HISTORICAL DIAMOND PRODUCTION (SOUTH AFRICA)

DIRECTORATE: MINERAL ECONOMICS



Kimberley Mine – the early years (Source: De Beers)



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1. RATIONALE FOR REPORT

Over the past few years, the Directorate: Mineral Economics has received several enquiries relating to South Africa's historical diamond production and the country's cumulative diamond output from the beginning of diamond mining in 1870.

The Directorate: Mineral Economics would naturally be the "first port of call" for such enquirers, because it is the custodian of mineral production statistics. However, the Minerals Bureau (renamed the Directorate: Mineral Economics in 1999), which was established in 1975, only has production statistics in its official (electronic) database dating back to 1980.

Although the Directorate has some archive material containing diamond production statistics by company, these are not in readily accessible form. It certainly cannot provide annual production statistics from 1870 to more recent years.

If we wish to preserve our diamond mining heritage, it is necessary that the custodian of mineral production statistics collate all the statistics available into a comprehensive report.

The pre-1980 diamond statistics are for the most part contained in old official reports and publications, earlier books on the subject and company archives. This report, attempts to assemble the available statistics, and it is hoped that it will shed more light on the subject. It is by no means complete, but successive editions may eventually achieve the final word on this subject. As such it is a work in progress. For this reason, it is hoped that this publication will be interactive – i.e., elicit responses from relevant organisations, historians and archivists to improve the statistics contained herein.

2. SOUTH AFRICAN DIAMOND HISTORY & DIAMOND HERITAGE

This year marks the 140th anniversary of the discovery of Eureka diamond in 1867, which led to a fundamental change in the world's diamond industry, and the birth of the modern diamond industry in the South African town of Kimberley, which later became known as the "City of Diamonds".

The first diamonds found in South Africa (prior to 1870) were alluvial. By 1870, it was discovered that "blue ground" (hard, diamond-bearing igneous rock) later named kimberlite after the town of Kimberley, is the primary source for diamonds. Later, in the early 20th century, it was discovered that diamonds could also be found on the seabed along the west coast of South Africa.

In the 1870s and 1880s the Kimberley Mines (kimberlite mines) were producing about 95% of the world's diamonds. South Africa remained the world's top producer in carat terms until 1933, when it was overtaken by Zaire, but it continued to be the world's top producer by value until 1960 when Russia began producing diamonds.

Today South Africa is still a major diamond producer, but ranks 5th in terms of carats and 3rd in terms of value.

South Africa has an unrivalled diamond and gold mining heritage (it has been the worlds top gold producer since 1888), and for this reason it has been synonymous with diamonds and gold. It has been popularly referred to as the "land of gold and diamonds".

FACT BOXES

Cullinan diamond:

Largest diamond ever discovered (3 106 carats) was found in 1905 at the Cullinan Mine, near Pretoria.

Kimberlite:

Diamond-bearing volcanic rock named after the town of Kimberley, where it was discovered.

De Beers:

Like South Africa, this diamond mining company is synonymous with diamonds.

The discovery of diamonds in Kimberley was the catalyst for the industrial development of South Africa. The great wealth brought about by diamond mining also funded the establishment of the gold mining industry. It has thus been

accredited for transforming South Africa from an agricultural backwater to an economic powerhouse in Africa.

Today, the diamond industry's contribution to the South African economy, at about 1% to GDP (Gross Domestic Product), is relatively small. South Africa however remains a significant diamond producer. In fact, the country set a new record for diamond production in 2005 (15.8 million carats valued at an estimated \$1.7 billion). Diamonds are still mined from all three source types, viz., kimberlite, alluvial and marine sources.

South Africa is also a significant diamond processing country, ranking in the top five in the world in terms of polished diamond output, and is one of the few diamond-producing countries with a diamond cutting industry of significance.

3. HISTORICAL DIAMOND PRODUCTION STATISTICS

Statistics in the table below show that South Africa's diamond production has grown from an annual output of 102 500 carats in 1870 to 15.4 million carats in 2006.

South African diamond production over history has shown a relatively steady growth (except during the war years) from an average of 1.26 million carats in the 1870s (1870 to 1879) to an average of 13.0 million carats in the first 6 years of the 21st century (see Table 1 below).

Table 1 lists annual production for the years from 1870 to 2006, and contains estimates as well as official statistics.

TABLE 1: SOUTH AFRICA'S ANNUAL DIAMOND PRODUCTION, 1870-2006

VEAD	DIAMOND PRODUCTION
YEAR	(CARATS)
1870 ^{GL}	102 500
1871 ^{GL}	269 000
1872 ^{GL}	1 080 000
1873 ^{GL}	1 100 000
1874 ^{GL}	1 313 500
1875 ^{GL}	1 380 000
1876 ^{GL}	1 513 000
1877 ^{GL}	1 765 000
1878 ^{GL}	1 920 000
1879 ^{GL}	2 110 000
1880 ^{GL}	3 140 000
1881 ^{GL}	3 090 000
1882 ^{GL}	2 660 000
1883 ^{GL}	2 410 000
1884 ^{GL}	2 263 736
1885 ^{GL}	2 439 631
1886 ^{GL}	3 135 061
1887 ^{GL}	3 598 930
1888 ^{GL}	3 841 937
1889 ^{GL}	2 961 978
1890 ^{GL}	2 504 726
1891 ^{GL}	3 255 545
1892 ^{GL}	3 039 062
1893 ^{GL}	2 813 744
1894 ^{GL}	2 737 793
1895 ^{GL}	3 101 853
1896 ^{GL}	3 211 026
1897 ^{GL}	3 366 000
1898 ^{GL}	3 620 000
1899 ^{GL}	2 915 000
1900 ^{GL}	2 113 000

YEAR	DIAMOND PRODUCTION
	(CARATS)
1901 ^{GL}	3 059 000
1902 ^{GL}	2 556 000
1903 ^{GL}	2 756 000
1904 ^{GL}	2 809 652
1905 ^{GL}	2 798 907
1906 ^{GL}	2 836 534
1907 ^{GL}	3 961 923
1908 ^{GL}	3 552 097
1909 ^e	3 500 000
1910 ^e	4 500 000
1911 ^{GL}	4 288 894
1912 ^{GL}	4 424 501
1913 ^{GL}	4 764 759
1914 ^e	1 400 000
1915 ^e	1 500 000
1916 ^e	2 100 000
1917 ^e	2 200 000
1918 ^e	1 800 000
1919 ^e	1 900 000
1920 ^e	1 800 000
1921 ^e	1 400 000
1922 ^e	1 600 000
1923 ^e	2 500 000
1924 ^{GL}	2 440 400
1925 ^{GL}	2 430 200
1926 ^{GL}	3 217 900
1927 ^{GL}	4 708 000
1928 ^{GL}	4 372 900
1929 ^{GL}	3 661 200
1930 ^{GL}	3 161 200
1931 ^e	2 800 000
1932 ^e	1 100 000
1933 ^e	1 100 000

YEAR	DIAMOND PRODUCTION
	(CARATS)
1934 ^e	1 100 000
1935 ^e	1 300 000
1936 ^e	1 400 000
1937 ^e	1 800 000
1938 ^e	2 000 000
1939 ^e	1 500 000
1940 ^e	1 300 000
1941 ^e	200 000
1942 ^e	190 000
1943 ^e	180 000
1944 ^e	900 000
1945 ^e	1 500 000
1946 ^e	1 550 000
1947 ^e	1 500 000
1948 ^e	1 540 000
1949 ^e	1 300 000
1950 ^e	1 600 000
1951 ^e	1 600 000
1952 ^e	1 540 000
1953 ^e	1 800 000
1954 ^e	1 750 000
1955 ^e	1 900 000
1956 ^e	2 100 000
1957 ^{GME}	2 578 975
1958 ^{GME}	2 702 254
1959 ^{GME}	2 838 332
1960 ^{GME}	3 141 463
1961 ^{GME}	3 787 862
1962 ^{GME}	3 917 891
1963 ^{GME}	4 375 572
1964 ^{GME}	4 449 978
1965 ^{GME}	5 025 598
1966 ^{GME}	6 036 677

VEAD	DIAMOND PRODUCTION
YEAR	(CARATS)
1967 ^{GME}	6 667 607
1968 ^{GME}	7 433 318
1969 ^{GME}	7 862 834
1970 ^{GME}	8 111 534
1971 ^{GME}	7 031 249
1972 ^{GME}	7 394 974
1973 ^{GME}	7 565 374
1974 ^{GME}	7 501 074
1975 ^{GME}	7 295 133
1976 ^{GME}	7 022 770
1977 ^{GME}	7 643 291
1978 ^{GME}	7 726 605
1979 ^{GME}	8 384 332
1980 ^{DME}	8 520 328
1981 ^{DME}	9 525 876
1982 ^{DME}	9 152 886
1983 ^{DME}	10 314 126
1984 ^{DME}	10 132 614
1985 ^{DME}	10 262 504
1986 ^{DME}	10 284 423
1987 ^{DME}	9 050 991
1988 ^{DME}	8 504 016
1989 ^{DME}	9 115 880
1990 ^{DME}	8 708 231
1991 ^{DME}	8 431 389
1992 ^{DME}	10 177 283
1993 ^{DME}	10 324 025
1994 ^{DME}	10 853 653
1995 ^{DME}	9 683 784
1996 ^{DME}	9 955 804
1997 ^{DME}	10 085 708
1998 ^{DME}	10 751 432
1999 ^{DME}	10 010 344

YEAR	DIAMOND PRODUCTION
	(CARATS)
2000 ^{DME}	10 780 235
2001 ^{DME}	11 238 411
2002 ^{DME}	10 905 889
2003 ^{DME}	12 642 553
2004 ^{DME}	14 291 293
2005 ^{DME}	15 775 115
2006 ^{DME}	15 371 804

TOTAL 620 5	505	383
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GL: Lenzen, G. (1970)

e: Estimates by author based on available, but incomplete

statistics

GME: Government Mining Engineer, 1957-1979

DME: Directorate: Mineral Economics

The cumulative total for South African diamond production since commercial mining in 1870 amounts to an estimated 620 million carats. This is only 3 ½ times current world diamond output. If we assume an average value of \$100/carat this cumulative production would be worth about \$62 billion today (about 5 times current world production value).

4. RECOMMENDATIONS

- It is recommended that this study be strengthened and extended to other mineral commodities in partnerships between the DME and producing companies.
- 2. For the sake of preserving our mining heritage, reports and other information on mining heritage should be shared with the National Heritage Institute in the Department of Arts and Culture.
- 3. Our unique diamond heritage should be incorporated in promotional campaigns for the South African Diamond Industry, especially in preparation for large tourist-drawing events such as the 2010 Soccer World Cup.

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GETTING IT RIGHT:

To provide diamond production statistics to improve estimates:

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