

## GEMSTONES<sup>1</sup>

(Data in million dollars unless otherwise noted)

**Domestic Production and Use:** The combined value of U.S. natural and synthetic gemstone output decreased by 6% in 2006 from that of 2005. The value of natural gemstone production decreased by 1% during 2006. Domestic gemstone production included agate, amber, beryl, coral, garnet, jade, jasper, opal, pearl, quartz, sapphire, shell, topaz, tourmaline, turquoise, and many other gem materials. In decreasing order, Tennessee, Oregon, Arizona, California, Arkansas, Montana, and Nevada produced 81% of U.S. natural gemstones. The value of laboratory-created (synthetic) gemstones production decreased by more than 7% during the year. Laboratory-created gemstones were manufactured by four firms in North Carolina, Florida, Massachusetts, and Arizona, in decreasing order of production. Major gemstone uses were jewelry, carvings, and gem and mineral collections.

<b>Salient Statistics—United States:</b>	<b><u>2002</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>	<b><u>2005</u></b>	<b><u>2006<sup>e</sup></u></b>
Production: <sup>2</sup>					
Natural <sup>3</sup>	12.6	12.5	14.5	13.4	13.3
Laboratory-created (synthetic)	18.1	33.4	30.7	51.1	47.4
Imports for consumption	12,800	13,600	15,400	17,200	18,300
Exports, including reexports <sup>4</sup>	4,880	5,490	7,230	8,850	9,930
Consumption, apparent <sup>5</sup>	7,950	8,160	8,220	8,410	8,430
Price	Variable, depending on size, type, and quality				
Employment, mine, number <sup>e</sup>	1,200	1,200	1,200	1,200	1,200
Net import reliance <sup>6</sup> as a percentage of apparent consumption	99	99	99	99	99

**Recycling:** Insignificant.

**Import Sources (2002-05 by value):** Israel, 46%; India, 20%; Belgium, 18%; South Africa, 4%; and other, 12%. Diamond imports accounted for 94% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations <u>12-31-06</u></b>
	Diamond, unworked or sawn	7102.31.0000	Free.
	Diamond, ½ carat or less	7102.39.0010	Free.
	Diamond, cut, more than ½ carat	7102.39.0050	Free.
	Precious stones, unworked	7103.10.2000	Free.
	Precious stones, simply sawn	7103.10.4000	10.5% ad val.
	Rubies, cut	7103.91.0010	Free.
	Sapphires, cut	7103.91.0020	Free.
	Emeralds, cut	7103.91.0030	Free.
	Other precious stones, cut but not set	7103.99.1000	Free.
	Other precious stones	7103.99.5000	10.5% ad val.
	Imitation precious stones	7018.10.2000	Free.
	Synthetic, cut but not set	7104.90.1000	Free.
	Pearls, natural	7101.10.0000	Free.
	Pearls, cultured	7101.21.0000	Free.
	Pearls, imitation, not strung	7018.10.1000	4.0% ad val.

**Depletion Allowance:** 14% (Domestic and foreign).

**Government Stockpile:** The National Defense Stockpile (NDS) does not contain an inventory of gemstones. However, a very small portion of the industrial diamond stone inventory is of near-gem quality. Additionally, the beryl and quartz crystal inventories contain some gem-quality material that could be used by the gem industry. The U.S. Department of Defense is currently selling some NDS materials that may be near-gem quality.

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**Events, Trends, and Issues:** In 2006, the U.S. market for unset gem-quality diamonds was estimated to have exceeded \$16.2 billion, accounting for more than an estimated 35% of world demand. The domestic market for natural, unset nondiamond gemstones was estimated to be about \$996 million. The United States is expected to dominate global gemstone consumption throughout this decade.

Canada's Ekati Mine completed its seventh full year in 2005, with diamond production of 3.23 million carats. The Diavik Diamond Mine completed its third full year in 2005, with diamond production of 8.3 million carats. Diamond exploration is continuing in Canada, and many new deposits have been found. Canada produced about 7% of the world's natural gemstone diamond production in 2005. The success of Canadian diamond mines has stimulated interest in exploration for commercially feasible diamond deposits in the United States. Currently, there are no operating commercial diamond mines in the United States.

Mine production in 2006 for Angola, Botswana, Canada, the Central African Republic, Congo (Kinshasa), Côte d'Ivoire, Guinea, Guyana, Sierra Leone, South Africa, and Tanzania increased, while production for Russia decreased, and production in Australia, Brazil, China, and Namibia remained the same compared with that of 2005, based on submissions from country sources.

### **World Mine Production,<sup>7</sup> Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>8</sup>
	2005	2006 <sup>e</sup>	
United States	( <sup>9</sup> )	( <sup>9</sup> )	World reserves and reserve base of diamond-bearing deposits are substantial. No reserves or reserve base data are available for other gemstones.
Angola	5,580	7,500	
Australia	20,000	20,000	
Botswana	23,900	24,000	
Brazil	300	300	
Canada	12,300	12,600	
Central African Republic	265	400	
China	100	100	
Congo (Kinshasa)	6,300	6,600	
Côte d'Ivoire	201	300	
Ghana	760	850	
Guinea	411	600	
Guyana	357	1,600	
Namibia	1,900	1,900	
Russia	23,000	22,400	
Sierra Leone	318	650	
South Africa	5,780	6,400	
Tanzania	175	180	
Other countries <sup>10</sup>	175	175	
World total (rounded)	102,000	107,000	

**World Resources:** Most diamond-bearing ore bodies have a diamond content that ranges from less than 1 carat per ton to about 6 carats per ton. The major gem diamond reserves are in southern Africa, Australia, Canada, and Russia.

**Substitutes:** Plastics, glass, and other materials are substituted for natural gemstones. Synthetic gemstones (manufactured materials that have the same chemical and physical properties as gemstones) are common substitutes. Simulants (materials that appear to be gems, but differ in chemical and physical characteristics) also are frequently substituted for natural gemstones.

<sup>e</sup>Estimated.

<sup>1</sup>Excludes industrial diamond and garnet. See Diamond (Industrial) and Garnet (Industrial).

<sup>2</sup>Estimated minimum production.

<sup>3</sup>Includes production of freshwater shell.

<sup>4</sup>Reexports account for about 78% of the totals.

<sup>5</sup>If reexports were not considered, apparent consumption would be significantly greater.

<sup>6</sup>Defined as imports – exports and reexports + adjustments for Government and industry stock changes.

<sup>7</sup>Data in thousands of carats of gem diamond.

<sup>8</sup>[See Appendix C for definitions.](#)

<sup>9</sup>Less than ½ unit.

<sup>10</sup>In addition to countries listed, Gabon, India, Indonesia, Liberia, and Venezuela are known to produce gem diamonds.