concrete slab for level six is now completed, and 40% of the steel above this level is in place. Foundations for the podium area are at 50% completion and the podium columns are at 45% completion.

Inside the stadium itself, the construction teams are working on the brickwork, painting and technical installations, such as piping and electrical components.

Work on the stadium's roof is progressing, with more than 40% of the compression ring installed. The compression ring is an 880-m long steel ring that maintains the structure of the roof around the perimeter of the stadium. The arch assembly is moving apace, with the last remaining arch element docking in Durban imminently. Of the 56 total arch elements, there now remain 20 that need to be assembled.

September and October promise to be extremely busy on site, with upcoming activities and milestones, including the completion of the precast seats; the completion of the roof's steel columns, compression ring and arch; and the start of the preparations for roof cable installation inside the stadium.

On Budget and on Time?

Construction work on the stadium has experienced some delays due to inclement weather, however, the stadium is still well on schedule.

Contact Details for Project Information

eThekweni Municipality, strategic projects and programme head, **Julie-May Ellingson**, tel +27 31 336 2536, fax +27 31 336 2511 or email ellingsonjm@durban.gov.za.

SPORTS INFRASTRUCTURE PROJECTS

Nelson Mandela stadium

Name and Location

Nelson Mandela stadium, Port Elizabeth, South Africa.

Project Description

The stadium will be located at the north end of Port Elizabeth, and will consist of up to 43 000 permanent seats, and an additional 5 000 temporary seats for the World Cup. The stadium will replace the Eastern Province Rugby Football Union stadium as the main sporting venue in Port Elizabeth.

The stadium will feature state-of-the-art technology and a modern stadium design, with a 'sunflower' roof that wraps around the stadium, without covering the full extent of the stands.

The construction of the stadium will be divided into five levels. Level one and two will comprise seating arrangements, level three will be an office complex, level four will consist of suites, and level five will house conferencing and retail facilities.

Value

The stadium to be built in the Nelson Mandela metro will cost around R981-million, with the city council and provincial government having to come up with an additional R212-million.

Duration

The project was expected to be completed by March 2009. However, a report from the technical team has stated that the stadium will not meet this deadline.

Client

Nelson Mandela Bay municipality.

Key contracts and suppliers

Grinaker-LTA/Interbeton Ibhayi joint venture (JV) (main contractor) (foundations comprising pile trimming, pile caps, conventional strip footings and bases; reinforced concrete surface beds; a superstructure comprising cast-on-site reinforced concrete columns, beams and slabs; precast seat elements and raking beams to support the seat elements; external and internal masonry divisions, complete with door frames, windows, shop fronts and the like, as well as the installation of all finishes to floors, walls and ceilings); Scribante Construction (excavation and backfilling), Franki (piles), BKS/BTKM-PMSA JV, Rand Civils, (demolition, earthworks and paving); Lightning Protection Services (lightning protection); Steeledale (supply and fixing reinforcement); Service Electrical (fixing of cast-in electrical conduits); EP Scaffolding (supply and erection of false/formwork), and Lafarge South Africa Aggregates & Readymix (aggregates); Besamandla (electrical subcontractor); and Eascape Fire, Tekweni Air, Paolo Plumbing (mechanical subcontractors).

Latest Developments

January 2009

Construction of the stadium is about 70% completed.

On Budget and on Time?

A report from the technical team has reported that the stadium will not meet the March 30, 2009, deadline.

Contact Details for Project Information

Mandela Bay municipality media liaison officer, **Kupido Baron**, email kbaron@mandelametro.gov.za.

Mandela Bay municipality media liaison officer, **Lourens Schoeman**, email lschoeman@mandelametro.gov.za.

SPORTS INFRASTRUCTURE PROJECTS

Peter Mokaba sports stadium

Name and Location

Peter Mokaba sports stadium, Polokwane, Limpopo province, South Africa.

Project Description

The project will involve the construction of 45 000-seat facility. The stadium will also feature a 500-seat VIP area with its own entrance, seats for 1 675 media representatives, 200 TV positions, an 800-m² VIP reception area and lounge, offices and storage areas, and parking for players and officials.

The initial plan was to demolish the existing Peter Mokaba stadium. However, the municipality opted instead to build a new facility adjacent to the existing stadium mainly for financial reasons, as it would cost more to demolish the old stadium than to build a new one.

Value

R716-million, with the city council and provincial government having to come up with an additional R154-million.

Duration

Construction is expected to be completed by October 2009.

Client

Polokwane municipality.

Key Contracts and Suppliers

WHBO/Paul Joint Venture (construction contract) and Lafarge South Africa Aggregates & Readymix (crusher sand, stone of various grades, concrete, and cement).

Latest Developments

January 2009

The stadium is about 65% completed.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Polokwane municipality spokesperson, municipality communications manager, **Simon Mokoatedi**, tel +27 15 290 2143.

SPORTS INFRASTRUCTURE PROJECTS

Royal Bafokeng stadium upgrade

Name and Location

Royal Bafokeng stadium upgrade, Rustenburg, North West province, South Africa.

Project Description

The Royal Bafokeng stadium is in most aspects compliant with the FIFA 2010 World Cup 2010 stadium design guidelines, however, a number of upgrades have been proposed in order for the stadium to achieve complete compliance.

The key criteria to meeting complete compliance includes: increasing the seating from 39 000 to 45 000; the modification of players change rooms; the relocation of the media zone; increasing the flood lights lugs from 1 700 to 2 000; increasing the number of hospitality suites from 10 to 23; increasing the number of VIP parking areas, as well as other parking areas; the modification of the PA system; the provision of a video screen; the modification of the football pitch; the replacement of turnstiles, including the mounting of the ticket readers; and the installation of fibre-optics cabling, to enhance cabling IT in and around the stadium.

Value

The project is estimated at R440-million.

Duration

The project began in September 2007, and the targeted date for completion was February 19, 2009. However, as a result of the heavy rains, the Royal Bafokeng Administration is expecting total completion of the stadium by the end of February, with the exception of the roads, which will be completed by the end of March 2009.

Client

The Royal Bafokeng Administration.

Key Contracts and Suppliers

None stated.

Latest Developments

January 2009

To add the 6 000 seats required to meet compliance with the FIFA 2010 World Cup stadium design guidelines, the existing roof had to be removed on the western grandstand to build the third tier to accommodate the seats, after which a new roof was erected. Owing to the complex oval shape of the stadium, the construction of the roof posed a number of structural engineering, architectural and construction challenges.

Further, a new ring road around the stadium had to be constructed to allow the free flow of traffic in and out of the stadium. The new road is linked to the newly constructed western bypass, which is a spine road from the N4 toll road.

On Budget and on Time?

Heavy rain has delayed the completion of the stadium until the end of February.

Contact Details for Project Information

Royal Bafokeng stadium project manager, **Pat King**, tel +27 14 566 1200.

George Khunou, tel +27 14 566 0000.

Garry Parker-Nance, tel +14 566 0000.

SPORTS INFRASTRUCTURE PROJECTS

Soccer City stadium upgrade

Name and Location

Soccer City stadium upgrade, Johannesburg, Gauteng, South Africa.

Project Description

The Soccer City upgrade contract comprises partially demolishing the former FNB stadium at Nasrec and completely revamping it, as well as providing all associated facilities. The new Soccer City stadium will have 94 700 seats, which will be covered by a roof leaving the soccer pitch itself open to the sunlight.

Once completed, the stadium will have three tiers of seating, private boxes, VIP suites and eight television presentation studios, as well as a soccer museum and a 300-seater restaurant and will resemble an African pot.

Value

R1,96-billion

Duration

The stadium is expected to be handed over to FIFA by October 2009.

Client

The Gauteng provincial government.

Key Contracts and Suppliers

Grinaker-LTA, in joint venture (JV) with Interbeton (contractor), Liviero Civils (bulk earthworks, excavation of shafts, base excavations, complete construction of basement parking, and access platform around the stadium); Advoco Engineering (electrical consultant); Izazi Consultants (mechanical consultant); Cimolai (main roof contractor); DSE (steel); WG Wearne (concrete works on stadium); Pretoria Portland Cement (PPC) (cement).

Latest Developments

January 2009

Construction of the stadium is about 67% completed.

The roof of the stadium is about 90% completed, and the installation of cladding has also started.

On Budget and on Time?

The project is ahead of schedule.

Contact Details for Project Information

Project management 2010 office, tel +27 11 381 0338 or fax +27 11 381 0399.

Grinaker-LTA project director, **Mike Moody**, tel +27 11 247 9300, fax +27 11 247 9401 or email mmoody@grinaker-lta.co.za.

TELECOMMUNICATIONS PROJECTS

South Africa's fixed-line telecommunications sector is dominated by one-time monopoly Telkom, but is in transition to some degree of competition, albeit at a very slow pace, through the licensing of a second network operator (Neotel), as well as through regulations that allow value-added network service licence holders, including Internet service providers, to carry voice traffic using any protocol. In the face of rising competition, Telkom is pursuing a strategy that includes involvement in the mobile sector, growth in the revenue generated from data services, and an expansion into Africa to defend and grow its revenues.

Meanwhile, the Independent Communications Authority of South Africa has granted over 500 new licences allowing telecommunications companies to operate their own networks. However, despite many companies now winning the right to self-provide, the only place where companies can get their back-end data feed, or 'back-haul' from, is from Telkom. This will be the case for at least another six months until the new bandwidth-boosting undersea fibre-optics cable, Seacom, is up-and-running.



TELECOMMUNICATIONS PROJECTS

Neotel South Africa's telecommunications network roll-out

Name and Location

Neotel South Africa's telecommunications network roll-out.

Project Description

The project involves the roll-out of the telecommunications network of Neotel, South Africa's second fixed-line telecommunications network operator.

Neotel, which was licensed in December 2005, is obliged to ensure that its services are available to at least 50% of the population in 14 geographical network service areas in the next five years.

In addition, it is required to ensure that 80% of South Africans have access to its services after ten years.

Value

Neotel is expected to spend R11-billion over the next five years

Duration

The project will be implemented over five years.

Client

Neotel. Neotel's shareholders include a black empowerment partner, Nexus Connexion (19%), and the Sepco consortium (56%). The Sepco consortium is made up of Indian company Tata, through its telecoms unit, Videsh Sanchar Nigam Limited (VSNL), which holds 26% of Neotel, and Communitel and Two Consortium, which each own 12,5% of Neotel.

Key Contracts and Suppliers

Nedbank Capital, Investec Bank, Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC) (debt facility), Motorola (radio frequency planning), Dimension Data and Cisco (metro Ethernet); Siemens, using technology from Juniper Networks and Huawei Technologies (IP network); Seacom (cable development agreement); Spescom (NG SDH equipment); Plessey and EDC .

Latest Developments

January 2009

Tata Communications has lifted its stake in Neotel to over 50%, after buying the 30% stake previously owned by State-owned utilities Eskom and Transnet.

Tata Holdings, along with Tata Communications, now holds a controlling 56% stake in Neotel.

Further, Neotel and telecommunications provider MTN South Africa have announced that they will collaborate on the installation of a 5 000-km fibre-optics cable, at a cost of between R1,7-billion and R2-billion, to service the country's major cities.

On Budget and on Time?

The granting of the licence was four years behind schedule.

Contact Details for Project Information

Neotel corporate communication - public relations, **Mmabatho Sikhakhane**, tel +27 11 585 0003, fax +27 11 585 0601 or email Mmabatho.Sikhakhane@neotel.co.za.

TELECOMMUNICATIONS PROJECTS

Seacom Cable

Name and Location

Seacom cable.

Project Description

Seacom will provide African retail carriers with equal and open access to inexpensive bandwidth, removing the international infrastructure bottleneck and supporting East and South African economic growth. The 13 700-km undersea cable system will connect South Africa to Europe and India, with the route passing along the East Coast of Africa and through Egypt before terminating in France. In addition, it will land in Mozambique, Madagascar, Tanzania, Kenya, Djibouti and onwards to the rest of the world through its landing points in France and India. Seacom has a design capacity of 1,28 Tb/s, which will be sufficient to support the expected exponential increase in demand in 2009 and beyond.

Value

The cost is \$650-million. The project is fully funded with African investors taking a majority stake of 76,25% in the project.

Duration

The cable system has a firm ready for service deadline of June 2009, with construction of the cable already under way and laying scheduled to start soon.

Client

Seacom is 76,25% African owned by Industrial Promotion Services (26,25%), an arm of the Aga Khan Fund for Economic Development; Venfin (25%); Convergence Partners (12,5%) and the Shanduka Group (12,5%). The remaining 23,75% is held by Herakles Telecom LLC.

Key Contracts and Suppliers

Nedbank Capital and Investec Bank (debt funding), Neotel (cable development agreement in South Africa) and Tyco Telecommunications (supply contract for Seacom).

Latest Developments

February 2009

Seacom has reported that the first sections of deepwater cable are now resting on the sea bed of the Indian Ocean and the Red Sea. The cable has been laid from the edge of the South African waters to Mozambique and cable laying is also proceeding in the Red Sea from Egypt towards the coast of Yemen. A third ship is currently being loaded with the remainder of Seacom's deep-water cable which will be deployed from India towards Africa, where these three cable segments will be joined.

In parallel to the marine installation, Seacom has made significant progress in land-based construction. The high-performance optical transmission equipment, which connects customers to inland terrestrial networks, has been installed in the Maputo, Mumbai and Djibouti cable landing stations. Construction of the cable station in Kenya will be completed in early February followed shortly by the Tanzanian and South African stations. Equipment installation in these locations, and in Egypt, will be completed in April.

Seacom has also been preparing to provide services to customers by June and recruited over ten experienced local telecommunications professionals from India, Kenya, Mozambique, South Africa and Tanzania to operate and maintain the cable stations. Many of these personnel have already been trained at the Seacom Network Operations Centre in India and are now participating in the testing of the system as it is being installed. A complementary set of personnel is being recruited and will start training in March. These teams will also work with the landing partners' operators in Egypt and Djibouti.

Contact Details for Project Information

Seacom public affairs, communications and media relations, **Frederic Cornet**, tel + 27 11 447 3030, fax + 27 11 447 6910 or email media@seacom.mu.

TELECOMMUNICATIONS PROJECTS

Telkom's next-generation network project

Name and Location

Telkom's next-generation network (NGN) project, nationwide.

Project Description

The project will involve the roll-out of a modern network, dubbed NGN, as well as investment into solutions that improve customer service. NGN technology enables greater interactivity and medium convergence than has traditionally associated with telephony.

The main areas of network investment include distribution networks, core networks, mobile infrastructure and service enablement. Some 37% of the R30-billion will be spent on the NGN, while 24% will be spent on the legacy network, to maintaining current service levels. Some 12% is destined for customer-service investment and three per cent for projects relating to regulatory and legal changes

The investment is needed now as the utility fast-tracks its broadband roll-out in a bid to keep revenue stable over the next few years, as its customer base is at risk owing to increased liberalisation of the market.

Value

R30-billion.

Duration

The operator plans to roll out the NGN over five years, based on demand, which will mean running old and new technology simultaneously in some instances.

Client

Telkom.

Latest Developments

September 2008

Telkom is in the third year of its NGN build out programme.

Progress thus far includes:

An increase of the ADSL footprint to 3 036 digital subscriber line access multiplexers, covering more than 92% of Telkom's existing customer footprint.

An increase of the Metro Ethernet footprint to 103 nodes deployed in major cities, using 10-Gbit/s and 10-Gbit/s line systems – at Cape Town (18), Johannesburg (48), Pretoria (8) Durban (18) and Port Elizabeth (11).

Dense wave division multiplexing systems capable of 40 10-Gbit/s signals over a single pair of fibre. The first system was deployed between Gauteng and Durban. A significant rollout of these systems between all major cities in South Africa is currently under way and is expected to be completed during the 2009 financial year.

The roll-out of switches to provide automatic self-healing rerouting of bandwidth on the national layer is under way and expected to be completed during the 2009 financial year.

The total International Internet protocol bandwidth has increased by 0,67 Gbits/s to a total of 5,166 Gbits/s.

The asynchronous transfer mode network available bandwidth on the core and metro layers has increased by 23 Gbits/s to a combined 170 Gbits/s.

The Network interactive voice response system has been deployed, which offers advanced speech services such as automated speech recognition and a text-to-speech application enabling corporate customers and Telkom to enhance their voice systems.

237 Wi-Fi hot spots have been deployed at strategic partner locations.

Fibre deployment has increased from 117 000 cable.kms to 128 000 cable.kms, which is a growth of 9,5%. Cable.kms refers to the "pure" length of fibre irrespective of the number of fibre strains.

IMAX has been introduced into the system and is ready to carry traffic.

Contact Details for Project Information

Telkom, tel +27 12 311 3911.

TRANSPORT AND LOGISTICS PROJECTS

A considerable capital investment is being made in South Africa's transport and logistics sector, most notably by government.

Parastatal Transnet is spending R80-billion to 2012/13 to expand the capacity of its ports, railways and pipelines.

The key projects that have been approved include: the expansion of the coal-line and the iron-ore export channels; the widening and deepening of the port of Durban entrance channel, the redevelopment of Pier 1 as a container-handling facility, and an increase in the capacity of the car terminal; the widening, deepening and equipping of the Cape Town container terminal; the refurbishment and renewal of the freight rolling stock; the continued development of the port of Ngqura; and the construction of a new multipurpose pipeline.

Further, government is investing an estimated R25-billion in the Gautrain rapid-rail link, a modern state-of-the-art rail connection, linking Sandton, Johannesburg, Tshwane and OR Tambo International Airport. A further R55-billion is being spent on the Gauteng freeway improvement project, which entails the upgrade and construction of about 561 km of roads in the province.

However, while the South African government is implementing much of the investment into the transport and logistics sector, a South African company is seeking environmental approval for the construction of a liquid petroleum pipeline from the border of Mozambique at Komatipoort, to Kendal, through Nelspruit.



TRANSPORT AND LOGISTICS PROJECTS

Cape Town port infrastructure upgrade and expansion

Name and Location

Cape Town port infrastructure upgrade and expansion, Cape Town, South Africa.

Project Description

Transnet Port Terminals (TPT) plans to upgrade infrastructure at Cape Town's port and to increase the capacity of the container terminal to 1,4-million twenty-foot-equivalent units (TEUs) a year from the current 740 000 TEUs/y.

The development will take place in two phases over the next five years.

The first phase will involve the current berth-deepening process, as well as the maintenance of the straddle carriers, and the replacement of existing cranes with Super Post-Panamax cranes.

Phase two of the terminal construction will increase terminal capacity to 1,4-million TEUs a year.

In its entirety, the project includes the demolition of nonessential infrastructure and buildings, reconfiguration of the terminal to increase stack capacity, a reefer-point expansion programme, as well as the procurement of new, specialised equipment including eight Liebherr ship-to-shore cranes, and 32 rubber-tyred gantry (RTG) cranes. The quay line will be extended by ten metres to accommodate the new gantry cranes.

Value

The port upgrade will cost R4,2-billion and forms part of parent company Transnet's R28-billion investment in port-related projects, from an overall R78-billion planned for investment over the next five years.

Duration

The project started in 2008 and extends over a five-year period.

Client

TPT.

Key Contracts and Suppliers

WBHO and Civil & Coastal (construction and basin deepening), Sarens (mobile crane hire) and Rohde Nielsen (subcontractor – dredging work).

Latest Developments

None stated.

Contact Details for Project Information

TPT GM corporate communications, Lunga Ngcobo, tel +27 31 308 8333 or email lunga.ngcobo@transnet.net.

Cape Town Container Terminal business unit executive,

Oscar Borchards, tel +27 21 449 2872, fax +27 86 631 0394

or email Oscar.Borchards@transnet.net.

TRANSPORT AND LOGISTICS PROJECTS

Coal-line export-channel expansion programme

Name and Location

Coal-line export-channel expansion programme, South Africa.

Project Description

Transnet Freight Rail (TFR) (formerly Spoornet) will be enlarging its coal-export capacity by 20-million tons to 92-million tons a year by 2010/11, with a R3,5-billion, five-year locomotive-acquisition programme.

The new 19E locomotive will be a dual-voltage ac/dc platform, enabling the trains to run continuously from the coal mines to the harbour – at present, the locomotives have to be switched midstream to cater for the change in electrical systems.

The locomotives will be able to haul heavier loads with the same power, effectively translating to 300-wagon trains as opposed to the current 200-wagon trains. In addition, availability and reliability will rise by some 20%.

TFR has also decided to standardise on the Mitsui & Company Rail Solutions (Mars) joint venture solution for the full corridor in a bid to reduce life-cycle costs and improve maintenance planning, and similar standardisation is expected on the other corridors. Announcements regarding the other aspects of the line's upgrade will be made in due course.

Value

R3,5-billion.

The coal line is but one aspect of a larger R38-billion infrastructure and fleet-renewal plan currently under way at TFR.

Duration

The acquisition programme will be carried out over five years.

Client

TFR.

Key Contracts and Suppliers

Mars (electric trains), Transwerk (maintenance services), UCWP (mechanical, fabrication and assembly aspects of the contract), and Booyco Engineering (contracted by UCWP to manufacture AC systems for the 110 Transnet 19E locomotives).

Latest developments

April 2008

The prototype locomotive is under testing at Union Carriage & Wagon Partnership (UCWP).

Six of the locomotives are expected to be in service by the end of October 2008, with the balance to be delivered during the period up to July 2011.

January 2008

Transnet has reported that it will receive the first six new locomotives for its coal line for testing purposes this year.

This is after it signed a R3,5-billion contract with Mars for 110 new electric trains in February 2006.

Transnet will receive the balance of the trains over a five-year period.

On Budget and on Time?

Not stated.

Contact Details for Project Information

TFR, tel +27 11 774 5061.

TRANSPORT AND LOGISTICS PROJECTS

Coega Industrial Development Zone

Name and Location

Coega Industrial Development Zone (IDZ), Eastern Cape, South Africa.

Project Description

Coega will be South Africa's first duty free IDZ. Its strategic position will enhance South Africa's trade and export opportunities, as it is equidistant from the American, European and Pacific Rim markets.

The area of land that the IDZ will cover is large enough to sustain development for the next 50 years.

The zone comprises 11 000 ha that will be divided between the IDZ and the new deep-water port of Ngqura.

Details on proposed projects within the IDZ are vague owing to several confidentiality agreements with the interested parties.

With regard to long-term milestones to be attained, the Coega Development Corporation (CDC) is currently in the process of determining its goals for investments, and will also finalise its 2008/9 investment targets shortly.

The sectors of focus for investment will be logistics; automotive; chemicals; metals; services, such as business process outsourcing; petrochemicals; and mariculture.

Value

About R2-billion has been spent in the IDZ and about R3,2-billion was invested in the first phase of the port of Ngqura while R2,2-billion was invested in the power upgrade.

There have been further investments by Transnet and Eskom in the project.

To date, about 14 investors have been signed up by the CDC, with a total investment value of R30-billion.

Duration

Phased development over about 30 years to 50 years.

Client

CDC.

Key Contracts and Suppliers

The consulting engineers for the construction of the municipal infrastructure for the Coega IDZ, industrial zone 1 (port cluster) – Phase 2/3 are: Africon, Izizwe and Nzuzza joint venture (JV).

Glendore Sand (supply of sand for bedding-and-filling purposes for services being installed in Zone 1 and Zone 2 of the IDZ; the company has also supplied a large amount of sand for other infrastructure and services in the IDZ); Lesiba Construction (laying of the 450-mm-diameter GRP bulk water line, as well as the laying of water lines, stormwater pipes, catch pits and stone pitching); Deloitte Consulting, Nokusa Consulting and ICT Works (information and communication technology system); Labco, a JV between Civilab, Soilco, Controlab, Indlela Lab, and Geostrada; ESS Coega; Newport Construction; the National Roads Agency; the Ibhathathani JV, Alstom Power Systems, and Sarens (mobile crane hire).

AES (330-MW open-cycle gas-turbine – R5-billion), Ipsa (1 600-MW combined-cycle gas-turbine), (Dynamic Commodities (R24-million), Cerebos (high-purity sodium chloride plant – R85-million), Rio Tinto Alcan (aluminium smelter – R18,5-billion), Straits Chemicals (chlorine refinery and desalination plant – R1,1-billion), Ferrostaal (stainless-steel precision strip mill – R1,1-billion), Southern Cross Precision Strip (stainless-steel precision strip-processing facility – R1,1-billion), SeaArk Africa, a JV between US company SeaArk Holdings, and South African group, Bosaso (shrimp-farming project – R3,6-billion), Biomass (biofuels), Afro-Asia Steel (steel billets plant – R75-million), PetroSA (oil refinery), Rainbow Nation Renewable Fuels (soya-bean biofuels project – R1,5-billion).

To page 55

TRANSPORT AND LOGISTICS PROJECTS

From page 54

Latest Developments

October 2008

The CDC has invited capable and competent prospective investors to submit proposals for developing, on a build, operate and transfer basis, a liquid fuel storage and transshipment facility in the Coega IDZ.

The closing date and time for completed proposals is Wednesday, November 12, 2008, at 12:00. All enquiries regarding this request for proposal must be directed in writing to the project manager, business development, Duane Mouton, fax +27 41 403 0401 or email duane.mouton@coega.co.za.

September 2008

The CDC intends to construct a servitude to accommodate the infrastructural requirement of tenants for the seawater intake and outfall pipelines and has invited a request for proposal for an environmental-impact assessment for the proposed marine pipeline servitude.

The closing date and time for the receipt of completed proposals is Thursday, October 9, 2008, at 12:00. All enquiries relating to the proposal must be directed to the project manager Andrea van Holdt email andrea.vonholdt@coega.co.za.

Contact Details for Project Information

CDC communications specialist and spokesperson, **Ongama Mtimka**, tel +27 41 403 0487 or fax +27 41 403 0401.

TRANSPORT AND LOGISTICS PROJECTS

Durban port upgrade

Name and Location

Durban port upgrade, KwaZulu-Natal, South Africa.

Project Description

The project includes an equipment programme of 65 additional straddle-carriers (completed in 2004), three new ship-to-shore post-Panamax gantry cranes, and three second-hand ship-to-shore Super post-Panamax gantry cranes, to help streamline activities at the D container terminal. The port upgrade will also involve the development of Pier 1 as a container-handling facility. Through the Ports Master Plan, the Transnet National Ports Authority (TNPA) has identified several new projects, including the Durban harbour entrance widening (DHEW) project; the Durban Point car terminal project; the upgrading of Island View berths 5 and 6; as well as the Maydon wharf project. Another proposal identified in the PMP is the Bayhead digout project, which includes extending the port into the Bayhead marshalling yards and creating a new basin where larger container vessels can berth.

Value

Over R11-billion.

Duration

The Durban Point car terminal project is planned for completion in September 2009. The DHEW widening is expected to be completed by the end of the first quarter of 2010.

Client

The TNPA and Transnet Port Terminals (TPT), divisions of Transnet.

Key Contracts and Suppliers

Sapo, Protekon Consulting & Construction; CPS; IMPSA-Jikelele joint venture (JV); Kalmar ANE JV ; Hydroflow and Liebherr Cranes (Germany); Grinaker-LTA, Interbeton and Bafokeng Civil Works JV; DSE and Dorbyl (subcontractors steelwork fabrication); La Spezia container terminal, Italy (three Liebherr cranes); Kalmar (straddle carriers); DSE (manufacture of structural components and the erection and installation of mechanical and electrical work); Protekon (planning and designing the infrastructure for the installation of the Liebherr cranes at the South Terminal); Protekon Construction (two new berths for Island View terminal), Dura Piling (piling contract – Island View) Basil Read (main contractor – Pier One, DCT – civil and paving works), Chryso SA (concrete products – hard standing area, Pier 1), Lafarge Readymix (design and supply of concrete – hard standing area, Pier 1), NPC (cement – Pier 1), Kalmar Industries (30 straddle carriers), TBA (review, analysis and simulation of DCT's container handling operations), Sarens (crawler crane).

Latest Developments

November 2008

The Pier 1 container terminal is substantially completed.

The DHEW is 50% completed. To date 5,2-million cubic metres of sand have been dredged for the new channel and entrance mouth. Demolition of the old north breakwater has been completed and work on strengthening the south breakwater is continuing with completion expected in March 2010. Further, the demolition of the Durban beach feeding scheme is almost completed. Design of the permanent A-Berth sand bypass scheme has started. The north outer building structure, as well as the north decline of the old subaqueous tunnel has been demolished successfully. Demolition of the balance of the tunnel is continuing.

Contact Details for Project Information

Transnet external communications, **Mbomiso Sigonyela**, tel +27 11 308 2384 or fax +27 11 308 2465.

TRANSPORT AND LOGISTICS PROJECTS

East London Industrial Development Zone

Name and Location

East London Industrial Development Zone (ELIDZ).

Project Description

The ELIDZ is courting 55 potential investors who intend to invest in the automotive, agroprocessing, pharmaceuticals and information-technology sectors.

As tenants, they will be constructing their factories on fully developed sites offering various property services, including access to high-technology telecoms infrastructure and various municipal utilities.

Part of the ELIDZ, is the automotive supplier park (ASP). The ASP is part of the zone's efforts to create sustainable economic growth in the local automotive and manufacturing industry by grouping different technologies, suppliers and service providers for various customers.

The ASP is a 15-hectare-sized cluster within the Customs Controlled Area (CCA) of the ELIDZ. It is 6,9 km from Mercedes-Benz South Africa, 2,2 km from the East London Airport, 1,5 km from the highway, and 9,2 km from the East London harbour. Further, the ELIDZ aims to establish an aqua cluster, growing its current footprint in this sector.

Value

Investments at the ELIDZ have reached R1,1-billion.

Duration

Ongoing.

Client

The ELIDZ and the Department of Trade and Industry.

Key Contracts and Suppliers

Foxtech Ikhwezi, Johnson Controls, Feltex Trim, Fehrer and Futuris, Eurofit and TI Tanks, Carcoustics, Uti, Milltrans, Seatek, Molan Pino, TI Automotive, Caravelle Automotive Carpets, Big Foot Express, MBSA, Matla Solar Energy, Espadon Marine, Murray & Roberts, Sunningdale Dairies, Cast Arena Trade & Investment Holdings, Aquarius Tyre and Mercedes-Benz South Africa.

Latest Developments

December 2008

Investments at the ELIDZ have reached R1,1-billion, with the announcements of seven new investors. This will bring the total number of tenants operating in the ELIDZ to 22 by April 2009.

The new companies are Matla Solar Energy, Espadon Marine, Murray & Roberts, Sunningdale Dairies, Cast Arena Trade & Investment Holdings, Aquarius Tyre and Mercedes-Benz South Africa.

The new projects have a combined investment value of R239-million.

The ELIDZ plans to have 25 investors with a value of R2-billion by the end of the 2009/10 financial year.

On Budget and on Time?

Not stated.

Contact Details for Project Information

The ELIDZ, tel +27 43 702 8200 or fax +27 43 736 6405.

TRANSPORT AND LOGISTICS PROJECTS

Gauteng freeway improvement project (GFIP)

Name and Location

Gauteng freeway improvement project (GFIP), South Africa.

Project Description

The GFIP is a long-term freeway upgrade and expansion project, and entails the eventual upgrade and construction of about 561 km of freeways. One of the main objectives of the project is to stimulate economic growth in the province.

The proposed upgrades will include the construction of additional lanes inclusive of high-occupancy vehicle lanes; auxiliary and climbing lanes; certain interchange (I/C) and intersection upgrades; the upgrading of certain sections of the existing roads and pavements; and the provision of road lighting.

The GFIP will be implemented in three phases, with Phase A being the initial construction works.

Value

The Department of Transport (DoT) through the South African National Roads Agency Ltd (Sanral) is investing more than R12-billion in the first phase of this project. For the second phase, the DoT will invest R20-billion, and R23-billion will be invested for the final phase. This project will be financed through the 'user-pay' principle, and it will allow the roads to be funded, without resorting to the national fiscus for such projects.

Duration

Phase A1 is expected to be completed by 2010 and will include the substantial upgrading of about 185 km of freeway, including pavement rehabilitation, I/C upgrades, and land additions on the N1 and N3, sections of the N12, and the R21.

Phase A2's expected completion date is 2012. This phase will include the substantial upgrading of a further 65 km of freeway, and less intensive upgrading of other freeways in Gauteng. Also included in this phase is the completion of some of the proposed new freeway sections.

Phase B's completion is scheduled for 2020 and involves the further construction of about 63 km of new freeway sections. The construction of these routes will be phased in when the financial feasibility allows it, and in coordination with all spheres of government in terms of the priorities identified.

Phase C is expected to be completed after 2020 and will comprise the construction of a further 95 km of new routes subject to financial viability. Any of these routes may, however, be implemented sooner, should it become a priority and financially feasible to do so.

Client

The project will be run by Sanral, the provincial government, and the Tshwane, Johannesburg and Ekurhuleni metropolitan councils.

Key Contracts and Suppliers

Basil Read (I/C improvements at the N1 section), Siyaya joint venture (JV) (work package A and E), GFI Contractors JV (work package B), GLMB JV (work package C and F), Basil Read JV (work package D), CMC JV (work package G), Raubex Construction (upgrade of the R21), Power Group (upgrade of the R21 section 1 and 2).

Latest Developments

October 2008

Part of the R21 road reconstruction project has been awarded to Power Construction. The project comprises upgrading the R21 section 1 and 2, stretching from the Benoni I/C (15,3 km) to the Olifantsfontein I/C (27,8 km). The contract is valued at over R610-million. The initiative incorporates the widening of the road together with the upgrading of I/Cs and installing safety measures.

Contact Details for Project Information

Sanral northern region manager of toll and traffic **Alex van Niekerk**,
tel +27 11 426 6200.

DoT spokesperson **Collen Msibi**, tel +27 82 414 5279.

TRANSPORT AND LOGISTICS PROJECTS

Gautrain rapid-rail link

Name and Location

Gautrain rapid-rail link, Gauteng, South Africa.

Project Description

The Gautrain project involves a modern state-of-the-art rail connection, linking Sandton, Johannesburg, Tshwane and OR Tambo International Airport (formerly Johannesburg International Airport). The network, which will consist of approximately 80 km of railway line and which may be extended in the future, will be made up of two links – one between Tshwane and Johannesburg and between Sandton and Rhodesfield for commuters, and another from OR Tambo International Airport to Sandton for business and leisure tourists.

Value

The rail project will now cost R25,2-billion, which is up on the R24-billion initially estimated.

Duration

The construction period allowed for is 54 months. The construction of the Gautrain will be completed in two phases, with the first phase to be completed in 45 months (in time for the 2010 FIFA World Cup), and the second phase to be completed in 54 months. The first phase will involve the construction of a network between OR Tambo International Airport and Sandton, north of Johannesburg. The second phase will include the remainder of the rail network between Sandton and Johannesburg, including the route from Midrand to Hatfield.

Client

The Gautrain has been structured as a public-private partnership project. The client is the Gauteng provincial government. The Bombela Concession Company is the private sector partner and comprises Bombardier Transportation (25%), Bouygues Travaux Public (25%), Murray & Roberts (25%), and Strategic Partners Group (SPG) (25%) as shareholders.

Key Contracts and Suppliers

Bohlweki Environmental (environmental-impact assessment and biophysical and socioeconomic evaluation), Standard Bank and Rand Merchant Bank (lead arrangers, underwriters and sole lenders to the Gautrain project), Nedbank (agent bank to the lender to manage the financial transactions and bank issuing project bonds to contractors), Arup SA (independent certifier), Tractionel Enterprise (supply and installation of the overhead contact distribution), Thales Transportation Systems and Sims (automatic fare collection system), Bouygues Travaux Publics (tunnel boring machine (TBM) operation), West Rand Engineering (valve, fittings and other consumables), Infrasons (aggregate and crusher sand), SPGIO (transportation of material excavated during construction), SA French (passenger hoists), Chryso South Africa (concrete admixture), SPC (concrete segments), Herrenknecht Engineers (TBM design and construction), and Sarens (mobile crane hire).

Latest Developments

January 2009

Excavation of the station box and the adjacent cut-and-cover section between Park station and the portal is completed. The base slab at rail level is substantially complete. Around one-half of the concourse slab is cast. Construction of columns to the top slab is in progress.

The tunnelling activities at Park station have continued, with the single tunnel excavation towards the north reaching about 964 m by the end of January 2009.

Foundation pile cap construction on the western side of the parkade structure that will be constructed above the station, is in progress.

The single-track rail tunnel between Park station and Sandton station will feature seven emergency access shafts. These shafts will provide emergency services personnel access to the tunnels below. At the bottom of certain of these shafts, there will be safe havens where passengers can gather in case of an emergency.

Shaft E1 works have started, with the construction of the shaft collar at ground level completed. Shaft sinking works will start shortly.

At Shaft E2, where the excavation of the 236 m adit is completed, tunnelling from the end of this connecting passage is

To page 60

TRANSPORT AND LOGISTICS PROJECTS

From page 59

advancing along the main tunnel route in both southerly and northerly directions. The one tunnel heads south towards Park station, while the other tunnel heads north towards Rosebank station. Towards Park Station, excavation has advanced 119 m and towards the TBM tunnel, excavation has reached 57 m.

The vertical excavation of the emergency access shaft E3 is completed to its final depth of 21 m. The excavation of the two adits (cross passages) linking the bottom of the shaft to the main single-track rail tunnel, which will provide access for emergency services personnel, is also completed and the breakthrough of both of these connecting adits to the TBM tunnel was achieved in November 2008. The final shaft lining is currently in progress.

At Shaft E4, the final shaft lining is completed and excavation of the connecting adits is in progress.

The TBM successfully completed the excavation of the single-track rail tunnel towards Shaft E2 on January 31, 2009, with a cumulative length of tunnel bored of 2 885 m. Dismantling of the TBM has started and will be completed during the next few weeks. The back-up system comprising 13 gantry trailers, mechanical and electrical components and support equipment will be recovered and reconditioned for use on other tunnelling projects. Only the 12-m long outer steel shield at the front end of the machine will remain where it is in the tunnel, and this will be covered with a permanent shotcrete lining.

Rosebank station works have reached a point where the casting of the roof slab is under way; about two-thirds of the concourse slab is cast and, at rail level, platform construction has begun.

The single-track drill-and-blast rail tunnel north of Rosebank towards E5, where 724 m have now been excavated, is nearing completion.

Tunnelling towards Sandton station – the only section of tunnel being excavated from this shaft – has progressed to 1 540 m. An estimated 50-m long section of the safe-haven chamber at the bottom of the shaft has also been completed.

The tunnel has advanced well past the intersection point where the safe haven for Emergency Access Shaft E6 will be excavated. The E6 shaft collar has been cast and is ready for the arrival of the raise-boring machine, which will be used to excavate this shaft, by the end of January.

The excavation of shaft E7 has reached a depth of 58 m. The final depth of this shaft will be 67 m. The final shaft lining is in progress.

The construction of Sandton station's three-level underground parkade is progressing apace, with the multiple parking decks clearly visible from the surrounding buildings. Excavation for the car park is largely completed. Piling, foundations, column construction and casting of the suspended slabs of the parkade structure are ongoing.

The staggered tunnel being excavated from the southern end of the Sandton station towards Rosebank has progressed to 504 m.

Excavation of the cavern and both north and south shafts is completed and station construction works are in progress in the cavern section between the south and north shafts, as well as within the shafts themselves.

Tunnel excavations from the Mushroom Farm park are completed, including excavation of the lowered invert of the airport line between Mushroom Farm park and Sandton.

Continuous lengths of tunnel now extend from the south of Sandton station, through Mushroom Farm park and all the way to the portal at Marlboro.

Casting of invert slabs, precast walkway installation and construction of the partition wall towards Marlboro are ongoing.

Mushroom Farm park is a temporary shaft, used to provide access for tunnel construction in a northern and southern direction simultaneously. The community park will be fully reinstated, once construction operations are completed during the latter part of 2009.

Excavation of the 4 200-m long tunnel between Marlboro Portal and Mushroom Farm park has been completed.

Inside the Marlboro portal tunnel, the final lining is being applied to the tunnel walls. The construction of the invert slab to support the railway tracks has continued. The installation of the precast concrete walkways, which also serve as service ducts for the numerous services required within the completed tunnel, is continuing. The construction of the centre wall to separate the two sets of tracks inside the tunnel is ongoing. The construction of the cut-and-cover structure adjoining the portal is well advanced.

At Viaducts 1a and 11, the parapet installation is complete.

Between the Marlboro portal and this pair of viaducts, reinforced earth retaining walls, earthworks, culvert inlets and the crossover structure are approaching completion.

The construction of the three Zinnia road bridges is well advanced, with all M-beams in place and deck construction in progress.

At the Marlboro station, the parkade concrete structure, comprising a semibasement and a first floor parking deck, is completed.

The concourse, platform and overplatform link structure works are ongoing and structural steel erection has commenced.

The construction of a series of underpasses, where the two pairs of railway tunnels cross below the N3 highway, alongside the

To page 61

TRANSPORT AND LOGISTICS PROJECTS

From page 60

Marlboro road bridge just to the north of Marlboro station, is continuing. The construction works at the N3 crossing should be completed by July 2009.

Viaduct 2 and the two adjacent bridges over the future Frankenwald and Maxwell roads are completed, with railway tracks in place across all three of these structures. The erection of noise barriers along this section of the alignment is also completed.

The construction of the depot facilities, including both the bus depot and the train depot administration buildings, is substantially completed. Installation of the operations control centre equipment is in progress in the train depot administration building. This centre will be the heartbeat of Gautrain, from where signalling, telecommunications, automatic fare collection, traction power and overhead distribution closed circuit television cameras and maintenance will be managed using world-class, high-technology systems.

The train maintenance workshops and the other depot facilities, including the washing bay for the cleaning of the trains and a sand-filling facility, are also completed. The trains are equipped with a sand dispensing mechanism, which deposits a special type of sand onto the rails to improve traction between the wheels and the rail when necessary.

At the train depot, Gautrain's 24 train sets will be maintained, serviced cleaned, and securely stabled overnight. The adjacent bus depot will perform a similar function for Gautrain's dedicated fleet of 125 luxury buses.

All track work and the stabling sidings within the depot are complete and operational, with energisation of this area having been effected in early January 2009.

The main line test track section from north of Viaduct 3 to Viaduct 2 is completed and operational. The civil construction works on further main line sections adjacent to the depot are being completed on an incremental basis and track laying operations are now in progress from north of Viaduct 3 to West road in Midrand and from south of Viaduct 2 to behind Linbro park.

Rails for the Gautrain track work have been manufactured in France and deliveries to site are ongoing.

Following a specialised construction and assembly process in Derby, UK, Gautrain's first shipment of four completed rail cars arrived at the depot in December 2008. The rest are being shipped to South Africa over the next few months. The first four-car train set is being tested on the test track at the depot.

Following a successful skills transfer programme, local technicians are already busy with the assembly of Gautrain rail cars at the Union Carriage & Wagon Partnership in Nigel.

The first locally assembled four-car train set is expected to be completed before the end of June 2009.

The temporary precast yard will be demolished during the latter part of this year, as the land is earmarked for the construction of the bus maintenance depot.

North of the depot, the K60 bridge and Viaduct 3 are both completed, as are the two road-over-rail bridges in this area (West and Ridge), which have been open to traffic for some months.

On the remaining section of the alignment up to the Dale road in Midrand, completion of bulk earthworks, final earthworks layers and finishing works, including catenary foundations, are ongoing.

Bulk earthworks and retaining wall construction activities at the Midrand station are ongoing.

The construction of the adjacent Grand Central bridge, on which the platforms will be partially located, is in progress.

From the Midrand area northwards, relocation of utilities, bulk earthworks, bridge construction and fencing activities have continued, with work now under way along the entire alignment through to the Technopark area at Centurion.

At Viaduct 4, excellent progress was achieved on deck segment erection, with all seventeen spans erected by mid-January 2009. The launching girder used to erect the deck spans was dismantled and relocated to the viaduct running through Centurion, prior to month-end.

The construction of foundation shafts and piers has continued at the John Vorster Viaduct and at the Jean avenue Viaduct, where the construction of the on-site balanced cantilever deck sections on top of piers, is also in progress.

Several temporary steel pedestrian bridges have been erected over the N14 highway at the Jean avenue interchange and across the N1 at the John Vorster interchange to provide construction workers safe access across these busy highways.

Viaduct 5 carries the elevated alignment through Centurion and supports the elevated Centurion station platforms located *From*

To page 62

TRANSPORT AND LOGISTICS PROJECTS

From page 61

approximately midway along its length. This viaduct stretches from the John Vorster interchange crossing the N1 in the south and then continues through Centurion to the Jean avenue interchange crossing the Ben Schoeman highway in the north. In Centurion itself, the preloading, grouting and piling of viaduct pier foundations are ongoing, and pile cap and pier construction is continuing. Almost 25% of the piers for Viaduct 5, which carries the elevated railway line through Centurion, have now been completed.

The launching girder that was relocated from Viaduct 4 during January 2009, has been erected between the piers near the Centurion rugby club, where the erection of viaduct deck segments will start in early February.

At Centurion station, the foundation grouting has started.

At Viaduct 6, the large diameter foundation piling has begun and is ongoing at the northern pier positions.

The construction of Viaduct 7 over the Nelson Mandela Boulevard is well advanced, with the supporting piers to the section that will carry the deck across the Nelson Mandela boulevard clearly visible. Piling and foundation construction for the remaining sections of this viaduct are ongoing.

Near Salvokop, at the approach to Tshwane, where a cut-and-cover structure will cross below the Ben Schoeman highway, the first phase of construction is completed. The temporary northbound deviation was opened to traffic in mid-January and excavation of the second phase of this structure, below the permanent northbound carriageway, is in progress.

At Pretoria station, construction of the station platforms is ongoing and structural columns and brickwork for the concourse are in progress. At Hatfield station, where part of the station concourse deck is already completed, the pile cap construction for the adjacent multistorey parkade is ongoing.

Between Pretoria station and Hatfield station, a number of bridges crossing the existing railway line require to be either widened or lengthened, to accommodate the adjacent Gautrain tracks. Work on a number of these structures is ongoing.

Earthworks at the airport link (Marlboro station to the OR Tambo International Airport) is in progress along the entire section and is well advanced. Work is ongoing at all the eleven bridges and three viaducts along the airport link.

The parapet installation at Viaduct 13 over Centenary Way, at Modderfontein, to the sides of the bridge deck is completed and finishing works are in progress.

At Viaduct 14, the erection of deck segments was completed during January and the launching girder has been removed. Parapet erection has commenced.

The erection of precast platform components at Rhodesfield station is well advanced. The foundations and columns for the Rhodesfield station concourse structure have started.

By far the longest viaduct on the east-west section of the route is the 1,5-km long Viaduct 15, which supports both the Rhodesfield and the OR Tambo International Airport station platforms and will carry the double-track railway line over the R21/R24 road network to the elevated OR Tambo International Airport station.

At Viaduct 15, where deck erection has started just west of Rhodesfield station, one span remains to be completed on the last section of this viaduct, adjacent to the station concourse. At the western end of this viaduct, where ten spans remain to be completed, the launching girder that has been relocated from Viaduct 14 will be assembled to completed the erection of these remaining spans.

The construction of the external shell of the OR Tambo International Airport station concourse is almost completed and is visible above the elevated drop-off road. Inside the concourse, brickwork is under way for offices and other facilities. The Gautrain station concourse is immediately adjacent to the new central terminal building.

On Budget and on Time?

The project is on schedule, but is expected to be over budget, owing to the rand's drop against the dollar, and the increasing costs of machinery imports.

Contact Details for Project Information

Gautrain Management Agency CEO, **Jack van der Merwe**,
tel +27 (11) 997 8900, fax +27 (11) 997 8901/2/3, email Jackvdm@gpg.gov.za.

TRANSPORT AND LOGISTICS PROJECTS

Iron-ore export channel expansion programme

Name and Location

Iron-ore export channel expansion programme, South Africa.

Project Description

The project involves the upgrade of the Sishen–Saldanha iron-ore line from the current 38-million tons a year to 47-million tons a year by 2009/10, and a further expansion of the line from 47-million tons a year to 60-million tons a year by 2012.

The rail upgrade plans include an increase in rolling stock, the upgrading of electricity infrastructure, the construction of loops and a 36-km rail link to service the new Sishen South mine.

Value

The upgrade from 38-million tons a year to 47-million tons a year will cost R5,8-billion, which includes R1,72-billion for the new 15E locomotives for the iron-ore line.

The upgrade from 47-million tons a year to 60-million tons a year will cost R4-billion.

Duration

The upgrade of the line is expected to be completed by 2012.

Clients

Transnet and Kumba Iron Ore (KIO).

Key Contracts and Suppliers

None stated.

Latest Developments

February 2009

In August 2008, KIO and Transnet announced the expansion of the iron-ore export channel from 47-million tons a year to 60-million tons a year.

Of the additional 13-million tons a year to be created, nine-million tons a year has been allocated to KIO, which will be used for the development of Sishen South, a new mine to be constructed near Postmasburg.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Transnet John Diudlu, tel +27 11 308 2458.

KIO **Tebello Chabana**, tel +27 12 683 7067, fax +27 12 683 7009 or email Tebello.chabana@kioldtd.com.

TRANSPORT AND LOGISTICS PROJECTS

Majuba railway siding project

Name and Location

Majuba railway siding project, Mpumalanga, South Africa.

Project Description

The project entails the construction and commissioning of a 68,7-km, 26-t/axle railway line linking the Majuba power station rail siding and tippler, with Transnet Freight Rail's export coal line, west of Ermelo, in Mpumalanga.

The complete transport system will include a new rail yard layout at Majuba, as well as modifications and upgrades to the existing tippler and conveyor load-out system.

The construction of the dedicated railway comes as Eskom ramps up output at its Majuba power station to meet South Africa's growing need for power.

Value

The Department of Public Enterprises and the board of Eskom have granted the necessary approvals for the project, which is budgeted at an estimated R1,8-billion – to be financed by Eskom.

Duration

The project is expected to be completed in late 2011.

Client

Eskom.

Key Contracts and Suppliers

None stated.

Latest Developments

August 2008

Eskom has invited electrical contractors to bid for the design, supply, installation, testing, and commissioning of electrical plant and material for seven traction substations for the railway siding project.

For enquiries relating to the tender contact **Samu Dlamini**, tel +27 17 799 2231, fax +2717 799 2247 or email samu.dlamini@eskom.co.za.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

Eskom media desk, tel +27 800 3304, fax +27 11 800 3850 or email mediadesk@eskom.co.za.

Eskom national call centre, tel 0860 037 566.

TRANSPORT AND LOGISTICS PROJECTS

Mozambique–South Africa pipeline project

Name and Location

Mozambique–South Africa pipeline project.

Project Description

The project will involve the construction of a liquid petroleum pipeline from the border of Mozambique at Komatipoort, to Kendal, through Nelspruit.

The pipeline will run from an existing coastal fuel-storage facility at Matola harbour, in Mozambique, to the Nelspruit area, in Mpumalanga province, South Africa, where an inland storage depot will be constructed, complete with rail-and-road offloading infrastructure. The pipeline will then continue to Kendal, where it will potentially join the current Transnet Pipelines (formerly Petronet) petroleum pipeline network, for inland distribution of the petroleum product. Rail and road loading infrastructure will also be provided at Kendall.

Facilities and infrastructure is being put in place to make available an interim rail tanker service from Maputo to customers in South Africa, pending construction of the pipeline. An extensive delivery service will be provided by rail from the facilities at Nelspruit (Alkmaar) and Kendal when the pipeline is in operation.

Value

The project will cost an estimated R6-billion.

Duration

The project was expected to start supplying product by 2010, but delays, mainly in the approval process, have extended the target date by a number of months. All is being done to keep as close as possible to these dates, and the alternative of interim rail transport has been put in place.

Client

Petroline RSA will implement the project in a 50:50 joint venture with Petroline SARL of Mozambique. Petroline RSA has four main shareholders – Woesa Consortium, Gigajoule International, Petróleos De Moçambique, and Companhia De Desenvolvimento De Petróleo Moçambique SARL.

Key Contracts and Suppliers

National Energy Regulator of South Africa (construction licence), VGI Consulting Engineers (technical design), Nature & Business Alliance Africa (South African environmental-impact assessment (EIA) processes, the land servitude acquisition process, and the public consultation process), MDALA (environmental authority), SRK Consulting (South African independent EIA practitioner), Matrix PR & Communications Consultants (South African public consultation process as part of the EIA processes), Impacto (EIA consultant for both Mozambican EIAs), and CFM (refurbishment and upgrading of the Matola oil terminal).

Latest Developments

December 2008

The three South African EIAs are taking longer than expected and the project schedule has been put under pressure as a result. Substantial headway has been made with the cooperation of the Department of Environmental Affairs and Forestry and the new streamlined procedures that are being put into place to deal with the EIAs. Barring unforeseen circumstances, the final record of decision for all the EIAs will be received by April 2009.

The Mozambique depot environmental impact report has been approved by the Ministério para a Coordenação da Acção Ambiental, while the environmental-impact report for the pipeline portion in Mozambique is expected shortly.

On Budget and on Time?

There have been delays to the start of construction, but the company is still hoping to deliver the pipeline around the time of the 2010 FIFA World Cup.

Contact Details for Project Information

Petroline Holdings in South Africa **Pinky Moabi**, cell +27 82 571 7624 or email pmoabi@global.co.za.

Petroline Holdings in Mozambique **Eduardo Malaghaes**, tel +258 82 308 2630 or email Eduardo.Malaghaes@petromoc.co.mz.

TRANSPORT AND LOGISTICS PROJECTS

Port of Ngqura and container terminal development

Name and Location

Port of Ngqura and container terminal development, Eastern Cape, South Africa.

Project Description

The port of Ngqura, located in Port Elizabeth, is undergoing development into a functioning container and bulk cargo handling facility.

The project entails the provision and construction of basic port infrastructure, consisting of breakwater construction, dredging of the basin and channels, a sand bypass system, five berths and back-up areas, initial landside infrastructure, pilot boat and tugs, and the upgrade of the link-line from Ngqura to Gauteng.

Phase 1 of the project will create capacity of up to 800 000 twenty-foot equivalent units (TEUs) a year, which will become operational from the third quarter of 2009. The scope of the work includes extending the quay wall to 1 300 m, equipping the first 720 m with landside equipment and the upgrade of the link line from Ngqura to Gauteng.

Phase 2 will include equipment for all the berths to increase capacity to two-million TEUs.

Value

R7,86-billion.

Duration

The entire project is expected to be completed by mid-2013.

Client

The Coega Development Corporation (CDC), and the Transnet National Ports Authority (TNPA), a division of Transnet.

Key Contracts and Suppliers

Ngqura Harbour Contractors a joint venture (JV) between Hochtief Construction, Concor Holdings and Ngqura Empowerment Contractors (construction of the harbour), Africa Construction, Siyaya Civils & Building Contractors, Sakhisizwe Construction & Matota Macingwane and Pambo Civils Engineering Contractors & Consultants (contract for the control of sand erosion around the harbour), Jan de Nul – Belgian – (dredging of the harbour). African Explosives, Abacus, Altima, Ballenden & Rob, Barloworld, Caissons, Concor Roads, Concrete Finishing Equipment, Concor-Bridge, Deranco Blocks, Dura Piling, Earthcon, Ensutech, Fanilo Construction, Fabscan Man, Geomechanics, Ibhayi Manufacturing, Ikhaya Fabricated, Ibhayi Network, Interconnect Systems, Johnsons Crane, Jones & Wagener, Mammoet, RMS-WRS JV, Sibakhulu, Sibobili, SRK Consulting, Steyns Drilling Trust, Vuka Steel, Yima Afrika, WK Construction, Metro Building Contractors, Masakheni Civils, Umanyano Electric, NAB Construction, Sakhisizwe Construction, LR Builders, Score Force Security (PDP Construction), Shahied Flooring and Carpeting, Nobulali Builders, Siyakhula Renovators, Devs Construction, Grinaker-LTA and Sibakhulu.

Concor JV comprises Concor Engineering and the CH Warman Pump Group. Through this JV, Concor is responsible for the pipework, electrical installation, pumps, instrumentation and final commissioning. The CH Warman Pump Group has supplied four Warman 12/10G-GH gravel pumps to be incorporated into the sand bypass scheme.

The Council for Scientific and Industrial Research (environmental-impact assessment for additional container berths and the administration craft basin).

Latest Developments

November 2008

The project is over 36,4% completed to date.

The civil work for Phase 1, that is, all concrete work (concrete slabs, service tunnel, drains, manholes and rail beams), has been completed.

Work on the port control building is nearing completion; and the Transnet Port Terminal's administration building is on schedule.

With regard to the port rail civil works, the rail bridge and marshalling yard are on schedule.

Construction of the first two STS Cranes and the rubber-tired gantry (RTG) cranes is to start. The structures for the reefers are also progressing and being assembled.

On Budget and on Time?

No, there has been a delay in the construction of the first phase of the project.

Contact Details for Project Information

Transnet external communications, **Mbomiso Sigonyela**, tel +27 11 308 2384, fax +27 11 308 2465 or

email mboniso.sigonyela@transnet.net.

CDC communications specialist and spokesperson, **Ongama Mtimka**, tel +27 41 403 0487 or fax +27 41 403 0401.

TRANSPORT AND LOGISTICS PROJECTS

Richards Bay Coal Terminal (RBCT) Phase 5 expansion

Name and Location

Richards Bay Coal Terminal (RBCT) Phase 5 expansion, KwaZulu-Natal, South Africa.

Project Description

The purpose of the Phase 5 expansion is to increase the RBCT's throughput capacity from 72-million tons a year to 91-million tons a year.

The expansion is deemed necessary in order to meet the short- to medium-term capacity requirements of export coal producers. The RBCT is considering an additional expansion to over 100-million tons a year. Any expansion beyond the 91-million tons of Phase 5 will depend on feasibility and demand.

Of the 19-million tons additional capacity to be added by 2009, nine-million tons has been awarded to eight successful applicants, namely ArmCoal, with the biggest allocation of 3,2-million tons a year; Exxaro Coal, with 2,5-million tons a year; Tumelo Coal Mines (600 000 t/y); Yomhlaba Resources (500 000 t/y); Mbokodo Mining (500 000 t/y); Umcebo Mining; Mmakau Mining and Worldwide Coal Carolina.

The other ten-million tons will be made up in the following manner: four-million tons a year has been earmarked for emerging black economic-empowerment (BEE) exporters, with modest export volumes, and six-million tons a year will be taken up by South Dunes Coal Terminal (SDCT), which will be a two-thirds BEE-controlled company.

Value

R1,2-billion.

Duration

The expansion project is expected to be completed by the end of the first half of 2009.

Client

RBCT.

Key Contracts and Suppliers

Group Five and joint-venture partners Stefanutti & Bressan (civil works, including dams, roads and foot bridges, excavations, pipejacking under roads and conveyors), Bateman (main contract), Siemens (electrical supply and design), Metso (tippler and stacker), SKP (civil design and earthworks), TFR (upgrade of the railway), Transnet Port Terminals (dredging and extension of quay), and Weba Chute Systems (chutes).

Latest Developments

January 2009

Reports have indicated that the commissioning of the expansion of the RBCT will be delayed until July 2009, owing to changes that need to be made to the terminal's computer control system.

On Budget and on Time?

The project is on budget. The project's timeline, however, has had to be adjusted, as a result of technical delays, mainly relating to the terminal control system.

Contact Details for Project Information

RBCT, tel +27 35 904 4911, fax +27 35 907 7200

or email: info@rbct.co.za.

Corporate Communications Consultants, **Nomonde Mxhalisa**,

tel +27 11 783 8926, fax +27 11 783 7608

or email nomondem@corpcom.co.za.

WATER PROJECTS

To ensure the availability and supply of water at a national level, South Africa's Department of Water Affairs and Forestry (Dwaf) has a number of projects currently under development, including the Vaal River Eastern Subsystem Augmentation Project (Vresap), the Olifants River Water Resource Development Project and the recently approved second phase of the Lesotho Highlands water project.

Vresap entails the construction of a pipeline that will augment water supplies from the Vaal dam to national electricity generator and distributor, Eskom, and oil-from-coal synthetic fuels producer, Sasol Synfuels' facilities near Secunda, in Mpumalanga. The Olifants River Water Resources Development Project will ensure a sustainable supply of water for mining and commercial use, as well as for public use in the Limpopo province.

Further, government has given the go-ahead for the second phase of the Lesotho Highlands water project. The project, subject to the conclusion of a protocol with the government of Lesotho, will include the construction of the Polihali dam.



WATER PROJECTS

Lesotho Highlands water project phase 2

Name and Location

Lesotho Highlands water project (LHWP) phase 2.

Project Description

Phase 1 of the LHWP was officially completed in 2004.

Phase 2 of the LHWP will include the construction of a new 165-million cubic metre dam – known as the Polihali – in Lesotho.

The dam will comprise two major reservoirs enclosed by a 145-m high dam wall.

Water from the dam will flow through a series of tunnels and through the Ash river in the Free State into the Vaal system.

The dam is a strategic intervention to ensure the water availability of Gauteng and the rest of the Vaal river water supply in the most effective manner. The construction of the dam and other infrastructure will take place alongside water conservation measures in the Vaal, improving water quality and curbing illegal water use.

The project will have a low energy requirement in that water can be transferred under gravity to South Africa, without pumping.

Value

The project will cost an estimated R7,3-billion. The new phase will be funded off budget, meaning that funds will be borrowed from capital markets.

Duration

The construction of the Polihali dam should start in 2012/13 and the first water generation from the second phase of the LHWP is expected to flow into the Vaal dam in 2018/19.

Client

The South African and Lesotho governments.

Key Contracts and Suppliers

C4/Seed joint venture (feasibility study).

Latest Developments

December 2008

Cabinet has approved the second phase of the LHWP.

The next steps to further the project will require the development of a detailed project implementation plan, to be approved by South Africa and Lesotho, and to have the necessary protocols between the two countries concluded.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

The Department of Water Affairs and Forestry, tel 0800 200 200
or fax +27 12 324 9592.

WATER PROJECTS

Olifants River Water Resource Development project phase 2

Name and Location

Olifants River Water Resources Development Project Phase 2 (ORWRDP-2), Limpopo province, South Africa.

Project Description

The Department of Water Affairs and Forestry (Dwaf) commissioned the Olifants Water Resources Development Project that comprises two phases, and a number of subphases:

Phase 1 involved the raising of the Flag Boshielo dam by five metres. This phase has been completed.

Phase 2 (Phase A-I) involves the development of additional water resource infrastructure within the middle part of the Olifants Water Management Area. Phase 2A entails the construction of the De Hoop dam, the realignment of the provincial road between Steelpoort and Stoffberg (the R555), while Phase 2B-2I entails the construction of a bulk distribution system to be funded and implemented by the Trans-Caledon Tunnel Authority (TCTA).

Value

R2,85-billion, inclusive of VAT for Phase 2A only, with the total cost of Phase 2 in the region of R7,4-billion.

Duration

The construction of the De Hoop dam started in July 2007, with the first delivery of water expected by April 2011.

Client

Dwaf.

Key Contracts and Suppliers

For Phase 2A, De Hoop, the key contractors are:

Main Road Contractor (realignment of the R555 road): Hillary, Liviero & Eigenbau (HLE) joint venture (JV), with subcontracts including Phahlamoloto Trading; Blackie Construction and Bakonzi Projects (steel fixing); Motshine Construction (concrete lined drains, kerb and channel); Nthekeng (installation of subsoil drains); Jiame Construction (construction of culvert head and wing walls, and construction of concrete base for access roads); Zwelisha Projects (stone pitching and rip-rap); Raga Theto Projects (gabions); Lenong Signs (supply and erection of road signs); Archibold Construction; Polokwane Road Marking (road marking); Letsa Naka Construction (erection of guardrails); Bouwest (supply and erection of fencing and gates); Boreadi (guarding), CIETS (training); Diponega/Limpopo RR JV (bulk earthworks Road E); Bhubezi (supply pipe culverts); Yebo Sales (supply box culverts); Polokwane Surfacing (bituminous surfacing); Holcim (cement); Chevron (diesel supply); and YaRena Civils (gauging weir bridge). Main Civil Contractor (De Hoop dam): Dwaf Construction West, with subcontractors: B&E International (supply of fine and course aggregate, crusher run and rip-rap); Limpopo RR & Construction (drilling and blasting); Twin Cities (supply of cement); Dura Pozz Bulk (supply of fly ash); BASF (supply of cement additives); and Steeledale Reinforcing (supply and fixing of reinforcement). TCTA will project manage the implementation of the ORWRDP-2B to 2I and will contract with various parties best able to manage the associated risks, to obtain the required services.

Latest Developments

February 2009

The announcement by the TCTA is imminent, of those professional service providers that have been prequalified to provide engineering services for Phases 2B to 2I of the ORWRDP-2. The requirement is for a comprehensive range of professional services that comprises the optimisation of project phases, tender design and documentation, detailed design, construction supervision, project commissioning and related project management in respect of the ORWRDP-2.

On Budget and on Time?

Dwaf has secured approvals for all the 'critical' environmental management plans and the project remains on schedule to start partial impoundment by October 2010.

Contact Details for Project Information

Dwaf, tel +27 12 336 8246 or fax +27 12 336 6592.

WATER PROJECTS

Vaal River Eastern Subsystem Augmentation Project

Name and Location

Vaal River Eastern Subsystem Augmentation Project (Vresap) from the Vaal dam to Secunda, Mpumalanga province, South Africa.

Project Description

Vresap is being implemented to meet the growing water demands primarily of Eskom and Sasol. The proposed scheme will transfer water through a 121-km-long pipeline from the Vaal dam (near the Vaal marina) to the Knoppiesfontein diversion structure, which discharges into either the Trichardtsfontein or the Bosjesspruit dams, near Secunda.

The water scheme comprises the installation of a system of pumps and pipelines to convey raw water from a new intake in the Vaal dam to an upgraded Knoppiesfontein diversion structure. The abstraction point at the Vaal dam is about 1 000-m upstream from the Vaal marina. The intermediate delivery point is to the modified Knoppiesfontein diversion structure, that diverts the pumped Vaal dam raw water through gravity pipelines into the Bosjesspruit and Trichardtsfontein dams. The upgraded structure will also be able to handle and divert, as currently, raw water pumped from the Grootfontein pump station. Vresap will augment the yield of the Vaal River Eastern Subsystem by 160-million cubic metres a year.

Value

R2,5-billion. The project will be funded by the private sector and paid for through tariff charges to Eskom and Sasol. The debt incurred to finance the project will be paid over 20 years after the project has been completed.

Duration

The construction of the project was expected to be completed by the final quarter of 2008.

Client

Trans Caledon Tunnel Authority (TCTA).

Key Contracts and Suppliers

TCTA (finance and implementation of the project), Vaal Pipeline Consultants comprising Goba, Ninham Shand, and PD Naidoo & Associates (professional design and supervision functions), Mpumalanga Pipeline Contractors Joint Venture (JV), which consists of Murray & Roberts, Group Five, WK Pipelines, and the J&J Group (supply and installation of the pipeline), the Chinese Overseas Engineering Corporation and Mathe Construction JV (civils structures, mechanical, electrical and instrumentation, and piping works), Pipetech (independent specialist inspection contract) and the United Valve Company (sleeve valves).

Latest Developments

February 2009

Vresap has not been completed as expected, as problems were experienced with the variable speed drives (VSDs) on the main pumps in December 2008.

However, the TCTA reports that the commissioning has been completed and it is hoped that the problems with the VSDs will be resolved, so that the two-week pumping trial period can be completed.

Meanwhile, the pipeline has been completed and tested, with only the high-lift pump station outstanding.

On Budget and on Time?

The project is within budget.

Owing to unforeseen delays, the completion date for the project was moved to the last quarter of 2008. The redesign of the coffer dam, as a result of the unexpected high-water level at the Vaal dam during the early construction period, and the worse-than-expected geotechnical conditions at the abstraction works, were the main reasons for the delay in the completion date.

Contact Details for Project Information

TCTA, tel +27 12 683 1200, fax +27 12 683 1300 or email info@tcta.co.za.

MINING PROJECTS

COAL

FERROCHROME

GOLD

IRON ORE

NICKEL

OTHER

PLATINUM

URANIUM



COAL PROJECTS

The electricity crisis experienced in South Africa in 2008 highlighted not only the need for the country to develop additional power generating capacity, but also the need to deliver adequate coal supplies to fuel such generating capacity.

This need is behind some of the coal projects currently under development in the country, such as the expansion of Exxaro Resources' Grootegeluk mine, which will supply coal to the Medupi power station, currently under construction by electricity utility Eskom, from 2011.

Other major coal projects currently under development in South Africa include the Douglas/Middelburg optimisation project, the Goedgevonden project, and the Klipspruit opencast coal mine expansion.



COAL PROJECTS

Douglas/Middelburg optimisation project

Name and Location

Douglas/Middelburg optimisation (DMO) project, Mpumalanga, South Africa.

Project Description

The DMO project scope includes the use of reserves across the Douglas and Middelburg Mine Services (MMS) collieries and the development of new mining areas with low-strip ratio coal, with the product being fed into a new 14-million tons a year coal-processing plant.

The new coal-processing plant will supplant the existing, less efficient washing plant at Douglas. The project will enable BHP Billiton to maintain energy coal exports from the combined Douglas colliery and the MMS colliery at around current levels (about 9,5-million tons a year is BHP Billiton's share), while simultaneously fulfilling domestic contractual commitments.

The expected life-of-mine is to 2034.

Value

The project will cost an estimated \$975-million.

Duration

The DMO project entered the execution phase on February 29, 2008. The target for project completion and handover is December 30, 2011.

Client

The Douglas and MMS collieries are currently owned through the Douglas Tavistock joint venture (DTJV), in which BHP Billiton has an 84% share and Xstrata a 16% share. To facilitate the DMO project, which is to be developed and owned solely by BHP Billiton, the DTJV will be restructured with each of the JV partners being allocated coal resources according to ownership share. A number of regulatory approvals are being sought to give effect to this restructure.

Key Contracts and Suppliers

DRA Minerals Projects (engineering procurement and construction management (EPCM) – coal processing plant); Bateman Engineered Technologies (EPCM materials handling); Jones & Wagener (EPCM civil engineering); Grinaker-LTA Roads & Earthworks (main earthworks contractor); WBHO Construction (main civil contractor coal-processing plant) and Group Five Civil Engineering (main civil contractor – materials handling).

Latest Developments

January 2009

Construction activities at the project are progressing well, with steel erection having started as scheduled.

The project is 34% completed.

On Budget and on Time?

The project is on schedule and within budget.

Contact Details for Project Information

BHP Billiton corporate communications, **Maredi Mogodi**,
tel +27 11 376 3361, fax +27 11 688 4362 or email maredi.mogodi@bhpbilliton.com.

COAL PROJECTS

Goedgevonden project

Name and Location

Goedgevonden project, Witbank coalfield, Mpumalanga, South Africa.

Project Description

The Goedgevonden project will involve the development of a major new greenfield, opencut, thermal coal mine. The project, which includes the prospecting rights in respect of the Zaaivater West property, is expected to produce an estimated 3,1-million tons a year of export thermal coal and about 3,6-million tons a year of domestic thermal-generation coal by means of a single dragline.

The mine will employ opencast operation technologies, based on waste stripping, assisted by an excavator and a truck prestrip. The project includes the development of a coal-handling and processing plant (CHPP), incorporating a crushing system, a coal processing plant, a water recovery system, a waste disposal system, two product reclamation systems, a rail load-out and conveyors.

Further, a railway development will be undertaken, including the construction of about 9,35 km of rail, as well as bulk earthworks, storm water culverts, four bridges, plate laying, overhead traction equipment and signalling.

Goedgevonden will have a life-of-mine of 33 years.

ArmCoal has been successful in obtaining a 3,2-million tons a year export capacity for the Goedgevonden project in the revised Phase V expansion of the Richards Bay Coal Terminal.

Value

The capital cost of the project is estimated at R3,2-billion.

Xstrata Coal is facilitating ArmCoal's participation in the Goedgevonden project by providing all the funding required to reach commissioning.

Duration

The commissioning of the new mine is expected in the first half of 2009, with full production expected from 2011.

Client

The mine will be developed through a majority black-owned-and-controlled joint venture (JV), the 'Goedgevonden JV', in which ArmCoal owns a 51% share, and Xstrata Coal South Africa owns the remaining 49%.

ArmCoal is a black-owned and controlled coal mining company created in February 2006 and is 51% owned by African Rainbow Minerals (Arm). Arm will appoint the majority of representatives on the Goedgevonden JV management committee, in line with its majority interest.

Xstrata Coal will manage the Goedgevonden project on behalf of the Goedgevonden JV. Xstrata Coal Marketing AG will market all export coal produced by the mine.

Key Contracts and Suppliers

Murray & Roberts Engineering Solutions (MRES) (main earthworks contractor), Sandvik Materials Handling (main mechanical contractor), Jeffares & Green (road diversion), R&H Railway (design and project management of the rail siding), Stefanutti & Bressan and Concor (civil construction), Grinaker-LTA (earthworks and construction of bridges), Bucyrus Africa (refurbishment of existing dragline), Barloworld (main mining equipment fleet), Downer EDI Mining (design and engineering for coal-processing plant), Semane Consulting Engineers (structural steelwork design and civil works for coal-processing plant), Kentz Integrated Solutions (main electrical contractor), Vibramech (16 screens and two feeders), Corus International (rail supplier), Infraset (sleeper supplier), VAE (turnout supply), Siemens (signalling), and Multotec Process Equipment (sampling systems).

To page 76

COAL PROJECTS

From page 75

Latest Developments

September 2008

The project is currently about 55% completed, with construction in general expected to be completed before Christmas. Commissioning of the plant is expected in January/February 2009.

On Budget and on Time?

The project is expected to be commissioned on time and within budget in the first quarter of 2009.

Contact Details for Project Information

Xstrata South Africa communications consultant, **Bomikazi Molapo**,
tel +27 11 250 0128, fax +27 11 250 0023 or email bmolapo@xstrata.co.za.

COAL PROJECTS

Grootegeluk Medupi expansion project

Name and Location

Grootegeluk Medupi expansion project, Limpopo province, South Africa.

Project Description

The project entails a brownfield expansion of Exxaro's Grootegeluk mine, with mining from the existing opencast pit continuing at an accelerated rate. The coal beneficiation process will be handled through two new dense medium facilities (the Grootegeluk 7 and Grootegeluk 8 beneficiation plants), which will be constructed at the mine.

The expansion is part of the 40-year coal supply agreement, at an average of 14,6-million tons a year, that Exxaro secured with Eskom to supply the utility's new Medupi power station, which is under construction near Lephalale, Limpopo province.

Value

The Exxaro Resources board has approved R9-billion in capital expenditure for the project.

Duration

The supply to the Medupi power station is planned to start in the fourth quarter of 2011, with a ramp-up to full production by 2014.

Client

Exxaro Resources.

Key Contracts and Suppliers

None stated.

Latest Developments

January 2009

The feasibility study for the project has been completed and the project will be entering the detailed engineering phase, with the long-lead items to be procured in due course.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

Exxaro Resources manager: corporate communication, Hilton Atkinson, tel+27 12 307 4843 or email hilton.atkinson@exxaro.com.

COAL PROJECTS

Klipspruit opencast coal mine expansion

Name and Location

Klipspruit opencast coal mine expansion, Mpumalanga province, South Africa.

Project Description

The run-of-mine capacity of the Klipspruit opencast mine, currently 4,8-million tons a year, will be expanded to eight-million tons a year.

The project will include the development of a 16-million tons a year coal processing plant called the Phola coal processing plant, in a 50:50 joint venture (JV) with Anglo Coal. The plant, processing eight-million tons a year of coal from each of the JV partners, will be located in the Klipspruit surface area and will be constructed by Anglo Coal.

The Phola coal processing plant will replace the existing Rietspruit coal washing plant.

Using current reserves, the mine is expected to have a 20-year life-of-mine, although this has the potential to be extended through the development of further resources.

About four-million tons a year of coal will be exported through the Richards Bay Coal Terminal, using BHP Billiton's existing allocation.

Value

\$450-million.

Duration

The increased production is due to start in the second half of 2009.

Client

BHP Billiton Energy Coal South Africa (Becsa).

Key Contracts and Suppliers

WBHO (main civil contractor); Enl (main electrical contractor); Bateman (main mechanical contractor); Radon Projects.

Latest Developments

January 2009

Earthworks and civil and mechanical construction are progressing well.

The project is 70% completed, with detailed commission planning started.

October 2008

The work is expected to start shortly and the contract is expected to be completed in the second half of 2009.

On Budget and on Time?

The project is on schedule and on budget.

Contact Details for Project Information

BHP Billiton corporate communications, **Maredi Mogodi**,

tel +27 11 376 3361, fax +27 11 688 4362

or email maredi.mogodi@bhpbilliton.com.

FERROCHROME PROJECTS

While South Africa is the world's largest producer of ferrochrome, about 90% of local ferrochrome production capacity is currently off line, owing to weaknesses in the ferrochrome market. The rapid deterioration of the conventional industrywide ferrochrome pricing mechanism has led to contract renegotiations and retrospective downward price negotiations. Further, owing to the electricity cuts that producers have been asked to make, South African ferrochrome producers have experienced a dip in supplier and customer confidence. Listed ferrochrome producer International Ferro Metals (IFM), however, is confident that low-cost ferrochrome producers, such as itself, will be "rewarded" when demand for the commodity picks up again. IFM, which is expanding its Buffelsfontein ferrochrome mine and smelting plant, in North West province, deferred all its major projects in January 2009, owing to the dramatic collapse in ferrochrome demand, resulting from the global economic crisis.



FERROCHROME PROJECTS

Buffelsfontein ferrochrome mine and smelting plant expansion

Name and Location

Buffelsfontein ferrochrome mine and smelting plant expansion, North West province, South Africa.

Project Description

International Ferro Metals Limited's (IFM's) South African Buffelsfontein mine was officially commissioned during July 2006. The pelletising and sintering plant was commissioned on May 4, 2007. Both furnaces were commissioned in January 2007, three months ahead of schedule and were able to produce 267 000 t/y at full capacity. The beneficiation plant was commissioned in March 2007.

However, IFM's Buffelsfontein ferrochrome smelting and mining operation is likely to become a substantially larger project, as the company has acquired a chromite property situated 5 km from Buffelsfontein.

The layout of the Buffelsfontein processing facility is designed to allow for potential expansion, with sufficient space set aside for an additional pelletising and sintering plant and additional furnaces.

The process feasibility study to confirm the economic soundness of increasing the capacity of the Buffelsfontein facility from 267 000 t/y to 665 000 t/y of ferrochrome has been completed. The expansion will comprise the installation of up to three additional 66-MVA furnaces with preheaters, a 700 000-t/y pelletising and sintering plant, and an ore beneficiation plant of 1,8-million tons a year, with associated services.

The key factors in the mine feasibility study are an increase in run-of mine chromite extraction from 900 000 t/y, to 2,4-million tons a year, during steady-state production; mine production from the expansion of the current Lesedi mine operation and the current openpit mining operation at Buffelsfontein together with a new openpit and underground mine at Skychrome; and whether current mineral reserves at Lesedi and indicated mineral resources within the potential openpit at Skychrome are capable of supplying the planned expanded ferrochrome production of 665 000 t/y for over six years.

Value

The Buffelsfontein mine and smelting plant cost R1,5-billion to construct.

The expansion of the smelter facility will cost R4,15-billion, up from a previous estimate of R3,2-billion, and will comprise the beneficiation plant (R320-million), the pelletising and sintering plant (R950-million), furnaces (R2,3-billion) and infrastructure (R580-million).

The capital expenditure for the mine expansion will cost an estimated R455-million. The mine feasibility study will provide the final budget required. IFM's budget estimate comprises: expansion of the current Lesedi mine through the addition of a second decline on the MG2 seam (R65-million); establishment of an openpit mine at Skychrome (R40-million) and the development of a decline and underground mine at Skychrome (R350-million).

Duration

The Buffelsfontein mine was officially commissioned in July 2006.

The expansion of the smelter facility has a planned construction period of 18 months for the three furnaces and the pelletising and sintering plant. Following construction, a 17-month ramp-up period to full design capacity production is planned, with 30% of capacity reached by month four; 60% capacity reached by month eight, 80% by month 12 and 100% by month 17.

The mine's first boxcut is expected to begin in June 2008, as part of the mine development at Skychrome. A total development period of eight months is planned.

Expansion of the Lesedi shaft started in May 2008.

The recent Skychrome diamond drilling programme is complete and IFM expects to announce increased indicated and measured resources soon.

Client

IFM.

Key Contracts and Suppliers

For the Buffelsfontein mine and smelting plant: SDM Mining Contractors (mining operations), Dowding Reynard & Associates (beneficiation system), Bateman South Africa and Outokumpu (pelletising plant and sintering plant), Pyromet (furnaces), Concor (civil engineering contractor), WBHO (main civil engineering contractor) and MAC engineering (furnace shells).

For the expansion project: SRK Consulting (lead consultant).

Latest Developments

January 2009

IFM has reported that its major capital projects have been deferred, as a result of the dramatic collapse in ferrochrome demand, resulting from the global economic crisis.

On Budget and on Time?

IFM has increased its cost estimate for the expansion of its processing facilities.

Contact Details for Project Information

IFM, tel +27 14 574 6300 or email info@ifmsa.co.za.

GOLD PROJECTS

South African gold production fell by an estimated 14% in 2008 which, according to precious metals consultancy GFMS, was the steepest percentage fall in the country since 1901. This relegated South Africa to being the world's third-largest gold producer, after China and the US.

South Africa's gold production stands to be boosted, however, by several projects that are under development, including Burnstone, Doornkop South Reef, Modder East and the South Deep expansion. The Burnstone project will involve the development of a new mine in the Witwatersrand Basin. The Doornkop South Reef project will entail the three-phase development of the Doornkop main shaft, in order to access the South Reef. The Modder East project encompasses two prospect areas, where trackless and conventional mining methods will be used. The South Deep expansion will increase production at Gold Fields' South Deep mine from a current 270 000 oz/y to 800 000 oz/y.



GOLD PROJECTS

Burnstone project

Name and Location

Burnstone project, Witwatersrand Basin, South Africa.

Project Description

The proposed project will involve the construction of a new gold mine on a relatively shallow but marginal prospect in the north-eastern part of the Witwatersrand Basin, 80 km south-east of Johannesburg.

The project will have an expected yearly production of 250 000 oz/y of gold at full production.

Value

The need for a larger metallurgical facility and the construction of a second decline has resulted in developmental costs increasing from \$114-million to \$131-million.

Duration

Production is expected to start in 2009, producing between 45 000 oz and 50 000 oz.

Client

Great Basin Gold (GBG).

Key Contracts and Suppliers

Turgis Engineering (mining plan), Grinaker-LTA Construction (construction of second outlet).

Latest Developments

November 2008

South Africa's Minerals and Energy department has granted GBG the mining rights for its Burnstone mine.

The mining right was granted on October 28 to the company's wholly owned subsidiary Southgold Exploration, and authorises Southgold to mine for gold, silver and aggregates in the Burnstone project area.

In terms of the requirements of the Mineral and Petroleum Resources Development Act, black economic-empowerment company Tranter Gold acquired 26% of the Burnstone project using the then feasibility study as a basis for valuation. To enable Tranter Gold to gain full exposure to the international asset base of Great Basin Gold, approval was given to convert the 26% see-through value of its holding in the Burnstone project to shares in the listed entity.

Meanwhile, development of the Burnstone project is progressing well. The crosscut to the mineralised reef is expected to be completed in the first quarter of 2009, at which time trial stoping to extract a bulk sample of about 26 000 t will start simultaneously and development of the vertical shaft and decline shaft will continue.

The first reef intersection is expected in the fourth quarter of 2008, at which time bulk sampling will start. Mining is planned to take place at some 300 m below the surface. The shallow depth of the orebody will allow for a more flexible mining method focused on safety and optimal extraction. A feasibility study investigating a higher level of mechanisation underground is currently under way, with the results expected by the end of the current quarter.

Subsequent to site establishment, the sinking of the vertical shaft has progressed to between 95 m and 125 m below the surface. On the granting of the mining licence, the shaft will be used for commercial production as well.

On Budget and on Time?

There has been a three-month delay at the project, owing to the first mining block being lower than thought, however, the production target for 2009 remains on target.

Contact Details for Project Information

GBG investor relations officer **Tsholofelo Serunye**, tel +27 11 301 1800, fax +27 11 301 1833 or email tsholos@gbgold.co.za.

GOLD PROJECTS

Doornkop South Reef project

Name and Location

Doornkop South Reef project, Gauteng, South Africa.

Project Description

The project will entail the three-phase development of the Doornkop main shaft to 1 973 m, in order to access the South Reef. It is estimated that the South Reef project has an on-site resource of 5,6-million ounces.

Value

The estimated final capital cost of the project is R1,634-billion.

Duration

Full production is expected in 2013.

Client

The project is a 74:26 joint venture between Harmony Gold and African Vanguard Resources.

Key Contracts and Suppliers

Murray & Roberts (civil contractor); Alstom Mine Winders (mill and winders); Melfix (shaft works); Octa Engineering (mechanical contractor); FLS Minerals (winders); and Weir (pumps).

Latest Developments

Shaft sinking and partial equipping of the main shaft was completed during 2008. The reef and waste handling system, as well as the shaft bottom loading arrangement has been commissioned, allowing the discontinuation of subshaft hoisting. Currently, two of the four shaft stations have been equipped.

A total of 5 334 m of in-circle development has been completed. A total of 6 772 m of access development has been completed. A total of 3 871 m of secondary development has been completed. A total 1 017 m of reef development has been done.

The water handling system will be commissioned in stages to match the mine's production "build-up". The first settler dam and circulating pumps on 205/207 level and the distribution plant on 192 and 197 level will be commissioned in April 2009, and will provide up to 200 l/s of service water to the production sections. The service water plant capacity will be gradually increased and will peak at 400 l/s by the time full production is met in 2013.

Shaft columns were installed during the sinking phase.

The newly installed rock winder will be commissioned in March 2009, to hoist rock from 132 level, where it will be dedicated to the removal of rock from the Kimberley horizon. The installation of guides in the rock hoisting compartments of the shaft below 132 level will continue in the months thereafter to culminate in the commissioning of the rock hoist loading station on 212 level. The rock hoist will be commissioned in time on 212 level to cater for the build-up tons, which peak in 2013, at this point, the DP hoist and rock winder will be dedicated to hoisting rock from the South Reef horizon.

To date, 109 000 reef tons have been produced from the South Reef. Currently, about 15 000 t/m of reef are being produced from the South Reef. The operation will continue to buildup to a maximum of 120 000 t/m in 2013.

On Budget and on Time?

The development of the Doornkop project remains on track.

Contact Details for Project Information

Harmony Gold, Doornkop project manager, **Peter O' Toole**, tel +27 11 411 2000 or fax +27 11 692 3879.

GOLD PROJECTS

Modder East gold mine

Name and Location

Modder East gold mine, Gauteng, South Africa.

Project Description

The project consists of the Modder East and UC prospect areas, where the Black Reef and the UK9a Kimberley Reef have been identified and sampled.

Aflease Gold plans to exploit the Black Reef at depths of 300 m and the UK9a Kimberley Reef at depths of between 300 m and 530 m below surface. The mining method selected will be a combination of trackless (off reef) and conventional mining (on reef), with the mining infrastructure placed in the footwall of the two reefs. Access to the orebody will be by a trackless decline from the surface, accessing the footwall of both reef horizons. Additionally, a vertical shaft will be sunk and used to transport personnel in and out of the mine.

The mine will be ventilated by two exhaust fans situated on two separate ventilation raise boreholes. These fans will cause air to be drawn into the mine through the decline and the vertical shaft, which form both intake airways.

The support of the development and stopes is mainly based on a rigid pillar system.

Value

Aflease Gold has reported that a 20% capital cost escalation for the project is expected and, in view of that, has adjusted its forecasts, and the construction capital expenditure is expected to be about R814-million and the cash costs of production are expected to increase to about R57 000/kg.

Duration

The boards of Uranium One and Aflease Gold decided to fast-track the project and the initial stage of the construction began on May 18, 2006. The project is expected to start production in 2009.

Client

Aflease Gold, which is 67%-owned by Uranium One.

Key Contracts and Suppliers

Turgis Consulting (feasibility study), SRK Consulting (independent auditors of feasibility study), N M Rothschild & Sons (financial adviser), and Grinaker-LTA (shaft construction).

Latest Developments

January 2009

A significant milestone was achieved with the successful completion of the development of all three of the main access ends (main decline, return airway and decline west) through the water bearing dolomites. During the last week of December 2008, all three ends intersected the quartzite layer at the expected elevation, which led to a significant reduction in the time required to probe the rock ahead of the face for the presence of water. All three main access ends are now fully into the quartzite layer.

Since January 2008, 5 700 m of cover drilling has been done in the main decline, 4 484 m in the return airway and 3 800 m in the decline west. A total of 458 water intersections was encountered, three of which were over 70 000 l/h.

As a result of the water intersections, 314 full production days were lost in the main decline, and 248 days were lost in the return airway, while 165 days were lost in the decline west.

Thanks to the amelioration initiatives that management put in place, and the successful development through the dolomites, mine start-up has largely been unaffected, with the first gold pour expected to take place in the fourth quarter of 2009. The rate of production build-up has, however, been slowed and still as reported earlier, annual production during 2009 will be 20 000 oz and 140 000 oz in 2010 with steady state production of 180 000 oz being achieved by 2011.

On Budget and on Time?

The project has experienced some delays stemming from water-bearing rocks, through which it is developing the decline shaft and which it has had to seal with cement.

Contact Details for Project Information

Aflease Gold investor relations, **Carol Smith**, tel +27 11 482 3605, fax +27 11 482 3604 or email carol.smith@afleasegold.com.

GOLD PROJECTS

South Deep gold mine expansion

Name and Location

South Deep gold mine expansion, Gauteng, South Africa.

Project Description

The aim of the project is to increase gold production to 800 000 oz/y, from the current 270 000 oz/y at the South Deep gold mine. Further, Gold Fields is undertaking a study of how it can best exploit possible synergies between its nearby Kloof mine and South Deep, as well as the adjacent exploration targets that it recently acquired from JCI and R&E.

Value

The investment needed to boost production at South Deep has increased by some R800-million to R4,3-billion. The original cost estimate of the expansion project was R3,5-billion.

The board has already approved R2,9-billion towards the project.

Duration

Gold Fields is seeking to triple output at the mine to 800 000 oz/y in five years from the current 270 000 oz/y.

Client

Gold Fields.

Key Contracts and Suppliers

Murray & Roberts Cementation (main mining contractor); Civcon (batrifice panels), Redpath (batrifice panel installation), MM&G (steelwork fabrication); York-Miac (supply and installation of three underground refrigeration machines); and Howden (commissioning of main surface ventilation fans).

Latest Developments

None stated.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Gold Fields investor relations officer, **Francie Whitley**, tel +27 11 644 2505, fax +27 11 484 0639 or email franciew@goldfields.co.za.

GOLD PROJECTS

TauTona Below 120 Carbon Leader project

Name and Location

TauTona Below 120 Carbon Leader project, North West province, South Africa.

Project Description

Currently, the deepest-mine accolade belongs to AngloGold Ashanti's Savuka mine, in North West province, which descends 3 777,4 m below datum. Now AngloGold's TauTona aims to go down even deeper to 3 902 m below datum, a depth to which nobody has ever before descended and where virgin rock temperatures will increase from the current 55 °C to 59 °C.

TauTona's Below 120 Carbon Leader project will see the sinking of a twin decline shaft, which will take the mine down another five levels to shaft bottom. This infrastructure will facilitate the mining of an additional 1,2-million m² and yield 72 t of gold.

The suite of decline equipment will include a three-material car 'cassette', which will be attached to the main driver conveyance, allowing for the transport of material in bulk to the various levels as required for production and sinking purposes.

There will be a drawbridge-type mechanism on each level to facilitate the roll-on/roll-off of the various cassettes as required, be it for men or materials handling.

As there will be people working below the decline transport systems, there will be a 'runaway pit' installed below each level to halt any runaway conveyances in the shaft, thus protecting those doing shaft-sinking lower down.

In this way the project will be able to produce gold and pay its own way while the infrastructure is still being put in place.

The project will extend mine life to 2019 and beyond.

Value

R1,2-billion has been approved for the project.

Duration

The sinking project is expected to be completed by February 2012.

Client

AngloGold Ashanti.

Key Contracts and Suppliers

None stated.

Latest Developments

February 2009

AngloGold Ashanti has reported that the project has been deferred for 12 months.

August 2008

The now reduced scope of the project is still under feasibility and will be sent for possible approval by the board in October 2008. Meanwhile, some preliminary work for the sinking will be conducted up until October.

The rest of the ground that was in the initial scope of the project will be mined through the Mponeng below 120 carbon leader project.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

AngloGold Ashanti, tel (011) 637 6000.

GOLD PROJECTS

Yalea underground project

Name and Location

Yalea underground project, Mali.

Project Description

The project will involve the development of an underground gold mine at Loulo, in Mali.

The board decision in favour of developing an underground mine at Loulo comes hot on the heels of the commissioning of Loulo's opencast operation, which poured its first gold in September 2006.

The project will involve the sinking of two declines below the newly opened openpit, and considerable mechanisation.

The underground mine will extend the life-of-mine to 23 years.

Value

\$100-million, which will take the financial commitment in the entire Loulo complex to \$200-million.

Duration

Construction on the project started in 2006.

Client

Randgold Resources.

Key Contracts and Suppliers

Shaft Sinkers (mine development and stoping contract) and Laboré Technical (conveyors).

Latest Developments

February 2009

Randgold Resources has reported that during 2008, a total of 3 861 m of development was completed and 107 805 t of ore at a grade of 4.42 g/t gold was mined from the Yalea underground mine.

At the end of the December 2008 quarter, the Yalea declines had been advanced to a distance of 1 150 m from the surface and a vertical depth of 180 m. Overall development has been slower than expected, with the section suffering from low availabilities of the underground fleet during the third and fourth quarters. The total development for the underground mine is 4 479 m.

Stoping at Yalea started during the second quarter of 2008, with the first ore from silling being produced in June 2008. Longhole stoping trials started in the third quarter. The section has been experiencing problems with the blasting of upholes, which hampered ore production from stopes. A number of remedial steps have been introduced by the explosive supplier to improve blasting.

The first and second belts in the underground conveyor system were installed and commissioned during the third quarter. Temporary tipping arrangements on surface have been made, awaiting the introduction of the overland conveyor system. Construction on the overland conveyor started during the last quarter and the system is expected to be commissioned early in the second quarter of 2009.

A waste backfill trial was successfully completed during the fourth quarter of 2008, with the northern area between 12 level and 28 level, being filled with waste rock from development. The drilling of backfill slurry holes from the surface is scheduled to start in the first quarter of 2009 and the first sill casting early in the second quarter of 2009.

During 2008, construction work on the concrete tunnels was completed and the boxcut filling is scheduled to be completed early in 2009. A number of other construction areas are being addressed, including the permanent water-handling system.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Randgold Resources media and investor relations, **Kathy du Plessis**,
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IRON-ORE PROJECTS

Global steel output fell by 1,2% in 2008, according to the World Steel Association, with the decline having started to gain pace from September, on the back of the global economic slowdown. Demand for iron-ore, as a key input in steel, is likely to be affected by any further decline in steel output going forward. The current slowdown follows a period of strong growth in global steel production, and consequently demand for iron-ore. During this period, a number of miners announced plans to increase iron-ore output. In South Africa, Assmang's Khumani iron-ore mine, in the Northern Cape, is already in production, and the company is investigating a further expansion to increase capacity to between 18-million tons and 20-million tons a year, with between 16-million tons and 20-million tons a year destined for export. Meanwhile, Kumba Iron Ore's (KIO's) Sishen Expansion Project (SEP), in the Northern Cape, is ramping up to full production and KIO is conducting studies into increasing production at the mine. In addition, the development of KIO's R8,5-billion Sishen South project, which will produce nine-million tons a year, is proceeding.



IRON-ORE PROJECTS

Khumani iron-ore project

Name and Location

Khumani iron-ore project, Northern Cape, South Africa.

Project Description

The Khumani project involves the development of a greenfield iron-ore export mine on the Bruce, King, and Mokaning farms in the Northern Cape. The first phase of the project involves the development of a ten-million tons a year iron-ore export mine. The second phase of the project entails the expansion of the Khumani mine from ten-million tons a year to 16-million tons a year.

Value

Phase 1 is estimated at R4-billion.

Phase 2 is estimated at R7,3-billion. Approval of the initial capital (R1,2-billion) will enable the mine to order long-lead items, which will in turn assist in the rapid construction of the project.

Duration

Phase 1A is in progress to increase export production to ten-million tons a year, with completion scheduled for March 2009. A feasibility study on the second phase of the project is expected to be completed in the second quarter of 2009 and, pending a positive outcome, final approvals will be sought from the respective boards for the official start of the expansion.

Client

Assmang, a 50:50 joint venture (JV) between Assore and African Rainbow Minerals (Arm).

Key Contracts and Suppliers

Africon (detailed earthworks and design); SRK Consulting Engineers (geotechnical drilling); DRA (engineering, procurement and construction management (EPCM) contractor); Metso (primary, secondary and tertiary crushers); Voest-Alpine Materials Handling (stackers and reclaimers); Barloworld (mining equipment); Osborn (apron feeders); Polysius (high-pressure roller crushers); Humboldt Wedag (lumpy and fines jigs); Joest (screens and vibrating feeders); Concor Holdings (earthworks – contracts A, B and C and civils for stockpile extension); Rockwell Automation (PLC equipment); Warman Africa (pumps); Zest Electric Motors (LV motors); Shaw Controls (frame agreement); ScanMin (Geoscan online analysers); M&J Engineering (Weba chutes); VAE rail material supply); R&H Railway Consultants (rail and road consultant); Edison Jehamo Power (overhead lines and construction power); VVB Construction (haul roads); Bateman (rapid-rail load-out station and primary thickener); Matador (steel-cord conveyor belting); Murray & Roberts/Grinaker-LTA (BKM Civil JV) (civils); Alstom (MW switchgear); ECMP (paste disposal); Sandvik (run-of-mine and product yard conveyors); Life Occupational Health (occupational health services); Ivusi (environmental management programme); Matomo (sample prep plant); Aberdare Cables (electrical cable); Cosira Tubular JV (subcontractor management plan (SMP) for A & B); Roymec (plant product and waste discard conveyors SMP); Crane Load Tech (mobile cranes – 120 t); Charles Corbett Photography (aerial and surface photography); B&W and Brandt (electrical and instrumentation installation); Shelela Foods (contractor's camp); Eclipse Networks (computer equipment for JD Edwards Solutions); Shaw Controls (motor control centres); Goodyear (conveyor belting); SA Fence & Gate (security fencing); Fabricated Steel Manufacturers (buildings and prefab infrastructure); Botes & Kennedy Manyano (small works, culverts and crossings); Elan Civils CC (small works and stockpile extension civils); Rufco Engineering (process plant expansion SMP); Lennings (rail installation), Tanstank (rail refuelling station); Siemens (siding signalling system); VAE (supply of rails and turnouts); and Swift Flite (charter flights to and from Sishen).

Latest Developments

December 2008

Assmang is studying a further expansion of the Khumani mine, which will take production to between 18-million tons a year and 22-million tons a year, with between 16-million tons a year and 20-million tons a year destined for export.

On Budget and on Time?

The first phase of the Khumani mine is on budget and on schedule to start production by the first quarter of 2009.

Contact Details for Project Information

Arm corporate development and head of investor relations, **Monique Swartz**, tel +27 11 779 1507 or email monique.swartz@arm.co.za.

IRON-ORE PROJECTS

Sishen Expansion Project

Name and Location

Sishen Expansion Project (SEP), Northern Cape, South Africa.

Project Description

The project will apply jig technology to extract 13-million tons a year additional saleable ore from 21-million tons a year of feedstock previously accounted for as waste. It will also produce 13-million tons a year from new run-of-mine material.

New studies have indicated potential for an additional 22-million tons a year from the Sishen mine. The most advanced of these, SEP1B, will produce 400 000 t from the fines fraction currently being discarded. Two other projects, capable of delivering around 20-million tons a year of lower-iron content ore, are at the feasibility stage.

Value

Capital cost allocation for the project has been incremental, with the former Kumba Resources board allocating R3,6-billion to the SEP in 2005, for the construction of an operation with an annual capacity of ten-million tons a year, and not the 13-million tons a year capacity to which it has grown. A further R1,5-billion was provided for this, taking the total to R5,1-billion.

Duration

Full production ramp-up started in 2007, with production of some five-million tons expected for 2008.

Client

Kumba Iron Ore (KIO).

Key Contracts and Suppliers

IMS Engineering in partnership with ETCL (crushers); Murray & Roberts-Bateman joint venture (JV) (engineering, procurement and construction management contract); Grinaker-LTA and Murray & Roberts JV (civil construction); Krupp (stacker reclaimers); AllMinerals; Semane; Concor (bulk excavation); DCD-Dorbyl Vereeniging (structural mechanical installation, platework and piping); LSL and Roymec (conveyor belts); Schenk Process Africa, Joest (full scope of supply – crushing and screen building); Duisburg (18 all jigs); GL&V South Africa (thickeners to treat fine residue); Metso Minerals (apron feeders); RBF Technology; Alstom Electrical Machines; Tubular Technical Construction; JDS Industries together with HME Sales Boom System Design, Hytec SA, Power Unit, Kulula Technologies and various other contractors (rock breaker); Grinaker-LTA – Mechanical Electric Metals & Minerals division (contract for the fabrication, construction, installation and assistance in the commissioning of the dewatering bins).

Latest Developments

January 2009

JDS Industries has commissioned the rock breaker for the crusher at Sishen iron-ore.

From page 90

The unit ordered is to date one of the biggest stationary rock breaker's installed in the world. The specifications asked for a boom system that could reach 14 m and be able to handle a seven-ton hydraulic hammer, and an excavator bucket to clean the crusher for maintenance.

July 2008

KIO has reported that production from the SEP jig plant for the six months to the end of June 2008 was 1,3-million tons. This was lower than expected, because of some technical difficulties and late commissioning of the crushing and sample

To page 91

IRON-ORE PROJECTS

plants. However, good progress has been made with the crushers, which are performing at design capacity, and accelerating commissioning of the seventh and eighth jig modules to the third quarter of 2008. Based on recent performance of the jig plants, production of some five-million tons should be achieved for 2008.

On Budget and on Time?

With significant increases in the costs of diesel, steel, explosives and electricity, as well as power supply constraints, operating costs will remain under pressure. The anticipated benefits of a reduction in unit costs through the additional SEP jig plant volumes is anticipated only when full design capacity is reached.

Contact Details for Project Information

KIO investor contact, **Tebello Chabana**, tel +27 12 683 7067, fax +27 12 683 7009 or email Tebello.chabana@kiold.com.

IRON-ORE PROJECTS

Sishen South project

Name and Location

Sishen South project, Northern Cape, South Africa.

Project Description

The project entails the development of a nine-million tons a year greenfield opencast mine on a group of iron-ore bodies some 80 km south of the Sishen mine, near Postmasburg.

The mine will have a 20-year life-of-mine and produce direct shipping ore (product qualities of 64% iron lump and 63,5% iron fine ore) for the export market, supporting Kumba's next phase of its expansion strategy to develop the iron-ore export channel to 44-million tons by 2013.

The ore will be transported on the main Sishen-Saldanha iron-ore export channel to the port of Saldanha Bay by means of a 36-km rail link to be built from the Sishen South mine.

Value

R8,5-billion.

Duration

The first production from the mine is expected in 2012, ramping up to full capacity of nine-million tons a year in 2013.

Client

Kumba Iron Ore (KIO).

Key Contracts and Suppliers

None stated.

Latest Developments

February 2009

In August 2008, KIO announced the approval of an R8,5-billion investment in the new Sishen South mine. Some 750 people will be employed by the mine, with 2 000 jobs expected to be created during construction and indirect job creation estimated at 4 000.

Kumba has concluded a contract with Transnet to expand the Sishen-Saldanha line in a R4-billion capital investment by Transnet. Part of the additional capacity will accommodate production from the Sishen South mine.

On Budget and on Time?

Too early to state.

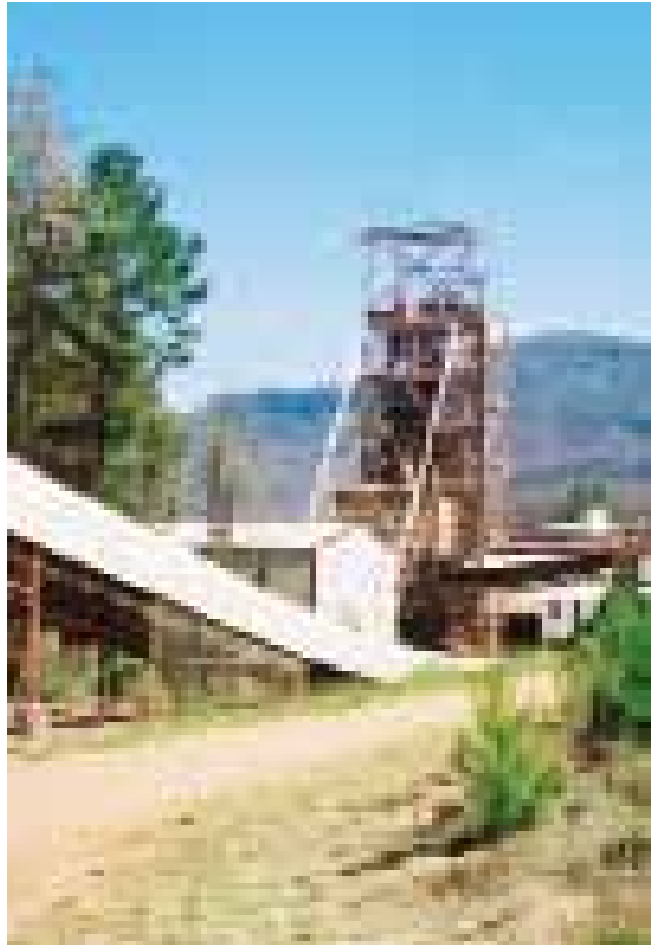
Contact Details for Project Information

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NICKEL PROJECTS

Owing to the slowing global economy, the stainless steel sector has weakened, with the result that prospects for the global nickel market have weakened too. Citing low prices and slumping demand, a number of nickel operations around the world have been closed, and projects put on hold.

In South Africa, however, African Rainbow Minerals and Norilsk Nickel are continuing with the Nkomati nickel mine expansion, expected to cost in the region of R3,2-billion. An interim project, costing R384-million, is already in production.



NICKEL PROJECTS

Nkomati nickel mine phase 2 large-scale mining expansion

Name and Location

Nkomati nickel mine phase 2 large-scale mining expansion, Mpumalanga, South Africa.

Project Description

The phase 2 large-scale mining expansion at Nkomati will exploit two zones of the large layered polymetallic disseminated sulphide resource, which contains 904 335 t of nickel. The first is the main mineralised zone (MMZ) that is currently being mined by the interim phase, which successfully started commissioning in September 2007, through underground and openpit mining. This is overlaid by the peridotite chromititic mineralised zone (PCMZ), which will be mined by openpit methods.

Mining will continue from the underground mine, at the rate of 47 000 t/m, while the two new openpits, Pits 2 and 3, will produce 578 000 t/m of ore at a steady state of production.

The current 100 000-t/m concentrator will be upgraded to 250 000 t/m to process the PCMZ ore and a new 375 000-t/m concentrator for the MMZ will be constructed to give a total concentrator capacity of 625 000 t/m. The mine's related infrastructure will also be upgraded, including the construction of two new tailings facilities and an upgrade of the power supply to 80 MVA. The interim phase will produce 6 000 t/y. This project is a short-term measure to compensate for the expected depletion of the underground ore reserves from the current massive sulphide body lode 2008. The new, lower-grade MMZ orebody will be worked as an opencast mine, to bridge the processed ore production gap until the major expansion project starts.

Value

The interim phase project cost R384-million. The phase 2 expansion will cost R3,2-billion (\$445-million).

Duration

Construction of the phase 2 large-scale mining expansion started in early 2008 and is scheduled to take 24 months from the announcement date. Production will be sequenced, targeting the initial production ramp-up from the MMZ concentrator during the third quarter of 2009, with full production by the first quarter of 2010, and then the initial PCMZ production ramp-up targeted during the third quarter of 2010, with full production by 2011.

Client

African Rainbow Minerals (Arm) and Norilsk Nickel, which acquired the operation after it bought Canada-based LionOre for C\$6,8-billion.

Key Contracts and Suppliers

Hatch (bankable feasibility study); DRA Minerals Projects (engineering, procurement and construction management); WBHO Construction (main earthworks contractor and main civil contractor); Cosira (subcontractor management plans (SMP) (package A)) and Grinaker-LTA Mechanical & Electrical Metals & Minerals (concentrator plant); Aveng/Grinaker-LTA (SMP (package B)); and Fabricated Piping Systems (main piping contractor).

Latest Developments

September 2008

Cosira has been awarded a phase 2 contract, by DRA Minerals Projects, for the fabrication, supply and construction of the crushing and milling plant at Nkomati.

The company has started with the detailing for the fabrication stage. The project is scheduled to reach completion by April 2009. Meanwhile, Grinaker-LTA Mechanical & Electrical Metals & Minerals, a division of Aveng (Africa), has secured the contract for the Nkomati project concentrator plant. The company's scope of work comprises just over 1 700 t of structural steel and platework, as well as the installation of mechanical free issue equipment.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Arm manager: investor relations and new business development, **Monique Swartz**, tel +27 11 779 1507 or email Monique.swartz@arm.co.za.

OTHER MINING SECTORS

Manganese ore and alloy are entirely dependent on the carbon steel industry and are, therefore, being directly affected by current weak steel markets. As a result, several companies have indicated that they will be cutting back on manganese ore and alloy production. For example, BHP Billiton has indicated that it expects to reduce manganese ore production by 21% and alloy production by 23% for the 2009 financial year, with the ore reduction to be balanced between the company's South African and Australian operations. In a similar move, production at the Transalloys manganese-ore smelting operation in South Africa will cease for two months owing to reduced market demand, and ferrous-metals miner Assmang has indicated that it will close three high-carbon ferromanganese furnaces at its Cato Ridge works, owing to "extensive" steel production cutbacks. Nevertheless, ArcelorMittal, and its partners Kalahari Resources and the Industrial Development Corporation, are proceeding with the Kalagadi manganese project, which will involve the construction of a manganese mine and sinter plant, near Hotazel in the Northern Cape, and a ferromanganese smelter, in the Coega industrial development zone in the Eastern Cape.



OTHER MINING SECTOR PROJECTS

Kalagadi manganese project

Name and Location

Kalagadi manganese project, Northern and Eastern Cape, South Africa.

Project Description

The proposed project envisages the construction of a manganese mine and a 2,4-million tons a year sinter plant near Hotazel, in the Kuruman area of the Northern Cape. The output required from the mine to produce this amount of sinter will be three-million tons a year.

An additional component to the project is the construction of a 320 000-t/y ferromanganese smelter complex in the Industrial Development Zone (IDZ) of the Coega deep-water harbour. The plant will be designed to have the flexibility to produce silica manganese as an alternative product.

Value

ArcelorMittal has arrived at a project value of \$630-million (R4,3-billion) for the building of the manganese mine and sinter plant in the Northern Cape and the ferromanganese smelter at Coega in the Eastern Cape. However, the cost of the project is reportedly escalating by about 2% a month.

Duration

Completion of the shaft system is expected in the first quarter of 2010, although a lot of the underground development will involve the production of saleable ore.

The sinter plant will be completed in April 2010 and the smelter in June 2010.

The project schedule, however, is currently under review, owing to the delivery times of equipment and long-lead items.

Client

ArcelorMittal has paid a total of \$432,5-million for its interest in Kalagadi Manganese, which is now 50%-owned by ArcelorMittal, 40%-held by black women-owned and -controlled Kalahari Resources, and 10%-owned by State-owned financier, the Industrial Development Corporation.

Key Contracts and Suppliers

Mineral Corporation (geological consultant), MDM Engineering (BFS), Shaft Sinkers (shaft sinking), Neutron Engineering (bulk earthworks for the shaft) and Tubular (main and ventilation shaft headgears).

Latest Developments

October 2008

The Kalagadi manganese project is now in the development phase.

The bankable feasibility study has been completed and the project has been fast-tracked. The sinking of the shaft, as well as the procurement of items such as the headgear, has started.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Kalagadi Manganese executive chairperson, **Daphne Mashile-Nkosi**,

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PLATINUM PROJECTS

Global platinum supply in 2008 fell below the 2007 figure, with South Africa being the largest contributor to this decline.

While the impact on platinum production of the electricity problems experienced in the country in early 2008 was smaller than initially expected, some of the country's major platinum producers – including Anglo Platinum, Impala Platinum and Lonmin – experienced other difficulties through the year, and produced and sold less platinum than in 2007.

Johnson Matthey explains that the outlook for the platinum market is currently fairly uncertain. High prices in early 2008 reduced demand, while the dramatic fall in the platinum price in the third quarter of 2008 could pose challenges to primary producers and make expansions less attractive. In South Africa, there are currently a number of platinum projects in various stages of development. The companies involved include Anglo Platinum, Impala Platinum, Lonmin, Northam, Royal Bafokeng Resources, Ridge Mining, Imbani Platinum, Wesizwe Platinum, Platmin, PTM and Africa Wide Mining.



PLATINUM PROJECTS

Amandelbult expansion programme

Name and Location

Amandelbult expansion programme, Rustenburg, Bushveld Complex, South Africa.

Project Description

Anglo Platinum is to raise production capacity on its Amandelbult operation by 100 000 t/y.

The project will mine the upper-group two (UG2) reef using existing mining infrastructure previously employed to mine the Merensky reef, at the vertical number 2 shaft and three decline shafts at 44 East, 50 East and 62 East.

The recently completed 75 000 t/m UG2 concentrator will be expanded to 210 000 t/m.

As a consequence of the tonnage increase, a new tailings dam, holding dam and upgraded tailings handling and pumping system is required.

The No 4 shaft project, which is under review, aims to replace diminishing Merensky reef resources, and will provide a moderate expansion of UG2 chromitite production at Amandelbult. Design production capacity for the project is 250 000 t/m.

Value

The project has a capital cost of R1,57-billion. The total comprises R693-million for the concentrator expansion, and R875-million for UG2 ore reserve development and upgrading of mining infrastructure.

Duration

Full production is expected by 2012.

Client

Anglo Platinum

Key Contracts and Suppliers

None stated.

Latest Developments

The East Upper UG2 expansion project production deliveries are expected to start in 2009 and is expected to yield 106 000 equivalent refined platinum ounces from 2012.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

Anglo Platinum investor relations, **Trevor Raymond**, tel +27 11 373 6462 or email traymond@angloplat.com.

PLATINUM PROJECTS

Bafokeng Rasimone platinum mine phase 2 project

Name and Location

Bafokeng Rasimone platinum mine (BRPM) phase 2 project, North West Province, South Africa.

Project Description

The BRPM is now in steady-state production with monthly milled throughput exceeding the original design capacity of 200 000 t/m of Merensky ore, yielding over of 200 000 oz/y of platinum.

The BRPM phase 2 project is being undertaken to extend the existing south and north shaft infrastructure by an additional five levels. This will ensure the continued production of Merensky at 100 000 t/m for each shaft shaft system for another seven years.

Value

R1,2-billion.

Duration

The project remains on schedule with a phased transition up to 2011.

Client

The BRPM is an unincorporated 50:50 joint venture between Royal Bafokeng Holdings (held through a wholly owned subsidiary, Royal Bafokeng Resources) and Anglo Platinum's (Angloplat's) wholly owned subsidiary, Rustenburg Platinum Mines. Each partner has a 50% participation interest and equal powers, duties, rights and obligations in relation to management, although the mine is operated in terms of a service agreement by Angloplat.

Key Contracts and Suppliers

Louwill Engineering, Mandlakazi-Pullens Engineering, Vibramech, SEW Eurodrive, Sareco Engineering, Coilmech, Melco Conveyor Suppliers, Trident, Galison, Fire Control, Metso Minerals, Warman Africa, Diale SFS Engineering, Mining Pressure Systems, Barloworld Rotor Pipe and Trucking & Engineering.

Latest developments

The project is on schedule for completion in 2010.

On Budget and on Time?

The project is on schedule.

Contact Details for Project Information

Anglo Platinum, tel +27 11 373 6111 or fax +27 11 373 5111.

PLATINUM PROJECTS

Blue Ridge platinum-group metals project

Name and Location

Blue Ridge platinum-group metals (PGMs) project, Bushveld Complex, South Africa.

Project Description

The project envisages a mine comprising two decline shafts, which at full capacity will extract 120 000 t/m, with a mill head grade of 3,3 g/t of PGMs, producing 75 000 oz/y of platinum, 35 000 oz/y of palladium, 13 000 oz/y of rhodium, and 1 600 oz/y of gold, totalling 125 000 oz/y over a projected life-of-mine of 18 years.

An offtake agreement has been signed with Impala Refining Services under which Impala has committed to acquire all the proposed production from the Blue Ridge mine.

Value

Banking finance has been signed for \$107-million.

Duration

The mine is scheduled to reach full capacity mid-2009.

Client

Ridge Mining and Imbani Platinum. In 2007, Imbani Platinum acquired a 50% stake in the project.

Key Contracts and Suppliers

Industrial Development Corporation, the Development Bank of Southern Africa, Standard Bank and Investec (project finance); SRK South Africa (environmental and social study); Ralph Morris Associates (reserves and mine planning); Murray & Roberts Cementation (mining contractor); and Bateman Engineering (process plant design).

Latest Developments

January 2009

The commissioning of the Blue Ridge concentrator plant started on January 12, 2009, and is progressing well. The first ore is expected to be processed in mid-February 2009 and first concentrate produced around the end of February 2009.

On December 15, 2008, Ridge Mining announced that it had been notified by Bateman Engineering, the contractor constructing the concentrator plant, that following a minor accident during the plant construction, and a subsequent review of safety provisions, the commissioning of the plant at Blue Ridge would be rescheduled to the last week of January 2009. Good progress, however, was made over the holiday period and this meant that the revised target was met ahead of schedule.

The underground mining development continues to progress according to plan, and a stockpile of over 250 000 t of ore is on the surface, ready for processing once the plant is commissioned.

On Budget and on Time?

In December, Ridge Mining delayed the commissioning of the project, owing to an accident during the construction of the concentrator plant and the contractor building the plant, Bateman Engineering's subsequent review of safety provisions.

Contact Details for Project Information

Ridge Mining, tel +44 20 7379 1474 or fax +44 20 7379 9443.

PLATINUM PROJECTS

Booysendal platinum project

Name and Location

Booysendal platinum project, southern part of the eastern limb of the Bushveld Complex, South Africa.

Project Description

The Booysendal project is a 103-million ounce resource, which is shallow and conducive to mechanised mining methods. The total extent of the Booysendal property covers some 15 000 ha, with a strike length of 14,5 km. Both the upper-group two (UG2) and Merensky reefs offer accessible surface outcrops.

In 2008, Northam commissioned a review of an existing prefeasibility study on the project. This has since moved onto the bankable feasibility study (BFS) stage. The BFS work has focused on testing and refining the extraction scenario, as indicated in the prefeasibility review, and is due to be completed in the second half of 2009.

The trade-off studies for alternative mine designs have been concluded and point towards a mechanised mining approach. A modular design and incremental production build-up scenario remains the preferred method of developing the Booysendal mine. The initial emphasis is a single 120 000-t/m UG2 production unit that will be replicated as market conditions allow.

Value

The flexible mine design and production build-up scenario has resulted in a revision to the capital expenditure for the project, which is now estimated at R2,5 billion over a five-year timeframe. This includes capital expenditure on once-off initial infrastructural development, which will not be required to be replicated for future production units.

Duration

With the BFS due to be completed in the second half of 2009, work on site will start in 2010.

This will be followed in the same year, with the establishment of the decline and construction of the concentrator plant.

The first production from the initial decline system is scheduled for 2011, with the concentrator being commissioned early in 2012, and production building up to 120 000 t/m by 2014.

Client

The Booysendal platinum project is wholly owned by Northam Platinum.

Key Contracts and Suppliers

None stated.

Latest Developments

None stated.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

Northam Platinum, tel +27 11 759 6000 or fax +27 11 325 4795.

PLATINUM PROJECTS

Frischgewaagd-Ledig complex

Name and Location

Frischgewaagd-Ledig complex, Bushveld Complex, South Africa.

Project Description

The project will involve the construction of a platinum mine on Wesizwe Platinum's core assets on the farms Frishgewaagd portions 3, 4, and 11, and the farm Ledig portions 1 and 2. The project will consist of an underground mine and a surface concentrator plant, and takes into account the establishment of all surface infrastructure, servitudes for bulk power and water supply, the sinking and equipping of ventilation and main shafts, the associated underground infrastructure, the ancillary excavations and the access development to establish a footprint for full production.

Value

The capital cost estimate for the project is R5,6-billion.

Duration

The bankable feasibility study (BFS) envisages a 58-month construction programme, which will include sinking activities and the construction of the first module of the concentrator plant.

Client

Wesizwe Platinum.

Key Contracts and Suppliers

Absa Capital, Deutsche Securities and the Development Bank of Southern Africa (DBSA) (lead equity and debt arrangers); Qinisele Resources (corporate adviser to the company for the purposes of concluding the project finance); TWP (feasibility study and engineering, procurement and construction management (EPCM) contractor); Murray & Roberts Cementation (shaft sinking and development work); Siemag-Mtec2, Winder Controls and Coilmec (supply and refurbishment of the winders); and Scribante (earthworks and civil work phase 1).

Latest Developments

October 2008

With the feasibility study on the project now completed, Wesizwe reports that it is currently securing the finance for the project. In the interim, the project team is busy with early work designs such as earthworks, shaft collar civil work, as well as main shaft headgear design.

TWP completed the feasibility study for the project and it is expected that the company will become the EPCM contractor for the project phase. The EPCM contract is currently under preparation.

Further, Wesizwe has signed a memorandum of understanding with Murray & Roberts Cementation for shaft sinking and development work. The contract is in preparation.

The project team has also secured all winders required for the sinking and permanent phase of the project. Various subcontractors are involved in the supply and refurbishment of the winders, including Siemag-Mtec2, Winder Controls and Coilmec.

Enquiries for earthworks and civil work phase 1 have been issued and adjudication for the earthworks has been completed. Scribante has been selected as the successful tenderer and the contract is in preparation.

Meanwhile, the mining right application for the project is expected this quarter. The work on site will start as soon as all necessary statutory approvals are received.

Wesizwe Platinum reported on October 28 that it is reconsidering certain options of the project plan for the project. This is owing to the "unprecedented global economic volatility affecting the capital markets having now filtered into the metals markets", the company has said in a statement to shareholders. Wesizwe is considering a number of options, which will be presented to the board of directors on November 4, after which the company will reveal how it will proceed with the project.

Contact Details for Project Information

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PLATINUM PROJECTS

Impala No 16 shaft

Name and Location

Impala No 16 shaft, North West province, South Africa.

Project Description

The development of the No 16 shaft forms part of Impala Platinum's (Implat's) expansion of its Rustenburg operations.

The No 16 Shaft is expected to produce 226 500 t/m of reef from seven operational levels. The shaft will access both the Merensky and Upper-Group Two (UG2) reef horizons.

The No 16 shaft ore reserves will be accessed by a downcast rock and men-and-materials shaft and an upcast ventilation shaft. The rock and men-and-materials shaft will be lined to an inside diameter of 10 m and sunk to 1 648 m, while the ventilation shaft will be a 6,8-m-diameter inside-concrete lining shaft, sunk to 1 437 m below the surface.

Being a shaft that will access reef below 1 000 m, full-time refrigeration will be required for the underground workings, introduced through the rock and men-and-materials shaft. The refrigeration is designed to ventilate a maximum of 900 kg/s of cooled air from the surface.

At the No 16 shaft the world's tallest headgear, with a structural height of 108 m, will be built to house two Koepe winders. One will hoist personnel and material, while the other will only hoist rock.

A conveyor will transfer reef and waste from the headgear bins to a transfer tower, from where reef will be transferred into two concrete silos – one for Merensky and one for UG2.

The power requirements for the new shaft will be met from a new Eskom 88/33-kV yard at the No 15 shaft.

Value

R3,65-billion.

Duration

Full production of 200 000 t/m of platinum is scheduled for 2015.

Client

Implats.

Key Contracts and Suppliers

Shaft Sinkers (shaft sinking); Read Swatman & Voigt (engineering procurement and construction management); JYG Construction (civil works – phase 2); Louwill Engineering (structural steel – phase 2); NIC Instruments & Engineering (electrical – phase 2); FLSmidth Minerals (Koepe winder – mechanical); and ABB South Africa (Koepe winder – electrical).

Latest Developments

February 2009

Implats' interim results for the half-year ended December 31, 2008, will be released in February 2009 (details not available at time of going to press).

August 2008

The No 16 shaft project remains on schedule.

On Budget and on Time?

Yes.

Contact Details for Project Information

Implats projects director **Luke Zindi**, tel +27 14 569 7611 or fax +27 14 569 7562 or email Luke.Zindi@implats.co.za.

Shaft Sinkers contracts director, **Tok Bester**, tel +27 11 445 4300.

JYG Construction 16 shaft project manager, **Abrie Burger**, tel +27 18 484 1427.

Louwill Engineering, **Deon Kotze**, tel +27 11 818 5844.

NIC Instruments & Engineering, **Danie Erasmus**, tel +27 11 386 5000.

FLSmidth Minerals, **Alistair Calver**, tel +27 11 470 9719.

ABB South Africa, **Francois Retief**, tel +27 11 617 2000.

PLATINUM PROJECTS

Impala No 17 shaft

Name and Location

Impala No 17 shaft, Rustenburg, North West province, South Africa.

Project Description

The project will establish a new shaft, the No 17 shaft, at Impala Platinum's (Implats') Rustenburg operation to replace production from its older shafts that are nearing the end of their productive life.

Value

R8,9-billion.

Duration

Full production of 225 000 t/m of platinum is scheduled for 2018.

Client

Implats.

Key Contracts and Suppliers

Golder & Associates (environmental management programme), TWP (feasibility study), Scribante (earthworks), Murray & Roberts (civils) Shaft Sinkers (ventilation, main and refrigeration shafts), Louwill Engineering (building structures), NIC (C&I) and Grinaker-LTA (shaft headgear erection contract).

DRATS, ABB, Siemag M-Tec, Coilmecc, Alstom, Siemens and Winder Controls (supply of winders for the project).

Latest Developments

February 2009

Implats' interim results for the half-year ended December 31, 2008, will be released in February 2009 (details not available at time of going to press).

November 2008

The site for the erection of Implats' No 17 shaft headgear structural steel has been established.

Grinaker-LTA's Mechanical & Electrical business unit says that the detailing of the TWP design for the sinking and permanent sinking has been completed and fabrication and trial assembly is in the advanced stages.

The scope of work comprises over 2 000 t of structural and plate work steel, as well as the installation of a 78-m stair tower with a lift. An 81-m high, 30-t overhead crane will be free issued for the Metals & Minerals division of Grinaker-LTA's Mechanical & Electrical business unit to complete the erection.

Grinaker-LTA reports that the sinking and sinking-permanent steel work needs to be completed by mid-December 2008, so that the shaft sinking company can change over to fast sink by the end of January 2009.

The main shaft progressed to a depth of 74 m below collar with the ventilation and fridge shafts being sunk to 120 m and 194 m below the collar respectively.

The winders for the main sink are in the process of installation and all three shafts will be in the fast-sink phase by February 2009.

On Budget and on Time?

The project is on budget and on track.

Contact Details for Project Information

Implats group public relations officer, **Ilse Meiring**, tel +27 11 731 9043, fax +27 11 731 9276 or email ilse.meiring@implats.co.za.

Project director: Greenfields **Luke Zindi**, tel +27 14 569 7611, fax +27 14 569 7562 or email Luke.Zindi@implats.co.za.

Grinaker-LTA Mechanical & Electrical, **Peter Osborn**, tel +27 11 681 2207, fax +27 11 680 4545 or email posborn@gltime.com.

PLATINUM PROJECTS

Impala No 20 shaft project

Name and Location

Impala No 20 shaft project, North West province, South Africa.

Project Description

The project involves sinking two vertical shafts and then developing four 1,2-km declines and four 1,8-km inclines to access and transport the reef. Two trackless declines will be situated between the Merensky and upper-group two (UG2) reef planes, allowing access across ramps to the reef planes and the footwall-strike drives. Conventional underground railways in the footwall-strike drives will transport the rock to central ore-passes. A conveyor system will convey the rock to the main shaft for hoisting to the surface.

There will be a total of three stations on the main shaft, and four on the vent shaft. A decline system, attached to the vertical shaft below the Merensky reef plane, will facilitate transportation of material and personnel. The main shaft, equipped with a winder cage, will go down to a single station at about 900 m below the surface. The two material declines from this level, will house a chair lift, and a monorail respectively. Two more declines will be located 940 m below the surface. One of these will be an airway decline, and the other will be equipped with a conveyor belt to bring ore to the main shaft.

The main shaft will measure 8,5 m in diameter and will be 1 051-m deep, enabling the hoisting of some 240 000 t/m of ore and waste. The ventilation shaft, which will be 6,5 m in diameter and 977-m deep, will move some 650 kg/s of refrigerated air through the workings.

Value

R3,6-billion.

Duration

Full production of 150 000 oz of platinum is scheduled for 2013.

Client

Impala Platinum (Implats).

Key Contracts and Suppliers

TWP Consulting (engineering, procurement and construction management (EPCM)), Murray & Roberts (M&R) Cementation (shaft sinking and development contract), BBE (refrigeration plant), Wade Walker (electrical phase 3 – electrical installation of compressor house, ventilation fans substation and surface conveyor), ABB (electrical equipment), DSE Structural Engineers & Contractors, Grinaker-LTA, AA Containers, African Cables, Alexander Forbes, Alstom Industry, B&C Agencies, Bellambie Mining & Industrial, DCS, Desta Power Matla, Deton Engineering, Dynamic Crane Systems, Fabricated Steel Manufacturers, FFE Minerals – Vecor, Fixtrade 1092, G&L Fencing, Haggie Steel Wire Rope, Itasca Africa, JIC Mining Services, K&S Electrical Automation, Kimberly Engineering Works, Letab Projects, Magnitech, Marqott Power Industries, MTEC, Octa Engineering, PDS Technologies, Rapha Pretorius Associates, Relay Settings, RUCO Engineering, Schneider Electric, Siemens, Steelcor, TEST-A-RELAY, Transformer Manufacturer, Trident SA, Trucking & Engineering, Ubuntu Technologies, Walter Becker, Weir Envirotech, Willard Batteries and WJ Engineering.

Latest Developments

February 2009

Implats' interim results for the half-year ended December 31, 2008, will be released in February 2009 (details not available at time of going to press).

August 2008

The plan to complete all surface infrastructure work by the end of 2008, is on track.

The rail link between shaft No 12 and shaft No 20 has been completed and electrification of the line is in progress, which is expected to be completed by the end of September 2008.

The main shaft equipping is in progress and the forecast completion date is December 2008, which is in line with the programme. The development through the ventilation shaft, before the main shaft is equipped and available for use, is under way. This work

To page 107

PLATINUM PROJECTS

From page 106

has its own challenges related to difficult ground conditions and the shortage of a skilled work force, however, it is still planned to start with the construction build-up in the first half of 2009, as originally planned.

February 2008

TWP Consulting is responsible for the EPCM on the project. The scope of work includes the establishment of all surface infrastructure, sinking, development and associated equipping of the main downcast shaft and an upcast ventilation shaft to a depth of 1 000 m, and all underground work up to the completion of the capital footprint. Meanwhile, the development of the shaft is progressing well. Shaft sinking has been completed and shaft equipping and level development have started.

August 2007

In June 2007, surface infrastructure at the new shaft was 70% completed.

The winders – rock, men-and-materials and service winders – have been installed ahead of production ramp-up, which is due to begin in January 2009.

According to TWP Consulting, as of June 2, 2007, the status of the main shaft was 1 046 m below the surface. The ventilation shaft currently stands at 990 m below the surface.

Further, the surface ore silos are completed, as well as other major surface buildings.

Meanwhile, ABB has received \$17-million worth of orders for the supply of the electrical equipment for four mine winders to Implats.

The orders involve the supply, installation and commissioning of control systems, transformers, Advant Hoist Monitor Systems, AMZ 2000 motors and ACS 6000 drives for the mine winders for Implats' two new No 16 and No 20 shafts.

On Budget and on Time?

The shaft project is currently about four months behind schedule, largely as a result of poor contractor performance. Further, expenditure on the shaft has been affected by the increased price of consumables.

Contact Details for Project Information

Implats projects director **Luke Zindi**, tel +27 14 569 0000, fax +27 14 569 6548 or email Luke.Zindi@implats.co.za.

PLATINUM PROJECTS

Limpopo platinum mine phase 2 expansion

Name and Location

Limpopo platinum mine phase 2 expansion, Limpopo province, South Africa.

Project Description

The Limpopo project area has four sections – Voorspoed, Doornvlei, Dwaalkop and Zebediela.

A prefeasibility study on the Limpopo phase 2 project was completed at the end of March 2007. The prefeasibility study confirmed that the project could be developed as a fully mechanised mine. The prefeasibility study estimated that the mine would produce about 85 000 platinum ounces for Lonmin Platinum's (Lonmin's) account when at steady production.

The project, however, has since been put on care and maintenance.

Value

The initial estimate for Lonmin's share of the capital for the project was \$350-million.

Duration

First production was expected in 2011.

Client

Lonmin Platinum.

Key Contracts and Suppliers

None stated.

Latest Developments

The Limpopo expansion project has been put on care and maintenance for the foreseeable future. Lonmin Platinum has therefore withdrawn all anticipated production guidance related to the project, including timing of first production.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Lonmin Platinum South Africa tel +27 11 516 1300 or fax +27 11 516 1310.

PLATINUM PROJECTS

Paardekraal 2 shaft project

Name and Location

Paardekraal 2 shaft project, Rustenburg, North West province, South Africa.

Project Description

The Paardekraal 2 shaft project is a replacement project that will gain access to deeper Merensky reef reserves at a rate of 120 000 t/m, or 137 000 oz/y of platinum.

The project is the first of this magnitude in more than a decade, and includes a downcast vertical men-and-materials shaft, and an adjacent matching vertical upcast ventilation shaft, which will intersect the existing horizontal connections. It will also involve the extension of the existing declines at Paardekraal's 1 shaft project.

The proposed vertical men-and-materials shaft will access declines on the 28, 32 and 33 level elevations and the upcast vertical ventilation shaft will access declines on the 28 and 31 level elevations. The surface infrastructure will include a standard shaft bank layout, a dedicated refrigeration plant, supply chain store, offices, change houses and compressor station (not required if electrical drilling is selected). Bulk services will include overhead power lines, road access, sewage reticulation and water supply pipelines to the new Paardekraal 2 shaft.

Value

R2,6-billion.

Duration

The ramp up will begin in 2009, as a result of extending the upper declines into the resource to be mined from the new deep-level shaft, with full production expected in 2014.

Client

Anglo Platinum (Angloplat).

Key Contracts and Suppliers

TWP (engineering, procurement, and construction management (EPCM)), Louwil (headgear) and Winder Controls (winder), ATD (trade-off studies).

Latest Developments

None stated.

On Budget and on Time?

The project is progressing on schedule and within budget.

Contact Details for Project Information

Angloplat investor relations, **Trevor Raymond**, tel +27 11 373 6462 or email traymond@angloplat.com.

PLATINUM PROJECTS

Pilanesberg project

Name and Location

Pilanesberg project, North West province, South Africa.

Project Description

The Tuschenkomst and Ruighoek properties form part of Platmin's Pilanesberg project, about 60 km north-west of Rustenburg. The preferred mining option for the project is to mine the Tuschenkomst and Ruighoek platinum-group elements (PGEs) deposits using two large opencast mines, with the treatment of the ores through two conventional Merensky and upper-group two (UG2) flotation concentrators at a combined production rate of about 250 000 oz/y of 3PGE+gold (Au) in concentrate for the first 11 years.

The Tuschenkomst orebody will be mined over a strike length of ~km down to a maximum depth of 150 m in a conventional openpit. The silicate reefs will be bulk-mined at a rate of 320 000 t/m. The UG2 reef will be selectively mined at a rate of 50 000 t/m.

At Ruighoek, the final pit will be some 2,5-km long, to a maximum depth of 150 m. There will be two pits separated by a structural zone of poor reef development. All PGE reefs will be selectively mined. Silicate reef production will be targeted at 35 000 t/m and UG2 at 15 000 t/m, with the ore being transported to the central concentrator.

The combined proven and probable reserves for Tuschenkomst and Ruighoek total 37,4-million tons at 2,04 g/t of 3PGEs+Au for 4,4-million ounces of 3PGEs+Au.

Value

The cost for developing the mine has been estimated at \$350-million. A \$596-million contract has been awarded for the opencast mining operations, which will be in effect for the first six years of the mine's operating life.

Duration

The platinum mine is expected to start production of platinum-group metals concentrate in early 2009, rapidly building up to steady state levels of 250 000 oz/y (3PGEs+Au) by mid-2009.

Client

Platmin.

Key Contracts and Suppliers

SRK Consulting (independent consultant), DRA Mineral Projects (detailed design of processing plant and associated infrastructure), Concor Engineering (concentrator plant), Cube Consulting (refinement studies) and MCC (mining contractor).

Latest Developments

December 2008

Platmin will sell shares to the Pallinghurst Investment Consortium and the Bakgatla-Ba-Kgafela tribe, to finance the company's Pilanesburg platinum project.

The company previously had planned to secure a project financing loan to complete the project.

On Budget and on Time?

The project remains on budget, although capital costs have been increased by a decision to install a 10-MVA diesel generator to supply back-up power to the mine.

Contact Details for Project Information

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PLATINUM PROJECTS

Potgietersrust Platinum North expansion project

Name and Location

Potgietersrust Platinum (PPRust) North expansion project, Limpopo, South Africa.

Project Description

The PPRust North expansion project will increase milling capacity at PPRust from the current 385 000 t/m, producing 200 000 platinum ounces a year, to 985 000 t/m and producing an additional 230 000 platinum ounces a year. To this end, new milling and concentrating capacity will be installed at the pit, together with an optimal mining design.

Further, the company has secured the water rights to make a substantial expansion project possible.

The project will also include a village relocation project.

Value

R5,8-billion, up from an earlier announced R4,25-billion.

Duration

Not stated.

Client

Anglo Platinum (Angloplat).

Key Contracts and Suppliers

Vhumbanani a joint venture between DRA and TWP (engineering, procurement and construction management (EPCM) contractor), Group Five (village relocation), Weba Chute Systems (transfer-point system), Grinaker-LTA Civil Engineering (concentrator plant, concrete frame for a substation, a storage silo, a high-pressure grinding roller feed silo, the mill feed silo, the high-pressure grinding roller crushing building, the vibrating grizzly building, the secondary screening building, the secondary crushing building, the high-pressure grinding roller screening building, and 13 linking conveyors), Karrena Africa, (slipforming of the three silos), Steeledale Reinforcing, (reinforcing steel), Larox South Africa (pressure filters), ABB (gearless mill drive (GMD) system), Concor (detailing, supply, fabrication and erection of steelwork and platework, as well as mechanicals and installation), Andrew Mentis (grating), Cosira International (structural steel for the run-of-mine portion of the concentrator) and B&W (electrical and instrumentation contract).

Latest Developments

August 2008

B&W has completed several works at a 600 000-t/m concentrator at Angloplat's PPRust north expansion project's Mogalakwena section.

B&W was awarded the main contract by EPCM contractor Vhumbanani Projects.

B&W's scope of work on the concentrator consisted of the installation of more than 470 000 m of cabling, 33 000 m of instrument tubing, more than 3 400 instruments from thermostats to level density meters, 483 electrical drives ranging from 0,37 kW to 18 MW, 41 transformers, and more than 1 300 light fittings.

The company used 203 t of galvanised steel channel, more than 10 000 m of galvanised angle iron runners, about 20 000 m of P1000 galvanised Unistrut, and more than 22 000 m of galvanised racking to complete the electrical and instrumentation works. Additional work on the project included an order from engineering firm ABB South Africa, for the electrical and instrumentation installation for the main mill motor, which included the connection of eight reactor transformers, two large variable speed drives and the cabling to two 18-MW mill motors.

The additional work also included an order from construction company WBHO to install the lighting in all the buildings and small power reticulation to the workshop, the store and all seven substations.

April 2008

Angloplat is facing opposition to its relocation project by as many as 55 families, who are refusing to relocate.

The group of families, calling themselves the Motlhotlo resistance committee, is being represented by lawyer Richard Spoor. The families are looking for more compensation and larger houses.

Angloplat could evict the families on the basis of the contracts that the families signed, however, this could create much negative publicity for the company.

PLATINUM PROJECTS

The Motlhotlo resistance committee is the second group to resist the relocation process. In 2007, the Motlhotlo development committee raised reservations about two Section 21 companies representing the community. The relocation could run five months behind schedule as a result of construction problems, as well as a strike by builders.

February 2008

Cosira International has entered the commissioning phase of the PPRust North platinum concentrator project, in Rustenburg. The company was contracted by project house Vhumbanani, a JV between consulting engineering firms TWP and Dowding, Reynard & Associates, for the erection of the structural steel for the run-of-mine portion of the concentrator.

January 2008

Some 6 000 m² of grating has been supplied by Andrew Mentis to Concor Engineering for use on the new PPRust concentrator plant. The grating is also being used on the stairways throughout the plant and some 8 000 linear metres of solid forged handrail will be installed.

November 2007

ABB has won a contract for a GMD system at PPRust. The total scope of supply includes two GMD systems, in addition to preengineering, ring motors with vacuum motor impregnation, transformers, E-houses, cycloconverters, spare parts, shipping coordination, cabling power factor correction and harmonic filter study, as well as material delivery, supervision of installation, and commissioning.

On Budget and on Time?

The project is expected to cost R5,8-billion, which is up on an earlier figure of R4,25-billion. The project is facing potential delays.

Contact Details for Project Information

Anglo Platinum investor relations, **Trevor Raymond**, tel +27 11 373 6462 or email traymond@angloplat.com.

PLATINUM PROJECTS

Rustenburg UG2 phase 2 project

Name and Location

Rustenburg UG2 phase 2 project, North West Province.

Project Description

The project would produce 234 000 oz of platinum and 128 000 oz of palladium a year. This development and its associated capital expenditure forms part of a suite of projects to both maintain Anglo Platinum's baseline production and to expand to a yearly production rate of 2,9-million ounces of refined platinum. The initiative would exploit the UG2 Reef, firstly by using existing infrastructure at the Frank and Townlands vertical shafts to produce 255 000 t of ore a month. A new decline shaft with a production capacity of 50 000 t of ore will be established at Boschfontein to accelerate production in the early years of the project. The project would also include the doubling of the capacity of the UG2 Waterval concentrator to process an additional 400 000 t/m of ore.

However, in light of the changed economic environment and planning parameters, the Rustenburg strategy has been revised to one where the Merensky horizon is used as the base production reef to ensure sustained profitability (owing to its higher grades and platinum content), and the UG2 horizon, where viable, is used to maintain output at infrastructural capacity levels.

Value

An estimated R2,4-billion (2003 monetary terms).

Duration

The revised phase 2 project was expected to reach steady-state production in 2008.

Client

Anglo Platinum.

Key Contracts and Suppliers

None stated.

Latest Developments

Study work on the 10- to 14-level ore replacement project at Boschfontein, to enable the continuation of mining, is continuing.

On budget and on Time?

Not stated.

Construction Materials

Not stated.

Contact Details for Project Information

Anglo Platinum, tel (011) 373 6413.

PLATINUM PROJECTS

Styldrift Merensky project

Name and Location

Styldrift Merensky project, North West province, South Africa.

Project Description

The project will process 230 000 t/m of Merensky Reef through a new twin-shaft system and a new concentrator. At steady state production, the project will increase Bafokeng Rasimone platinum mine's production to 450 000 t/m and 400 000 oz/y.

Value

R10,3-billion (in July 2009 monetary terms).

Duration

The project was approved by the Anglo Platinum (Angloplat) and the Royal Bafokeng Holdings' (RBHs) boards during the third quarter of 2008.

The project is expected to reach steady state production in 2015.

Client

The BRPM joint venture (JV), a 50:50 JV between Angloplat and RBH.

Key Contracts and Suppliers

None stated.

Latest developments

February 2009

In November 2008, Angloplat and RBH announced that the companies had reached an agreement to restructure the BRPM JV, which includes the Styldrift project.

The restructuring will result in the creation of a historically disadvantaged South African controlled platinum-group metals producer in line with Angloplat's commitment to broad-based black economic-empowerment, as a strategic transformation objective and in support of the ownership requirements of the Mining Charter.

The transaction will be effected through the establishment of NewCo Platinum (NewCo), a company that will assume control over all current and future operations of the BRPM JV and will be controlled by RBH and independently managed. Administrative and technical support services currently provided by Angloplat will be migrated from Angloplat to NewCo over a period of between 12 and 24 months.

The existing sale of concentrate agreement in place between the BRPM JV and Angloplat will remain in place and Angloplat will continue to smelt, refine and sell all metal produced.

In terms of the restructuring agreement, RBH will have the right to elect to buy 50% of refined metal arising from BRPM from Angloplat at market prices.

The parties have agreed to list 67% of the BRPM JV through NewCo and upon listing, to occur within three years of closing, the final envisaged structure will be achieved.

Prior to listing, Angloplat will retain an effective 50% interest in the BRPM JV.

To facilitate the listing of NewCo, Angloplat will sell down its holding, which will include a 5% stake received from a new issue of NewCo shares in compensation for the transfer of control to RBH, to an effective 43% interest in the BRPM JV.

Until the listing of NewCo, Angloplat and RBH will continue to have equal representation on the management committee of the BRPM JV. Subsequent to the listing, RBH will appoint the majority of the management committee members.

The parties expected to sign final transaction agreements during the latter part of 2008.

The transaction is precedent upon conditions that include endorsement by the Department of Minerals and Energy, the conversion of BRPM's mineral rights, a due diligence, as well as regulatory and third party approvals.

On Budget and on Time?

Too early to state.

Contact Details for Project Information

Angloplat corporate communications, tel +27 11 373 6865.

RBH, **Mpueleng Poee**, tel +27 11 219 6034.

PLATINUM PROJECTS

Twickenham project

Name and Location

Twickenham project, Limpopo province, South Africa.

Project Description

The project originally entailed the development of a platinum and palladium mine on the farms Twickenham, Paschaskraal and Hackney. The mine would have consisted of two decline-shaft systems, an adit-hill system, a 250 000 t/m concentrator and extensive infrastructure. It would produce 160 000 oz of refined platinum and 176 000 oz of refined palladium a year by 2005. The mining areas have since been changed in pursuit of the aims of the Mineral and Petroleum Resources Development Act and the Mining Charter. Early in 2004, it was resolved that the Twickenham Platinum Mine to be 100% owned by Anglo Platinum (Angloplat), will exploit only the Twickenham and Hackney areas. This operation proved favourable under difficult economic conditions and has built up to 13 000 t/m. There are now further plans to continue growing this to some 50 000 t/m pending final project approvals. The initial mining has proved most valuable with better-than- expected stoping widths and grade having been achieved. This has now laid the foundation to improve confidence levels on the proposed mining method as well as the geological model.

Value

R5,9-billion.

Duration

The mine's R5,9-billion phase 2 expansion project was approved by the board in the first quarter of 2008. A timeframe for the project is yet to be confirmed.

Client

Anglo Platinum.

Key Contracts and Suppliers

None stated.

Latest Developments

None stated.

On Budget on Time?

Not stated.

Contact Details for Project Information

Anglo Platinum, tel +27 11 373 6111

PLATINUM PROJECTS

Unki platinum mine

Name and Location

Unki platinum mine, Zimbabwe.

Project Description

Anglo Platinum is developing its first platinum mine in Zimbabwe, along the Unki deposit. The mine is expected to produce about 150 000 platinum ounces a year when fully operational.

The orebody will be mined using the bord-and-pillar mining method. The concentrate will be transported by truck for refining at Polokwane, in Limpopo province, South Africa.

Work on the Unki project includes the construction of an 8-km pipeline from the Luciliapoort dam to the mine reservoir, and a 132/11-kV substation and a 33-km powerline. The development of a twin decline, as well as four ventilation shafts, is also planned.

The development of eight equipped mining sectors, a housing development consisting of 915 houses in a nearby town, and a contractors camp equipped to house 1 500 employees, are also on the cards.

Value

The cost has ballooned to more than \$200-million after a study indicated that the mine could treat greater tonnages.

Duration

The mine is expected to move into full production in 2010.

Client

Anglo American Zimbabwe. Anglo Platinum (Angloplats) manages the project.

Key Contracts and Suppliers

TWP (mine design), TWP's 50% subsidiary, Vhumbanani (engineering, procurement and construction management contractor).

Latest Developments

January 2009

Unki is currently in the construction phase, which will continue for the "next two years or so", after which, it will move to become a 150 000 oz/y platinum producer, under current mine plans.

July 2008

Angloplats has reaffirmed its commitment to developing the Unki project in Zimbabwe.

Angloplat has come under fire for its investment in the country.

In June, British media hit out at the company's 75% shareholder, Anglo American, for its investment in Zimbabwe, at a time when the British government is putting pressure on companies to withdraw from the country.

On Budget and on Time?

The project is currently well on target to achieve its deadlines.

Contact Details for Project Information

Anglo American Corporation Zimbabwe, tel +263 470 4461
or fax +263 470 3734.

PLATINUM PROJECTS

Western Bushveld joint venture

Name and Location

Western Bushveld joint venture (WBJV), Rustenburg.

Project Description

The WBJV, formed by Platinum Group Metals (PTM), Anglo Platinum (Angloplat) and Africa Wide Mining, covers 67 km on the platinum-rich western limb of the Bushveld Complex. The WBJV brings together PTM's Onderstepoort and Elandsfontein properties along with portions of Angloplat's Elandsfontein, Frischgewaagd and Koedoesfontein properties.

The WBJV is divided into three distinct project areas: Projects 1, 2 and 3.

Project 1 envisages the construction of a platinum mine and concentrator to produce between 235 000 oz/y and 271 000 oz/y of combined platinum, palladium, rhodium and gold (4E) at a steady state, for nine years of an estimated 22-year mine life.

Further, in response to South Africa's power shortages, the company has included plans to generate 40 MW of electricity that it will require for production, initially from light fuel oil and then switching to lower cost heavy fuel oil in the latter part of mine development. Diesel-power generation will continue until the end of 2012, when the company expects to be able to plug into State power utility Eskom's grid.

Value

Cost estimates on the project have increased significantly from the \$300-million forecast in the January 2007 prefeasibility study, with peak funding now estimated at between \$486-million at current metals prices, and \$507-million using three-year trailing averages.

Duration

If a decision to mine is made, Project 1 is scheduled to produce 57 068 oz of 4E in 2010/11, ramping up to 271 248 oz two years later.

Client

The WBJV comprises PTM (37%), Angloplats (37%) and Africa Wide (26%).

Key Contracts and Suppliers

Turnberry Projects (prefeasibility study and overall feasibility study), Wardrop Engineering (decline access), GRD Minproc (concentrator design), Grinaker-LTA Mining (vertical shaft design), and Golder Associates Africa and Oryx Environmental (public consultation and environmental permitting work).

Latest Developments

February 2009

In July 2008, the WBJV released results of the bankable feasibility study for Project 1, which envisages the construction of a platinum mine and concentrator to produce between 235 000 oz/y and 271 000 oz/y of combined platinum, palladium, rhodium and gold (4E) at a steady state, for nine years of an estimated 22-year mine life. However, construction cost estimates have swollen significantly from the \$300-million forecast in the January 2007 prefeasibility study, with peak funding now estimated at between \$486-million at current metals prices, and \$507-million using three-year trailing averages. (Peak funding is calculated as the amount that is required to fund the project to full production, net of revenue received while still investing capital.)

Capital expenditure has been nudged upwards by two main changes from the earlier plan – the company has opted for decline mining only, and has included the capacity to generate as much as 50 MW of its own power until it plugs into the Eskom grid, hopefully in January 2013.

The company has opted for declines to access the shallow orebody, rather than vertical shafts or a combination of the two, to accelerate the production ramp up and access higher-grade ore earlier.

An offtake agreement has yet to be reached with a smelter, but Angloplat has the right of first refusal.

Contact Details for Project Information

PTM investor enquiries, tel+1 604 899 5450, fax +1 604 484 4710 or email info@platinumgroupmetals.net.

Wesizwe Platinum, tel +27 11994 4600

PLATINUM PROJECTS

Zimplats expansion

Name and Location

Zimplats expansion, Zimbabwe.

Project Description

The expansion project will allow for the development of mining portals 1 and 4 at Ngezi, in Zimbabwe, as well as the construction of a new concentrator; some 715 new staff houses near Ngezi, as well as the upgrading of amenities within the area.

The expansion will include the simultaneous development of portal 1, which will add 1,2-million tons a year of ore, and the development of portal 4, which will add two-million tons a year of ore when it reaches full production in March 2011.

Further, investigations are under way to take production to 300 000 oz/y of platinum within five years.

Value

Capital expenditure (capex) totalled \$182-million in the 2008 financial year. Of this, almost three-quarters was spent on the phase 1 expansion, with replacement capital, funding for the power supply substation currently under construction and exploratory drilling, accounting for the balance.

Capex of \$191-million is planned for the 2009 financial year, mostly on the continued development of portals 1 and 4 and the concentrator expansion (\$115-million); and replacement expenditure (\$31-million) that includes the replacement of underground equipment and the rehabilitation of the road between the Ngezi and the Selous metallurgical complex.

Duration

The phase 1 expansion currently under way will take production to 180 000 oz/y in 2011.

Client

Zimplats is part of Impala Platinum Holdings (Implats).

Key Contracts and Suppliers

The Reserve Bank of Zimbabwe and Absa Bank (finance), DRA Mineral Projects (engineering, procurement and construction management contract), Stefanutti Stocks (main civils contractor), JRGoddard Contracting (main earthworks contractor), Searlcom (main housing contractor), High Voltage Construction (main electrical contractor), Cosira Projects (main structural steelwork and mechanical contractor), Sandvik Mining & Construction (materials handling consultant), and Mining Pressure System (pipe-work contractor).

Latest Developments

December 2008

Zimplats has reported that it has discontinued opencast mining because of low metal prices.

The company is reviewing its operating cost structure and capital expenditure programme in order to reduce debt and conserve cash.

The company is exploring options to increase underground ore production in order to take advantage of processing capacity that will become available when the Ngezi concentrator is commissioned in April 2009.

The company further reported that its first phase expansion project, while within budget, has fallen behind schedule.

On Budget and on Time?

The first-phase expansion project, which is within budget, has fallen two months behind schedule.

Contact Details for Project Information

Zimplats, tel +263 4 332 590/3 or fax +263 4 332 496.

URANIUM PROJECTS

After rising throughout 2006, and generating much interest in the sector, the uranium price spiked in June 2007. Following the spike, prices tumbled, with serious implications for uranium project developments.

In addition to price-related issues, producers are facing other challenges in financing and developing new projects, including cost pressures and potential delays relating to permitting, infrastructure development and commissioning, and credit and equity market weakness.

An example of a company experiencing such challenges is Uranium One, which has placed its Dominion uranium mine on care-and-maintenance, owing to the falling prices, cost inflation and slower-than-expected ramp-up at the operation.

Meanwhile, however, gold- and uranium-miner First Uranium continues with the development of the Ezulwini mine and the Mine Waste Solution tailings recovery operation in South Africa, with the first two uranium modules at the MWS operation set for commissioning by mid-2009. First Uranium contends that the fundamentals for uranium remain strongly positive.



URANIUM PROJECTS

Dominion reefs uranium project

Name and Location

Dominion reefs uranium project, Klerksdorp, North West province, South Africa.

Project Description

The Dominion reefs uranium project is a brownfield development project consisting of the Dominion and Rietkuil sections, which include two former uranium and gold mining operations. The construction plan for the Dominion mine will involve rapid production and build-up, which will be facilitated by the use of declines with mechanised development and multiple orebody access points. Uranium processing technology will consist of a pressure-leach circuit, resulting in higher recoveries than atmospheric leaching. To maximise the use of existing infrastructure, the Klerksdorp carbon-in-leach (CIL) gold plant will form the basis of the metallurgical complex; crushing, milling, tailings disposal and utilities will be shared. The company plans to develop the larger orebody in two phases.

Value

The capital cost to complete phase 1 of the Dominion project is estimated to be about 25% more than the 2006 feasibility study estimate of \$180-million.

The total budget for the development of phase 2 will only be made known on completion of the feasibility study.

Duration

Uranium One began processing ore from underground at Dominion on schedule on February 28, 2007. The project has since been put on care and maintenance.

Client

Uranium One.

Key Contracts and Suppliers

Turgis Consulting and SRK Consulting, Bateman (engineering, procurement and construction management contract) and Nufcor International (marketing and distribution of the mine's production).

Latest Developments

October 2008

The Dominion project is to be placed on care-and-maintenance, while Uranium One considers looking for a buyer or closing the operation completely.

Plummeting uranium prices, cost inflation and a slower-than-expected ramp-up at the mine, which has yet to achieve commercial production, had resulted in a "significant deterioration" in the economics of the project.

While Uranium One expects the mothballing to cost it about \$30-million, plus \$1-million a month in ongoing care-and-maintenance costs this is still significantly cheaper than the company's current estimates needed to see the mine to profitability, which stand at between \$150-million to \$200-million.

Further, even with this investment, the project will require "sustained increases" in the uranium price to become economically viable.

On Budget and on Time?

Not stated.

Contact Details for Project Information

Uranium One, **Carol Smith**, tel +27 11 482 3605, fax +27 11 482 3604
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URANIUM PROJECTS

Ezulwini mine

Name and Location

Ezulwini mine, Gauteng, South Africa.

Project Description

The Ezulwini mine is an underground mine that has two separate tabular orebodies about 400-m apart. The Upper Elsburg is gold bearing only, while the Middle Elsburg is a gold and uranium deposit. Plans for the development of Ezulwini include the rehabilitation and re-engineering of the main mine shaft through the installation of a floating steel tower, destressing the area where the shaft pillar intersects the shaft barrel, and the construction of uranium- and gold-processing facilities.

The rectification programme will enable the Ezulwini project to reach a production output of about 130 000 t/m by 2009, and 180 000 t/m by 2012, as the Upper Elsburg shaft pillar is developed, and the Middle Elsburg uranium and gold section stopes are opened and expanded.

First Uranium has defined initial underground and surface drilling targets related to the possible expansion of the Ezulwini underground uranium and gold mine. The drilling programme to test the newly defined drill targets is an integral part of the expansion programme to justify the capital required for the sinking of an additional shaft, which will be used to gain access to and to mine the uranium and gold resource, over and above the existing mine plan for the existing main shaft.

Based on an internal concept evaluation, the combined phase 1 drill target areas have the potential to delineate a substantial portion of the measured and indicated resources required to justify the construction of a new 250 000-t/m shaft and mill expansion, which could effectively triple production capacity from the uranium-bearing Middle Elsburg orebody.

The phase 2 target areas, which are significantly larger in area, have been less explored in the past, since mining activity was concentrated in the northern section of the property. The new drill target areas will be defined in phase 2.

Based on the currently defined measured and indicated resource, the average production of this project is expected to be 290 000 oz/y of gold and 888 000 lb/y of uranium.

Value

The estimated capital cost is \$280-million.

Duration

The first gold plant module was scheduled for completion in April 2008 (three months earlier than planned), and the first uranium plant module was scheduled for completion in July 2008. Commissioning of the remaining modules of the gold and uranium plant will be deferred by about one year, to January 2010, to coincide with the corresponding mine development plan.

Client

Ezulwini is being developed by First Uranium, in which Simmer & Jack Mines has a 65% stake.

Key Contracts and Suppliers

Scott Wilson Roscoe Postle Associates (independent technical report), MDM Engineering (engineering, procurement, and construction management contract), Minxcon (detailed study for the expansion programme), and RBC Capital Market (finance).

Latest Developments

February 2009

First Uranium has started commissioning the uranium plant at its Ezulwini mine and expects to produce the first yellow cake during the current quarter.

The company has also "substantially" completed a shaft-refurbishment programme at the mine, which will mean the shaft can be fully utilised for underground mining and development.

If all goes to plan, Ezulwini will be generating positive free cash flow by April 2010.

During the quarter ended December 31, First Uranium sold 6 411 oz of gold from Ezulwini.

On Budget and on Time?

The first phase of the project was completed on time and on budget.

Contact Details for Project Information

First Uranium vice-president: investor relations **Bob Tait**, tel +1 416 558 3858 or email bob@firsturanium.com.



Projects in Progress 2009

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