

**BOTSWANA, NAMIBIA &
SOUTH AFRICA**

**Overviews for SGU
Raw Materials Group
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Introduction

This report has been prepared as a synoptic background study over the mining industry in Botswana, Namibia and South Africa. With first delivery on Botswana in connection with the Swedish conference in Gaborone in the end of May 2009.

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The views expressed are those of the project team.

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African mining in a global perspective

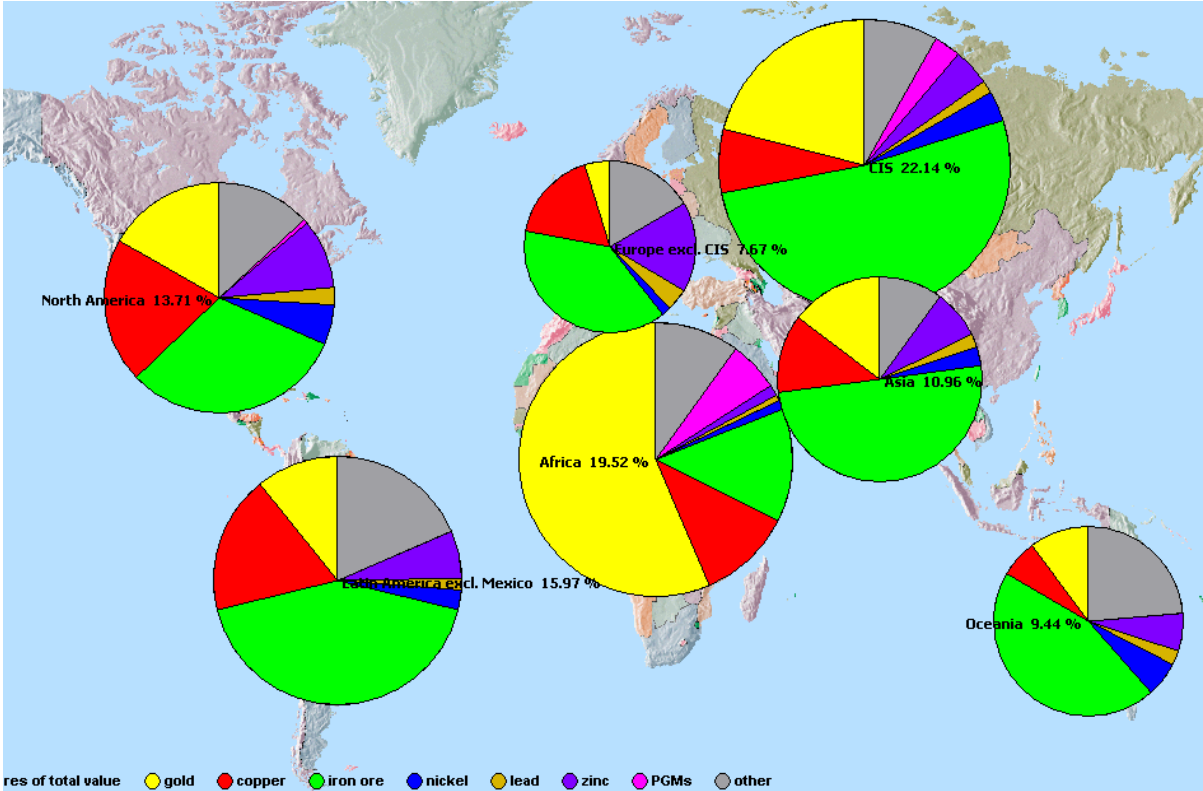
Value of mine production

Following a peak in the mid 20th century the global importance of African mining has been declining into the 21st century. Africa has not been seen as attractive by the transnational mining industry as other regions of the world. Without being comprehensive a few major factors could be highlighted that have contributed to this development:

- The South African mining industry, which is by far the most important part of African mining, has been diversifying out of Africa following a long period during which most of its investments were confined mainly to South Africa and some Southern African countries.
- Latin America and Australia has been seen as highly attractive and offering comparative advantages as conceived by the same transnational companies.
- Political strife and civil wars has increased political risks in some geologically highly prospective African countries.

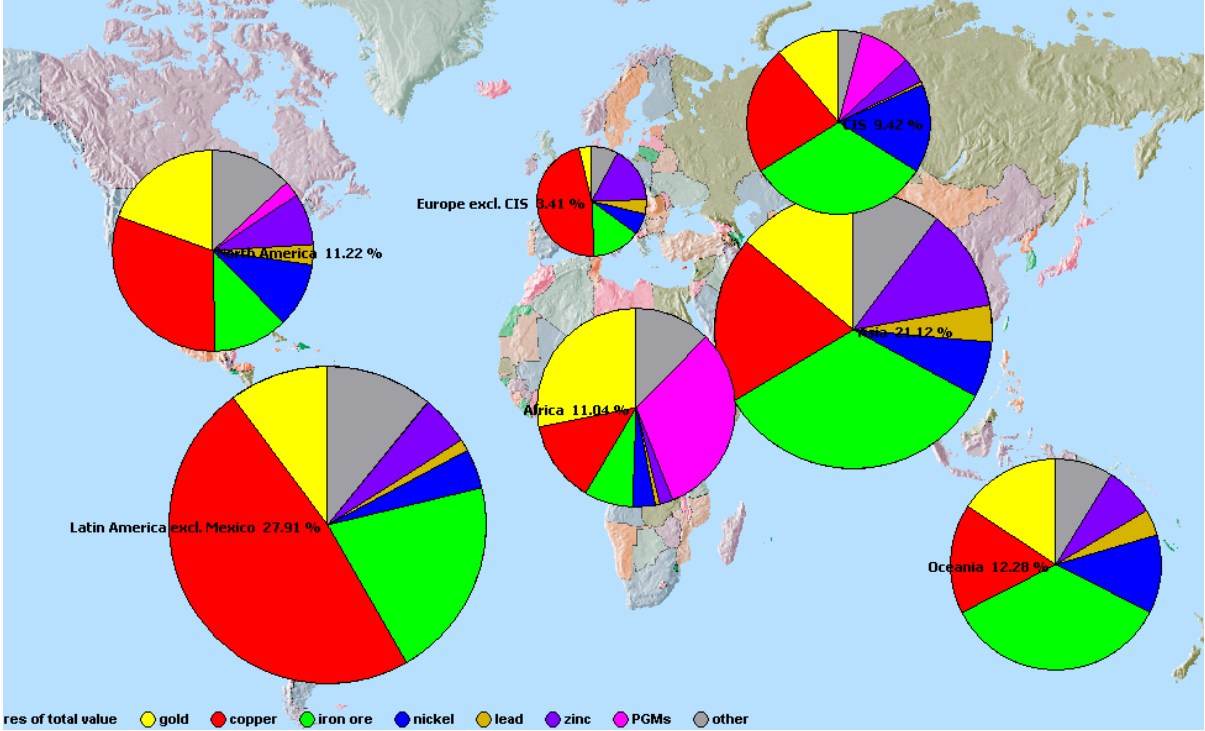
In 1984 Africa accounted for 20 % of the total value of all metals produced at the mining stage and in 2007 this percentage had decreased to 11 %. In the same period the Latin American industry increased its share from 16 to 28 %. Please see figures 1 and 2.

Figure 1. Global mining 1984.



Source: Raw Materials Data, 2009.

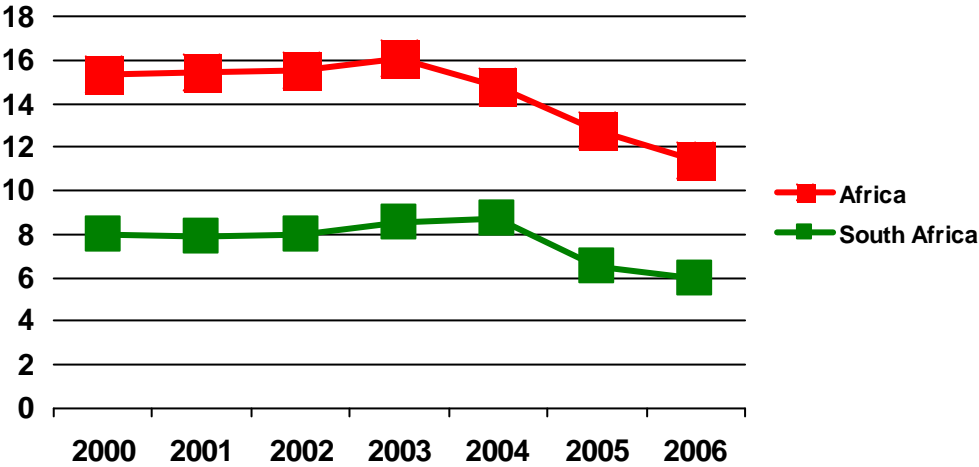
Figure 2. Global mining 2006.



Source: Raw Materials Data, 2009.

During the first years of the 2000s the pace of the decline increased as a result of the very high investment activity in other parts of the world. See Figure 3. In the same period the dominance of South Africa in African mining has increased.

Figure 3. African mining 2000-2006.
(% of total value of global mining)



Source: Raw Materials Data, 2009.

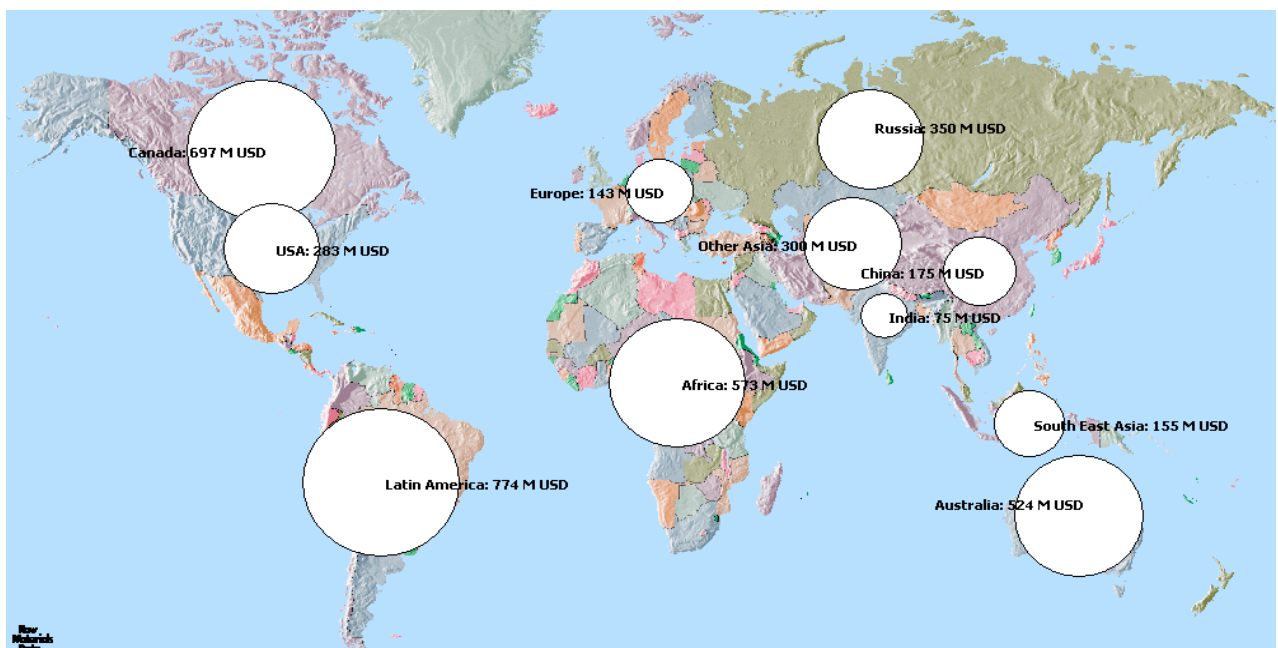
While there has been a relative decline there has been a growth in the value created by African mining in absolute terms particularly during the recent boom. Some figures.....

There has also been a shift in which metals are the most important. For example gold accounted for more than 50 % in 1984 while it only some 25 % in 2006, the PGMs have become the most important metals accounting for almost a third of the total while copper has kept its share more or less constant.

Exploration

In the early 2000s Africa attracted some 575 million dollars of total exploration expenditure equal to 14 % of total world exploration. This figure includes both commercial and state exploration expenditures.

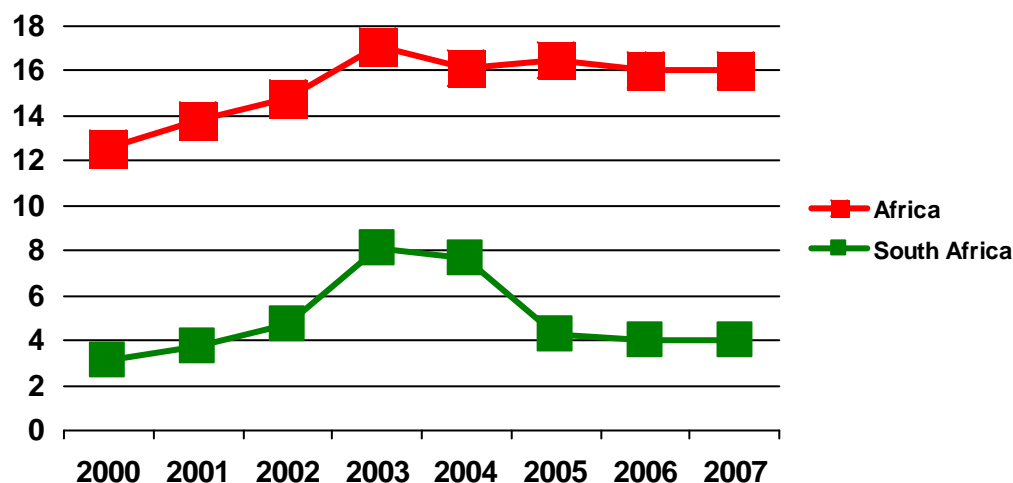
Figure 4. Global total exploration expenditure.



Sources: MEG and RMG.

The African share of total world commercial exploration has been increasing in recent years indicating that the future of African mining is brighter than its present status indicates. From the year 2000 the share has increased from 12 % to 16 % while the absolute amounts increased from just over 300 million USD to almost 1 700 million USD in 2007 i.e. growth of over 500 %. In the same period total commercial exploration in the world increased from 2.6 billion USD to 10.5 billion translating to an increase of "only" 400 %. The share of total African exploration undertaken in South Africa has decreased somewhat in the same period indicating a faster growth of exploration outside of South Africa giving a further indication of the growing importance of non-South African mining projects compared to South African ones. Please see figure 5.

Figure 5. African exploration 2000 - 2007.
(% of total world commercial exploration)



Source: MEG:

Investments

Mining investments are long term projects often spanning more than 10 years from the first conceptual studies based on preliminary exploration results to the final construction phase. This alone on average takes 18-24 months to complete. The total project pipeline, including all known projects that have a cost estimate and which have at least an inferred resource defined was over 400 billion US dollars at the end of 2008.¹ Of this total some 300 billion USD or roughly 75 % was green-field projects, of which only 37 billion represented projects at the construction stage, while the vast majority of projects with a total investment of 175 billion were in early, conceptual and pre-feasibility stages, and the remaining projects at feasibility stage (95 billion USD).

Table 1. Mining project investment by region 2008.

	Investment total (USD billion)	Share (per cent)	Share trend (2007-08)
Africa	57	14	↔
Asia	47	11	↔
Europe	50	12	↑
Latin America	125	31	↔
North America	62	15	↔
Oceania	68	17	↓
Total	409	100	

Source: Raw Materials Data 2009.

¹ It should be pointed out that many of the projects included will never pass from feasibility to construction stage, since they will not be profitable enough or will not get financed from other reasons such as technological problems and political risks.

The share of projects located in Africa has fairly constant over the first years of the 21st century indicating that the attractiveness of Africa as an investment target has at least not declined during the recent boom. But it should be noted that it has not improved either.

Conclusion

African mining has been in decline over the past 25 years. In the most recent years there are however some indicators pointing to an improving situation: The share of global exploration going into Africa is increasing and the share of Africa in the total project pipeline has been constant for a number of years. But there are still no clear indications of a growth of African mining and it remains to be seen what will happen during the present global economic decline.

Southern African Development Community, (SADC)² - Background

The Southern African mining industry has been one of the most important and dynamic in the world and still has the potential to create increased economic growth and job opportunities as more mineral deposits are discovered. The minerals sector is the backbone of the majority of economies in the SADC region. Formal mining in the region accounts for about 60 % of foreign exchange earnings, 10 % of GDP and 5% of formal employment.³ Due to the region's endowment of world-class deposits of coal, chromite, gold, diamonds, platinum and copper, the minerals sector has played a major role in the development of infrastructure. The minerals industry has been the centre for the growth of many towns and cities within the region. For example most rail and road infrastructure was developed to serve the transportation requirements of the mines to the cities and the harbours.⁴

The relative importance of the SADC is illustrated in the figure 6 below. Together the SADC countries account for 10 % of the total value of all industrial minerals and metals in the world in 2007. This is over 90 % of the total value of all African mineral production.

The SADC countries have created a regional centre for development of mining policies in the SADC secretariat which is located in Gaborone. The activities of the secretariat in the areas of mining and minerals have not been very extensive in recent years but the goals are ambitious and include harmonisation of mineral regimes and the investment in development corridors.

² SADC, Southern African Development Community includes the countries: Angola, Botswana, DR Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

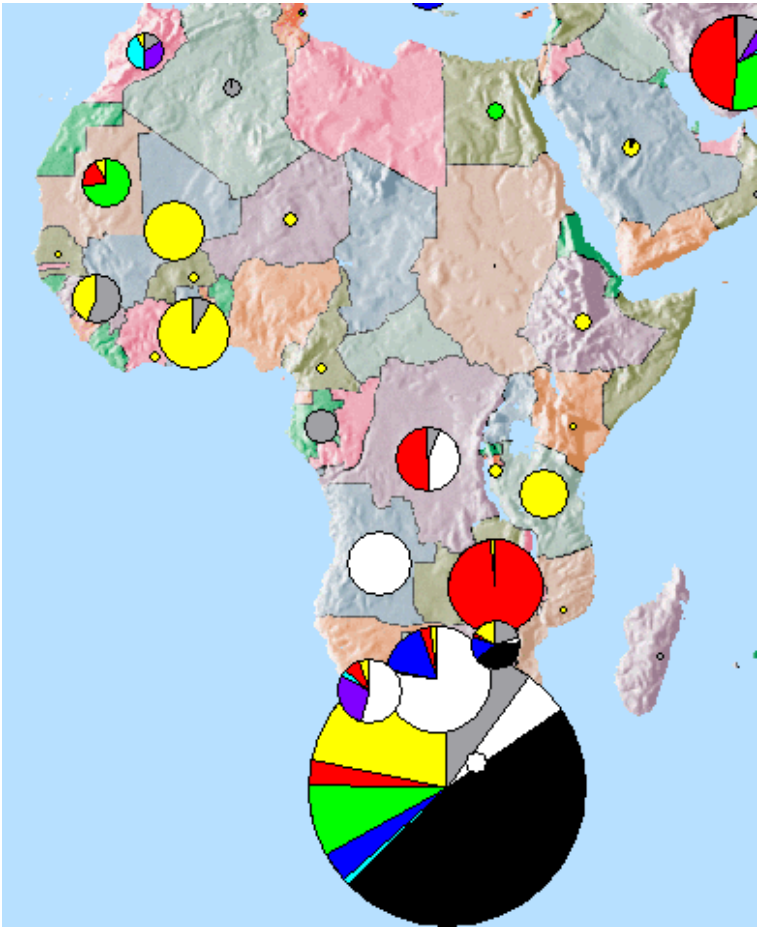
³ SADC Review, 2003.

⁴ "Mines 2006, Unlocking Resources in Southern Africa", Conference organised by: EU-SADC Investment Promotion Programme 2006. Supplement binder, SADC Mining Industry Review.

Figure 6. African countries' share of global mine production

% of total value x 10⁻²

South Africa	599
Botswana	92
Zambia	75
Ghana	43
Namibia	32
Angola	32
Congo	32
Mali	29
Guinea	21
Mauritania	20
Tanzania	20
Zimbabwe	20



Source: RMG, 2009.
Notes: red copper; yellow gold; white diamonds; black PGMs; blue nickel; green iron ore; grey others.

Botswana

Introduction

Botswana is situated in the middle of Southern Africa, bordered by Namibia in west and north, Zimbabwe to the east and South Africa in the south. Botswana has some of Africa's last great wildernesses including the Okavango Swamps and the Kalahari Desert, the desert in the western part of the country make up about 70 % of the country area why the population is concentrated to the eastern parts.

Since the independence in 1966 from Great Britain, the country has endured political stability and democratic elections, as one of few African countries. This political stability together with significant capital investment has created one of the most successful and growing African economies in modern time.

Background Statistics Botswana⁵

Capital:	Gaborone
Area:	600,370 square kilometers.
Population:	1,990,876 (July 2009 est.)
Population growth rate:	1,937 % (2009 est.)
Life expectancy at birth (years):⁶	48,9 (2006)
Currency:	Pula (BWP)
Exchange rates:⁷	1 EUR = 9,850 BWP, 1 USD = 7,262 BWP
Government type:	Parliamentary republic.
Chief of state:	President Ian Khama (since 1 April 2008)
GDP –real growth rate:	3.2 % (2008 est.) 3.3 % (2007 est.)
GDP -per capita (PPP):	\$ 13,300 (2008 est.) \$ 13,200 (2007 est.)
GDP – composition by sector:	Industry: 52,6 %, including 36% mining. Services: 45,8 % Agriculture : 1,6 % (2008 est.)
Investment (gross fixed):	23,9 % of GDP (2008 est.)
Inflation rate (consumer prices):	12,5 % (2008 est.)
Public debt:	5,1 % of GDP (2008 est.)
Labor force, total:⁸	685,315 (2007)
Labor force, mining industry:⁹	16,380 (2007) 14,574 (2006)
Unemployment, total (% of total labor force):¹⁰	17,6 % (2006)
The Human Development Index, HDI:¹¹	0,664 which gives Botswana a rank of 126 th out of 179 countries, (2006).
Economic Freedom Ratings, (Fraser Institute):¹²	Botswana ranked 60 of 141 countries, (2006)
Corruption Perceptions Index:¹³	Botswana ranked 36 of 180 countries, (2008).

⁵ Most figures are from CIA, The World Factbook, Botswana, unless other stated.

⁶ The Human Development Index, HDI, Botswana.

⁷ Exchange –Rates.org

⁸ The World Bank, Data and Statistics, Country: Botswana, Labor Force and Employment,

⁹ Department of Mines 2007 Annual Report, p.13.

¹⁰ The World Bank, Data and Statistics, Country: Botswana, Labor Force and Employment,

¹¹ The Human Development Index, HDI, Botswana by UNDP.

¹² Gwartney, James D, Lawson, Robert with Norton, Seth, Economic Freedom of the World: 2008 Annual Report. (Scale 0-10, where a higher value indicates a higher level of economic freedom).

¹³ Transparency International, The Global Coalition Against Corruption, 2008 Corruption Perceptions Index, CPI.

Figure 7. Map of Botswana.



Source: CIA¹⁴

Botswana Political Overview

In the first half of the 20th century Botswana, in those days British Bechuanaland, was among the poorest countries in Africa with very little economic activity and poor living conditions for a small population in a landlocked and arid desert country.

Total GDP in 1965 was 30 million pula (BWP) and less than 0.2 million was in the mining sector. In 1991 the total was 7 854 million of which mining accounted over 30 %. Mining had been the driving force in this development already from the beginning.

Botswana's first elected president was Seretse Khama in 1965, a former independence movement leader. Khama represented the Botswana Democratic Party and was re-elected twice. Khama was succeeded by Ketumile Masire who was also re-elected twice in 1989 and 1994. Next president in term was Festus Mogae who governed the country from 1999 until 2008 when the national term limit was reached. The first president Seretse Khama's son the former Vice President Ian Khama took over in April 2008.¹⁵ As in many other African countries the president is both the chief of state and the head of government.¹⁶

Botswana has a multiparty constitutional democracy with several political parties, of which many parties are small. The Botswana Democratic Party (BDP), Botswana National Front, (BNF) and Botswana Congress Party (BCP) are the largest parties. Since the first general election in 1965 the Botswana Democratic Party has won contiguously. The next general election will be held in October 2009.

¹⁴ CIA, The World Factbook, Botswana.

¹⁵ U.S. Department of State, Diplomacy in Action, Country, Botswana.

¹⁶ CIA, The World Factbook, Botswana.

The economic progress that Botswana has gone through since independence is a truly successful one, compared to many African neighbors. Twenty years ago, Botswana was one of the 20 poorest countries in the world. Today, Botswana is the richest non-oil producing country in Africa with revenues mainly coming from mineral exports and beef exports but also tourism. Diamonds are by far the most important source of income for Botswana. Diamonds currently contribute about a third of the GDP and about three quarters of the export revenues.¹⁷

Botswana is ranked as an “upper middle income economy” country by the World Bank and except from Botswana, only South Africa, Gabon and Mauritius are African countries represented in this group. No African countries are represented in the “high income economy” group.¹⁸

In Botswana more than 95% of children have access to ten years of free basic schooling and the country has a literacy rate of around 81,2 %.¹⁹ The University of Botswana was established in 1982 and the students can graduate in for example; engineering, geology, agriculture, education and nursing. The university has four campuses, two in Gaborone, one in Francistown, and another in Maun. A new science and technology university was scheduled to open in 2007, but the opening has been postponed until 2009.²⁰

As indicated earlier in the report Botswana is ranked as country number 36 on the Corruption Perceptions Index, CPI, with 5,8 CPI Score in 2008, on a scale from 0-10, with highest score least perceived corruption. Worth noticing is that Botswana is the African country with the lowest ranking of corruption, followed by South Africa on the 54th place and Namibia on the 61st place.²¹ A similar opinion is expressed in the IMF Working Paper “*Did Botswana Escape from the Resource Curse*”, by Atsushi Iimi, stating that “corruption in the public sector is not a serious problem”.²²

In Botswana the HIV/AIDS epidemic has hit very hard, and the spread has been one of the largest among all countries in the world. Around one third of the population is infected.²³ However, even though Botswana is severely affected by the HIV/AIDS epidemic the government has been responsive and proactive to the problem, compared to many other governments in Africa. For example retroviral drugs are freely available for all who need them.²⁴

¹⁷ The Government of Botswana, Economic Information.

¹⁸ The World Bank, Data and Statistics, World Bank list of economies (April 2009).

¹⁹ CIA, The World Factbook, Botswana.

²⁰ Science and Development Network, SciDev Net.

²¹ Transparency International -The Global Coalition Against Corruption, 2008 Corruption Perceptions Index, CPI.

²² Iimi, Atsushi, June 2006, *Did Botswana Escape from the Resource Curse?*, IMF Working Paper.

²³ Sida, Why does Sweden provide support to Botswana?

²⁴ “Mines 2006, Unlocking Resources in Southern Africa”, Conference organised by: EU-SADC Investment Promotion Programme 2006. Supplement cd with country information, Country Profile: Botswana.

Geological Overview of Botswana

Please see Appendix 1 for a written text about Botswana's geological history. In Appendix 3 and 4 a geological map and a map over Botswana's infrastructure is to be seen. The geology of Botswana is generally not wellknown mainly depending on the thick sand cover of large areas of the country.

History of Mining in Botswana

Although modern mining in Botswana only took off when the first diamonds were found in the early 1970s and the first mine opened in the early 1980s, the first mines operated by Europeans in all of Southern Africa were actually located in Botswana already in the mid 19th century when gold was produced from the Tati reefs. These were located in the north-east of present day Botswana around Francistown and had been operated by African miners since several hundred years. Copper mining was undertaken in the early 20th century and an asbestos mine was in operation from 1952-1966. Three marginally economic manganese mines were working in the late 1950s until the early 1970s.

The first large scale operation was the Selebi-Phikwe copper-nickel mine which started operating in 1973. This mine was however never really profitable and underwent several reconstructions until it was in stages taken over by Botswana government. Similar problems of profitability struck the soda ash operation in the Sua pan and also this company has been restructured over the years and government has taken increasing shares. The Moropule colliery is 93 % owned by Debswana and was from the beginning an Anglo project.

Initially mining in Botswana was completely dominated by foreign companies mainly from South Africa: Anglo American and its close ally De Beers and Amax from the US. Gradually government has taken increasing its stakes and is now dominating owner of Botswana Ash and BCL while it is the minor partner in Debswana.

Botswana is together with Anglo American and the Oppenheimer family main shareholders of the the private diamond monopoly De Beers and in this way the economic future of Botswana is very closely linked to the future of diamonds and the way the De Beers company will succeed in regulating and controlling the diamond markets. This is at the same time a key weakness and opportunity for Botswana and its dependence on one company and one commodity is only matched by some oil producing countries dependence on the global oil markets.

Important Actors on the Mining Scene in Botswana

The mining scene in Botswana is dominated by a handful of companies: Debswana in the diamond sector; BCL (Bamangwato Concessions Ltd) and Tati (nowadays controlled by Russian Norilsk) in nickel/copper and Botswana Ash in soda ash and in coal the Moropule Coal Mine owned by Debswana.

All mines and projects of Botswana 2009, are to be seen in Table 6, Table 7 and Table 8 please also see Appendix 5 for full information about these mines and projects. Please note that the mines and projects in Appendix 5 are listed in the order as Table 7 shows, ie, in the ranking of Operating, Feasibility, Prefeasibility, Conceptual and Suspended /restart plans.

Important mining companies are to be seen briefly in Table 6 and 7, please also see Appendix 6 for full information about these mining companies. The mining companies in Appendix 6 are in alphabetical order.

Exploration in Botswana

Background

Exploration for diamonds completely dominates the exploration scene in Botswana. Naturally the leading company is Debswana/DeBeers accounting for roughly half the exploration expenditure of a total of some 110 MUSD in 2007. Of these over 70 million is spent on exploration for diamonds, some 20 millions for base metals mainly copper and nickel and in recent years also some uranium projects have been started. Besides Debswana the British Firestone Diamonds and Petra Diamonds from South Africa are the key players in the diamond area. There is, in addition to these three, a number of smaller juniors active in diamonds DiamonEx (Australia), Tsodilo Resources (Canada), African Diamonds (Ireland), Nowak Investments (Botswana) and Tawana Resources (Australia). The uranium projects are operated by African Energy Resources and other Australian juniors such as A-Cap Resources, Impact Minerals, Lodestone Explorations and others. Gold exploration has dwindled down to almost nothing.

In Fraser Institute's annual rating of the attractiveness of countries as exploration targets as seen by company executives - with all the bias that this type of subjective measurement includes - puts Botswana in a favourable position as far as the mining and exploration regime is concerned. It is the highest ranking African nation by far at an index of 64.9 as compared Mali 53.6, and Ghana 51.3 and neighboring Namibia at 52.4 and Zambia at 44. At this level Botswana is at the same level as Norway lower than Sweden and Finland in Latin America only Chile is ranked higher. When the geological potential is also weighed into the equation Botswana is in the middle of the field at 50 a ranking similar to the Philippines and Russia. Finland is in the top region at 85.²⁵

Mineral regime

Mineral policy

Botswana's mineral policy has six objectives:

- To maximize the economic benefits of mining including the opportunity for local participation.
- To create a competitive environment which stimulates exploration and development.
- To regulate the industry to create efficient exploitation.
- To ensure efficient collection of fiscal revenues.
- To ensure the environmental and societal impacts are manageable.
- To collect geological information to promote the industry.

²⁵ McMahan, Fred, Cervantes, Miguel, (Survey Coordinators), February 2009, *Annual Survey of Mining Companies 2008/2009*, Fraser Institute.

The base for the minerals regime is the Mines and Minerals Act from 1999. After its introduction exploration has increased gradually.

The fiscal regime combines a royalty system of 10 % for precious stones, 5 % for precious metals and 3 % for other minerals with a corporate tax at the higher of either 25% or a formula tax of $70-1500/x = \text{taxable income}$ where $x = \text{tax rate in \%}$.

Mineral legislation

For details please see Appendix 2.

Mining

Mining in the economy

Mining dominates the economy of Botswana. As can be seen from Table 2. In 2005/2006 some 40 % of the gross total value added originated from this sector. If compared to the figure

Table 2. Value Added by Type of Economic Activity at Current Prices (Pula Million)

Economic Activity	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
1. Agriculture	467.2	483.7	588.2	601.9	689.3	654.2	665.2
2. Mining	3,956.2	4,144.8	4,800.0	6,898.7	7,617.0	8,924.9	11,691.1
3. Manufacturing	430.5	616.2	726.8	882.8	1,011.4	1,127.7	1,240.0
4. Water and Electricity	240.3	271.2	275.6	319.6	370.8	458.1	567.5
5. Construction	710.1	775.2	884.2	1,017.2	1,153.8	1,360.2	1,423.6
6. Trade, Hotels & Restaurants of which	882.3	1,177.7	1,434.5	1,761.1	2,017.6	2,338.7	2,734.9
Trade excl Hotels & Restaurants	712.9	983.7	1,190.3	1,444.5	1,629.3	1,873.7	2,152.9
Hotels & Restaurants	169.5	194.0	244.3	316.6	388.3	465.0	581.9
7. Transport	406.5	464.1	514.0	575.0	667.2	813.6	935.4
8. Banks, Insurance & Business Services	1,144.4	1,344.7	1,615.4	1,775.1	2,079.4	2,410.4	2,761.1
9. General Government	1,706.7	1,883.3	2,121.5	2,478.5	2,918.6	3,751.3	4,104.6
10. Social and Personal Services (1)	470.1	535.3	610.0	681.7	746.5	870.2	993.8
Total Value Added, Gross	10,414.3	11,696.1	13,570.1	16,991.5	19,271.6	22,709.3	27,117.2
+ Adjustments items of which:							
FISIM	-294.6	-335.9	-377.3	-470.9	-658.5	-731.2	-879.3
Taxes on Imports	792.7	742.7	846.3	973.5	1,209.7	1,419.2	1,564.5
Taxes on products/production	161.5	198.0	244.0	291.3	387.8	468.6	542.4
Subsidies on products/production	-32.5	-39.2	-79.2	-78.0	-96.0	-110.0	-100.0
=Total GDP at current market prices of which	11,041.4	12,261.7	14,203.9	17,707.4	20,114.6	23,755.8	28,244.8
Total GDP excluding Mining Value added	7,085.2	8,116.9	9,403.9	10,808.7	12,497.6	14,830.9	16,553.7
Gross Domestic Product Per Capita (Pula)							
Total	7,781.0	8,438.5	9,532.2	11,608.8	12,848.5	14,804.2	17,172.4
Excluding Mining	4,993.0	5,586.1	6,311.0	7,092.0	7,983.0	9,242.4	10,064.4

Economic Activity	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
1. Agriculture	755.2	791.7	866.3	951.8	899.9	1,027.9
2. Mining	16,236.3	15,012.7	14,704.5	15,078.9	19,222.4	22,178.0
3. Manufacturing	1,344.1	1,404.0	1,549.7	1,647.5	1,772.5	1,895.6
4. Water and Electricity	689.0	749.9	926.8	1,058.9	1,216.2	1,398.0
5. Construction	1,562.7	1,738.0	1,976.2	2,103.4	2,241.7	2,426.9
6. Trade, Hotels & Restaurants of which	3,193.3	3,650.7	4,417.9	4,894.4	5,082.5	6,116.0
Trade excl Hotels & Restaurants	2,544.6	2,899.3	3,309.0	3,646.7	3,813.9	4,207.2
Hotels & Restaurants	648.7	751.4	1,108.9	1,247.7	1,268.6	1,908.8
7. Transport	1,057.7	1,150.7	1,292.5	1,398.6	1,519.1	2,040.5
8. Banks, Insurance & Business Services	3,201.9	3,644.0	4,096.5	4,517.4	5,169.7	5,919.3
9. General Government	4,567.6	5,264.1	6,450.1	7,231.8	8,104.1	9,509.6
10. Social and Personal Services (1)	1,106.7	1,249.3	1,394.3	1,594.7	1,884.7	2,259.2
Total Value Added, Gross	33,714.4	34,655.0	37,674.9	40,477.5	47,112.7	54,771.0
+ Adjustments items of which:						
FISIM	-996.2	-1,172.8	-1,438.7	-1,577.4	-1,799.8	-2,250.8
Taxes on Imports	1,582.1	1,653.9	1,738.0	1,971.8	2,315.0	2,643.5
Taxes on products/production	606.8	735.7	1,583.4	1,918.9	2,240.4	2,254.8
Subsidies on products/production	-120.0	-178.5	-159.3	-217.8	-247.4	-281.1
=Total GDP at current market prices of which	34,787.1	35,693.3	39,398.3	42,573.0	49,620.9	57,137.4
Total GDP excluding Mining Value added	18,550.8	20,680.7	24,693.8	27,494.0	30,398.5	34,959.5
Gross Domestic Product Per Capita (Pula)						
Total	20,617.2	20,801.3	22,637.6	24,179.3	27,925.0	31,937.0
Excluding Mining	10,994.5	12,052.3	14,188.6	15,615.3	17,107.3	19,540.6

Source: Botswana Central Statistics Office

In the year 1994/95 the comparable figure was 35 % and the dominance is more or less the same after 10 years of economic development.

The development of mining seen from a global perspective is illustrated in Table 3 below where the value of all metal and diamond production at the mine stage is given over time. The complete dependence on diamonds is clear.

Table 3. Botswana Metallic and Industrial Minerals Value, details

Botswana Metallic and Industrial Minerals Value, details												
Metal/ mineral	Value 1975	Value 1984	Value 1990	Value 1995	Value 2000	Value 2001	Value 2002	Value 2003	Value 2004	Value 2005	Value 2006	Value 2007
	%	%	%	%	%	%	%	%	%	%	%	%
Diamond value					1.647	1.805	1.449	1.58	1.035	1.199	0.888	0.712
Nickel	0.029	0.056	0.08	0.07	0.094	0.077	0.089	0.164	0.106	0.101	0.11	0.159
Copper	0.01	0.024	0.036	0.036	0.021	0.019	0.021	0.027	0.023	0.031	0.04	0.029
Gold				0.001					0.001	0.015	0.016	0.018
Palladium					0.005	0.005	0.004	0.004	0.003	0.004	0.006	0.005
Platinum						0.001	0.001	0.003	0.005	0.002	0.002	0.002
Cobalt		0.002	0.001	0.004	0.003	0.002	0.001	0.001	0.001	0.001	0.001	
Diamond carats	0.12	0.513	0.835	0.829								
Salt				0.003	0.003	0.003	0.005	0.003	0.003			
Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009												

Notes: No figures available for diamond production values in 1975-1995.

The figures in the table are given as per cent of the total value of all non-fuel minerals of total world.

Mineral revenue

Government's tax income is dominated by mineral revenues as is seen from Table 4. The figures vary widely from year to year with a high almost reaching 70 per cent in 2000/2001 fiscal year and a low in year 2007/2008 of 43 per cent.

During the 2007/2008 fiscal year, mineral revenues (royalties, dividends, annual lease charges, and sundries) collected were about 10 % lower than in the previous fiscal year 2006/2007. This was mainly due to lower diamond prices.

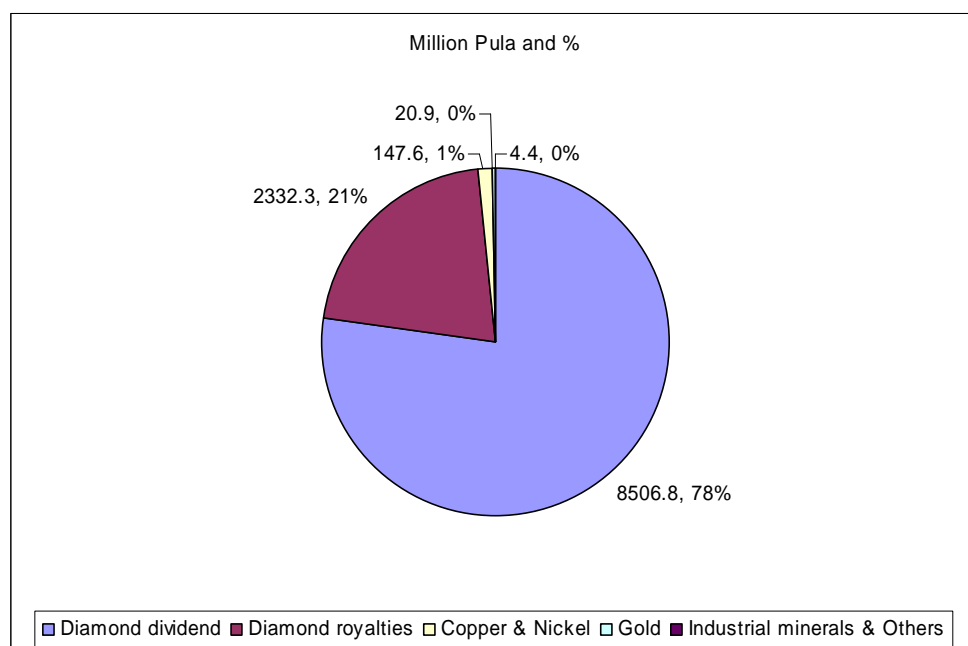
Table 4. Botswana Government Revenue (P million)

Botswana Government Revenue (P million)		
Period*	Tax Revenue	
	Mineral Revenue	Total
1998/1999	3186.6	5639.5
1999/2000	6687.3	9937.7
2000/2001	8367.8	12077.5
2001/2002	6995.8	10582.8
2002/2003	7502.7	12259.4
2003/2004	8162.9	14146.4
2004/2005	8681.8	16245.4
2005/2006	11045.1	20130
2006/2007	13114.3	25230.6
2007/2008	11012.1	25831.2

*Fiscal year runs from 1st April to 31st March

As is expected diamonds is the major government revenue earner accounting for 99 per cent of total government income. This figure is a sum of both royalties and dividends from Debswana.

Figure 8. Sources of Mineral Revenue in 2007/2008.



Source: Department of Mines 2007 AR and Botswana Ministry of Finance and Development Planning.

Trade

Foreign trade is dominated by mineral in the same way as the Botswana economy and the government income is. In fact the dominance is even more pronounced with 85 per cent of foreign trade income originating from the mining sector. Copper and nickel concentrates are 21 per cent of total mineral exports and hence diamonds are not dominating as much as could possibly be expected.

Table 5. Botswana Trade 1997, 2006 and 2007.

(US\$ millions)	1997	2006	2007
Total exports (fob)	2,822	4,538	5,028
Diamonds	2,099	3,413	3,359
Copper and Nickel	95	650	905
Manufactures	368	188	378

Source: The World Bank Group, *Botswana at a glance*.

Employment

The number of employees in the mining sector in Botswana has been slowly increasing during the 2000s. In 2007 the figure was in total 16 400 persons of which almost 860 expatriates. BCL is the most important employer with over 5200 employees.²⁶

Health & safety

The number of reportable accidents has gone down slowly over the last 15 years. In 2007 51 accidents were reported (incapacitated for more than 3 days) of which two were fatal accidents. No relative figures were available.²⁷

Small scale mining

Small scale mining is not of any particular importance in Botswana.

²⁶ Department of Mines 2007 Annual Report, p.13-14.

²⁷ Department of Mines 2007 Annual Report, p.8-10.

Botswana mine producers 2009													
#	Metal/ mineral	Full name	Status	Type	Prod 2003	Prod 2004	Prod 2005	Prod 2006	Prod 2007	Controlled by (short) (end-2007)	Main metal	Metal 2	Metal 3
1	Coal (Mt)	Morupule Coal Mine	Operating, exp/const	UG	0.823	0.913	0.984	0.900	1.000	Anglo American, State of Botswana	C		
2	Coal (Mt)	= total, identified by producer in country			0.823	0.913	0.984	0.900	1.000				
3	<i>Coal (Mt)</i>	<i>= total national production</i>			<i>0.823</i>	<i>0.913</i>	<i>0.985</i>	<i>1.000</i>					
4	Cobalt (kt)	Phoenix Nickel Mine	Operating, exp/plans	OP	0.07	0.09	0.08			Norilsk Nickel	Ni	Cu	Pd
5	Cobalt (kt)	Selebi-Phikwe Nickel/Copper Mines	Operating	UG	0.21	0.14	0.25			State of Botswana, Norilsk Nickel	Ni	Cu	
6	Cobalt (kt)	= total, identified by producer in country			0.28	0.22	0.33						
7	<i>Cobalt (kt)</i>	<i>= total national production</i>			<i>0.29</i>	<i>0.22</i>	<i>0.33</i>	<i>0.30</i>					
8	Copper (kt)	Phoenix Nickel Mine	Operating, exp/plans	OP	8.1	8.6	6.8	10.2	11.0	Norilsk Nickel	Ni	Cu	Pd
9	Copper (kt)	Selebi-Phikwe Nickel/Copper Mines	Operating	UG	16.1	12.6	10.0	10.0		State of Botswana, Norilsk Nickel	Ni	Cu	
10	Copper (kt)	= total, identified by producer in country			24.3	21.2	16.8	20.2	11.0				
11	<i>Copper (kt)</i>	<i>= total national production</i>			<i>24.3</i>	<i>21.2</i>	<i>26.0</i>	<i>24.6</i>	<i>20.0</i>				
12	Diamond carats (Mct)	Damtskaa Diamond Mine	Operating	OP	0.29	0.34	0.30	0.23	0.34	Anglo American, State of Botswana	Dia		
13	Diamond carats (Mct)	Jwaneng Diamond Mine	Operating, exp/plans	OP	12.77	13.68	15.60	15.64	13.48	Anglo American, State of Botswana	Dia		
14	Diamond carats (Mct)	Lethakane Diamond Mine	Operating	OP	1.06	1.03	1.10	1.09	1.11	Anglo American, State of Botswana	Dia		
15	Diamond carats (Mct)	Orapa Diamond Mine	Operating	OP	16.29	16.07	14.89	17.34	18.71	Anglo American, State of Botswana	Dia		
16	Diamond carats (Mct)	= total, identified by producer in country			30.41	31.13	31.89	34.29	33.64				
17	<i>Diamond carats (Mct)</i>	<i>= total national production</i>			<i>30.41</i>	<i>31.13</i>	<i>31.89</i>	<i>34.29</i>	<i>33.64</i>				
18	Diamond value (M \$)	Damtskaa Diamond Mine	Operating	OP			60.0	50.0	65.0	Anglo American, State of Botswana	Dia		
19	Diamond value (M \$)	Jwaneng Diamond Mine	Operating, exp/plans	OP	1400.0	1650.0	1900.0	1900.0	1750.0	Anglo American, State of Botswana	Dia		
20	Diamond value (M \$)	Lethakane Diamond Mine	Operating	OP	200.0	250.0	270.0	270.0	270.0	Anglo American, State of Botswana	Dia		
21	Diamond value (M \$)	Orapa Diamond Mine	Operating	OP	750.0	950.0	880.0	1000.0	1150.0	Anglo American, State of Botswana	Dia		
22	Diamond value (M \$)	= total, identified by producer in country			2350.0	2850.0	3110.0	3220.0	3235.0				
23	<i>Diamond value (M \$)</i>	<i>= total national production</i>			<i>2490.0</i>	<i>2900.0</i>	<i>3200.0</i>	<i>3300.0</i>	<i>3360.0</i>				
24	PGMs (t)	Phoenix Nickel Mine	Operating, exp/plans	OP	1.20	1.42	1.03	1.30		Norilsk Nickel	Ni	Cu	Pd
25	PGMs (t)	= total, identified by producer in country			1.20	1.42	1.03	1.30					
26	<i>PGMs (t)</i>	<i>= total national production</i>			<i>1.20</i>	<i>1.42</i>	<i>2.20</i>	<i>2.30</i>	<i>2.30</i>				
27	Gold (t)	Mupane Gold Mine	Operating	OP		0.100	2.600	2.000	2.700	Iamgold	Au		
28	Gold (t)	Phoenix Nickel Mine	Operating, exp/plans	OP	0.030	0.038				Norilsk Nickel	Ni	Cu	Pd
29	Gold (t)	= total, identified by producer in country			0.030	0.138	2.600	2.000	2.700				
30	<i>Gold (t)</i>	<i>= total national production</i>			<i>0.030</i>	<i>0.162</i>	<i>2.709</i>	<i>3.020</i>	<i>3.500</i>				
31	Nickel (kt)	Phoenix Nickel Mine	Operating, exp/plans	OP	11.5	11.4	11.6	13.7	15.1	Norilsk Nickel	Ni	Cu	Pd
32	Nickel (kt)	Selebi-Phikwe Nickel/Copper Mines	Operating	UG	15.9	10.8	16.5	13.0	13.0	State of Botswana, Norilsk Nickel	Ni	Cu	
33	Nickel (kt)	= total, identified by producer in country			27.4	22.3	28.1	26.7	28.1				
34	<i>Nickel (kt)</i>	<i>= total national production</i>			<i>27.4</i>	<i>22.3</i>	<i>28.2</i>	<i>26.8</i>	<i>30.0</i>				
35	Palladium (t)	Phoenix Nickel Mine	Operating, exp/plans	OP	1.03	1.21	0.87	1.10		Norilsk Nickel	Ni	Cu	Pd
36	Palladium (t)	= total, identified by producer in country			1.03	1.21	0.87	1.10					
37	<i>Palladium (t)</i>	<i>= total national production</i>			<i>1.03</i>	<i>1.21</i>	<i>1.90</i>	<i>2.00</i>	<i>2.00</i>				
38	Platinum (t)	Phoenix Nickel Mine	Operating, exp/plans	OP	0.17	0.21	0.16	0.20		Norilsk Nickel	Ni	Cu	Pd
39	Platinum (t)	= total, identified by producer in country			0.17	0.21	0.16	0.20					
40	<i>Platinum (t)</i>	<i>= total national production</i>			<i>0.17</i>	<i>0.21</i>	<i>0.16</i>	<i>0.20</i>	<i>0.20</i>				

Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Table 6. Botswana Mine Producers.

Mines and Projects, Botswana 2009														
#	Name	Status	Type	Controlled by (short)	Main metal	Met- al 2	Met- al 3	Project cost M USD	Ore resources (Mt)	Grade Au in resource (gpt)	Grade Cu in resource (%)	Ore reserves (Mt)	Grade Au in reserve (gpt)	Grade Cu in reserve (%)
1	Jwaneng Diamond Mine	Operating, exp/plans	OP	Anglo American, State of Botswana	Dia			300	287.600			44.000		
2	Phoenix Nickel Mine	Operating, exp/plans	OP	Norilsk Nickel	Ni	Cu	Pd	619	118.300		0.22	106.040		0.22
3	Damtshaa Diamond Mine	Operating	OP	Anglo American, State of Botswana	Dia				39.000					
4	Mowana Copper Project	Operating	OP	African Copper	Cu				133.940		0.68	14.800		1.11
5	Lethakane Diamond Mine	Operating	OP	Anglo American, State of Botswana	Dia				62.600			9.000		
6	Mupane Gold Mine	Operating	OP	lamgold	Au				9.286	2.10		3.207	2.00	
7	Orapa Diamond Mine	Operating	OP	Anglo American, State of Botswana	Dia				652.900			274.000		
8	Selebi-Phikwe Nickel/Copper Mines	Operating	UG	State of Botswana, Norilsk Nickel	Ni	Cu			68.619		0.89	27.008		0.86
9	Lerala Diamond Mine	Operating	OP	Diamonex	Dia			20	13.500					
10	Gope 25 Diamond Deposit	Feasibility		Gem Diamonds	Dia				97.362					
11	Martins Drift Diamond Mine	Feasibility		Diamonex	Dia			13	13.500					
12	Kihabe Polymetallic Deposit	Prefeasibility		Mt Burgess	Zn	Pb	Ag		27.400					
13	Lethakane Uranium Deposit	Prefeasibility		A-Cap	U			180	280.000					
14	Boseto Copper Deposit	Prefeasibility	OP,UG	Discovery Metals	Cu	Ag		185	50.400		1.30			
15	AK6 Diamond Pipe	Conceptual	OP	African Diamonds, Anglo American, Ponahalo	Dia			220	59.000					
16	Dikoloti Nickel Deposit	Conceptual	OP	Discovery Metals	Ni	Cu		25	4.100		0.50			
17	Golden Eagle Gold Mine	Conceptual	OP,UG	lamgold	Au				1.304	2.20		0.450	2.51	
18	Kite Gold Deposit	Conceptual		lamgold	Au				1.440	2.30				
19	Matsitama Copper Mine	Conceptual	OP,UG	African Copper	Cu			100	15.850		1.39			
20	Monarch Gold Mine	Conceptual	UG	lamgold	Au				0.713	5.30				
21	Map Nora Gold Mine	Conceptual	UG	lamgold	Au				0.568	14.00				
22	Petra Copper Deposit	Conceptual		Discovery Metals	Cu				4.500		1.10			
23	Plutus Copper/Silver Deposit	Conceptual		Discovery Metals	Cu	Ag			15.900		1.60			
24	Signal Hill Gold Deposit	Conceptual		lamgold	Au				2.095	2.17		0.748	2.44	
25	Thakadu/Makada Copper Deposit	Conceptual		African Copper	Cu				5.600		1.65			
26	Tholo Gold Deposit	Conceptual		lamgold	Au				0.683	2.50				
27	Zeta Copper/Silver Deposit	Conceptual		Discovery Metals	Cu	Ag			30.000		1.20			
28	Shahse Gold Mine	Susp, restart/plans		lamgold	Au				1.873	5.75				
29	Selkirk Nickel Mine	Susp, restart/feasib	OP	Norilsk Nickel	Ni	Cu		160	230.586		0.21	184.700		0.22

Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Table 7. Botswana Mines and Projects 2009.

Coal Mines and Projects Botswana 2009														
#	Name	Status	Type	Controlled by (short)	Coalfield	Reserve s (Mt)	Cap Mt/yr	Project cost M USD	Exporte d/ domesti c	Calorifi c value (MJ/kg)	Vols (%)	Ash content (%)	Moistu re (%)	Sulph ur (%)
1	Mmamabula Coal Deposit	Feasibility	OP	CIC Energy, Internat Power	Mmamabula		12.0	300	Exported	27.5	28.4	11.1	3.6	0.70
2	Mmamantswe Coal Deposit	Feasibility	OP	Aviva										
3	Morupule Coal Mine	Operating, exp/constr	UG	Anglo American, State of Botswana	Morupule	5080.00	1.0			23.15	22	20.8	4.3	1.60
Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009														

Table 8. Botswana Coal Mines and Projects 2009.

Commodity Review

Diamonds

In 2007 Botswana was the world's largest diamond producer by value. By volume Botswana is placed second after Russia. Debswana Diamond Company (Pty) Ltd is a unique partnership between the Government of the Republic of Botswana and De Beers Centenary AG.

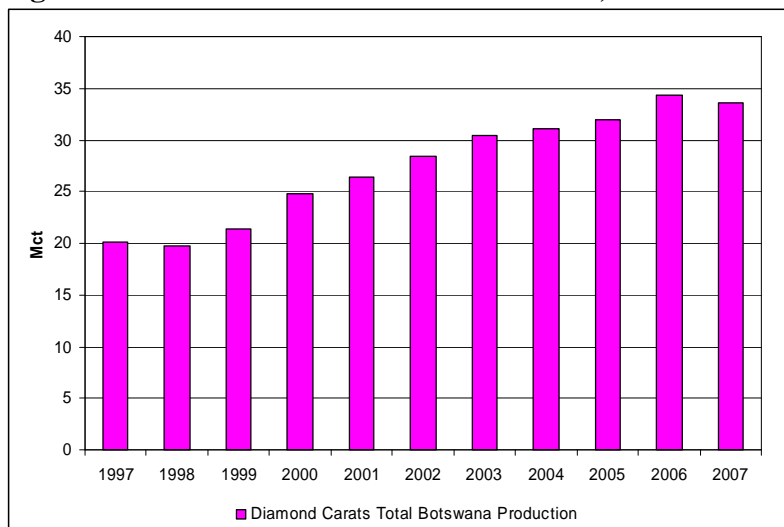
Debswana is a key player in the national economy of Botswana, producing in excess of 70% of Botswana's export earnings and 50% of government revenue.

Debswana has four diamond mining operations which are situated at Jwaneng, Orapa, Letlhakane and Damtshaa. Jwaneng is the richest diamond mine in the world and is situated 170 kilometers west of the capital Gaborone. Orapa, Letlhakane and the youngest Damtshaa mines are located roughly 240 kilometers west of Francistown. The Orapa pipe is the world's second largest diamond-producing kimberlite pipe.²⁸

Sorting and valuation of the diamonds produced by these operations is undertaken at the Botswana Diamond Valuing Company (BDVC), a wholly owned subsidiary of Debswana, in Gaborone. This is an important down stream beneficiation step that will mean a lot to the development all stages of the diamond jewellery production process.

A number of smaller diamond producers are in the pipeline to start production.

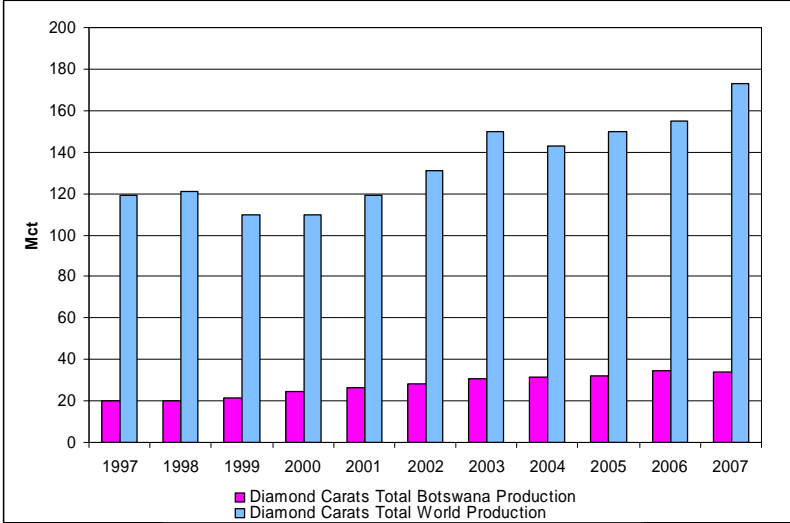
Figure 9. Diamond Carats Mine Production, Botswana.



Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

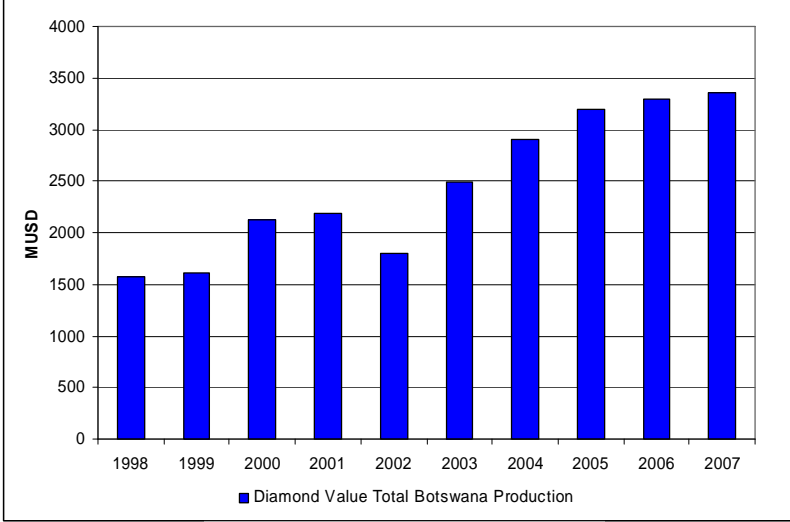
²⁸ Debswana website, Operations, Introduction.

Figure 10. Diamond Carats Mine Production, Botswana and World.



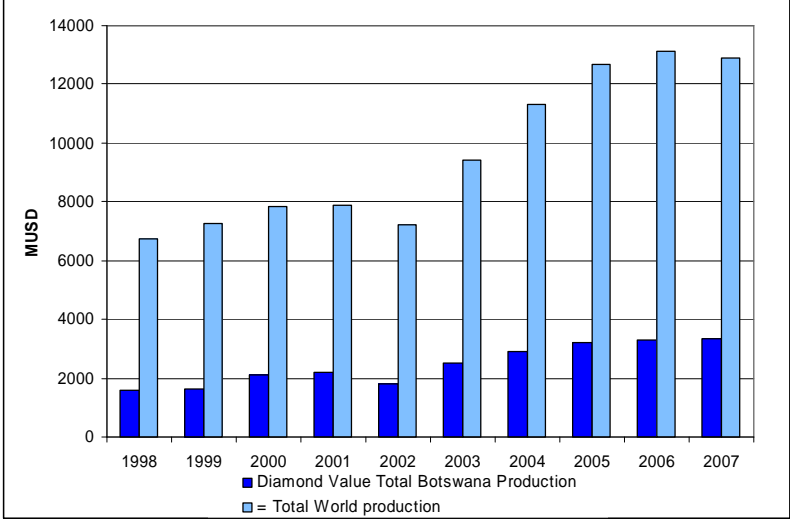
Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Figure 11. Diamond Value Mine Production, Botswana.



Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

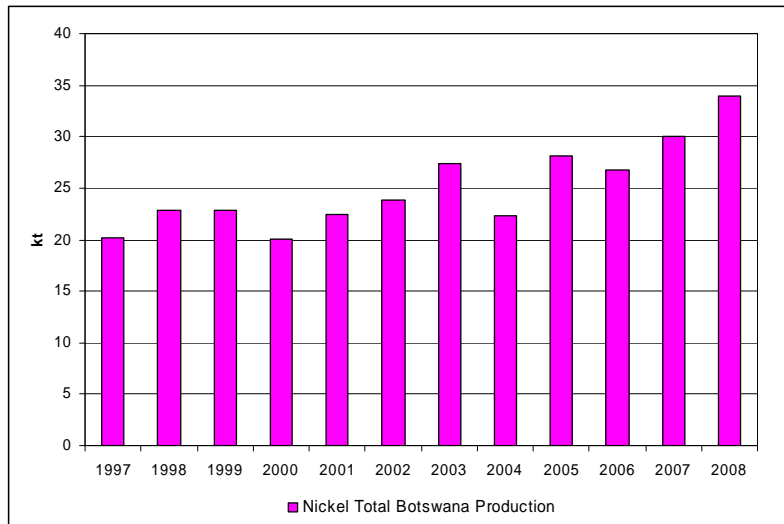
Figure 12. Diamond Value Mine Production, Botswana and World.



Nickel

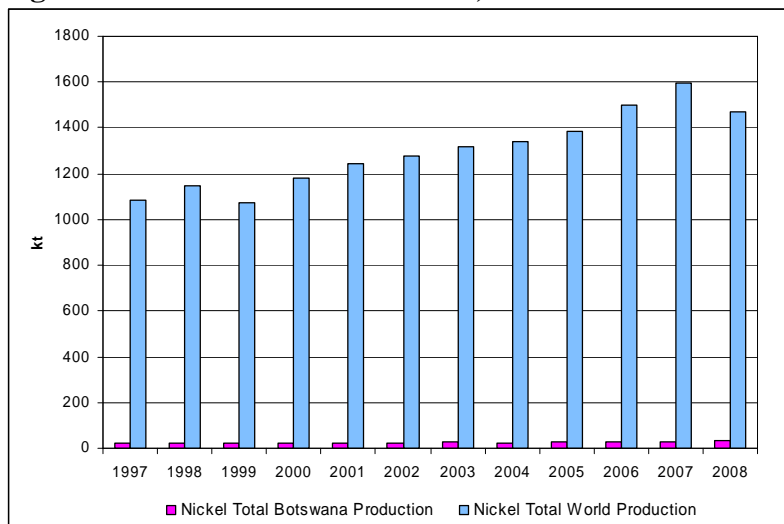
The nickel production in Botswana has never really taken off. BCL has struggled since its start and the Tati operations have not either been fully successful. The concentrates are exported to Falconbridge's smelter in Norway.

Figure 13. Nickel Mine Production, Botswana.



Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Figure 14. Nickel Mine Production, Botswana and World.

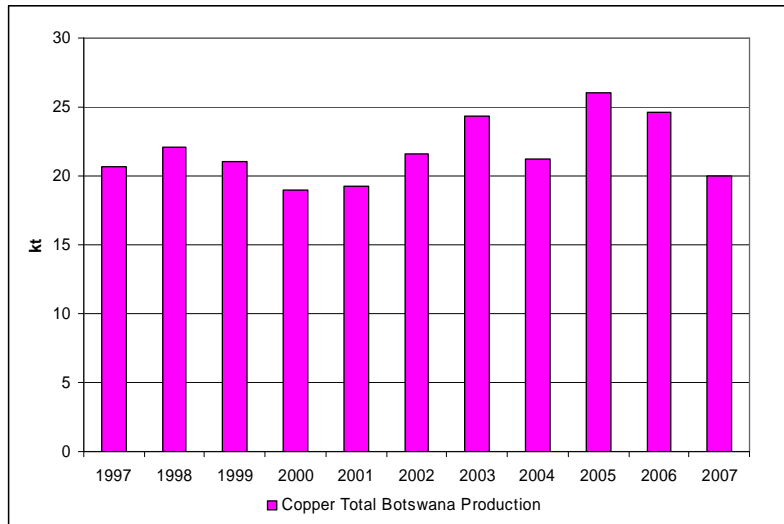


Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Copper

A few copper projects have been planned for some time in Botswana but never come to the stage where they have ready for investment. The present production comes from BCL and Tati operations.

Figure 15. Copper Mine Production, Botswana.

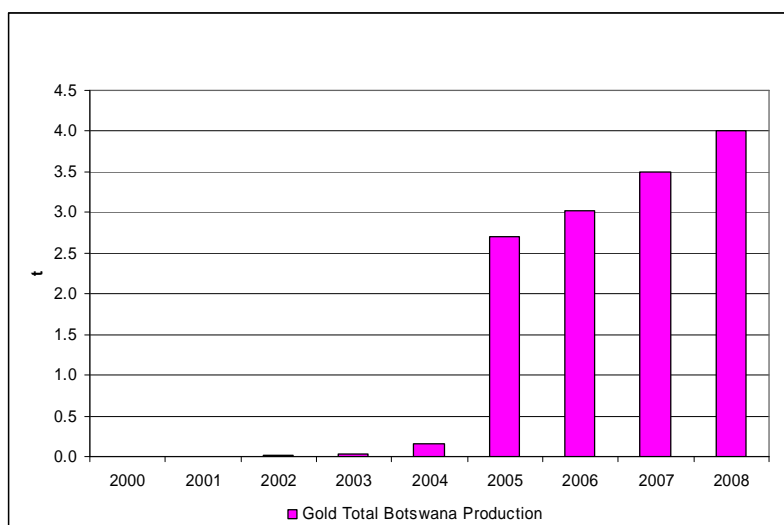


Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Gold

Some years ago a couple of gold projects were investigated in Botswana and the Mupane mine owned by Iamgold of Canada started production in 2004. Production has increased gradually and reached over 3 t in 2008.

Figure 16. Gold Mine Production, Botswana.



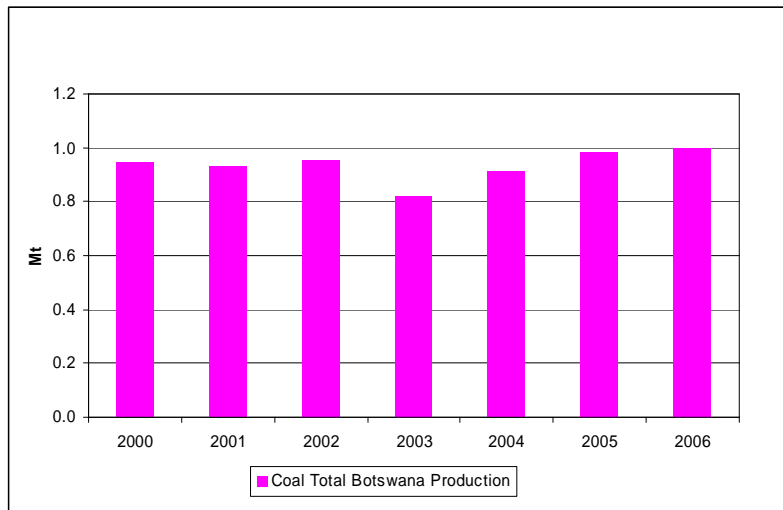
Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Note: No gold production before 2001.

Coal

Coal production in Botswana began in 1973 at the Morupule colliery. Production is around 1 Mt annually and coal is used mainly in the Morupule powerstation and by BCL. Plans to open a second coal mine the Mmamabula project is run by the Canadian company Coal Investment Corp (CIC) of Canada.

Figure 17. Coal Mine Production, Botswana.



Source: Raw Materials Data. Copyright: Raw Materials Group, Stockholm, 2009

Note: Raw Materials Data does not include coal production figures for years earlier than 2000. Coal production figures for year 2007 is not yet available.

Discussion about Botswanas Development Needs

The dependence on one commodity and in practice on one company to which the fate of the Botswana economy is tightly linked has been seen as a major developmental problem for Botswana since the start of diamond mining. The present Minister of Finance Baledzi Gaolathe wrote in Minerals & Eenergy in the early 1990s:

“Botswana - like Namibia - is dependent on too few dominant mineral projects and consequently vulnerable to market changes. The strategy must therefore be geared to both the diversification of the mining industry and the economy at large”.²⁹

The World Bank has observed: Diversifying the economy will continue to be the main challenge to Botswana’s development objectives. Over the past 15 years, the share of nondiamond sectors in total GDP has been roughly constant (about 40 %), reflecting its lack of diversification.

When comparing to the large neighbor in the south of Botswana, South Africa, an observer has pointed out: “The more mature South African economy, where, despite a very large contribution from mineral production, mining represents 7% of GDP. Perhaps the South African example illustrates how mining investment generates foreign exchange earning which, in turn, may provide opportunities for investment diversification and overall economic expansion”.³⁰

The Government has realised the need to diversify the economy and, as a result, has embarked on various policies to encourage investment in manufacturing and allied industries.

“Selebi-Phikwe has been chosen by the Government of Botswana as a priority centre for regional industrial development. With a population of 80,000 when the surrounding region is included, it is the third largest town in Botswana and is its principal location for large scale light manufacturing industry. The mining and processing of copper-nickel by BCL Ltd, Botswana’s largest single employer, is the town’s major industry. Industries that are already established in Selebi-Phikwe are: Garment manufacturing, Jewelry, Automotive accessories, Structural engineering, Sanitary ware, Furniture, Mining accessories”.³¹

The above preliminary observations could serve as the basis for a more comprehensive discussion about the needs of Botswana when the results of this initial mission are available. Such a discussion could possibly form the basis for a common list of demands for Botswana and Namibia keeping in mind the major differences that exist between these two countries. The much different South African situation will definitely need a separate approach.

²⁹ Gaolathe, B, Lessons from Botswana mining experience, 1993.

³⁰ “Mines 2006, Unlocking Resources in Southern Africa”, Conference organised by: EU-SADC Investment Promotion Programme 2006. Supplement cd with country information, Country Profile: Botswana.

³¹ The Government of Botswana, Economic Information.

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Appendix 1. Botswana Geology

Botswana Geology³²

Despite the considerable geographic spread and occasional unusual thickness of geologically recent overburden, new data is confirming the view that Botswana's geological framework is characterised by considerable diversity and complexity. Botswana contains significant elements of the major tectonic, magmatic, metamorphic and sedimentary terranes present in the Southern African sub-continent. The geological record spans from the Archaean to Recent and with the exception of some major batholiths, virtually all the rocks within Botswana have continuity or correlatives with those in neighbouring countries.

The geological evolution of Botswana is consistent with the emergence of an Archaean cratonic nucleus which provided the locus of subsequent cratonisation and platform events. The continental nuclei stabilised during the Archaean through a series of complex tectonic, magmatic, sedimentary and metamorphic episodes. Subsequently circum-cratonic mobile belt activity followed at various intervals and locations during the Proterozoic to the Palaeozoic and gradually extended the size of the cratonised continental mass. Major sedimentation took place at the beginning of the Proterozoic. In the Mesozoic further deposition of sediments took place. Widespread tectonics and vast outpouring of continental basaltic magma also occurred.

The Zimbabwean and Kaapvaal Cratons are characterised by granite/greenstone terranes of 3.5-2.6Ga and 3.5-2.9Ga respectively. They are separated by the Limpopo Mobile Belt, which comprises high-grade para- and meta-gneisses of diverse origins. The oldest rocks in the belt are dated at 3.8Ga and granitisation associated with tectono-thermal events was widespread at 2.6Ga. Seismic data indicates that the western edge of the Kaapvaal Craton has been rifted and attenuated along a distinct linear fracture referred to as the Kalahari Line.

Notwithstanding the interpreted deep crustal structure, surface geological and other geophysical evidence supports the evolution of the Kheis and Magondi Belts by thin-skin fold-and-thrust belts transposed eastward and south-eastward onto the craton. The Damara Province completes the sequences of orogenic belts concentric to the Zimbabwe and the Kaapvaal Cratons. Relict Archaean lithologies are thought to be present in these belts, along with platform supracrustal associations and granitoids.

Several important early to mid-Proterozoic supracrustal sequences occur in southeastern Botswana. Chemical and clastic sediments of the Transvaal Supergroup are intruded by the Molopo Farms Complex which has been compared to the Bushveld Complex in South Africa. Clastic continental sediments of mid-Proterozoic age were deposited in parts of eastern Botswana. The Karoo Supergroup was deposited from 200-300Ma and was associated with extensive volcanism.

³² Text from "Mines 2006, Unlocking Resources in Southern Africa", Organised by: EU-SADC Investment Promotion Programme 29 November – 1 December 2006. Supplement cd with country information, Country Profile: Botswana.

Appendix 2. Botswana Mineral Policy

Botswana Mineral Policy³³

The key mining legislation in Botswana may be summarised as follows:

- Mines and Minerals Act 1999
- Precious and Semi-Precious Stones (Protection) Act, Chap.6603 (Act 4, 1991)
- Diamond Cutting Act, Chap.6604 (Act 25, 1979)
- Export and Import of Rough Diamonds Regulations.

5.1 Mineral Policy

The stated objectives of the current Minerals Policy are, under the Mines and Minerals Act 1999:

- To maximise the economic benefits of mining, including opportunities for citizens to participate directly in mining, whether as contributors of capital, labour, goods or services, to the greatest extent possible consistent with the maintenance of commercial conditions attractive to minerals investment.
- To create a competitive environment that will stimulate private sector investment in minerals exploration and mining operations.
- To regulate the minerals industry in a way that ensures the most efficient and beneficial investigation and exploitation of mineral resources of the country with proper regard for the health, safety and welfare of employees.
- To ensure efficient collection of fiscal revenues due to government from mineral operations.
- To ensure that appropriate safeguards against negative environmental and societal impacts are in place as a condition for mineral operations to take place.
- To collect and disseminate geological and minerals related information to promote investment in the mining industry.

The policy and legislative reforms during the 1990s in Botswana's mining sector led to the new Mines and Minerals Act of 1999. By 2005, the level of exploration for both diamonds and non-diamond minerals provides evidence of the success of this law, which has been described by investors as a "competitive, transparent, fair and workable" piece of legislation.

The number of prospecting licenses issued has also been rising for diamonds and other minerals, and the current buoyancy in base-metal prices has led to reinvestigations of previously known deposits of copper and nickel with a view to bringing these to the 'bankable' feasibility study stage. The key feature of the revised licensing regime is that the whole process from prospecting to mining is automatic and predictable, removing some of the uncertainty and stages of negotiation which previously existed. Concession types, which had become irrelevant to the industry (such as the non-exclusive reconnaissance permit, and the restricted prospecting and mining leases), have been done away with. The main innovation is the introduction of the Retention Licence, designed to accommodate explorers who, on making a discovery, may find it cannot immediately be mined economically.

Previously, prospective mining investors would have lost their entitlement if not able to bring a resource into production, but will now be able to defer development for two successive

³³ Text from "Mines 2006, Unlocking Resources in Southern Africa", Organised by: EU-SADC Investment Promotion Programme 29 November – 1 December 2006. Supplement cd with country information, Country Profile: Botswana.

three-year periods. In the first, their rights will remain exclusive subject to confirmation that viable development remains impracticable, while in the second, with an escalating fee, limited rights of access to third parties to reassess the prospect will be allowed.

While the Government will retain the right to acquire a minority interest in new mines, this will now generally be up to a maximum of 15%, and will be on commercial terms with the Government paying its pro-rata share of costs incurred. Taxation of mining companies outside the diamond industry has also been revised with a new variable rate income tax replacing project-specific rates. The new rate will normally be 25%, increasing on a sliding scale for very profitable projects up to a theoretical maximum of 50%, determined annually by reference to the mining company's profit ratio. Procedures for small-scale mining have also been simplified and some royalty rates have been reduced. For diamonds, the 1999 Act applies only as far as the discovery stage, and thereafter the process of individual negotiations will remain applicable to the development of new mines.

5. 2 Mineral Rights

All mineral rights are vested in the Republic of Botswana. The Mines and Minerals Act 1999 regulates exploration and mining activities.

Applications for mineral rights are made to the Minister of Mineral Resources and Water Affairs through the Geological Surveys Department (exploration) or the Department of Mines (mining). There are four types of mineral concessions in Botswana: a prospecting licence, a retention licence, a mining lease and a mineral permit, respectively. The rights may be granted to an individual or company as provided for in the Act.

- A single **Prospecting Licence (PL)** is restricted to a maximum area of 1000km² and confers exclusive rights on the holder over the mineral applied for and as specified in the application. If further minerals are discovered during prospecting, the PL may be amended accordingly to include the mineral concerned. The law permits for one company, which must be registered in Botswana, to hold a number of licences. The holder is obliged to remain committed to the proposed work programme and estimated expenditures. The holder is also obliged to notify the Minister of the discovery of any mineral of possible economic value within 30 days following the discovery. The holder of the prospecting licence may apply for a mining lease, but this does not necessarily guarantee that a mining lease will be given. Reports are required once every three months to be submitted to the Geological Survey Department.

A prospecting licence is valid for three years and may be renewed for a further two periods of two years each. A reduction by 50% of the area is made at each renewal. With the approval of the Minister a prospecting licence may be transferable. Specified annual charges are levied per square kilometre per annum.

- The holder of a Prospecting Licence may apply for a **Retention Licence (RL)** in relation to an area and a mineral covered by his licence, at least three months before the expiry of the PL. The RL will be granted provided that the holder has met all obligations under the PL and that the holder has carried out a Feasibility Study in respect of the deposit to which the application relates, and has found that the deposit cannot be mined economically at that time. The RL will be valid for a maximum period of three (3) years, but is renewable subject to the mine being uneconomic at time of application. The RL must be maintained in safe condition and within two months of expiry of the licence, all equipment and infrastructure must be removed.

Quarterly reports of any prospecting activities on the RL must be filed to the Minister.

A person or company holding an RL is entitled to apply for a mining lease over that retention area. The RL is transferable, subject to the approval of the Minister.

- A **Mining Lease (ML)** can be issued to the holder of a Prospecting Licence or a Retention Licence over the ore deposit in question. An application for an ML may only be made by a company incorporated in Botswana. An ML is granted subject to specified conditions, and the proposed financing plan submitted as part of the feasibility study, must provide for a debt to equity ratio of no more than 3:1. The lease is valid up to 25 years and may be renewed for another period not exceeding 25 years, subject to Ministerial approval. With the approval of the Minister a mining lease is transferable. Specified mining lease charges are levied by area per annum for precious and semi-precious stones as well as for other minerals.

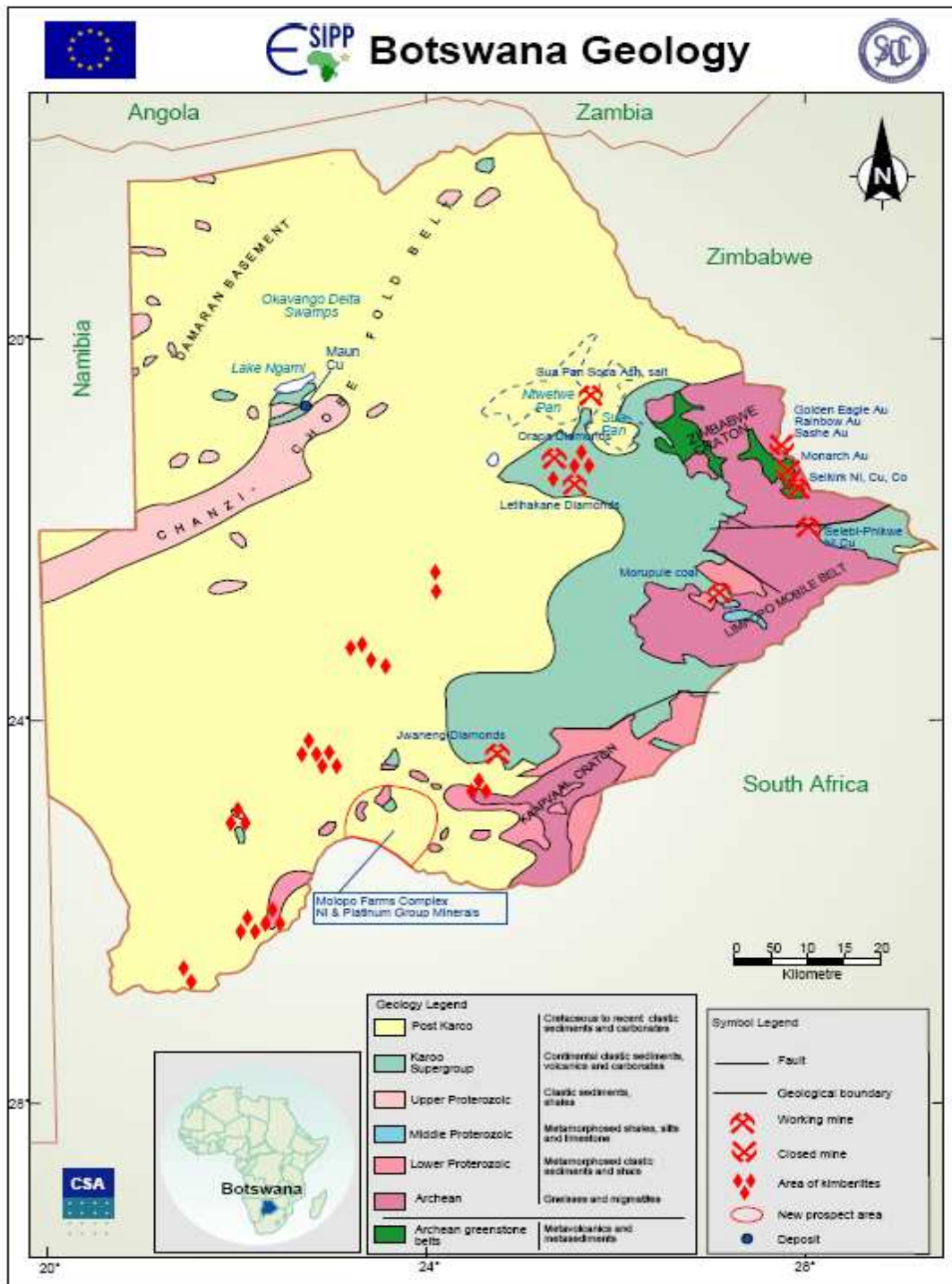
Upon issuance of an ML for a mineral other than diamonds, the Government can opt to acquire up to 15% working interest participation. Upon exercise of the option, the Government shall have the right to appoint two directors and shall be obliged to contribute pro rata as other shareholders.

The licence holder is obliged to mine the deposit in accordance with the programme as set out in the application and to maintain all records and shall not engage in wasteful mining or treatment practices. The holder of an ML shall work in accordance with best mining industry environmental practice. An Environmental Impact Assessment is required as part of the Project Feasibility study, submitted at time of application.

- A person wishing to conduct small scale mining operations (over an area not exceeding 0.5km²) may apply for a **Minerals Permit (MP)**, subject to the written permission of the landowner, land board or the holder of any other mineral concession over the land applied for. Permits for industrial mineral shall only be granted to citizens of Botswana or companies incorporated therein. An MP will be valid for 5 years, renewable for further periods of five years. An MP is transferable subject to the approval of the Minister.
- Importantly, a minerals concession (PL, RL, MP or ML) holder must obtain the written consent of the owner or lawful occupier of the land before commencing operations.

The regulations under the Mines and Minerals Act 1999 contain detailed requirements for environmental control. Botswana has a National Conservation Strategy Coordinating Agency, which promotes the use of environmental impact assessment and management. Sectorally, the regulations under the Act contain detailed requirements for environmental control.

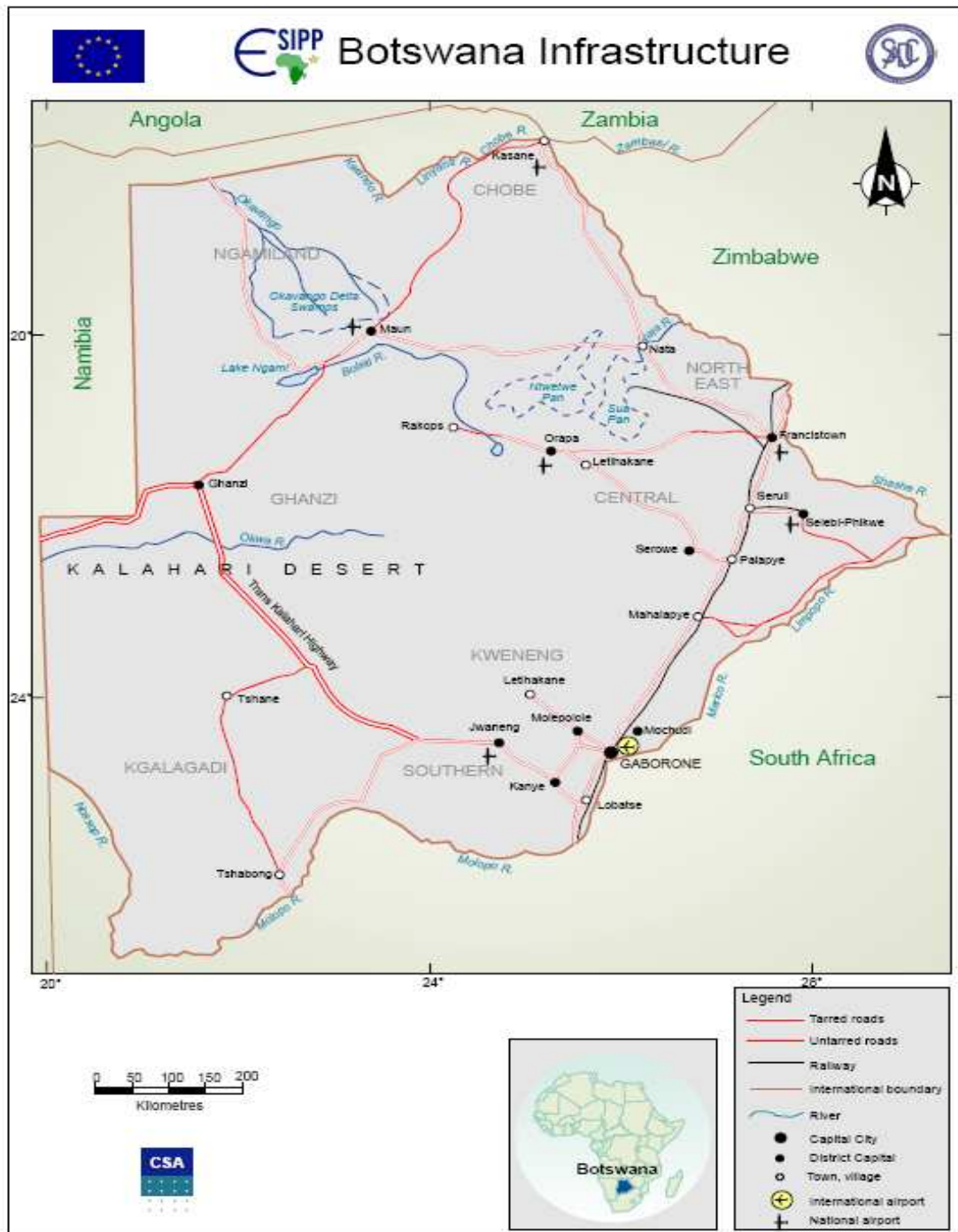
Appendix 3. Botswana Geology Map



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³⁴ Map information from “Mines 2006, Unlocking Resources in Southern Africa”, Organised by: EU-SADC Investment Promotion Programme 29 November – 1 December 2006. Supplement cd with country information, Country Profile: Botswana Geology Map.

Appendix 4. Botswana Infrastructure Map



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³⁵ Map information from “Mines 2006, Unlocking Resources in Southern Africa”, Organised by: EU-SADC Investment Promotion Programme 29 November – 1 December 2006. Supplement cd with country information, Country Profile: Botswana Infrastructure Map.

Appendix 5. Mines and Projects in Botswana

1. Jwaneng Diamond Mine

Private Bag 002
 Jwaneng
 Botswana
 Tel: +267 588 4000
 Fax: +267 297 0243

Mine production (Jwaneng Diamond Mine)

		Prod 2006	Prod 2007	Prod 2008
Diamond carats	Mct	15.64	13.48	..
Diamond value	M \$	1900.0e	1750.0e	..

Ownership, parents, early 2009, Jwaneng Diamond Mine



Mine/project details (Jwaneng Diamond Mine)

Type	OP
Status	Operating, exp/plans
Infyear	2007-02
Controlling company	Anglo American plc, State of Botswana
Main metal(s)	Dia
Opening year	1982
Remaining life (years)	4e
Employees	2152
Ore resources & grades	287.6 Mt
Ore reserves & grades	44.0 Mt
Ore production & grades 2007	10.300 Mt
Project cost M USD	300.0 M USD
Project notes	Relocation of diamond treatment plant due to pit expansion.
Host rock	Kimberlite
Geological model	Pipe

2. Phoenix Nickel Mine

c/o Tati Nickel Mining Co
 PO Box 1272
 Francistown
 Botswana
 Tel: +267 210 701
 Fax: +267 216 215

Mine production (Phoenix Nickel Mine)

		Prod 2006	Prod 2007	Prod 2008
Cobalt	kt	..	..	..
Copper	kt	10.2	11.0e	..
PGMs	t	1.30	..	..
Gold	t	..	..	..
Nickel	kt	13.7	15.1	17.0e
Palladium	t	1.10	..	..
Platinum	t	0.20	..	..
Silver	t	..	..	..

Phoenix Nickel Mine production is included in Tati Nickel Mining Co before 2003.

Ownership, parents, early 2009, Phoenix Nickel Mine

└<100%	Tati Nickel Mining Co, Botswana
└< 85%	Francistown Mining & Exploration Ltd, Botswana
└<100% ‡	Lionore Mining International Ltd, Canada
└< 98%	Norilsk Nickel Mining & Metallurgical Company, Russia
└< 15%	State of Botswana, Botswana

Name in italic company/mine/refinery non-active

Mine/project details (Phoenix Nickel Mine)

Type	OP
Status	Operating, exp/plans
Infoyear	2007-12
Controlling company	Norilsk Nickel Mining & Metallurgical Company
Main metal(s)	Ni, Cu, Pd
Opening year	1995
Closing year	2016
Remaining life (years)	18e
Ore resources & grades	118.300 Mt, 0.22 % Cu, 0.30 % Ni
Ore reserves & grades	106.040 Mt, 0.22 % Cu, 0.28 % Ni
Resources levels	indicated, inferred
Ore production & grades 2007	5.986 Mt, 0.50 % Ni
Strip ratio	1.54
Cut-off grade	0.10 % Ni
Mine capacity	5.00 Mt/yr
Expected annual metal cap	22 kt Ni
Expected annual metal 2 cap	9 kt Cu
Expected annual metal 3 cap	1.21 t Pd
Project cost M USD	619.0 M USD
Project completed	2009
Internal rate of return (%)	17.0 %
Host rock	Gabbro
Geological model	Massive, Disseminated
Notes	Increase of reserves and resources due to lowered cut-off applicable to the DMS and Activox technologies.

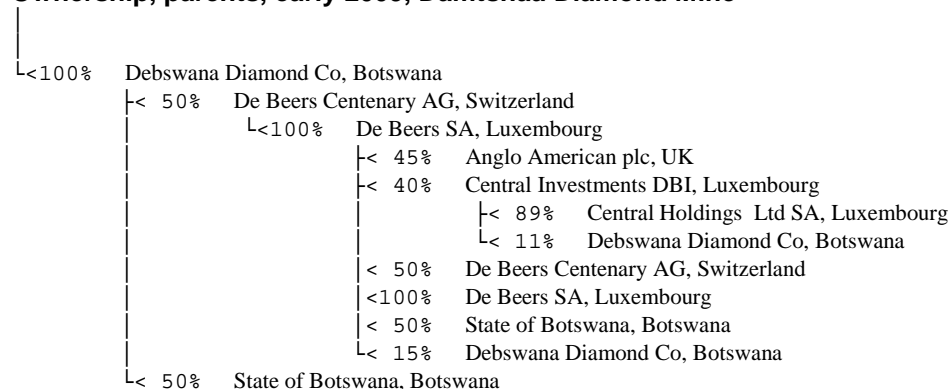
3. Damtshaa Diamond Mine

Private Bag 001
 Orapa
 Botswana
 Tel: +267 297 0201
 Fax: +267 297 0243

Mine production (Damtshaa Diamond Mine)

		Prod 2006	Prod 2007	Prod 2008
Diamond carats	Mct	0.23	0.34	..
Diamond value	M \$	50.0e	65.0e	..

Ownership, parents, early 2009, Damtshaa Diamond Mine

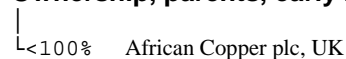


Mine/project details (Damtshaa Diamond Mine)

TypeOP
 StatusOperating
 Infoyear2007-12
 Controlling companyAnglo American plc, State of Botswana
 Main metal(s).....Dia
 Opening year2002
 Employees 181
 Ore resources & grades 39 Mt
 Ore production & grades 2007 2.804 Mt
 Host rockKimberlite
 Geological modelPipe

4. Mowana Copper Project

Ownership, parents, early 2009, Mowana Copper Project



Mine/project details (Mowana Copper Project)

TypeOP
 Status.....Operating
 Infoyear.....2009-01
 Controlling company.....African Copper plc
 Main metal(s).....Cu
 Opening year.....2008
 Remaining life (years) 18

Ore resources & grades..... 133.94 Mt, 0.68 % Cu
 Ore reserves & grades 14.8 Mt, 1.11 % Cu
 Resources levelsmeasured, indicated, inferred
 Strip ratio..... 9.80
 Recovery methodHeap leach, Solvent extraction, Electrowinning
 Cut-off grade0.10 % Cu
 Expected annual ROM..... 1.00 Mt
 Project notes.....Crusher, mill and concentrator and tailing facilities. Cost of underground development, 32.3 MUSD, is not incl.
 Host rockMetasediments
 Notes.....Planned underground development in third year of operation.

5. Letlhakane Diamond Mine

Private Bag 001
 Orapa
 Botswana
 Tel: +267 297 0201
 Fax: +267 297 0243

Mine production (Letlhakane Diamond Mine)

		Prod 2006	Prod 2007	Prod 2008
Diamond carats	Mct	1.09	1.11	..
Diamond value	M \$	270.0e	270.0e	..

Ownership, parents, early 2009, Letlhakane Diamond Mine

```

L<100% Debswana Diamond Co, Botswana
  |
  |< 50% De Beers Centenary AG, Switzerland
  |
  |   L<100% De Beers SA, Luxembourg
  |   |
  |   |< 45% Anglo American plc, UK
  |   |< 40% Central Investments DBI, Luxembourg
  |   |   |< 89% Central Holdings Ltd SA, Luxembourg
  |   |   |   |< 11% Debswana Diamond Co, Botswana
  |   |   |
  |   |   |< 50% De Beers Centenary AG, Switzerland
  |   |   |<100% De Beers SA, Luxembourg
  |   |   |< 50% State of Botswana, Botswana
  |   |   |< 15% Debswana Diamond Co, Botswana
  |   |
  |   |< 50% State of Botswana, Botswana
  |
  |< 50% State of Botswana, Botswana
  
```

Mine/project details (Letlhakane Diamond Mine)

TypeOP
 Status.....Operating
 Infoyear.....2007-12
 Controlling company.....Anglo American plc, State of Botswana
 Main metal(s).....Dia

Opening year.....1977
 Remaining life (years)11

Ore resources & grades..... 62.6 Mt
 Ore reserves & grades 9.0 Mt
 Ore production & grades 2007 3.753 Mt
 Strip ratio..... 4.40
 Host rock.....Kimberlite
 Geological model.....Pipe

6. Mupane Gold Mine

Farm 75-NQ
 Northeast District
 Near Francistown
 Botswana
 Tel: +267 244 1700
 Fax: +267 244 1699

Mine production (Mupane Gold Mine)

		Prod 2006	Prod 2007	Prod 2008
Gold	t	2.000	2.700	3.140

Ownership, parents, early 2009, Mupane Gold Mine

└<100% Mupane Gold Mining Pty Ltd, Botswana
 └<100% ‡ Gallery Gold Ltd, Australia
 └<100% Iamgold Corp, Canada

Ownership, daughters, early 2009, Mupane Gold Mine

└>100% . Tholo Gold Deposit, Botswana

Name in italic company/mine/refinery non-active

Mine/project details (Mupane Gold Mine)

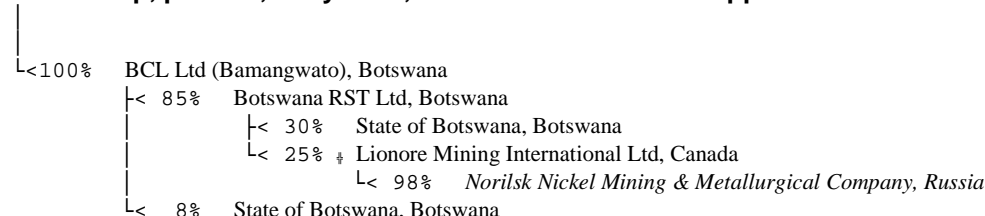
TypeOP
 Status.....Operating
 Infoyear.....2008-12
 Controlling company.....Iamgold Corp
 Main metal(s).....Au
 Opening year.....2004
 Remaining life (years)4e
 Employees..... 400

Ore resources & grades..... 9.286 Mt, 2.10 gpt Au
 Ore reserves & grades 3.207 Mt, 2.00 gpt Au
 Contained Au in resources 19.7 tonnes
 Contained Au in reserves 6.4 tonnes
 Ore production & grades 2007 0.909 Mt, 3.500 gpt Au
 Strip ratio..... 5.40
 Recovery methodCarbon-in-leach, Gravity concentration methods, Flotation
 Expected annual ROM..... 1.00 Mt
 Host rock.....Metasediments
 Notes.....Consists of Tau, Tolo and Kwena deposits.

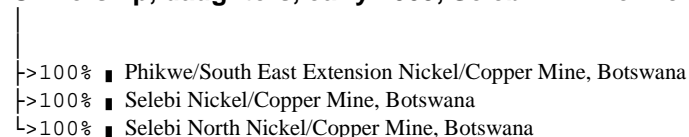
Mine production (Selebi-Phikwe Nickel/Copper Mines)

		Prod 2006	Prod 2007	Prod 2008
Cobalt	kt	..	..	..
Copper	kt	10.0e	..	..
Nickel	kt	13.0	13.0e	13.0e

Ownership, parents, early 2009, Selebi-Phikwe Nickel/Copper Mines



Ownership, daughters, early 2009, Selebi-Phikwe Nickel/Copper Mines



■ Mine, operating

Name in italic company/mine/refinery non-active

Mine/project details (Selebi-Phikwe Nickel/Copper Mines)

TypeUG
 StatusOperating
 Infoyear2007-12
 Controlling companyState of Botswana, Norilsk Nickel Mining & Metallurgical Company
 Main metal(s)Ni, Cu
 Closing year2012
 Remaining life (years)8e
 Employees4000
 Ore resources & grades 68.619 Mt, 0.89 % Cu, 0.80 % Ni
 Ore reserves & grades 27.008 Mt, 0.86 % Cu, 0.84 % Ni
 Ore production & grades 2007 3.4 e Mt, 0.70 % Cu, 0.60 % Ni
 Recovery methodFlotation
 NotesConsists of three mines: Selebi, Selebi North and Phikwe.
 Reserves and resources are not updated.

9. Lerala Diamond Mine

(Previous name: Tswapong Trial Diamond Mine)

Private Bag RB 351#128

Broadhurst

Gaborone

Botswana

Ownership, parents, early 2009, Lerala Diamond Mine

└<100% Diamonex Ltd, Australia

Mine/project details (Lerala Diamond Mine)

Type OP
Status Operating
Infoyear 2008-03
Controlling company Diamonex Ltd
Main metal(s) Dia
Remaining life (years) 10

Ore resources & grades 13.5 Mt
Ore production & grades 1998 0.149 Mt
Mine capacity 1.30 Mt/yr
Project cost M USD 20.0 M USD

Notes From 1997 to 2000, De Beers ran a trial mine at the Lerala Diamond Mine (then known as the Tswapong Trial Mine).

10. Gope 25 Diamond Deposit

c/o Gope Exploration Co

Plot 165, Pilane Rd

Mai Mall

Gaborone

Botswana

Tel: +267 318 2796

Fax: +267 318 2795

Ownership, parents, early 2009, Gope 25 Diamond Deposit

└<100% Gem Diamonds Ltd, UK

Mine/project details (Gope 25 Diamond Deposit)

Status Feasibility
Infoyear 2007-06
Controlling company Gem Diamonds Ltd
Main metal(s) Dia

Ore resources & grades 97.362 Mt
Resources levels indicated, inferred
Strip ratio 2.60
Mine capacity 4.00 Mt/yr
Host rock Kimberlite
Geological model Pipe

11. Martins Drift Diamond Mine

Ownership, parents, early 2009, Martins Drift Diamond Mine

└<100% Diamonex Ltd, Australia

Mine/project details (Martins Drift Diamond Mine)

Status..... Feasibility
Infoyear..... 2006-08
Controlling company..... Diamonex Ltd
Main metal(s)..... Dia
Opening year..... 2007
Remaining life (years)..... 10

Ore resources & grades..... 13.5 Mt
Expected annual ROM..... 1.00 Mt
Expected annual metal cap 0.33 t Di
Project cost M USD 13.0 M USD
Host rock..... Kimberlite
Notes..... Resources assuming a >1.0mm stone size cut-off.

12. Kihabe Polymetallic Deposit

Ownership, parents, early 2009, Kihabe Polymetallic Deposit

|
L<100% Mount Burgess Mining NL, Australia
L< 8% Forrester, NR family, Australia

Mine/project details (Kihabe Polymetallic Deposit)

Status..... Prefeasibility
Infoyear..... 2008-10
Controlling company..... Mount Burgess Mining NL
Main metal(s)..... Zn, Pb, Ag

Ore resources & grades..... 27.4 Mt, 1.5 % Zn, 0.6 % Pb
Resources levels indicated, inferred
Cut-off grade 0.50 % Zn

13. Letlhakane Uranium Deposit

Ownership, parents, early 2009, Letlhakane Uranium Deposit

|
L<100% A-Cap Resources Ltd, Australia

Mine/project details (Letlhakane Uranium Deposit)

Status..... Prefeasibility
Infoyear..... 2008-10
Controlling company..... A-Cap Resources Ltd
Main metal(s)..... U

Ore resources & grades..... 280 Mt, 0.016 % U₃O₈
Resources levels inferred
Expected annual metal cap 1 kt U
Project cost M USD 180.0 M USD

14. Boseto Copper Deposit

Ownership, parents, early 2009, Boseto Copper Deposit

└<100% Discovery Metals Ltd, Australia

Ownership, daughters, early 2009, Boseto Copper Deposit

└>100% ■ Petra Copper Deposit, Botswana
└>100% ■ Plutus Copper/Silver Deposit, Botswana
└>100% ■ Zeta Copper/Silver Deposit, Botswana

■ Mine, feasibility

Mine/project details (Boseto Copper Deposit)

Type OP,UG
Status Feasibility
Infoyear 2009-04
Controlling company Discovery Metals Ltd
Main metal(s) Cu, Ag

Ore resources & grades 50.2 Mt, 18 gpt Ag, 1.50 % Cu
Resources levels indicated, inferred
Cut-off grade 0.60 % Cu
Mine capacity 3.00 Mt/yr
Expected annual metal cap 24 kt Cu
Expected annual metal 2 cap 24.3 t Ag
Project cost M USD 185.0 M USD

15. AK6 Diamond Pipe

Ownership, parents, early 2009, AK6 Diamond Pipe

└<100% Boteti Diamond Deposit, Botswana
└< 51% † Anglo American Corp of South Africa Ltd, South Africa
└< 49% African Diamonds plc, Ireland
└< 6% † Anglo American Corp of South Africa Ltd, South Africa

Name in italic company/mine/refinery non-active

Mine/project details (AK6 Diamond Pipe)

Type OP
Status Conceptual
Infoyear 2007-09
Controlling company African Diamonds plc, Anglo American plc, Ponahalo Investments Ltd
Main metal(s) Dia
Opening year 2009
Remaining life (years) 10

Ore resources & grades 59 Mt
Mine capacity 5.00 Mt/yr
Expected annual metal cap 1.00 t Di
Project cost M USD 220.0 M USD
Host rock Kimberlite
Notes Preliminary results, unclassified resources. Part of the Orapa kimberlite cluster

16. Dikoloti Nickel Deposit

Ownership, parents, early 2009, Dikoloti Nickel Deposit

└< 80% Discovery Metals Ltd, Australia

Mine/project details (Dikoloti Nickel Deposit)

Type OP
Status Conceptual
Infoyear 2008-06
Controlling company Discovery Metals Ltd
Main metal(s) Ni, Cu
Remaining life (years) 4.5

Ore resources & grades 4.1 Mt, 0.50 % Cu, 0.70 % Ni, 1.20 gpt PGM
Cut-off grade 0.50 % Ni
Expected annual ROM 0.50 Mt
Project cost M USD 25.0 M USD
Project notes Capital cost \$15-\$30 USD.

17. Golden Eagle Gold Mine

c/o Gallery Gold Ltd
PO Box 20164
Francistown
Botswana
Tel: +267 240 3482
Fax: +267 240 3481

Ownership, parents, early 2009, Golden Eagle Gold Mine

└<100% + Shahse Gold Mine, Botswana
└< 85% ‡ Gallery Gold Ltd, Australia
└<100% Iamgold Corp, Canada
└< 15% State of Botswana, Botswana

Name in italic company/mine/refinery non-active

Mine/project details (Golden Eagle Gold Mine)

Type OP,UG
Status Conceptual
Infoyear 2005-06
Controlling company Iamgold Corp
Main metal(s) Au

Ore resources & grades 1.304 Mt, 2.20 gpt Au
Ore reserves & grades 0.450 Mt, 2.51 gpt Au
Contained Au in resources 2.9 tonnes
Contained Au in reserves 1.1 tonnes
Strip ratio 5.70

18. Kite Gold Deposit

Ownership, parents, early 2009, Kite Gold Deposit

└<100% + Shahse Gold Mine, Botswana
└< 85% ‡ Gallery Gold Ltd, Australia
└< 15% State of Botswana, Botswana
└<100% Iamgold Corp, Canada

Name in italic company/mine/refinery non-active

Mine/project details (Kite Gold Deposit)

Status.....Conceptual
Infoyear.....2004-12
Controlling company.....Iamgold Corp
Main metal(s).....Au
Ore resources & grades..... 1.44 Mt, 2.30 gpt Au
Contained Au in resources 3.3 tonnes
Cut-off grade.....1.00 gpt Au

19. Matsitama Copper Mine

Ownership, parents, early 2009, Matsitama Copper Mine

└<100% African Copper plc, UK

Ownership, daughters, early 2009, Matsitama Copper Mine

└>100% . Thakadu/Makada Copper Deposit, Botswana

Mine/project details (Matsitama Copper Mine)

Type.....OP,UG
Status.....Conceptual
Infoyear.....2005
Controlling company.....African Copper plc
Main metal(s).....Cu
Ore resources & grades..... 15.85 Mt, 1.39 % Cu
Project cost M USD 100.0 M USD
Notes.....Thakadu and Nakalakwana deposits.

20. Monarch Gold Mine

Ownership, parents, early 2009, Monarch Gold Mine

└<100% ‡ Gallery Gold Ltd, Australia
└<100% Iamgold Corp, Canada

Name in italic company/mine/refinery non-active

Mine/project details (Monarch Gold Mine)

TypeUG
StatusConceptual
Infoyear2000-10
Controlling companyIamgold Corp
Main metal(s)Au
Ore resources & grades 0.713 Mt, 5.30 gpt Au
Contained Au in resources 3.8 tonnes

21. Map Nora Gold Mine

c/o Gallery Gold Ltd
PO Box 20164
Francistown
Botswana
Tel: +267 240 3482
Fax: +267 240 3481

Ownership, parents, early 2009, Map Nora Gold Mine

└<100% + Shahse Gold Mine, Botswana
└< 85% ‡ Gallery Gold Ltd, Australia
└<100% Iamgold Corp, Canada
└< 15% State of Botswana, Botswana

Name in italic company/mine/refinery non-active

Mine/project details (Map Nora Gold Mine)

TypeUG
StatusConceptual
Infoyear2005-06
Controlling companyIamgold Corp
Main metal(s)Au
Ore resources & grades 0.568 Mt, 14.00 gpt Au
Contained Au in resources 7.9 tonnes
Cut-off grade6.00 gpt Au

22. Petra Copper Deposit

Ownership, parents, early 2009, Petra Copper Deposit

└<100% ■ Boseto Copper Deposit, Botswana
└<100% Discovery Metals Ltd, Australia

■ Mine, feasibility

Mine/project details (Petra Copper Deposit)

StatusFeasibility
Infoyear2009-04
Controlling companyDiscovery Metals Ltd
Main metal(s)Cu, Ag
Ore resources & grades 9.1 Mt, 14 gpt Ag, 1.20 % Cu
Resources levelsindicated, inferred
Cut-off grade0.60 % Cu

23. Plutus Copper/Silver Deposit

Ownership, parents, early 2009, Plutus Copper/Silver Deposit

└<100% █ Boseto Copper Deposit, Botswana
└<100% █ Discovery Metals Ltd, Australia

▨ Mine, feasibility

Mine/project details (Plutus Copper/Silver Deposit)

Status..... Feasibility
Infoyear..... 2009-04
Controlling company..... Discovery Metals Ltd
Main metal(s)..... Cu, Ag
Ore resources & grades..... 15.9 Mt, 16 gpt Ag, 1.60 % Cu
Resources levels..... inferred
Cut-off grade..... 0.60 % Cu

24. Signal Hill Gold Deposit

c/o Gallery Gold Ltd
PO Box 20164
Francistown
Botswana
Tel: +267 240 3482
Fax: +267 240 3481

Ownership, parents, early 2009, Signal Hill Gold Deposit

└<100% † Gallery Gold Ltd, Australia
└<100% █ Iamgold Corp, Canada

Name in italic company/mine/refinery non-active

Mine/project details (Signal Hill Gold Deposit)

Status..... Conceptual
Infoyear..... 2005-06
Controlling company..... Iamgold Corp
Main metal(s)..... Au
Ore resources & grades..... 2.095 Mt, 2.17 gpt Au
Ore reserves & grades..... 0.748 Mt, 2.44 gpt Au
Contained Au in resources..... 4.5 tonnes
Contained Au in reserves..... 1.8 tonnes
Cut-off grade..... 1.00 gpt Au
Host rock..... Metasediments
Geological model..... Gold-bearing quartz veins (Iodes)

25. Thakadu/Makada Copper Deposit

Ownership, parents, early 2009, Thakadu/Makada Copper Deposit

└<100% ▬ Matsitama Copper Mine, Botswana
└<100% ▬ African Copper plc, UK

Mine/project details (Thakadu/Makada Copper Deposit)

Status..... Conceptual
Infoyear..... 2007-07
Controlling company..... African Copper plc
Main metal(s)..... Cu
Ore resources & grades..... 5.6 Mt, 1.65 % Cu
Geological model..... Stratabound, Disseminated

26. Tholo Gold Deposit

Ownership, parents, early 2009, Tholo Gold Deposit

└<100% ■ Mupane Gold Mine, Botswana
└<100% ▬ Mupane Gold Mining Pty Ltd, Botswana
└<100% ‡ Gallery Gold Ltd, Australia
└<100% ▬ Iamgold Corp, Canada

■ Mine, operating

Name in italic company/mine/refinery non-active

Mine/project details (Tholo Gold Deposit)

Status..... Conceptual
Infoyear..... 2005-04
Controlling company..... Iamgold Corp
Main metal(s)..... Au
Ore resources & grades..... 0.683 Mt, 2.50 gpt Au
Contained Au in resources 1.7 tonnes

27. Zeta Copper/Silver Deposit

Ownership, parents, early 2009, Zeta Copper/Silver Deposit

└<100% ■ Boseto Copper Deposit, Botswana
└<100% ▬ Discovery Metals Ltd, Australia

▬ Mine, feasibility

Mine/project details (Zeta Copper/Silver Deposit)

Status..... Feasibility
Infoyear..... 2009-04
Controlling company..... Discovery Metals Ltd
Main metal(s)..... Cu, Ag
Ore resources & grades..... 25.2 Mt, 20 gpt Ag, 1.50 % Cu
Resources levels..... indicated, inferred
Cut-off grade..... 0.60 % Cu

28. Shahse Gold Mine

Ownership, parents, early 2009, Shahse Gold Mine

|
|-< 85% ‡ Gallery Gold Ltd, Australia
| |-<100% Iamgold Corp, Canada
|-< 15% State of Botswana, Botswana

Ownership, daughters, early 2009, Shahse Gold Mine

|>100% . Golden Eagle Gold Mine, Botswana
|>100% . Kite Gold Deposit, Botswana
|>100% . Map Nora Gold Mine, Botswana

Name in italic company/mine/refinery non-active

Mine/project details (Shahse Gold Mine)

Status.....Susp, restart/plans
Infoyear.....2004
Controlling company.....Iamgold Corp
Main metal(s).....Au
Closing year.....1994
Ore resources & grades..... 1.873 Mt, 5.75 gpt Au
Contained Au in resources 10.8 tonnes
Notes.....See Map Nora and Golden Eagle resp.

29. Selkirk Nickel Mine

c/o Tati Nickel
PO Box 1272
Francistown
Botswana

Ownership, parents, early 2009, Selkirk Nickel Mine

|<100% Tati Nickel Mining Co, Botswana
| |-< 85% Francistown Mining & Exploration Ltd, Botswana
| |-<100% ‡ Lionore Mining International Ltd, Canada
| |-< 98% Norilsk Nickel Mining & Metallurgical Company, Russia
|-< 15% State of Botswana, Botswana

Ownership, daughters, early 2009, Selkirk Nickel Mine

|>100% Doublestar Resources Ltd, Canada
|>100% . Fandora Gold Deposit, Canada
|>100% . Ruddock Creek Zinc Deposit, Canada
|>100% . Scotia Zinc Deposit, Canada
|>100% . Smith Copper Deposit, Canada
|>100% Standard Mining Corp, USA
| |->100% ‡ Damoti Lake Gold Mine, Canada
|>100% ‡ Sustut Copper Deposit, Canada
|> 97% . Catface Copper Deposit, Canada
|> 75% . Robb Lake Zinc Deposit, Canada

‡ Mine, pre-feasibility

Name in italic company/mine/refinery non-active

Mine/project details (Selkirk Nickel Mine)

Type	OP
Status	Susp, restart/feasib
Infoyear	2007-02
Controlling company	Norilsk Nickel Mining & Metallurgical Company
Main metal(s)	Ni, Cu
Opening year	1989
Closing year	2002
Remaining life (years)	13
Ore resources & grades	230.586 Mt, 0.21 % Cu, 0.24 % Ni
Ore reserves & grades	184.70 Mt, 0.22 % Cu, 0.25 % Ni
Resources levels	indicated
Ore production & grades 2002	0.025 Mt, 1.69 % Cu, 2.69 % Ni
Strip ratio	1.84
Recovery method	Dense media
Cut-off grade	0.10 % Ni
Project cost M USD	160.0 M USD
Project completed	2009
Host rock	Gabbro
Geological model	Massive, Disseminated
Notes	Care and maintenance. Scoping study carried out during 2005.

1. Mmamabula Coal Deposit

Ownership, parents, early 2009, Mmamabula Coal Deposit

↳ < 100%	Meepong Resources (Proprietary) Limited, Botswana
↳ < 50%	CIC Energy Corporation, Botswana
↳ < 50%	International Power plc, UK

Mine/project details (Mmamabula Coal Deposit)

Type	OP
Status	Feasibility
Controlling company	CIC Energy, Internat Power
Opening year	2012
Mine life	40 years
Resources (Mt)	2963.9 Mt
Notes	Combined underground and surface. Coal specs from priority A area Mmamabula East. Construction 0707.
Coalfield	Mmamabula
Mining method	Room & pillar
Use	Thermal
No of seams	2
Seam thickness	3.0 m
Calorific value	27.50 MJ/kg
Vols	28.4 %
Ash content	11.1 %
Moisture	3.6 %
Sulphur	0.70 %
Mine capacity	12.00 Mt/yr
*Project 1 cost	300.0 M USD

2. Mmamantswe Coal Deposit

Ownership, parents, early 2009, Mmamantswe Coal Deposit

└< 90% Aviva Corporation Ltd, Australia

Mine/project details (Mmamantswe Coal Deposit)

TypeOP
 StatusFeasibility
 Controlling companyAviva
 InfoYear2008-
 Opening year2010
 Resources (Mt) 1287.0 Mt
 UseThermal

3. Morupule Coal Mine

Private Bag 35

Palopye

Botswana

Tel: +267 4920 281

Fax: +267 4920 643

Mine production (Morupule Coal Mine)

Coal	Mt	Prod 2006	Prod 2007	Prod 2008
		0.900e	1.000e	..

Ownership, parents, early 2009, Morupule Coal Mine

```

└< 93% Debswana Diamond Co, Botswana
      └< 50% De Beers Centenary AG, Switzerland
            └< 100% De Beers SA, Luxembourg
                  └< 45% Anglo American plc, UK
                  └< 40% Central Investments DBI, Luxembourg
                        └< 89% Central Holdings Ltd SA, Luxembourg
                              └< 11% Debswana Diamond Co, Botswana
                  < 50% De Beers Centenary AG, Switzerland
                  < 100% De Beers SA, Luxembourg
                  < 50% State of Botswana, Botswana
                  └< 15% Debswana Diamond Co, Botswana
└< 50% State of Botswana, Botswana
  
```

Mine/project details (Morupule Coal Mine)

TypeUG
 StatusOperating, exp/constr
 Controlling companyAnglo American, State of Botswana
 InfoYear2007-
 Opening year2001
 Reserves (Mt) 5080.0 Mt
 NotesExports commenced 2002.
 CoalfieldMorupule
 Mining methodRoom & pillar
 Coal rankBituminous
 Coal typeMedium Vol
 UseThermal

Treatment	Crushing
Dispatch	Conveyor, Rail
No of seams	1
Seam thickness	8.5 m
Calorific value	23.15 MJ/kg
Vols	22.0 %
Ash content	20.8 %
Moisture	4.3 %
Fixed C	51.2 %
Sulphur	1.60 %
Mine capacity	1.00 Mt/yr
*Project 1 description	Construction of a coal washing plant. Will be finished in December 2007.....

Appendix 6. Important Mining Companies in Botswana

A-Cap Resources Ltd

(Previous name: Cardia Technologies Ltd)

737 Burwood Road Lvl 5

Hawthorn VIC 3122

Australia

Tel: +61 (3) 9813 3228

Fax: +61 (3) 9813 2668

E-mail: info@acap.com.au

Web site: www.acap.com.au

Stock symbol: ASX-ACB

Basic financial data

	2005	2006	2007	2008
Assets	..	6.297	19.937	15.467
Revenue	..	.042	.392	.833
EBIT	..	-0.483	-2.467	-1.338
Net profit	..	-0.483	-2.467	-1.338

Currency: million AUD

Financial year to June 30

Controlled (fully or partially) mines/deposits

Lethakane Ur Botswana U Prefeasibility

Ownership, daughters, early 2009, A-Cap Resources Ltd

└>100% ■ Lethakane Uranium Deposit, Botswana

└>100% ■ Rosehall Gold Deposit, Australia

└> 4% ■ Reedy (QL) Gold Deposit, Australia

■ Mine, pre-feasibility

African Copper plc

100 Pall Mall

London SW1Y 5HP

UK

Tel: +44 (20) 7321 3721

Fax: +44 (20) 7321 3722

E-mail: info@africancopper.com

Web site: www.africancopper.com

Stock symbol: TSX/AIM-ACU

Basic financial data

	2004	2005	2006	2007
Assets	24.612	18.182	69.873	82.909
Revenue	..	..	..	..
EBIT	..	-0.595	-2.038	.117
Net profit	-0.652	-0.612	-2.100	.117

Currency: million GBP, Financial year to Dec 31

Controlled (fully or partially) mines/deposits

Matsitama	Botswana	Cu	OP,UG	Conceptual
Mowana	Botswana	Cu	OP	Operating
Thakadu/Makada	Botswana	Cu		Conceptual

Ownership, daughters, early 2009, African Copper plc

|
|-> 100% - Matsitama Copper Mine, Botswana
| |-> 100% - Thakadu/Makada Copper Deposit, Botswana
|-> 100% ■ Mowana Copper Project, Botswana

■ Mine, operating

African Diamonds plc

(Previous name: Zinquest plc)

162 Clontarf Road

Dublin 3

Ireland

Tel: +353 (1) 833 2833

Fax: +353 (1) 833 3505

E-mail: info@afdiamonds.com

Web site: www.afdiamonds.com

Stock symbol: AIM-AFD.L

Basic financial data

	2005	2006	2007	2008
Assets	3.521	7.631	7.780	7.297
Revenue	..	.053	.329	.124
EBIT	-0.260	-0.385	-0.164	-0.814
Net profit	-0.260	-0.385	-0.164	-0.814

Currency: million GBP

Financial year to June 30

Controlled (fully or partially) mines/deposits

AK6 Pipe	Botswana	Dia	OP	Conceptual
----------	----------	-----	----	------------

Ownership, parents, early 2009, African Diamonds plc

└< 6% De Beers Consolidated Mines Ltd, South Africa

Ownership, daughters, early 2009, African Diamonds plc

|
|-> 49% Boteti Diamond Deposit, Botswana
| |-> 100% - AK6 Diamond Pipe, Botswana
|-> 25% Wati Ventures Pty Ltd, Botswana

Anglo American plc

20 Carlton House Terrace
London SW1Y 5AN
UK

Tel: +44 (20) 7968 8888
Fax: +44 (20) 7968 8500
E-mail: corporateaffairs@angloamerican.co.uk
Web site: www.angloamerican.co.uk
Stock symbol: LSE-AAL;JSE-AGL

Basic financial data

	2005	2006	2007	2008
Assets	51 890	46 483	44 762	49 738 000
Revenue	29 434	33 072	25 470	26 311 000
EBIT	5 208	9 562	8 821	8 571 000
Net profit	3 933	6 922	8 172	6 120 000

Currency: million USD
Financial year to Dec 31

Controlled mine production 2008 (Anglo American plc)

(calendar year)

		Controlled share	Controlled production	Share of world production (%)
Coal			84.528 e Mt	
New Vaal	South Africa	100%	17.034 Mt	
Cerrejon	Colombia	33%	10.366 e Mt	
Kriel	South Africa	73%	7.552 Mt	
Goedehoop	South Africa	100%	7.449 Mt	
New Denmark	South Africa	100%	5.272 Mt	
Isibonelo	South Africa	100%	5.152 Mt	
Dawson Complex	Australia	51%	4.692 Mt	
Kleinkopje	South Africa	100%	4.546 Mt	
Landau	South Africa	100%	4.089 e Mt	
German Creek	Australia	70%	3.935 Mt	
Drayton	Australia	100%	3.711 Mt	
Greenside	South Africa	100%	3.401 Mt	
Moranbah North	Australia	100%	3.182 Mt	
Paso Diablo	Venezuela	26%	1.074 Mt	
Jellinbah East	Australia	23%	1.010 Mt	
Mafube CM	South Africa	50%	0.837 Mt	
Trend	Canada	100%	0.772 Mt	
Nooitgedacht	South Africa	100%	0.455 Mt	
Copper			648.9 e kt	4.19
Los Bronces	Chile	100%	190.0 kt	1.23
Collahuasi Conc	Chile	44%	182.6 kt	1.18
Mantoverde	Chile	100%	62.5 kt	0.40
MantosBlancos	Chile	100%	46.8 kt	0.30
Los Bronces SX	Chile	100%	45.8 kt	0.30
El Soldado	Chile	100%	43.1 kt	0.28
MantosBlancos SX	Chile	100%	39.6 kt	0.26
Collahuasi SXEW	Chile	44%	21.7 kt	0.14
El Soldado SX	Chile	100%	6.7 kt	0.04
Potgietersrus	South Africa	100%	3.5 kt	0.02

Black Mountain	South Africa	74%	1.9 kt	0.01
Rustenburg Sect	South Africa	100%	1.5 kt	0.01
Amandelbult	South Africa	100%	1.1 kt	0.01
BafokengRasimone	South Africa	50%	0.5 kt	0.00
Lebowa (Atok)	South Africa	100%	0.4 kt	0.00
Union Section	South Africa	100%	0.4 kt	0.00
Northam	South Africa	51%	0.3 e kt	0.00
Modikwa	South Africa	50%	0.2 kt	0.00
Western Limb	South Africa	100%	0.2 kt	0.00
Mototolo	South Africa	50%	0.1 kt	0.00
Pandora	South Africa	46%	0.0 e kt	0.00
Gold			2.269 e t	0.10
Potgietersrus	South Africa	100%	0.650 t	0.03
Rustenburg Sect	South Africa	100%	0.523 t	0.02
Amandelbult	South Africa	100%	0.360 t	0.02
BafokengRasimone	South Africa	50%	0.145 t	0.01
Western Limb	South Africa	100%	0.140 t	0.01
Union Section	South Africa	100%	0.140 t	0.01
Lebowa (Atok)	South Africa	100%	0.130 t	0.01
Northam	South Africa	51%	0.076 e t	0.00
Modikwa	South Africa	50%	0.060 t	0.00
Mototolo	South Africa	50%	0.017 t	0.00
Marikana	South Africa	50%	0.013 t	0.00
Twickenham	South Africa	100%	0.010 t	0.00
Pandora	South Africa	46%	0.006 e t	0.00
Lead			50.7 kt	1.30
Black Mountain	South Africa	74%	34.8 kt	0.89
Lisheen	Ireland	100%	15.9 kt	0.41
Nickel			34.6 e kt	2.35
Loma de Niquel	Venezuela	100%	10.9 kt	0.74
Niquelândia	Brazil	100%	9.1 kt	0.62
Potgietersrus	South Africa	100%	5.6 kt	0.38
Rustenburg Sect	South Africa	100%	2.9 kt	0.20
Amandelbult	South Africa	100%	2.2 kt	0.15
Union Section	South Africa	100%	1.0 kt	0.07
BafokengRasimone	South Africa	50%	0.9 kt	0.06
Lebowa (Atok)	South Africa	100%	0.8 kt	0.05
Northam	South Africa	51%	0.6 e kt	0.04
Modikwa	South Africa	50%	0.3 kt	0.02
Western Limb	South Africa	100%	0.2 kt	0.01
Mototolo	South Africa	50%	0.1 kt	0.01
Pandora	South Africa	46%	0.0 e kt	0.00
PGMs			124.08 e t	26.12
Rustenburg Sect	South Africa	100%	40.27 t	8.48
Amandelbult	South Africa	100%	26.07 t	5.49
Union Section	South Africa	100%	17.93 t	3.77
Potgietersrus	South Africa	100%	11.96 t	2.52
Northam	South Africa	51%	5.18 e t	1.09
Modikwa	South Africa	50%	4.98 t	1.05
Lebowa (Atok)	South Africa	100%	4.59 t	0.97
BafokengRasimone	South Africa	50%	4.23 t	0.89
Mototolo	South Africa	50%	2.73 t	0.57
Marikana	South Africa	50%	2.08 t	0.44
Western Limb	South Africa	100%	2.05 t	0.43
Pandora	South Africa	46%	1.27 e t	0.27
Twickenham	South Africa	100%	0.75 t	0.16

Palladium			39.92 e t	19.47
Rustenburg Sect	South Africa	100%	10.94 t	5.34
Amandelbult	South Africa	100%	6.76 t	3.30
Potgietersrus	South Africa	100%	5.74 t	2.80
Union Section	South Africa	100%	4.35 t	2.12
Western Limb	South Africa	100%	4.23 t	2.06
Modikwa	South Africa	50%	1.94 t	0.95
Lebowa (Atok)	South Africa	100%	1.57 t	0.77
Northam	South Africa	51%	1.37 e t	0.67
BafokengRasimone	South Africa	50%	1.08 t	0.53
Mototolo	South Africa	50%	0.76 t	0.37
Marikana	South Africa	50%	0.57 t	0.28
Twickenham	South Africa	100%	0.31 t	0.15
Pandora	South Africa	46%	0.31 e t	0.15
Platinum			65.96 e t	32.98
Rustenburg Sect	South Africa	100%	21.78 t	10.89
Amandelbult	South Africa	100%	14.34 t	7.17
Union Section	South Africa	100%	9.61 t	4.81
Potgietersrus	South Africa	100%	5.52 t	2.76
Northam	South Africa	51%	2.84 e t	1.42
BafokengRasimone	South Africa	50%	2.65 t	1.33
Lebowa (Atok)	South Africa	100%	2.26 t	1.13
Modikwa	South Africa	50%	2.04 t	1.02
Mototolo	South Africa	50%	1.31 t	0.65
Western Limb	South Africa	100%	1.30 t	0.65
Marikana	South Africa	50%	1.30 t	0.65
Pandora	South Africa	46%	0.70 t	0.35
Twickenham	South Africa	100%	0.31 t	0.16
Silver			127.00 e t	0.60
Los Bronces	Chile	100%	50.00 e t	0.24
MantosBlancos	Chile	100%	40.00 e t	0.19
Black Mountain	South Africa	74%	37.00 e t	0.17
Zinc			333.2 kt	2.85
Lisheen	Ireland	100%	167.2 kt	1.43
Skorpion	Namibia	100%	145.4 kt	1.24
Black Mountain	South Africa	74%	20.6 kt	0.18

Controlled refinery production 2008 (Anglo American plc)

(calendar year)

			Controlled share	Controlled production	Share of world production (%)
Copper				187.3 e kt	1.02
Mantoverde	Chile	100%	62.5 kt	0.34	
Los Bronces SX	Chile	100%	45.8 kt	0.25	
MantosBlancos SX	Chile	100%	39.6 kt	0.22	
Collahuasi SXEW	Chile	44%	21.7 kt	0.12	
Rustenburg Ref	South Africa	100%	11.0 e kt	0.06	
El Soldado SX	Chile	100%	6.7 kt	0.04	
Nickel				27.9 kt	2.01
Loma de Niquel	Venezuela	100%	10.9 kt	0.78	
Niquelândia	Brazil	100%	9.1 kt	0.65	
MRR	South Africa	51%	7.9 kt	0.57	
Zinc				145.4 kt	1.24
Skorpion	Namibia	100%	145.4 kt	1.24	

Controlled (fully or partially) mines/deposits

5034 Pipe	Canada	Dia		Conceptual
AK6 Pipe	Botswana	Dia	OP	Conceptual
Amandelbult	South Africa	Pt	UG	Operating, exp/plans
Amapa	Brazil	Fe	OP	Operating
BafokengRasimone	South Africa	Pt	OP,UG	Operating
Barro Alto	Brazil	Ni	OP	Construction
Black Mountain	South Africa	Pb	UG	Operating
Boikgantsho	South Africa	Pt	OP	Conceptual
Boyongan	Philippines	Cu	OP	Prefeasibility
Collahuasi Conc	Chile	Cu	OP	Operating, exp/feasib
Daberas	Namibia	Dia	Placer	Operating
Damtshaa	Botswana	Dia	OP	Operating
Der Brochen	South Africa	Pt	UG	Prefeasibility
El Soldado	Chile	Cu	OP,UG	Operating, exp/plans
Elizabeth Bay	Namibia	Dia	Placer	Operating
Finsch	South Africa	Dia	UG	Operating
Ga-Phasha	South Africa	Pt		Prefeasibility
Gahcho Kue	Canada	Dia	OP	Feasibility
Gamsberg Mine	South Africa	Zn	OP	Feasibility
Grass Valley	South Africa	Pt		Prefeasibility
Groote Eylandt	Australia	Mn	OP	Operating
Hearne	Canada	Dia		Conceptual
Jwaneng	Botswana	Dia	OP	Operating, exp/plans
Kimberley	South Africa	Dia	UG	Suspended
Kimberley Tail	South Africa	Dia	Tail	Operating
Lebowa (Atok)	South Africa	Pt	UG	Operating
Lethlakane	Botswana	Dia	OP	Operating
Lisheen	Ireland	Zn	UG	Operating
Loma de Niquel	Venezuela	Ni	OP	Operating
Los Bronces	Chile	Cu	OP	Operating, exp/constr
Mamatwan	South Africa	Mn	OP	Operating
MantosBlancos	Chile	Cu	OP	Operating
Mantoverde	Chile	Cu	OP	Operating
Marikana	South Africa	Pt	OP,UG	Operating, exp/plans
Michiquillay	Peru	Cu	OP	Feasibility
Middelplaats	South Africa	Mn	UG	Suspended
Minas Rio	Brazil	Fe		Conceptual
Area 1	Namibia	Dia	Placer	Operating
Modikwa	South Africa	Pt	UG	Operating
Mototolo	South Africa	Pt	UG	Operating
Namaqualand	South Africa	Dia	OP	Operating
Namdeb	Namibia	Dia	OP	Operating
Namdeb Offshore	Namibia	Dia	Offshore	Operating
Niquelândia	Brazil	Ni	OP	Operating
Northam	South Africa	Pt	UG	Operating
Orange River	Namibia	Dia	Placer	Operating
Orapa	Botswana	Dia	OP	Operating
Pandora	South Africa	Pt	UG	Construction
Pebble East	USA	Cu	OP	Conceptual
Pebble West	USA	Cu		Conceptual
Potgietersrus	South Africa	Pt	OP	Operating, exp/plans
Quellaveco	Peru	Cu	OP	Feasibility
River Valley	Canada	Pd		Prefeasibility
Rooderand	South Africa	Pt	UG	Conceptual
Rosario Cu	Chile	Mo		Operating
Rustenburg Sect	South Africa	Pt	UG	Operating, exp/plans
Rustenburg Tail	South Africa	Pt	Tail	Conceptual
Rustenburg UG2	South Africa	Pt	UG	Operating, exp/plans

Sheba's Ridge	South Africa	Pt	OP	Feasibility
Sishen	South Africa	Fe	OP	Operating, exp/constr
Skorpion	Namibia	Zn	OP	Operating
Snap Lake	Canada	Dia	OP,UG	Operating
Solwara	Papua New Guinea	Au	Offshore	Prefeasibility
SA Sea Areas	South Africa	Dia	Offshore	Prefeasibility
Thabazimbi	South Africa	Fe	OP	Operating
Oaks	South Africa	Dia	OP	Operating
Tuzo	Canada	Dia		Conceptual
Twickenham	South Africa	Pt	UG	Operating
Union Section	South Africa	Pt	UG	Operating, exp/plans
Union S Tail	South Africa	Pt	Tail	Conceptual
Unki	Zimbabwe	Pt	UG	Construction
Venetia	South Africa	Dia	OP	Operating, exp/plans
Victor	Canada	Dia	OP	Operating
Voorspoed	South Africa	Dia	OP	Operating
Waterwal	South Africa	Pt	UG	Operating
Welgevonden	South Africa	Fe	OP	Feasibility
Wessels	South Africa	Mn	UG	Operating
WBJV Project 1	South Africa	Pt	UG	Prefeasibility
WBJV Project 2	South Africa	Pt	UG	Conceptual
WBJV Project 3	South Africa	Pt	UG	Conceptual
Western Limb	South Africa	Pt	Tail	Operating
Williamson	Tanzania	Dia	OP	Operating, exp/plans
Wonderkop Samanc	South Africa	Cr	UG	Operating
Zandrivierspoort	South Africa	Fe	OP	Prefeasibility

Brief history

Anglo American plc
Base-metal, iron-ore, industrial-mineral and coal operations
(updated July 2008)

Until its relocation to London and its listing on the London Stock Exchange as Anglo American plc (Anglo) in 1999, the Anglo American Corporation was South Africa's leading mining finance house. It remains one of the world's foremost mining enterprises. The company was formed in 1917 when Sir Ernest Oppenheimer, a successful diamond financier from Kimberley who had invested in the Johannesburg gold mines through a company called Consolidated Mines Selection (CMS), entered into a joint venture with American interests, amongst which was Newmont Mining; hence the name Anglo American Corporation.

The company grew to become the most powerful force in the Southern African economy and one of the largest mining companies in the world. The sanctions era in South Africa presented significant opportunity for acquisitions and led to an unsurpassed concentration of ownership in most industrial, mining, financial and media sectors. At one stage, Anglo American and its associated companies owned over 50% of the shares listed on the Johannesburg Stock Exchange.

In order to overcome constraints to operate internationally, Anglo American latterly conducted much of its international business through Minorco SA. In 1997, the company began a major asset-restructuring programme that led to its platinum interests being unbundled into AmPlats (now Anglo Platinum Corp.), its gold interests being merged into AngloGold (now AngloGold Ashanti), and the buy-out of minority interests in AmCoal. It finally combined with Minorco to form a new company, London-based Anglo American plc. In 2001, the company restructured its relationship with De Beers, increasing its holding to 45% while removing De Beers' cross_holding.

The company is somewhat hampered by the split between its debts and assets, with a considerable proportion of its debt being external to South Africa but also having a cash stockpile within South Africa _ movement of which is governed by the country's exchange controls _ that it cannot use effectively to offset its debt. In consequence, Anglo has been investing in dollar_earning assets, such

as iron ore through its acquisition of holdings in Kumba Resources, as well as buying up additional holdings in majority-held subsidiaries such as Anglo Platinum (of which it owns 76%). A major realignment of corporate strategy has involved restructuring Kumba Resources, floating its paper business, Mondi, as a separate entity, and reducing its holding in AngloGold Ashanti to 16.6% by mid-2008. Anglo has stated its long-term intention to exit AngloGold Ashanti completely.

Anglo American has a widespread and diverse portfolio of non-ferrous and ferrous metals assets. It is already a large producer of copper and has significant interests in zinc, lead and nickel. Anglo has a non-controlling interest in Palabora Mining Co. Ltd, which operates the Palabora mine in South Africa, a 44% interest in Collahuasi and 99% of Mantos Blancos in Chile. It also owns Minera Sur Andes (Disputada de Las Condes and El Soldado) in Chile. In May 2007, the company successfully bid 403 MUSD for the Michiquillay copper prospect in Peru, with plans to spend the next three years evaluating its potential. In November 2007, it committed 1.7 BUSD to expanding output at Los Bronces in Chile to 400,000 t/y of copper and 5,000 t/y of molybdenum by 2011. It sold its South African mineral-sands business to Exxaro Resources in 2007 for 2 BZAR.

The company's exploration is organised by commodity groups, with AngloGold Ashanti and Anglo Platinum Corp. undertaking their own work. During 2007, Anglo's base-metals group focused on prospects in Chile, Brazil, Namibia, South Africa, the Philippines and the USA. Anglo Coal's targets were in Australia, Canada and South Africa. Anglo Platinum focused on South Africa, Russia, China, Brazil, Canada and Zimbabwe, while work on ferrous metals was concentrated on South Africa and Brazil. Exploration expenditure totalled 157 MUSD in 2007, 25 MUSD higher than in 2006, with 77 MUSD being spent on base-metals exploration, 36 MUSD on platinum and 32 MUSD on coal. During 2007, Anglo acquired a 50% interest in the Pebble copper-gold-molybdenum prospect in Alaska from Northern Dynasty Minerals, involving staged payments of up to 1.4 BUSD.

Anglo American has zinc interests in Ireland, Namibia and South Africa, having sold Hudson Bay Mining and Smelting in Canada to Ontzinc (now HudBay Minerals) in 2004 for 257 MUSD. The 280 MUSD Lisheen zinc project in Ireland achieved full production in 2001, and in mid-2003, Anglo bought out Ivornia West's 50% holding in the project for 1.8 MUSD plus the assumption of 73.2 MUSD in debt. The 454 MUSD Skorpion zinc project in Namibia, scheduled to produce 150,000 t/y of zinc over a 15-year mine life, came on stream in 2003. In January 2007, Anglo American sold a 26% interest in the Black Mountain/Gamsberg base-metals operation in South Africa to Exxaro Resources for 180 MZAR

Anglo holds minor interests in Botswana RST Ltd, which in turn controls BCL Ltd, the Botswanan nickel-copper-cobalt producer. Other base-metals investments in Botswana include a holding in the Tati Nickel Mining Company (Pty) Ltd, which mines two nickel-copper deposits near Francistown. Having sold its interests in the Murrin Murrin lateritic nickel operation in Australia and the Nkomati mine in South Africa, its remaining nickel interests are in Venezuela, where it has a 90% stake in the Loma de Niquel operation, and in Brazil, at Codemin's Barro Alto project. Here, the go-ahead for a 36,000 t/y nickel in ferronickel operation was given in December 2006, with commissioning scheduled for 2010 at a cost of 1.2 BUSD.

Anglo American's industrial minerals division has most of its business activity focused on construction materials. Having bought the Tarmac group during 2000, in mid-2007 it announced that it is to be divested, with Tarmac Iberia being sold to Holcim in June 2008 for 230 MUSD. Anglo has a controlling interest in Capebras, in Brazil, which operates a phosphate mine, and it also has a minority interest in Botswana Ash (Pty) Ltd (Botash), whose plant is designed to produce 300,000 t/y of soda ash plus by-product salt.

Anglo's ferrous metals division formerly comprised a 40% interest in Samancor, the world's largest integrated producer of manganese alloys and in Highveld Steel, the world's largest vanadium producer. Anglo sold its holding in Samancor Chrome in 2005 while retaining the manganese interests, and during 2006 and 2007 sold Highveld in stages to the Russian Evraz group for 650 MUSD.

Having failed to break into the iron ore business after unsuccessful bids for North Ltd and CVRD in recent years, Anglo bought a 9.6% holding in Kumba Resources in 2002, subsequently increasing this to 66%. Kumba was split into Kumba Iron Ore and Exxaro Resources in 2006 as a means of satisfying

South African BEE requirements. In April 2007, Anglo bought a 49% interest in the Brazilian iron-ore producer, MMX Minas-Rio Mineracao e Logistica for 1.15 BUSD. MMXM-R is currently developing a 26.5 Mt/y integrated mining and export project in Minas Gerais, scheduled for commissioning in 2009. It subsequently agreed a 5.5 BUSD takeover of MMX's iron-ore interests which, when completed, will give it 100% ownership of Minas-Rio and a 70% holding in the Amapá project in joint venture with Cleveland-Cliffs.

Anglo's coal interests are now housed in Anglo Coal, one of South Africa's major coal producers and exporters, and one of the largest private-sector producers of coal in the world. The company owns mines in South Africa and Australia, and has a one-third interest in the combined Cerrejón mines in Colombia, where a 280 MUSD expansion is under way. In 2004, it confirmed an investment of 600 MUSD to expand capacity at its jointly held Moura mine in Queensland to 12.7 Mt/y, and in 2005 committed 516 MUSD to developing the Lake Lindsay coking-coal mine in the state. In mid-2005, Anglo spent 153 MUSD in buying a small holding in Shenhua Energy Co. at the time of the Chinese company's IPO. This stake was sold in April 2008 for 708 MUSD. Coal-sector developments during 2007 included the go-ahead for the Zondagsfontein project in South Africa (505 MUSD through Anglo Inyosi Coal) and the purchase of a 70% stake in the Foxleigh mine in Queensland for 620 MUSD.

Anglo reported group revenues of 35.7 BUSD for 2007, generating attributable net profits of 7.3 BUSD. Comparable figures for 2006 were net profits of 6.2 BUSD on group revenues of 38.6 BUSD. Capex during the year totalled 7.2 BUSD, up from 4 BUSD in 2006. Current development projects have a capex commitment of 12 BUSD, with the company evaluating others with a further 29 BUSD requirement. Net debt stood at 5.2 BUSD at the end of 2007, up from 3.3 BUSD at the end of 2006. The company began a 7.5 BUSD share buy-back programme during 2006, and added a further 7 BUSD during 2007.

Brief history, coal:

Anglo American plc
(Updated August 2008)

Until its relocation to London and its listing on the London Stock Exchange as Anglo American plc (Anglo) in 1999, the Anglo American Corporation was South Africa's leading mining finance house. It remains one of the world's foremost mining enterprises. The company was formed in 1917 when Sir Ernest Oppenheimer, a successful diamond financier from Kimberley who had invested in the Johannesburg gold mines through a company called Consolidated Mines Selection (CMS), entered into a joint venture with American interests, amongst which was Newmont Mining; hence the name Anglo American Corporation.

Anglo's coal interests are now housed in Anglo Coal, one of South Africa's major coal producers and exporters, and one of the largest private-sector producers of coal in the world. The company began its operations in South Africa in 1898, and until 1996 was wholly focused there. In 1997, it became one of three partners in the Carbones de Cerrejón operation in Colombia, which later consolidated all Cerrejón coal mining following the privatisation of the state agency, Carbocol. Anglo now has a one-third holding in Cerrejón, together with BHP Billiton and Xstrata. A 280 MUSD two-phase expansion programme is currently under way at Cerrejón, bringing its capacity up to 32 Mt/y of thermal export coal, with a prefeasibility study being undertaken into a further capacity expansion to 40 Mt/y.

In 2000, Anglo acquired Shell's coal business in Australia and Venezuela for 900 MUSD, thereby expanding its globalisation strategy for coal. This aims at securing a mix of low-cost production in a range of countries that can supply a range of products to both domestic and international markets. In Venezuela, Anglo has a 25% interest in Carbones del Guasare, which operates the Paso Diablo mine in Zulia state. Paso Diablo produces pulverised coal injection (PCI) and thermal coal for the export market.

Its Australian operations encompass holdings in the Callide, Dartbrook, Dawson complex, Drayton, Foxleigh, German Creek, Jellinbah East and Moranbah North mines, with individual holdings ranging from 23% in Jellinbah East to total ownership at Callide. Both Dawson and German Creek are held in joint venture with Mitsui Coal Holdings. While Dartbrook and Drayton are located in New South Wales, the other operations lie in Queensland.

In 2004, it confirmed an investment of 600 MUSD (total capex cost 835 MUSD) to expand capacity at Dawson to 12.7 Mt/y, and in 2005 committed 516 MUSD to developing its wholly owned Lake Lindsay coking-coal deposit, also in Queensland. The 5.7 Mt/y expansion at Dawson is ramping up during 2008, with Lake Lindsay to be commissioned at a rate of 4 Mt/y late in the year. Its 151 MUSD Grasree expansion at German Creek came on stream in 2007. In December 2007, it paid 620 MUSD for a 70% stake in the 2.5 Mt/y Foxleigh PCI mine, next to German Creek. In 2004, Anglo Coal and Kumba Resources (now Exxaro Resources) began evaluating the Moranbah South metallurgical coal prospect in Queensland, which Kumba had inherited from its original parent company, Iscor. In June 2006, Anglo announced the phased closure of its Dartbrook mine, with the operation being placed on care-and-maintenance by the year-end.

Overall, Anglo aims to increase the output from its Australian operations from the 2005 level of 35 Mt/y to over 50 Mt/y by 2009. Within this total, Anglo Coal's metallurgical coal production is scheduled to increase by some 50% to around 16 Mt/y by that time.

In South Africa, Anglo Coal operates the Bank, Goedehoop, Greenside, Isibonelo, Kleinkopje, Kriel, New Denmark and New Vaal mines. Kriel, New Denmark and New Vaal supply direct to the national power generator, Eskom, while the other operations supply the export market for PCI and thermal coals. Anglo also has an 11% holding in the black economic empowerment (BEE) company, Eyesizwe, with which it is in joint venture over development of the 264 MUSD, 5.4 Mt/y Mafube thermal coal project, scheduled to come on stream in 2008.

In February 2007, Anglo formed Anglo Inyosi Coal, in which the BEE company, Inyosi, holds a 27% stake. The deal involved the transfer to the new company of the existing Kriel mine and the Elders, Zondagsfontein, New Largo and Heidelberg projects. The go-ahead for a 6.6 Mt/y operation at Zondagsfontein was given in late 2007, with production scheduled to begin in 2010 at a capex cost of 505 MUSD. The operation will share a processing plant with BHP Billiton's Klipsruit mine.

Anglo Coal is aiming a 50% increase in output from its South African operations, to 90 Mt/y, by 2015. Potential projects include the 1 Mt/y Heidelberg opencast (for commissioning in 2009), the 7 Mt/y Elders opencast (2011), 5 Mt/y Heidelberg underground (2013), 4 Mt/y Elders underground, and 14.7 Mt/y from New Largo (2016). Combined capex requirements are some 1.5 BUSD.

Production of coking coal from Peace River Coal's Trend mine in British Columbia, Canada, in which Anglo has a 66% interest, began in late 2007.

In mid-2005, Anglo spent 153 MUSD in buying a small holding in Shenhua Energy Co. at the time of the Chinese company's IPO. It sold the stake in April 2008 for 708 MUSD. Through a co-operative exploration contract with Shaanxi Coalfield Geology Bureau, Anglo has a 60% interest in the Xiwan opencast coal-mining project in China. Exploration continued during 2007, with the aim of bringing the resource to feasibility-study status.

Anglo Coal is also involved in various clean-coal technology development projects. In Victoria, Australia, it is participating in the Monash project, which involves the production of synthetic diesel fuel from dried brown coal, with carbon capture also being investigated. In May 2006, Anglo and Shell formed a clean-coal energy partnership, based on Anglo's coal resources and Shell's conversion technology, while earlier in the year, Anglo joined the US FutureGen programme, which aims to build the world's first zero emissions' coal-fired power plant. The company also produces coal-bed methane (CBM) from its Dawson complex in Queensland, and is investigating the CBM potential of the Waterberg coalfield in South Africa. The company spent 32 MUSD on coal exploration during 2007.

In 2007, Anglo Coal produced 59.1 Mt from its South African operations, 25.2 Mt from Australia and 11.3 Mt in Colombia and Venezuela, for a total of 95.6 Mt. Operating profit decreased from 864 MUSD in 2006 to 614 MUSD in 2007, continuing a trend from the year before. Much of the decrease resulted from a disappointing performance from its Australian operations, which were affected by lower prices, transport infrastructure constraints, high demurrage rates and the increase in value of the Australian dollar. Capex increased from 782 MUSD in 2006 to 1.05 BUSD in 2007.

De Beers Consolidated Mines Ltd

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Basic financial data

	2005	2006	2007	2008
Assets	7 792	8 265	8 381	7 093
Revenue	7 958	7 638	6 836	6 888
EBIT	1 076	884	794	583
Net profit	793	523	486	279

Currency: million USD
 Financial year to Dec 31

Ownership, parents, early 2009, De Beers Consolidated Mines Ltd

- └< 74% De Beers SA, Luxembourg
 - └< 45% Anglo American plc, UK
 - └< 40% Central Investments DBI, Luxembourg
 - └< 89% Central Holdings Ltd SA, Luxembourg
 - └< 11% Debswana Diamond Co, Botswana
 - └< 50% De Beers Centenary AG, Switzerland
 - └<100% De Beers SA, Luxembourg
 - < 45% Anglo American plc, UK
 - < 40% Central Investments DBI, Luxembourg
 - < 89% Central Holdings Ltd SA, Luxembourg
 - < 11% Debswana Diamond Co, Botswana
 - < 15% Debswana Diamond Co, Botswana
 - < 50% De Beers Centenary AG, Switzerland
 - < 50% State of Botswana, Botswana
 - └< 50% State of Botswana, Botswana
 - └< 15% Debswana Diamond Co, Botswana
 - └< 50% De Beers Centenary AG, Switzerland
 - └<100% De Beers SA, Luxembourg
 - < 50% De Beers Centenary AG, Switzerland
 - <100% De Beers SA, Luxembourg

- └< 26% Pona halo Investments Ltd, South Africa

Ownership, daughters, early 2009, De Beers Consolidated Mines Ltd

- └>100% Canastra Diamond Mine, South Africa
- └>100% ■ Finsch Diamond Mine, South Africa
- └>100% + Kimberley Diamond Mine, South Africa
 - └>100% ■ Bultfontein Diamond Mine, South Africa
 - └>100% ■ Dutoitspan Diamond Mine, South Africa
 - └>100% ■ Wesselton Diamond Mine, South Africa
- └>100% ■ Kimberley Tailings Diamond Mine, South Africa
- └>100% ■ Namaqualand Diamond Mines, South Africa
 - └>100% ■ Buffels Inland Complex Diamond Mines, South Africa
 - Namaqualand Diamond Mines, South Africa
 - Buffels Inland Complex Diamond Mines, South Africa
 - └>100% ■ Langhoogte Diamond Mine, South Africa

|	|	>100% ■	Koingnaas Diamond Mines Complex, South Africa
|	|	>100% ■	Tweedpad Diamond Mine, South Africa
|>	100% ■		South Africa Sea Areas Diamond Deposit, South Africa
|>	100% ■		The Oaks Diamond Mine, South Africa
|>	100% ■		Venetia Diamond Mine, South Africa
|>	100% ■		Voorspoed Diamond Mine, South Africa
|>	88%		Saturn Mining, Prospecting & Development Co (Pty) Ltd, South Africa
|>	75%		Williamson Diamonds Ltd, Tanzania
|		>100% ■	Williamson Diamond Mine, Tanzania
|>	51%		Boteti Diamond Deposit, Botswana
|		>100% ■	AK6 Diamond Pipe, Botswana
|>	51%		Mopipi Diamond Deposit, Botswana
|>	14%		Botswana Ash (Pty) Ltd, Botswana
|>	6%		African Diamonds plc, Ireland
|		>	49% Boteti Diamond Deposit, Botswana
|			>100% ■ AK6 Diamond Pipe, Botswana
|>		25%	Wati Ventures Pty Ltd, Botswana

■ Mine, pre-feasibility ■ Mine, operating
Name in italic company/mine/refinery non-active

Brief history

De Beers Consolidated Mines Ltd
(updated July 2008)

De Beers is a South African diamond mining, holding and financial company. As well as being the world's largest diamond mining and marketing company, De Beers and its associated companies play a pivotal role in the world diamond industry. In mid-2001, the former principal company, De Beers Consolidated Mines Ltd, was delisted from the world's stock exchanges, and a new company, De Beers Investments (DBI), was formed, in which the three sole shareholders are Central Holdings Ltd (representing the Oppenheimer family) with a 40% stake, Anglo American plc (45%) and the Government of Botswana (15%). De Beers Consolidated Mines Ltd is now a 74%-owned subsidiary of DBI, whose Diamond Trading Co. subsidiary handles around 65% of world rough diamond sales. The other 26% of DBCM was sold to the BEE company, Ponahalo Investment Holdings in 2006.

De Beers Consolidated Mines came from the merger in 1888 of the Kimberley Central Mining Company and the De Beers Mining Company - the two largest companies emerging from the South African diamond rush of the 1870s and 1880s. In the 1930s, following the company's offer to buy all diamonds for sale throughout the world in order to support the price, De Beers grouped all the major producers in the industry into one organisation, which bought up virtually all mined diamonds, and sold them (through the Central Selling Organisation (CSO) - at its ten annual 'sights' or sales, at a rate the markets could absorb. Diamonds surplus to requirements were stockpiled until demand increased. This policy remained the guiding principle for the rest of the century, leading to long-term stability in the diamond market.

De Beers owns six Southern African diamond mines, two in Canada, and manages 19 mines in South Africa, Botswana, Namibia and Tanzania. The operations in Namibia and Botswana are run in partnership with the national governments. In addition, De Beers has controlling interests in companies manufacturing synthetic diamonds and abrasive products. With factories in South Africa, Ireland, the UK and Sweden, De Beers is also the largest manufacturer of synthetic diamonds.

In 1997, after protracted negotiations, De Beers and Almazny Rossii_Sakha (Alrosa), the Russian diamond mining and sales agency, signed a trade agreement that reaffirmed their mutual recognition of the importance of single-channel marketing. At the end of 2001, De Beers signed a new five-year marketing agreement with Alrosa, covering sales worth around 800 MUSD annually. De Beers then bought diamonds from Alrosa on a 'willing seller, willing buyer' basis pending EU approval for its offtake agreement, with its terms later renegotiated to cover a sliding scale of sales. Following an EU ruling, in May 2006 the two companies signed a new agreement that allowed for sales of rough

diamonds up to 2008. Alrosa has subsequently indicated that it will be establishing its own marketing infrastructure once this agreement expires.

Marine mining is undertaken by wholly-owned De Beers Marine, which mines Namibian deep-sea offshore areas on contract for Namdeb. The company has a fleet of five mining vessels operating offshore Namibia, accounting for nearly half of Namdeb's output, with on-shore resources rapidly depleting. Recent on-shore developments have included the 62 MUSD Elizabeth Bay extension project, and the 13 MUSD Pocket Beaches project, both of which have required new processing plants to be built.

The company spent 126 MUSD on exploration during 2007, down 140 MUSD in 2006. De Beers is now focusing its exploration specifically on Angola and the DRC, and has been winding down its exploration activities in other countries.

In 2000, De Beers acquired Winspear Diamonds, owner of Snap Lake in the Northwest Territories. The company gave the go-ahead for the project in May 2005. The official opening of both Snap Lake and the Victor project in Ontario took place in July 2008, with each mine having cost over 1 BUSD to develop. It has also begun the permitting process for its joint-venture Gahcho Kué deposit in the NWT with Mountain Province Diamonds. Snap Lake and Victor are expected to produce 2 Mct/y. De Beers sold its 42% interest in the Fort à la Corne project in Saskatchewan to its former partner, Shore Gold, in 2006 for 180 MCAD.

In late 2004, the company confirmed that six out of its seven South African mines were operating at a loss, Venetia being the only profitable one. It announced significant job cuts at all its South African operations in March 2005 and later closed its Kimberley and Koffiefontein mines. By early 2006, four out of its six remaining mines were profitable, with Cullinan (formerly Premier) and The Oaks still loss-making. During 2007, it entered into agreements for the sale of the Cullinan, Koffiefontein and Kimberley mines and part of the Kimberley tailings, with The Oaks scheduled for closure during 2008.

In terms of development, in November 2005, De Beers approved capex of 177 MUSD to reopen the old Voorspoed mine, with a projected output of 1 Mct/y when it comes on stream. It followed this in early 2006 with a 115 MUSD commitment for its South African Sea Areas marine mining project, which will contribute 240,000 ct/y from commissioning in 2007. In Botswana, the Boteti Exploration Co. joint venture between De Beers, African Diamonds and Wati Ventures is seeking permitting for the AK06 deposit, which has an 11.1 Mct reserve, with production scheduled for 2010. In Russia, meanwhile, De Beers, OAO LUKoil and Archangel Diamond Corp. finally reached agreement on evaluation and the potential development of the Grib pipe within the Verkhotina project in April 2008, with Archangel then raising 172.4 MUSD in a private placement that increased De Beers' indirect holding in the company to 65%.

In May 2006, De Beers received a renewed mining licence for its Botswana operations, and established a joint venture with the government to sort and value all Debswana's diamond production. It followed this in January 2007 with a similar agreement with the Namibian government over Namdeb's future output, and local sales and marketing. It opened a new diamond sorting centre in Botswana in 2008, transferring these operations from London.

De Beers reported revenues of 6.4 BUSD for 2007, slightly lower than the 6.8 BUSD reported in 2006. This generated a net loss of 521 MUSD compared with net earnings of 730 MUSD the year before, the company's results having been impacted by a 965 MUSD write-down on its Canadian operations. De Beers' group production totalled 51.1 Mct in 2007, similar to the previous year, with 33.6 Mct obtained from Botswana, 15 Mct from South Africa and 2.1 Mct from Namibia. Expansion capex totalled 1.12 BUSD during the year, plus 383 MUSD in 'stay-in-business' investment. Comparable investments in 2006 were 949 MUSD plus 245 MUSD.

Debswana Diamond Co

(Previous name: De Beers Botswana Mining Co)

Debswana House

PO Box 329

Gaborone

Botswana

Tel: +267 361 4200

Fax: +267 318 0778

Web site: www.debswana.com

Ownership, parents, early 2009, Debswana Diamond Co

```

|
|< 50% De Beers Centenary AG, Switzerland
|      |<100% De Beers SA, Luxembourg
|          |< 45% Anglo American plc, UK
|          |< 40% Central Investments DBI, Luxembourg
|              |< 89% Central Holdings Ltd SA, Luxembourg
|              |< 11% Debswana Diamond Co, Botswana
|          |< 15% Debswana Diamond Co, Botswana
|< 50% State of Botswana, Botswana
  
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Ownership, daughters, early 2009, Debswana Diamond Co

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|>100% ■ Damtshaa Diamond Mine, Botswana
|>100% ■ Jwaneng Diamond Mine, Botswana
|>100% ■ Lethakane Diamond Mine, Botswana
|>100% ■ Orapa Diamond Mine, Botswana
|> 93% ■ Morupule Coal Mine, Botswana
|> 15% De Beers SA, Luxembourg
|> 11% Central Investments DBI, Luxembourg
|      |> 40% De Beers SA, Luxembourg
|          |>100% De Beers Centenary AG, Switzerland
  
```

▨ Mine, feasibility ■ Mine, operating

Name in italic *company/mine/refinery non-active*

Diamonex Ltd

PO Box 794

Brisbane QLD 4001

Australia

Tel: +61 (7) 3369 6399

Fax: +61 (7) 3369 6077

E-mail: diamonex@diamonex.com.au

Web site: www.diamonex.com.au

Stock symbol: ASX-DON

Basic financial data

	2005	2006	2007	2008
Assets	13.589	34.986
Revenue123	.315
EBIT	-2.075	-4.259
Net profit	-2.129	-4.378

Currency: million AUD

Financial year to June 30

Controlled (fully or partially) mines/deposits

Lerala	Botswana	Dia	OP	Operating
Martins Drift	Botswana	Dia		Feasibility

Ownership, daughters, early 2009, Diamonex Ltd

- |>100% ■ Lerala Diamond Mine, Botswana
- |>100% ■ Martins Drift Diamond Mine, Botswana
- |>100% ■ Sloan Diamond Deposit, USA

▨ Mine, feasibility ■ Mine, operating

Discovery Metals Ltd

(Previous name: Discovery Nickel Ltd)

410 Queen St
Brisbane Qld 4000
Australia

Tel: +61 (7) 3218 0222
Fax: +61 (2) 3218 0233
E-mail: info@discoverymetals.com.au
Web site: www.discoverymetals.com.au

Basic financial data

	2005	2006	2007	2008
Assets	2.887	2.349	7.289	15.500
Revenue	.126	.149	.970	.817
EBIT	..	-3.566	-2.355	-4.777
Net profit	-3.003	-3.566	-2.355	-4.777

Currency: million AUD
Financial year to June 30

Controlled (fully or partially) mines/deposits

Boseto	Botswana	Cu	OP,UG	Feasibility
Dikoloti	Botswana	Ni	OP	Conceptual
Petra Cu	Botswana	Cu		Feasibility
Plutus CuAg	Botswana	Cu		Feasibility
Zeta CuAg	Botswana	Cu		Feasibility

Ownership, daughters, early 2009, Discovery Metals Ltd

- |>100% ■ Boseto Copper Deposit, Botswana
 - |>100% ■ Petra Copper Deposit, Botswana
 - |>100% ■ Plutus Copper/Silver Deposit, Botswana
 - |>100% ■ Zeta Copper/Silver Deposit, Botswana
- |> 80% ■ Dikoloti Nickel Deposit, Botswana

▨ Mine, feasibility

Gem Diamonds Ltd

2 Eaton Gate
London SW1 W9BJ
UK

Tel: +44 (20) 3043 0280
Fax: +44 (20) 3043 0281
E-mail: aparr@gemdiamonds.com
Web site: www.gemdiamonds.com
Stock symbol: LSE-GEMD

Basic financial data

	2005	2006	2007	2008
Assets	..	336.556	1 188.257	434.458
Revenue	..	50.441	152.700	296.900
EBIT	..	7.882	68.441	-576.700
Net profit	..	.339	40.500	-552.166

Currency: million USD
Financial year to Dec 31

Controlled mine production 2007 (Gem Diamonds Ltd)

(calendar year)

		Controlled share	Controlled production	Share of world production (%)
Diamond carats			0.52 Mct	0.30
Letseng	Lesotho	70%	0.52 Mct	0.30
Diamond value			140.0 M USD	1.09
Letseng	Lesotho	70%	140.0 M USD	1.09

Controlled (fully or partially) mines/deposits

Cempaka	Indonesia	Dia	Placer	Operating
Danau Seran	Indonesia	Dia		Conceptual
Ellendale	Australia	Dia	OP	Operating, exp/plans
Gope 25	Botswana	Dia		Feasibility
Letseng	Lesotho	Dia	OP	Operating, exp/constr
Woodlark	Papua New Guinea	Au	OP	Conceptual

Ownership, daughters, early 2009, Gem Diamonds Ltd

-> 100% ‡ BDI Mining Corp, UK
|-> 100% ∙ Woodlark Island Gold Deposit, Papua New Guinea
|-> 80% PT Galuh Cempaka, Indonesia
|-> 100% ■ Cempaka Diamond Mine, Indonesia
|-> 100% ∙ Danau Seran Diamond Deposit, Indonesia
-> 100% ■ Gope 25 Diamond Deposit, Botswana
-> 96% Kimberley Diamond Company, Australia
|-> 100% ■ Ellendale Diamond Mine, Australia
-> 70% ■ Letseng Diamond Mine, Lesotho

▨ Mine, feasibility ■ Mine, operating
Name in *italic* company/mine/refinery non-active

Iamgold Corp

(Previous name: International African Mining G)

PO Box 153
Toronto ON M5H 2Y4
Canada

Tel: +1 (416) 360 4710

Tel2: +1 (416) 360 4740

Fax: +1 (416) 360 4750

E-mail: info@iamgold.com

Web site: www.iamgold.com

Stock symbol: TSX-IMG;NYSE-IAG

Basic financial data

	2005	2006	2007	2008
Assets	468.985	2 278.676	2 195.612	2 151.686
Revenue	129.774	303.345	678.131	869.600
EBIT	..	97.157	-0.683	58.505
Net profit	20.494	72.481	-42.060	-9.900

Currency: million USD

Financial year to Dec 31

Controlled mine production 2008 (Iamgold Corp)

(calendar year)

		Controlled share	Controlled production	Share of world production (%)

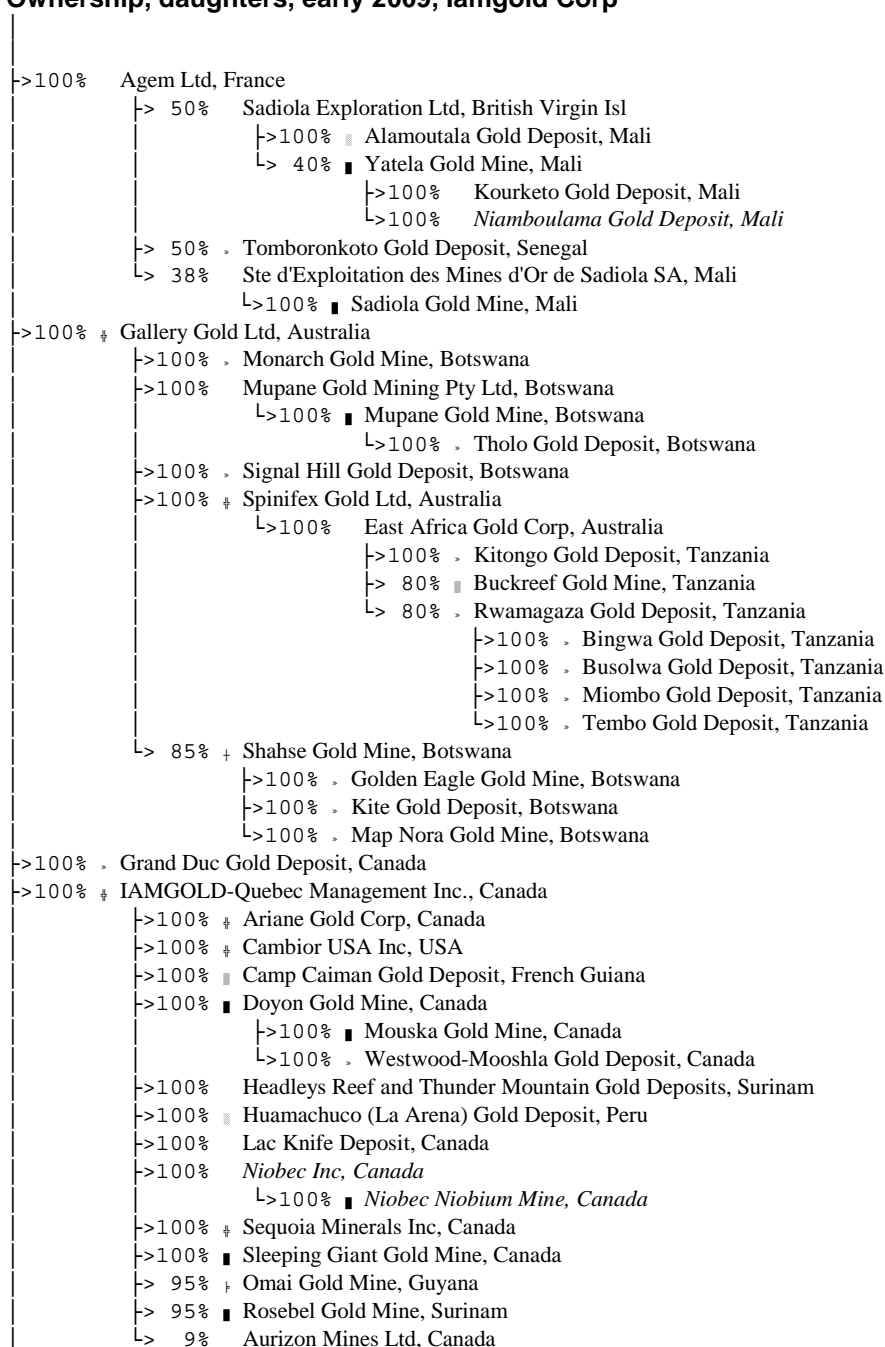
Gold			25.594 t	1.08
Rosebel	Surinam	100%	10.300 t	0.43
Sadiola	Mali	38%	5.358 t	0.23
Doyon	Canada	100%	3.670 t	0.15
Mupane	Botswana	100%	3.140 t	0.13
Sleeping Giant	Canada	100%	2.100 t	0.09
Yatela	Mali	20%	1.026 t	0.04

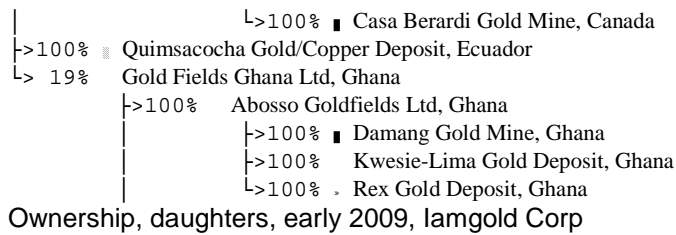
Controlled (fully or partially) mines/deposits

Alamoutala	Mali	Au	OP	Prefeasibility
Bingwa	Tanzania	Au		Conceptual
Buckreef	Tanzania	Au	OP	Feasibility
Busolwa	Tanzania	Au		Conceptual
Camp Caiman	French Guiana	Au	OP	Feasibility
Doyon	Canada	Au	UG	Operating, exp/plans
Golden Eagle	Botswana	Au	OP,UG	Conceptual
Grand Duc	Canada	Au		Conceptual
Huamachuco	Peru	Au	OP	Prefeasibility
Kite	Botswana	Au		Conceptual
Kitongo	Tanzania	Au		Conceptual
Map Nora	Botswana	Au	UG	Conceptual
Miombo	Tanzania	Au		Conceptual
Monarch	Botswana	Au	UG	Conceptual
Mouska	Canada	Au	UG	Operating

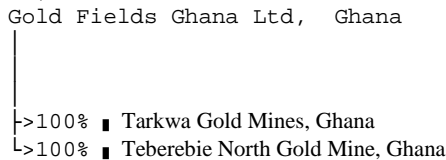
Mupane	Botswana	Au	OP	Operating
Niobec	Canada	Nb	UG	Operating
Quimsacocha	Ecuador	Au	UG	Prefeasibility
Rosebel	Surinam	Au	OP	Operating, exp/plans
Rwamagaza	Tanzania	Au		Conceptual
Sadiola	Mali	Au	OP	Operating
Shashe	Botswana	Au		Susp, restart/plans
Signal Hill	Botswana	Au		Conceptual
Sleeping Giant	Canada	Au	UG	Operating
Tembo	Tanzania	Au		Conceptual
Tholo	Botswana	Au		Conceptual
Tomboronkoto	Senegal	Au		Conceptual
Westwood-Mooshla	Canada	Au	UG	Conceptual
Yatela	Mali	Au	OP	Operating

Ownership, daughters, early 2009, Iamgold Corp





(continued)



■ Mine, pre-feasibility ■ Mine, feasibility ■ Mine, operating
Name in italic *company/mine/refinery non-active*

Brief history

lamgold Corp.

(updated September 2008)

lamgold Corp. is a Canadian-domiciled mid-tier gold producer. Established in 1990, the company initially focused on gold exploration in West Africa. Its breakthrough came with the discovery of the Sadiola Hill deposit in Mali, which was subsequently brought into production. Since then, it has extended its operations into Canada and Latin America, as well as expanding its interests in other parts of West Africa. It listed on the Toronto stock exchange in 1996, in an IPO that raised 37 MUSD for the company. In November 2006, lamgold merged with its fellow Canadian gold-producer, Cambior, under a 3 BUSD deal that created the world's tenth-largest primary gold producer with a capacity of around 1.1 Moz/y. Former lamgold shareholders took a 57% stake in the new company, which retained the lamgold identity.

lamgold now has nine mining operations in five countries, with exploration and development projects in 12 countries. It also has royalty interests in the Diavik diamond operation in Canada and the Magistral gold mine in Mexico. It sold its bauxite-mining interests in Guyana, inherited from Cambior, to Bosai Minerals in March 2007 for 28.5 MUSD.

Sadiola Hill came on stream in late 1996 as a joint venture between lamgold (38%), Anglo American (now AngloGold Ashanti), the Malian government and the International Finance Corp. Capex for development was around 300 MUSD, with the mine proving to be one of the lowest-cost producers in the world at that time. During 2007, the mine produced 370,000 oz at a cash cost of USD401/oz. An evaluation of deeper sulphide-hosted resources is under way which, if proved viable, would extend the mine's life by ten years.

The company's other Malian operation, Yatela (40%), is also a joint venture with AngloGold Ashanti and the government. Commissioned in 2001, the mine produced 300,000 oz at a cash cost of USD207/oz. Heap-leachable reserves are expected to be depleted by 2009.

In Ghana, lamgold has an 18.9% interest in the Tarkwa and Damang mines, in joint venture with Gold Fields Ltd and the Ghanaian government. Tarkwa produced 656,000 oz in 2007 at a cash cost of USD395/oz while output from Damang was 180,000 oz at USD533/oz. Tarkwa encompasses the Tarkwa and part of the Teberebie properties and two heap-leach units, commissioned in 1992 and 1998 respectively. Increased capacity at the Tarkwa mill is scheduled to come on stream in late 2008, involving capex of over 160 MUSD. Damang came on stream in 1997 and was acquired by the joint venture in 2002, with a current mine life to 2011.

lamgold's other African operation, the Mupane mine in Botswana, produced 86,000 oz in 2007 at a cash cost of USD548/oz. Production is scheduled to continue until 2009, with regional exploration

having failed to identify new resources.

Iamgold has a 95% stake in the Rosebel open-pit mine in Suriname, in joint venture with the government. Brought into production by Cambior in 2004, the mine produced 276,000 oz of gold in 2007 at a cash cost of USD452/oz. During the year, the company began a 26 MUSD mill optimisation programme that will help maintain production as harder rock is processed, and followed this with a further 18 MUSD mill expansion aimed at increasing output to 300-305,000 oz/y by 2009.

In Canada, Iamgold has full ownership of the Doyon and Mouska mines in Québec. Brought on stream in 1980 and 1991 respectively, the two mines have produced over 5 Moz of gold between them, with an output in 2007 of 131,000 oz at a cash cost of USD528/oz.

Also in Québec, Sleeping Giant is nearing the end of its life, having been in production since the late 1980s. The operation produced 67,000 oz of gold in 2007 at a cash cost of USD358/oz, with current reserves sufficient to continue mining throughout 2008. During 2007, the company gave Cadiscor Resources an option to buy the operation for up to 7 MCAD once current reserves have been exhausted.

Iamgold's only non-gold operation, Niobec in Québec, produces around 10% of the world's niobium as ferro-niobium. Production began in 1976, with current reserves sufficient for a further 12 years. The company did not disclose its output for 2007.

Discovered by Cambior in 2003, close to the Doyon mine, Westwood is Iamgold's principal exploration target in Canada. In 2004, Cambior committed 25 MUSD to exploring deep resources beneath Doyon and Mouska, including Westwood, where a 3.3 Moz inferred resource has since been identified to a depth of 1,500 m. Work is expected to begin on a new 2,000 m-deep shaft in 2009.

Other advanced development projects include Quimsacocha in Ecuador, Camp Caiman in French Guiana and Buckreef in Tanzania. At Quimsacocha, a pre-feasibility study was scheduled for completion in mid-2008, based on an indicated resource of 3.3 Moz. There is, however, uncertainty over future government policy on mineral development in Ecuador, while the French government has indicated that permits will not be issued for development of Camp Caiman. Iamgold had earlier outlined a seven-year, 125,000 oz/y project here, involving capex of 115 MUSD. In Tanzania, evaluation of the Buckreef, Busolwa and Busiba prospects is at scoping-study stage. Iamgold spent 46 MUSD on exploration during 2007, with a budget of 50 MUSD for 2008 when its focus will be on Latin America and Africa.

During 2004, Iamgold was involved in two ultimately abortive merger proposals. Its shareholders rejected a merger with Wheaton River Minerals, with Iamgold also being the subject of a hostile takeover bid from Golden Star Resources at the time. This also failed, with Iamgold then agreeing to a merger with all of Gold Fields' international operations outwith southern Africa. This too was rejected, this time by Gold Fields' shareholders. More successful was its merger with Rapadre Capital Corp. in 2002, and Gallery Gold in 2005, which brought it the Buckreef and Quimsacocha projects. In mid-2008, it offered 73 MEUR for Euro Ressources, which has a royalty interest in the Rosebel operation, with completion resulting in a USD50/oz reduction in cash costs at the mine.

Iamgold reported gold production of 965,000 oz during 2007, the increase from the 642,000 oz produced in 2006 reflecting the additional capacity acquired with its merger with Cambior. Cash costs rose from USD321 to USD423/oz, while the average price realised rose from USD607 to USD693/oz. The company reported a net loss of 42.1 MUSD (net profit of 57.6 MUSD before impairment charges) on revenues of 678 MUSD, compared with a net profit of 72.5 MUSD on revenues of 303 MUSD in 2006.

Mount Burgess Mining NL

(Previous name: Mount Burgess Gold Mining Co)

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Perth WA 6000

Australia

Tel: +61 (8) 9322 6311

Fax: +61 (8) 9322 4607

E-mail: mtb@mountburgess.com

Web site: www.mountburgess.com

Stock symbol: ASX-MTB

Basic financial data

	2005	2006	2007	2008
Assets	12.105	13.340	13.536	15.145
Revenue	..	.017	.049	.028
EBIT	..	-1.122	-4.212	-1.143
Net profit	-1.172	-1.122	-4.212	-1.143

Currency: million AUD

Financial year to June 30

Controlled (fully or partially) mines/deposits

Kihabe	Botswana	Zn	Prefeasibility
Telfer CuW	Australia	Cu	Conceptual

Ownership, parents, early 2009, Mount Burgess Mining NL

└< 8% Forrester, NR family, Australia

Ownership, daughters, early 2009, Mount Burgess Mining NL

└>100% ■ Kihabe Polymetallic Deposit, Botswana

└>100% ◦ Telfer Copper/Tungsten Deposit, Australia

└> 90% Tsumkwe Diamond Deposit, Namibia

■ Mine, pre-feasibility

Norilsk Nickel Mining & Metallurgical Company

(Previous name: Norilsk Mining Company)

Voznesensky Pereulok 22

Moscow, 125993

Russia

Tel: +7 (495) 787 7667

Tel2: +7 (495) 786 8320

Fax: +7 (495) 785 5808

Fax2: +7 (495) 786 8394

E-mail: info@nornik.ru

Web site: www.nornik.ru

Stock symbol: RTS-GMKN

Basic financial data

	2004	2005	2006	2007
Assets	13 632	14 730	16 279	35 696
Revenue	6 591	7 169	11 550	17 119
EBIT		3 116	6 777	7 735
Net profit	1 857	2 352	5 965	5 276

Currency: million USD
Financial year to Dec 31

Controlled mine production 2008 (Norilsk Nickel Mining & Metallurgical Company)

(calendar year)

		Controlled share	Controlled production	Share of world production (%)
Copper				
			423.3 e kt	2.73
Oktyabr Ni/Cu	Russia	100%	260.0 e kt	1.68
Taimyrsky	Russia	100%	85.0 e kt	0.55
Talnaks	Russia	100%	50.0 e kt	0.32
Kola	Russia	100%	15.0 e kt	0.10
Zapolyarny	Russia	100%	8.0 e kt	0.05
Medvezhy Rucheu	Russia	100%	4.0 e kt	0.03
Nkomati Po	South Africa	50%	1.3 kt	0.01
Gold				
			4.700 e t	0.20
Oktyabr Ni/Cu	Russia	100%	2.000 e t	0.08
Taimyrsky	Russia	100%	1.500 e t	0.06
Kola	Russia	100%	0.700 e t	0.03
Talnaks	Russia	100%	0.500 e t	0.02
Nickel				
			290.1 e kt	19.73
Oktyabr Ni/Cu	Russia	100%	95.0 e kt	6.46
Taimyrsky	Russia	100%	70.0 e kt	4.76
Kola	Russia	100%	35.0 e kt	2.38
Talnaks	Russia	100%	25.0 e kt	1.70
Phoenix Nickel	Botswana	100%	17.0 e kt	1.16
Black Swan	Australia	100%	15.0 e kt	1.02
Maggie Hays	Australia	100%	12.0 e kt	0.82
Cawse	Australia	100%	6.0 e kt	0.41
Selebi-Phikwe	Botswana	45%	5.9 e kt	0.40
Zapolyarny	Russia	100%	4.0 e kt	0.27
Nkomati Po	South Africa	50%	2.6 kt	0.18
Waterloo Ni	Australia	100%	2.6 e kt	0.18
PGMs				
			132.11 e t	27.81
Oktyabr Ni/Cu	Russia	100%	60.00 e t	12.63
Taimyrsky	Russia	100%	23.00 e t	4.84
Talnaks	Russia	100%	22.00 e t	4.63
Stillwater	USA	100%	10.70 e t	2.25
Zapolyarny	Russia	100%	7.00 e t	1.47
East Boulder	USA	100%	4.75 e t	1.00
Medvezhy Rucheu	Russia	100%	4.00 e t	0.84
Nkomati Po	South Africa	50%	0.66 t	0.14
Palladium				
			96.30 e t	46.98
Oktyabr Ni/Cu	Russia	100%	43.00 e t	20.98
Talnaks	Russia	100%	17.00 e t	8.29
Taimyrsky	Russia	100%	17.00 e t	8.29
Stillwater	USA	100%	8.15 e t	3.98

Zapolyarny	Russia	100%	5.00 e t	2.44
East Boulder	USA	100%	3.70 e t	1.80
Medvezhy Rucheu	Russia	100%	2.00 e t	0.98
Nkomati Po	South Africa	50%	0.45 e t	0.22
Platinum			23.25 e t	11.63
Oktyabr Ni/Cu	Russia	100%	12.00 e t	6.00
Taimyrsky	Russia	100%	3.50 e t	1.75
Talnask	Russia	100%	3.00 e t	1.50
Stillwater	USA	100%	2.50 e t	1.25
East Boulder	USA	100%	1.05 e t	0.53
Medvezhy Rucheu	Russia	100%	1.00 e t	0.50
Nkomati Po	South Africa	50%	0.20 e t	0.10

Controlled refinery production 2008 (Norilsk Nickel Mining & Metallurgical Company)

(calendar year)

			Controlled share	Controlled production	Share of world production (%)
Copper				404.2 e kt	2.21
Norilsk Refinery	Russia	100%		315.0 e kt	1.72
Monchegorsk	Russia	100%		85.0 e kt	0.46
Harjavalta Ni	Finland	100%		4.2 kt	0.02
Nickel				283.1 e kt	20.37
Norilsk Refinery	Russia	100%		122.0 e kt	8.78
Monchegorsk	Russia	100%		110.0 e kt	7.91
Harjavalta Ni	Finland	100%		51.1 kt	3.68

Controlled (fully or partially) mines/deposits

Bannockburn	Australia	Au	OP,UG	Suspended
Black Swan	Australia	Ni	OP,UG	Suspended
Bugdainskoye	Russia	W	OP	Conceptual
Bystrinskoye	Russia	Au	OP	Conceptual
Catface	Canada	Cu	OP	Conceptual
Cawse	Australia	Ni	OP	Suspended
Damoti	Canada	Au	UG	Prefeasibility
East Boulder	USA	Pd	UG	Operating
Emily Ann	Australia	Ni	UG	Suspended
Fandora	Canada	Au	UG	Conceptual
Gremyakh Vyrmes	Russia	Ti		Conceptual
Honeymoon Well	Australia	Ni	OP	Feasibility
Kaula-Kotselvaar	Russia	Ni	UG	Operating
Kingashsky	Russia	Ni	OP	Conceptual
Kola	Russia	Ni	OP,UG	Operating
Komsomolsk Ni	Russia	Ni	UG	Operating
Kultuminskoye	Russia	Cu	OP	Conceptual
Lehmans Well	Australia	Au		Conceptual
Lugokanskoye	Russia	Cu	UG	Conceptual
Maggie Hays	Australia	Ni	UG	Operating, exp/plans
Mayak	Russia	Ni	UG	Operating
Medvezhy Rucheu	Russia	Ni	OP	Operating
Mt Holland	Australia	Au	OP	Feasibility

Nkomati Po	South Africa	Ni	UG	Operating, exp/plans
Norilsk-1	Russia	Ni	OP,UG	Operating
Oktyabr Ni/Cu	Russia	Ni	UG	Operating
Phoenix Nickel	Botswana	Ni	OP	Operating, exp/plans
Robb Lake	Canada	Zn		Conceptual
Ruddock Creek	Canada	Zn		Conceptual
Scotia Zn	Canada	Zn		Conceptual
Selebi-Phikwe	Botswana	Ni	UG	Operating
Selkirk	Botswana	Ni	OP	Susp, restart/feasib
Severny Gluboky	Russia	Ni	UG	Operating
Skalisty	Russia	Ni	UG	Operating, exp/plans
Smith Cu	Canada	Zn		Conceptual
Solonechensky	Russia	Sb	OP	Conceptual
Stillwater	USA	Pd	UG	Operating
Sustut	Canada	Cu	OP	Prefeasibility
Taimyrsky	Russia	Ni	UG	Operating
Talnask	Russia	Ni	OP,UG	Operating, exp/plans
Thunderbox	Australia	Au	OP	Operating
Vuruchuaivench	Russia	Pt	OP,UG	Conceptual
Waterloo Ni	Australia	Ni	UG	Suspended
Zapolyarny/Sever	Russia	Ni	UG	Operating
Zapolyarny	Russia	Ni	UG	Operating
Zhdanovskoye	Russia	Ni	OP,UG	Operating

Ownership, parents, early 2009, Norilsk Nickel Mining & Metallurgical Company

<	30%	Interros Investment Company, Russia
		└<100% Potanin Vladimir, family, Russia
<	28%	Prokhorov Mikhail, family, Russia
<	25%	United Company Rusal, Russia
		└< 50% Basic Element Ltd, Russia
		└└<100% Deripaska Oleg, family, Russia
		└< 16% EN+ Group Ltd, Russia
		└└<100% Deripaska Oleg, family, Russia
		└< 14% Onexim Group, Russia
		└└<100% Prokhorov Mikhail, family, Russia
		└< 10% Glencore International AG, Switzerland
<	8%	KM Invest, Russia
		└< 50% Interros Investment Company, Russia
		└└<100% Potanin Vladimir, family, Russia
		└< 50% Prokhorov Mikhail, family, Russia
<	5%	Metalloinvest Management Company LLC, Russia
		└<100% Metalloinvest Holding Company, Russia
		└< 55% Gazprom OJSC, Russia
		└└< 51% State of Russia, Russia
		└└< 49% Miller Aleksey, family, Russia
		└< 45% Interfin Trade CJSC, Russia
		└└< 60% Usmanov, Alisher family, Russia

Brief history

Norilsk Nickel
(updated July 2008)

MMC Norilsk Nickel's main operations are located at Taimyr, above the Arctic Circle in the Krasnoyarsk region of the Russian Republic. Its operations there consist of six underground mines and one open pit, with a capacity estimated at 13 Mt/y of ore, together with a nickel-copper smelter and precious-metals refinery. In addition, Norilsk has nickel and copper mines and the Severonikel metallurgical complex on the Kola Peninsula, shipping out of Murmansk. During 2003 and 2004, Norilsk bought substantial shareholdings in both Stillwater Mining Co. in the USA and in Gold Fields Ltd in South Africa, so significantly diversifying its holdings both in terms of commodity and geographical location. In late 2006, the company also bought the OM Group's nickel business, and in May 2007, it made a successful bid for the nickel producer, LionOre Mining International.

Although Norilsk is one of the world's largest producers of nickel, its strategic and precious metal by-products are even more valuable. Norilsk is amongst the world's largest producers of cobalt, and is the largest supplier of palladium. It also produces platinum, rhodium, iridium and ruthenium. The company has extremely high social costs due to the remote location of its operations, and major efforts are under way to reduce the population of Norilsk city.

Norilsk's dominant position has a strong geological base, with its pgm grades far higher than that of other pgm producers. As of mid-2005, Norilsk's proven and probable reserves totalled 238 Mt of copper-nickel-gold ore, while its Taimyr Peninsula pgm reserves totalled 62 Moz of palladium and 16 Moz of platinum.

Alluvial deposits in the Norilsk district were mined for platinum in the 1800s, but it was under the Soviet regime that the nickel mines were developed. Norilsk was privatised in 1995, with Oneximbank (a Russian banking company) remaining the majority shareholder. Corporate restructuring during 2000-2001 resulted in the formation of Mining and Metallurgical Co. Norilsk Nickel. In April 2008, United Company Rusal acquired a 25%-plus-one-share holding in the company, with the stated intention of eventually merging the two groups.

In 2001, the company began a 2.7 BUSD, five-year modernisation programme in 2001, with the emphasis on reducing production costs rather than expanding capacity. In May 2003, the company announced its intention to cut sulphur dioxide emissions from its Norilsk plants by 70% by 2010, and from its Kola operations by 90% by 2006.

Norilsk commissioned the Severny-Gluboky mine on the Kola peninsula in 2004, based on a 173 Mt copper-nickel reserve. Development of the mine, which will add up to 30% to the company's Kola area capacity by 2010, has cost 430 MUSD. Norilsk is also studying the construction of a cobalt refinery at Kola, from where cobalt concentrates are currently sent for toll-refining, and is also to begin producing cobalt from its Monchegorsk plant in 2007. Meanwhile, the company is to sink a new 2,000 m shaft at its Skalitsy mine as part of a capacity-increase programme there.

Norilsk's first significant overseas venture came with its agreement in 2002 with Stillwater Mining whereby it acquired a 51% controlling interest in Stillwater in a cash/metal deal worth (at the time) 341 MUSD. The agreement offered a way for Norilsk to help Stillwater fulfil its long-term contractual palladium-supply obligations while helping Norilsk reduce its own stockpile by 877,000 oz. In 2003, Norilsk increased its holding in Stillwater to 56% through stockmarket purchases.

In 2004, Norilsk paid Anglo American 1.16 BUSD for a 20% holding in Gold Fields Ltd. It also bought a small stake in the major Russian utility, UES, spending 140 MUSD, and later began a joint venture with UES over power supplies, with Norilsk committing 70 MUSD to a modernisation programme over the next ten years. In February 2007 Norilsk announced a spin-off of its energy assets by the end of the year, to create Russia's largest private-sector power company.

Having bought the largest Russian gold producer, ZAO Polyus, for 226 MUSD in 2002, and LLC Aldanzoloto and two other gold-mining companies from Alrosa in 2005, in May 2006 Norilsk spun off

all its gold assets into OJSC Polyus Gold, which was then listed on the Moscow stock exchange.

In late 2006, Norilsk bought the OM Group's nickel interests for 408 MUSD in cash, thereby acquiring a 60,000 t/y refinery at Harjavalta in Finland, the Cawse nickel mining/leaching operation and a 20% stake in MPI Nickel, which operates the Black Swan and Silver Swan nickel mines, all in Western Australia, and an interest in the Talvivaaran nickel-leaching project in Finland. The deal added 35,000-40,000 t/y of nickel to the company's capacity.

Norilsk followed this in May 2007 with a 4.28 MUSD (later raised to 6.3 BUSD) bid for LionOre Mining International, which was already the subject of an agreed offer from Xstrata. It raised a 6 BUSD loan to fund the acquisition. The deal brought Norilsk holdings in Nkomati in South Africa, Tati in Botswana and various nickel operations in Western Australia. In September 2007, Norilsk and ARM announced a 445 MUSD expansion at Nkomati. In mid-2008, commissioning of a 12 Mt/y dense-medium plant began at Tati Nickel, although the proposed Activox plant there was shelved.

In October 2007, the company subscribed 25 MCAD for a stake in Canadian Royalties, which is developing its Nunavik nickel project in northern Quebec, Canada.

Its group exploration cost for 2007 was 113 MUSD, up from 49 MUSD in 2006. Exploration targets include Siberia, Far Eastern Russia, the Taimyr and Kola Peninsulas and Western Australia. The company has exploration joint ventures with both Rio Tinto and BHP Billiton in Russia. In the Chita region of Russia, it is evaluating a number of polymetallic deposits, of which five - Bugdainskaya, Bystrinskaya, Kultuminskaya, Lugokanskaya and Solonechenskaya - have a development cost of 3.9 BUSD. Production could begin as early as 2012.

Norilsk reported net profits of 5.2 BUSD on revenues of 17.1 BUSD for 2007, results that included those of Stillwater Mining Co., which Norilsk consolidates into its own, but not of Polyus Gold. Its results were affected by nearly 1.1 BUSD in goodwill impairment charges. The company had reported net profits of 6 BUSD for 2006 from revenues totalling 11.9 BUSD. The company produced 276,300 t of nickel, 415,600 t of copper, 3.5 Moz of palladium and 858,000 oz of platinum in 2007, the higher tonnages reflecting its acquisitions during the year. Capex during 2007 totalled 1.3 BUSD.

Appendix 7. Important Contacts in Botswana

Government Sector

Ministry of Minerals, Energy and Water Affairs, Botswana,

Address:

P/Bag 0018

Gaborone

Botswana

Tel: +267 365 6600

Fax: +267 372 738

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Director: Mr P. Kgare

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Department of Mines

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Gaborone

Botswana

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E-mail: Na

Website: www.mines.gov.bw

Director: Mr K. Abi

Tel: +267 365 7000

Department of Geological Survey, Botswana

Address:

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Lobatse, Botswana

Tel: +267 5330 327

Fax: +267 5332 013

E-mail: geosurv@global.bw

Website: www.gov.bw

AG Director: Tiyapo Ngwisanyi

Tel: +267 332 495 or +267 5336 706

E-mail: tngwisanyi@gov.bw or botsgs@gov.bw

Administration: Motuwe Dumelang

Tel: +267 5330 327 or +267 5336 704

E-mail: mdumelang@gov.bw

Intergovernmental Organizations

Kimberley Process

KP Secretariat - Namibia

Address: Ministry of Mines and Energy
Room 325, 3rd Floor
No.1 Aviation Road
Windhoek
Tel: +264-61-2848234
Fax: +264-61-2848203
Email: kpcs.namibia@kimberleyprocess.com
Website: <http://www.kimberleyprocess.com/>

Cooperation in Southern Africa

SADC Secretariat

Address: SADC House
Private Bag 0095
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Non Governmental Organisations

Botswana Mineworkers' Union (BMWU)

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University of Botswana

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Appendix 8. Lessons from Botswana mining experience.

Please see the attached pdf-file. Lessons from Botswana mining experience RMR.pdf

Appendix 9. IMF Working Paper, Are Diamonds Forever?

Please see the attached pdf-file. IMF Working Paper Are Diamonds forever.pdf