GEMSTONES¹

(Data in million dollars, unless otherwise noted)

<u>Domestic Production and Use</u>: Total U.S. gemstone output has decreased in recent years owing to a decline in foreign demand for freshwater shell, a major component of the domestic industry. Domestic gemstone production included agates, amber, beryl, coral, garnet, jade, jasper, opal, pearl, quartz, sapphire, shell, topaz, tourmaline, turquoise, and many other gem materials. Output of natural gemstones was primarily from Tennessee, Arizona, California, Oregon, Utah, Nevada, and Idaho, in decreasing order. Reported output of synthetic gemstones was from five firms in North Carolina, New York, Florida, California, and Arizona, in decreasing order of production. Major uses were jewelry, carvings, and gem and mineral collections.

Salient Statistics—United States:	<u>1997</u>	<u> 1998</u>	<u>1999</u>	<u>2000</u>	2001°
Production: ²		· 			·
Natural ³	25.0	14.3	16.1	17.2	15.3
Synthetic	21.6	24.2	47.5	37.1	24.5
Imports for consumption	8,380	9,250	10,700	12,900	11,700
Exports, including reexports ⁴	2,760	2,980	3,610	4,540	4,590
Consumption, apparent⁵	5,670	6,310	7,150	8,410	7,190
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.

<u>Import Sources (1997-2000)</u>: Israel, 40%; India, 21%; Belgium, 20%; and other, 19%. Diamond imports accounted for 93% of the total value of gem imports.

Tariff: Item	Number	Normal Trade Relations 12/31/01
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, 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).

<u>Government Stockpile</u>: The National Defense Stockpile (NDS) does not contain an inventory of gemstones. However, a small portion of the industrial diamond inventory is of near-gem quality. Additionally, the beryl and quartz inventories contain some gem-quality materials 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: The Kelsey Lake diamond mine, which is the United States' only commercial diamond mine, straddles the Colorado-Wyoming State line. Kelsey Lake is owned and operated by Great Western Diamond Co., a wholly owned subsidiary of McKenzie Bay International, Ltd. of Canada. In September 2001, McKenzie Bay entered into a contract to sell Great Western to Roberts Construction of North Dakota and BJ&J Ltd. of Colorado.

In 2001, the U.S. market for unset gem-quality diamonds was estimated to be more than \$9 billion, accounting for at least one-third of world demand. The domestic market for natural, unset nondiamond gemstones totaled more than \$770 million. The United States is expected to dominate global gemstone consumption throughout this decade.

The large jump in reported diamond production for Botswana is due to the new Orapa mine expansion, which came onstream in May 1999 and was completed during 2000. This expansion was designed to increase the Orapa's production to 12 million carats per year. New tighter controls on diamond smuggling, due to international bans on conflict diamonds, have caused some countries like Angola to reported higher production figures.

World Mine Production, Reserves, and Reserve Base:

Mine production 2000 2001e **United States** Angola 4.350 4.400 Australia 12.000 13.000 Botswana 19,700 16,000 Brazil 300 300 Canada 2.000 2.300 400 400 Central African Republic China 230 230 Congo (Kinshasa) 3,500 3,500 Ghana 180 800 Namibia 1,520 1,550 Russia 11.600 11.600 South Africa 4,300 4,800 Venezuela 60 60 Other countries 1,410 1,440 World total (rounded) 60.400 61,600

Reserves and reserve base8

World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.

World Resources: Canada's Ekati Mine completed its second full year in 2000, with diamond production of 2.63 million carats valued at \$454 million. In the sixteen-month period that ended May 31, 2001, Ekati produced 3.60 million carats of diamond, with an average sale price of \$168.30 per carat. Canada's Diavik project is expected to come onstream in 2003 with production of 6 to 8 million carats per year. Canada's first underground diamond mine, the Snap Lake project, is expected to come on-stream in 2005. When the Diavik and Snap Lake mines begin production, Canada will be producing at least 15% to 20% of total world diamond production.

Natural gem-quality diamonds are among the world's rarest mineral materials. Most diamond-bearing ore bodies have a diamond content that ranges from less than 1 carat per ton to only about 6 carats per ton. The major gem diamond reserves are in southern Africa, Western Australia, Canada, and Russia.

<u>Substitutes</u>: 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 more than 90% 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.