

GEMSTONES¹

(Data in million dollars unless otherwise noted)

Domestic Production and Use: The combined U.S. natural and synthetic gemstone output decreased by 24% in 2004 from that of 2003. Production of natural gemstones increased by 3% during 2004. Domestic gemstone production included agates, 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, Montana, Nevada, Idaho, and Arkansas produced 83% of U.S. natural gemstones. Production of laboratory-created (synthetic) gemstones decreased by more than 33% during the year, owing to the closure of the only U.S. cubic zirconia producer. Reported output of laboratory-created gemstones was from four firms in North Carolina, Florida, Michigan, and Arizona, in decreasing order of production. Major uses were jewelry, carvings, and gem and mineral collections.

Salient Statistics—United States:	2000	2001	2002	2003	2004^e
Production: ²					
Natural ³	17.2	14.9	12.6	12.5	12.9
Laboratory-created (synthetic)	57.1	24.7	18.1	33.4	22.2
Imports for consumption	12,900	11,300	12,900	13,600	15,400
Exports, including reexports ⁴	4,330	4,320	4,880	5,490	6,940
Consumption, apparent ⁵	8,640	7,020	8,050	8,160	8,500
Price	Variable, depending on size, type, and quality				
Employment, mine, number ^e	1,200	1,200	1,200	1,200	1,200
Net import reliance ⁶ as a percentage of apparent consumption	99	99	99	99	>99

Recycling: Insignificant.

Import Sources (2000-03 by value): Israel, 44%; India, 20%; Belgium, 19%; and other, 17%. Diamond imports accounted for 94% of the total value of gem imports.

Tariff: Item	Number	Normal Trade Relations 12-31-04
Diamonds, 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 2004, the U.S. market for unset gem-quality diamonds was estimated to have exceeded \$12.9 billion, accounting for more than an estimated 35% of world demand. The domestic market for natural, unset nondiamond gemstones was estimated to be about \$816 million. The United States is expected to dominate global gemstone consumption throughout this decade.

The Kimberley Process Certification Scheme for rough diamond shipments, which was mandated by the United Nations, was implemented during 2002. The United States was a full participant in the Kimberley Process in 2003. Thus far the scheme appears to be successful in excluding conflict diamonds from the legitimate supply chain.

Canada's Ekati Mine completed its fifth full year in 2003, with diamond production of 5.57 million carats. The Diavik Diamond Mine came onstream and was up to full operating capacity by February 2003 and produced 3.8 million carats by yearend. Canada's first entirely underground diamond mine, the Snap Lake project, is expected to come onstream in 2006. Canada produced about 15% of the world's diamond in 2003.

World Mine Production,⁷ Reserves, and Reserve Base: Mine production in 2004 for Angola, Australia, Canada, Guinea, Namibia, Russia, Sierra Leone, and Tanzania were revised upward, while production for Botswana, Congo (Kinshasa), Ghana, and South Africa were revised downward based on submissions from country sources.

	Mine production		Reserves and reserve base ⁸
	2003	2004 ^e	
United States	(9)	(9)	World reserves and reserve base of diamond-bearing deposits are substantial. No reserves or reserve base data are available for other gemstones.
Angola	4,770	5,500	
Australia	14,900	15,000	
Botswana	22,800	22,500	
Brazil	500	500	
Canada	11,200	11,300	
Central African Republic	300	300	
China	235	235	
Congo (Kinshasa)	5,400	5,000	
Ghana	800	750	
Guinea	368	490	
Namibia	1,650	1,700	
Russia	12,000	12,500	
Sierra Leone	214	250	
South Africa	5,070	5,000	
Tanzania	198	310	
Other countries ¹⁰	495	495	
World total (rounded)	80,900	81,800	

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.

^eEstimated.

¹Excludes industrial diamond and garnet. See Diamond (Industrial) and Garnet (Industrial).

²Estimated minimum production.

³Includes production of freshwater shell.

⁴Reexports account for about 78% of the totals.

⁵If reexports were not considered, apparent consumption would be significantly greater.

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

⁷Data in thousands of carats of gem diamond.

⁸See [Appendix C](#) for definitions.

⁹Less than ½ unit.

¹⁰In addition to countries listed, Cote d'Ivoire, Gabon, Guyana, India, Indonesia, Liberia, and Venezuela are known to produce gem diamonds.