

Letseng's Unique Diamond Proposition

Russell Shor, Robert Weldon, A.J.A. (Bram) Janse, Christopher M. Breeding, and Steven B. Shirey

[DOWNLOAD PDF](#)


Figure 1. Rising prices and demand for large diamonds have fueled the success of the Letšeng mine in northern Lesotho. Shown here are two rough stones: a 299.35 ct slightly yellowish partial octahedron and a colorless 112.61 ct type IIa diamond. Photo by Robert Weldon/GIA; courtesy of Gem Diamonds Ltd.

ABSTRACT

The Letšeng-la-Terae diamond mine in Lesotho, a small nation surrounded by South Africa, is unique in that it produces some of the world's largest and highest-value diamonds from a relatively small volume of kimberlite ore. The mine, operated by De Beers during the late 1970s and early 1980s, was difficult to sustain economically because of its remoteness and very low ore grade, which made production costs very high. Since 2000, sharply rising prices for large diamonds have permitted the mine to reopen profitably as a 70/30 venture between Gem Diamonds Ltd. of South Africa and the government of Lesotho. To improve recovery of large diamonds, Letšeng's owners have implemented new processing technology that provides better identification of these crystals before processing and a crushing mechanism that reduces their potential breakage. In recent years, several important diamonds recovered from Letšeng have been sold to London luxury jeweler Laurence Graff.

While the Premier (now Cullinan) mine in South Africa is usually cited as the traditional source for very rare large diamonds, in recent years the Letšeng-la-Terae mine in Lesotho has become the major producer of such stones (figure 1). Although its total output is relatively small—about 100,000 carats yearly, compared to two million or more carats from most major diamond mines—the average value of its production in 2014 was just above US\$2,500 per carat (Gem Diamonds Ltd., 2014, 2015a). This is by far the world's highest per-carat value, more than 21 times higher than the \$116 average for diamonds mined worldwide, according to Kimberley Process data.

The Letšeng mine is also the world's most consistent source of type IIa diamonds (those with exceptionally low nitrogen content), which account for about one-fourth of its production (Gem Diamonds Ltd., 2014). The mine claims six of the 20 largest diamonds ever discovered—478, 493, 527, 550, 601, and 603 ct (table 1). The largest of these, the Lesotho Promise, was found in 2006 and sold to London jeweler Laurence Graff for \$12.4 million. In the years since, Graff has also purchased the 493 ct Letšeng Legacy, the 478 ct Light of Letšeng, and the 550 ct Letšeng Star.

TABLE 1. Largest diamonds recovered from Letšeng.

Name	Discovered	Size (ct)	Value	Sale price per carat
------	------------	-----------	-------	----------------------

Unnamed	1965	527	no data	no data
Lesotho Brown	May 1967	601	US\$302,400	US\$503
Lesotho Promise	Oct. 2006	603	US\$12.4 M	US\$20,564
Letšeng Legacy	Sept. 2007	493	US\$10.4 M	US\$21,095
Light of Letšeng	Sept. 2008	478	US\$18.4 M	US\$38,493
Letšeng Star	Aug. 2011	550	US\$16.5 M	US\$30,000

Until 2004, Letšeng had been shut down for more than 20 years because its low grade and remote location made mining unprofitable at existing diamond prices. Up until the past decade, De Beers and other mining companies typically sacrificed large crystals for the sake of rapid throughput, which maximized efficiency and reduced mining costs. Only after prices for large stones began rising sharply did the mining economics change in favor of preserving them. Because the economic viability of Letšeng hinges on its ability to produce very large diamonds, the owners have employed new recovery processes to reduce damage and breakage of such diamonds. The mine is a major force of Lesotho's economy, employing about 1,500 workers, 90% of them locals. Letšeng accounts for 70% of the country's corporate tax revenue and 60% of its foreign exchange earnings (M. Maharasoa, pers. comm., 2014).

BACKGROUND

GEOLOGICAL FRAMEWORK

GEOLOGY AND PETROGRAPHY OF THE LETŠENG PIPES

EXPLORATION

GOVERNMENT DIGGINGS

SECOND LIFE FOR LETŠENG

MINING AND PROCESSING

IMPROVING RECOVERY AT LETŠENG

CHARACTERISTICS AND MARKETING OF LETŠENG DIAMONDS

CONCLUSIONS

YOU MIGHT ALSO LIKE



Find a Retailer

[LEARN MORE](#)



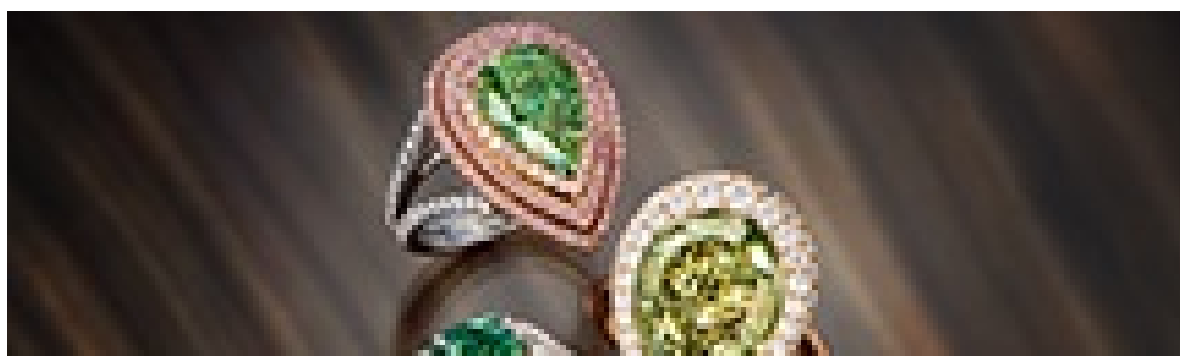
Shop the Campus Store

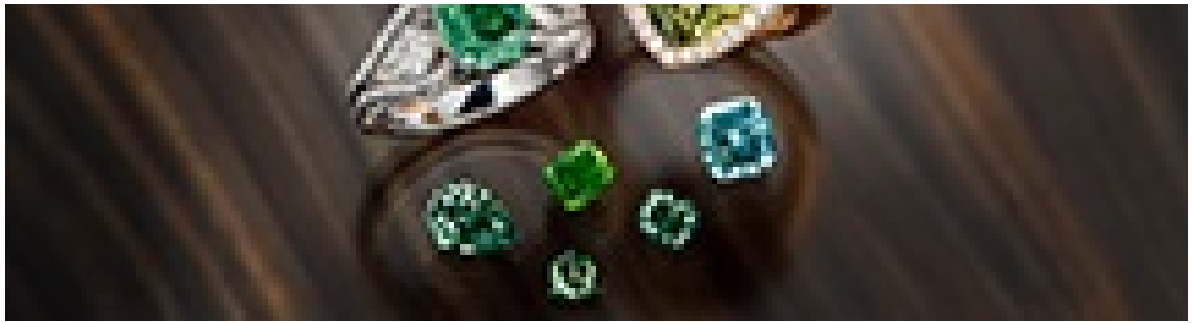
[LEARN MORE](#)



Quality Assurance Benchmarks

[LEARN MORE](#)







G&G Spring 2018 Edition

[LEARN MORE](#)

[^ BACK TO TOP](#)



 Change Language: **English (US)** 

[Copyrights and Trademarks](#) | [Privacy Policy](#) | [Terms of Use](#) | [Link to GIA](#) | [Ethics and Compliance](#) | [About This Site](#)

© 2002 - 2018 Gemological Institute of America Inc.
GIA is a nonprofit 501(c)(3) organization. All rights reserved.