

# 2011 Minerals Yearbook

## LESOTHO AND SWAZILAND [ADVANCE RELEASE]

### The Mineral Industries of Lesotho and Swaziland

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#### LESOTHO

Lesotho's known mineral deposits included base metals, clays, diamond, dimension stone, sand and gravel, and uranium. The mining and quarrying sector did not play a significant role in the country's gross domestic product, and, with the exception of diamond mining (which was significant), the sector was a marginal contributor to the economy. Exploration and exploitation of the mineral resources of Lesotho were concentrated mainly on diamond. Other mineral exploration and production activities continued to be limited in 2011 owing to the lack of infrastructure and investment in the mineral industry (Ministry of Natural Resources, 2011).

The Department of Mines and Geology within the Ministry of Natural Resources is responsible for gathering, assessing, and disseminating information related to the country's mineral resources and the mineral industry. Laws that form the regulatory framework for the mineral industry include the Mines and Minerals Act 2005, which regulates mineral exploration, licensing, and exploitation, and the Precious Stones Order 1970, which regulates the export, production, and sale of rough precious stones, such as diamond, and sets the conditions and penalties governing production and trade in rough diamond. Lesotho is a member of the Kimberley Process Certification Scheme. The Mine Safety Act 1981 contains safety, health, and environmental regulations pertaining to the mineral industry (Ministry of Natural Resources, 2011).

#### Production

Lesotho has a long history of diamond production, and diamond was the major economic mineral of Lesotho. Artisanal miners produced small amounts of agate, clay, sand and gravel, and stone (both crushed and dimension) for domestic consumption. Such mineral production, however, was not reported. Data that were available on mineral production are in table 1.

#### **Structure of the Mineral Industry**

Table 2 is a list of mineral processing facilities and their locations and capacities.

#### **Commodity Review**

#### Industrial Minerals

**Diamond.**—Gem Diamonds Ltd. of the United Kingdom owned 70% of the Letšeng Mine in partnership with the Government, which owned the remaining 30%. The Letšeng Mine, which is located in the Maluti Mountains at an altitude of about 3,100 meters (m) above sea level, was the highest diamond mine in the world. Gem Diamonds announced a \$280 million expansion of the Letšeng Mine. Work on the Kholo project was scheduled to start in January 2012, and the mine would increase to full production of about 200,000 carats per year in 2014 from 100,000 carats per year in 2011. The ore treatment capacity would be increased to 10 million metric tons (Mt/yr) in 2014 from 5.6 Mt/yr in 2011. Gem Diamonds estimated its total diamond resources to be 28.89 million carats with an estimated average value of \$223 per carat (Antwerp Facets, 2011a).

Firestone Diamonds plc of the United Kingdom acquired a 75% interest in the Lighobong Mine from Kopane Diamond Development plc of the United Kingdom in 2010. Firestone Diamonds reported that a total of 12,212 carats had been produced from the Main Pipe and the Satellite Pipe at the Lighobong Mine in 2011. This production was sold for an average price of \$123 per carat, which was higher than the average price of \$110 per carat obtained at the time of the April 2011 tender. Firestone Diamonds expected to produce about 1 million carats of rough diamond by 2014 (Firestone Diamonds plc, 2011).

In 2011, Lucara Diamond Corp. of Canada announced the results of its first tender of rough diamond from the Mothae Mine. A total of 42 sale lots totaling 9,381 carats sold for an average price of \$872 per carat for a total of \$8.1 million. The stone with the highest per-carat value was a 13.87 carat diamond that sold for \$43,000 per carat. Lucara was continuing with its 720,000-metric-ton (t) trial mining program (Mining.com, 2011).

In 2011, Namakwa Diamonds Ltd. of Bermuda reported that it would start commercial mining at its Kao Mine project in 2012. The Kao kimberlite pipe was reported to be the largest diamond-bearing pipe in Lesotho. Namakwa reported that it planned to increase production to 280,000 carats per year, or by about 23,300 carats per month, by yearend 2012. Production was planned eventually to reach 300,000 carats per year (Antwerp Facets, 2011b).

#### Outlook

The outlook for Lesotho's mineral industry was for little change other than in the diamond sector owing to limited investment in the mineral sector. Diamond production in Lesotho is likely to increase significantly as the two new mines (Kao and Kholo) are developed. The economic situation of the country is expected to be improved when these developments are completed and onstream. The high rates of HIV/AIDS infection among Lesotho's population will continue to hinder economic development in the foreseeable future.

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#### **SWAZILAND**

In 2011, mining continued to decline in importance in Swaziland, and the mineral industry was not a significant contributor to the country's gross domestic product in 2011. The main mineral produced in Swaziland was coal. Other minerals, such as arsenic, copper, diamond, kaolin, nickel, manganese, and tin, occurred in small amounts that rendered them uneconomical to produce. Swaziland's economy was closely integrated with that of South Africa, which accounted for about 80% of Swaziland's export and import trade (Ministry of External Affairs, 2011).

#### Production

Information on the mineral industry of Swaziland was not readily available. Production of mineral commodities in 2011 was estimated to be about the same as in 2010. Coal occurs in eastern Swaziland and was exploited at Maloma Colliery Pty Ltd.'s Maloma Mine. The Maloma Mine was Swaziland's only active mine in 2011. Data on mineral production are in table 1.

#### **Structure of the Mineral Industry**

The principal mining and mineral processing facilities in Swaziland, with their locations and capacities, are in table 2.

#### **Commodity Review**

Salgaocar Swaziland (Pty) Ltd. of India announced that it had proposed reprocessing of the Ngwenya iron ore mine dumps. Salgaocar stated that it planned to produce up to 2 million metric tons per year (Mt/yr) of iron ore concentrate from the iron ore tailings at the former Ngwenya Mine of Anglo American plc of the United Kingdom. The mine closed in 1977 and was not rehabilitated after decommissioning. Salgaocar received a 7-year license from the Government. There was an estimated 32 Mt of hematite iron ore with an average grade of 44.5% iron in the mine dumps. The project is located in the Hhohho Region on the northwestern border of Swaziland within the Malolotja Nature Reserve (Metal Bulletin, 2011).

The gold mineralization in northwestern Swaziland was receiving new attention after the announcement by the Ministry of Natural Resources and Energy that the dormant mine at Piggs Peak was listed as a site to be reopened in the near future. Interest in diamond was also being revived following the Government announcement that it could reopen the Dvokolwako Mine by yearend 2011. The mine is located about 65 kilometers (km) northeast of Manzini, and preparations at the mine site were continuing. Projected diamond production could be as much as 80,000 carats per year. The Government applied for Kimberley Process Certification and forwarded its draft Diamond Regulations to the Kimberley Process Secretariat for review. The historical kaolin mines at Malhangatsha were similarly listed, but other deposits, such as the silica and talc sites, remained unlisted as they had been subjected only to preliminary investigations. The Maloma Colliery, which was located 25 km west of Nsoko, had three operational shafts and produced anthracite coal in three forms for the ferroalloys industry (Swaziland Review, 2011).

Transnet SOC Ltd. of South Africa and Swaziland Rail Corp. announced that they were proceeding with the estimated 17 billion South Africa rand (ZAR) (\$2 billion<sup>1</sup>) railway project between Lothair, South Africa, and Sidvokodvo, Swaziland. The line was scheduled to be commissioned in 2016 with the capacity to transport 15 million metric tons per year (Mt/yr). The 146-km line would divert general freight haulage, which would increase the capacity of South Africa's coal haulage from Mpumalanga to the Richards Bay Coal Terminal (RBCT) to about 100 Mt/yr, which is well above the capacity in 2011 of 72 Mt/yr. The RBCT had about 92 Mt/yr coal capacity in 2011 (Creamer, 2012)

#### Outlook

The outlook for Swaziland's mineral industry is for little change in the near future. The low level of exploration and exploitation is expected to continue to constrain any increase in production of mineral resources. The Swazi economy is dominated largely by agriculture and related value-added manufacturing production and this situation is not expected to change in the foreseeable future. The high level of HIV/AIDS infections and the lack of infrastructure are also expected to continue to constrain mineral resource development and production.

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<sup>&</sup>lt;sup>1</sup>Where necessary, values have been converted from South Africa rand (ZAR) to U.S. dollars (US\$) at an average rate of ZAR8.41=US\$1.00.

TABLE 1
LESOTHO AND SWAZILAND: PRODUCTION OF MINERAL COMMODITIES

Country and commodity			2009	2010 <sup>e</sup>	2011 <sup>e</sup>
carats	454,014	253,053	91,815	100,000	100,000
cubic meters	15,000	15,000	15,000	15,000	15,000
metric tons	241,283	174,807	129,647	145,903 4	121,050 4
cubic meters	NA	35,000	35,000	35,535 <sup>4</sup>	35,584 4
metric tons	500	500	500	500	500
do.	NA	NA	NA	NA	79,553 <sup>4</sup>
cubic meters	207,535	240,997	202,319	304,544 4	206,341 4
	carats cubic meters metric tons cubic meters metric tons do. cubic meters	2007carats454,014cubic meters15,000metric tons241,283cubic metersNAmetric tons500do.NAcubic meters207,535	2007         2008           carats         454,014         253,053           cubic meters         15,000         15,000           metric tons         241,283         174,807           cubic meters         NA         35,000           metric tons         500         500           do.         NA         NA           cubic meters         200,535         240,997	2007         2008         2009           carats         454,014         253,053         91,815           cubic meters         15,000         15,000         15,000           metric tons         241,283         174,807         129,647           cubic meters         NA         35,000         35,000           metric tons         500         500         500           do.         NA         NA         NA           cubic meters         207,535         240,997         202,319	2007         2008         2009         2010 <sup>e</sup> carats         454,014         253,053         91,815         100,000           cubic meters         15,000         15,000         15,000         15,000           metric tons         241,283         174,807         129,647         145,903 <sup>4</sup> cubic meters         NA         35,000         35,000         35,535 <sup>4</sup> metric tons         500         500         500         500           do.         NA         NA         NA         NA           cubic meters         207,535         240,997         202,319         304,544 <sup>4</sup>

<sup>e</sup>Estimated; estimated data are rounded to no more than three significant digits. NA Not available.

<sup>1</sup>Table includes data available through September 30, 2012.

<sup>2</sup>Reported data from Lesotho Department of Mines and Geology.

<sup>3</sup>In addition to the commodities listed, modest quantities of crude construction materials (sand and gravel), kaolin, pyrophyllite (talc), and soapstone are produced, but output is not reported quantitatively, and information is inadequate to make reliable estimates of output.

<sup>4</sup>Reported number.

### TABLE 2 LESOTHO AND SWAZILAND: STRUCTURE OF THE MINERAL INDUSTRIES IN 2011

#### (Metric tons unless otherwise specified)

					Annual
Cour	ntry and commo	dity	Major operating companies and major equity owners	Location of main facilities	capacity
	LESOTHO				
Clays		million bricks	Loti Brick (Pty) Ltd. (Government)	Plant at Maseru	20
Diamond		carats	Gem Diamond Ltd., 70%, and Government 30%	Letšeng Mine, northern Lesotho	100,000
Do.		do.	Firestone Diamonds plc. (Firestone Diamonds plc,	Liqhobong Mine, northern Lesotho	77,000
			75%, and Government, 25%)		
Do.		do.	Lucara Diamond Corp. (Mothae Diamonds Holdings,	150 kilometers nortneast of Maseru	75,000
			75%, and Government, 25%)		
Sandstone		square meters	Lesotho Stone Enterprises (Pty) Ltd.	Quarry at Maseru	200,000
	SWAZILAND				
Coal			Maloma Colliery Ltd.	Maloma Mine at Maloma	500,000
Ferrovanadium			Swazi Vanadium (Pty) Ltd. (Xstrata plc, 75%,	Plant at Maloma	2,400
			and Tibiyo Taka Ngwana, 25%)		

Do., do. Ditto.