

## 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 11% in 2009 from that of 2008. The natural gemstone production value decreased slightly from that of 2008, while synthetic gemstone production decreased 33% over the same period. Domestic gemstone production included agate, beryl, coral, garnet, jade, jasper, opal, pearl, quartz, sapphire, shell, topaz, tourmaline, turquoise, and many other gem materials. In decreasing order, Tennessee, Oregon, Arizona, Utah, California, North Carolina, Idaho, Arkansas, Colorado, Alabama, and Montana produced 86% of U.S. natural gemstones. The production value of laboratory-created (synthetic) gemstones decreased 33% from that of the previous year. This drop in production resulted from a large decrease in Moissanite production value. Laboratory-created gemstones were manufactured by five firms in Florida, New York, North Carolina, Massachusetts, and Arizona, in decreasing order of production. Major gemstone uses were carvings, gem and mineral collections, and jewelry.

<b>Salient Statistics—United States:</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009<sup>e</sup></b>
Production: <sup>2</sup>					
Natural <sup>3</sup>	13.4	11.3	11.9	11.5	11.2
Laboratory-created (synthetic)	51.1	52.1	73.5	51.4	34.3
Imports for consumption	17,200	18,300	20,100	20,900	14,500
Exports, including reexports <sup>4</sup>	8,850	9,930	12,300	15,300	9,950
Consumption, apparent	8,410	8,430	7,880	5,670	4,610
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>5</sup> as a percentage of apparent consumption	99	99	99	99	99

**Recycling:** Gemstones are often recycled by being resold as estate jewelry, reset, or recut, but this report does not account for those stones.

**Import Sources (2005-08 by value):** Israel, 48%; India, 20%; Belgium, 15%; South Africa, 5%; and other, 12%. Diamond imports accounted for 95% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12-31-09</b>
	Pearls, imitation, not strung	7018.10.1000	4.0% ad val.
	Imitation precious stones	7018.10.2000	Free.
	Pearls, natural	7101.10.0000	Free.
	Pearls, cultured	7101.21.0000	Free.
	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.
	Synthetic, cut but not set	7104.90.1000	Free.

**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 2009, the U.S. market for unset gem-quality diamonds was estimated to have exceeded \$13.7 billion, accounting for more than an estimated 35% of world demand. This was a decrease of about 30% compared with that of 2008. The domestic market for natural, unset nondiamond gemstones was estimated to be about \$787 million, which was a decrease of 32% from that of 2008. These decreases in the U.S. gemstone markets are a reflection of the impact of the global recession on luxury spending. The United States is expected to continue dominating global gemstone consumption.

Canadian diamond production decreased in 2009 to about 12 million carats. Diamond exploration also continued in Canada, and many new deposits have been found. Canada produced more than 13% of the world's natural gemstone diamonds in 2009. The success of the Canadian gem diamond industry has stimulated interest in domestic exploration for commercial diamond deposits; however, at present, there are no operating commercial diamond mines in the United States.

### **World Gem Diamond Mine Production<sup>6</sup> and Reserves:**

	Mine production		Reserves <sup>7</sup>
	2008	2009 <sup>e</sup>	
Angola	8,100	8,000	World reserves of diamond-bearing deposits are substantial. No reserves data are available for other gemstones.
Australia	273	260	
Botswana	25,000	32,000	
Brazil	200	200	
Canada	14,800	12,000	
Central African Republic	400	350	
China	100	100	
Congo (Kinshasa)	5,400	5,400	
Côte d'Ivoire	210	—	
Ghana	520	500	
Guinea	2,500	2,000	
Guyana	269	269	
Namibia	1,500	2,000	
Russia	21,900	21,900	
Sierra Leone	220	300	
South Africa	5,200	5,200	
Tanzania	190	190	
Other countries <sup>9</sup>	218	218	
World total (rounded)	87,000	90,900	

**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. — Zero.

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

<sup>6</sup>Data in thousands of carats of gem diamond.

<sup>7</sup>See Appendix C for definitions. Reserve base estimates were discontinued in 2009; see Introduction.

<sup>8</sup>In addition to countries listed, Gabon, India, Indonesia, Liberia, and Venezuela are known to produce gem diamonds.