Diamonds

Louis Perron

The author is with the Minerals and Metals Sector, Natural Resources Canada.
Telephone: 613-992-4828
E-mail: louis.perron@nrcan-rncan.gc.ca

HIGHLIGHTS

- Canada's 2008 rough diamond production is estimated at $2.4 billion for a level of production just above 14.8 million carats (Mct). This makes Canada the world's third largest producer by value after Botswana and Russia.
- On a value basis, Canada's production currently accounts for approximately 17.7% of world diamond production, which is estimated in 2008 at 162.9 Mct valued at US$12.7 billion.
- Diamond exploration expenditures across Canada plummeted to $227 million, down 30% from 2007.

INTRODUCTION

While Canada broke a diamond production record on a volume basis in 2007, it broke its production record on a value basis in 2008. Preliminary figures indicate that Canadian diamond production in 2008 registered a 33.6% increase in value in Canadian dollars and a 13.7% decrease in quantity compared to 2007. The decrease occurred despite new production from De Beers' Snap Lake and Victor mines and resulted mostly from a greater portion of the ore coming from underground operations at Ekati, the processing of lower-grade ore at the Diavik mine, and the closure of Tahera's Jericho mine. The increase in value resulted from the significant hike in overall diamond prices, the increase in average price per carat resulting from the start of the Victor mine, and was achieved despite a slight appreciation (0.82%) of the Canadian dollar versus the U.S. dollar (sales are made in U.S. dollars).

Canada's current diamond production comes from five mines: the Ekati™, Diavik, and Snap Lake mines located about 300 km northeast of Yellowknife in the Northwest Territories (N.W.T.), the Jericho mine in Nunavut, and the Victor mine in northern Ontario (Figure 1). The opening of these mines has resulted in the creation in Canada of about 8000 direct and indirect jobs (including contractors working on projects under construction and jobs in ancillary industries), and in the formation of several hundred companies by Aboriginals.

CANADIAN DEVELOPMENTS

Mine Developments

Ekati™ Mine

Canada's first diamond-producing mine, Ekati™, came into production in 1998. The mine is owned 80% by BHP Billiton Ltd. Chuck Fipke and Stuart Blusson, who discovered the diamond deposit in 1991, each hold a 10% interest in the mine. In 2008, Ekati achieved a production level of 3.6 Mct, registering a 24% decrease compared to 2007. The decline is reportedly due to lower grades and an expected change in the mix of ore as the mine transitions from open-pit to underground mining. Production was primarily sourced from the Panda and Koala underground mines and from the Fox and Beartooth open-pit mines.

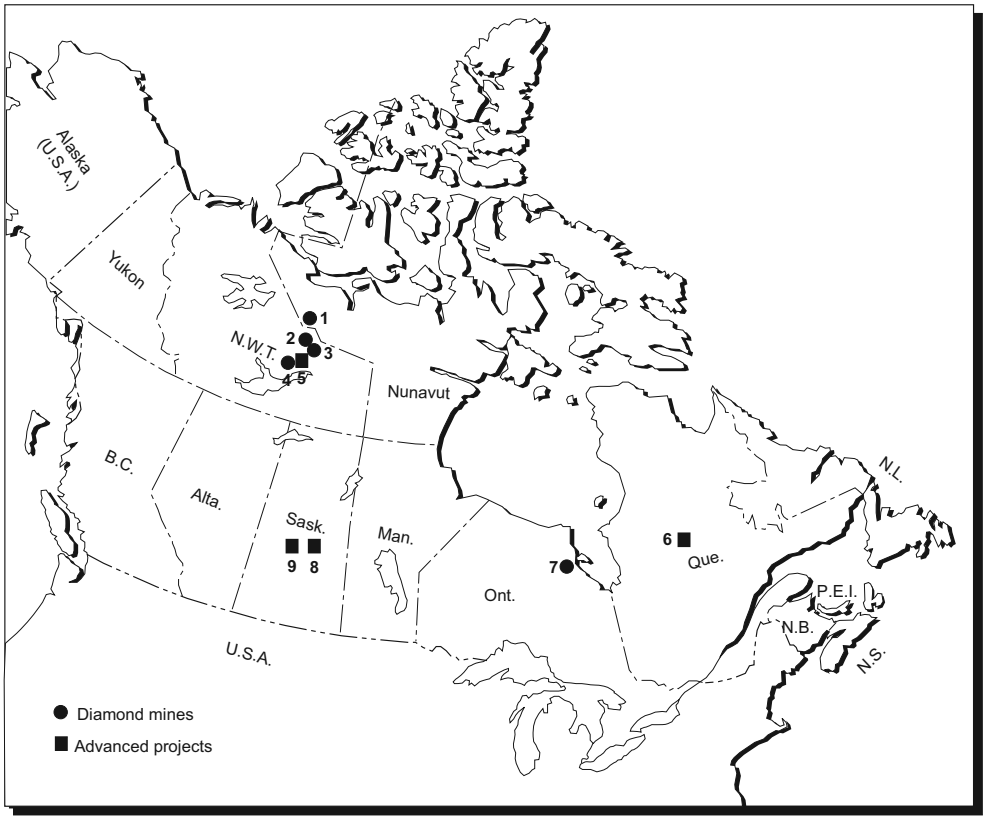
Completed in early October 2007, ahead of schedule and under budget, the Koala underground mine is expected to supply 25% of the mine feed and 40% of the diamond output by value in the coming years. Over its 11-year production life, it is expected to deliver approximately 9.8 Mct of high-value Koala diamonds.

As of June 30, 2008, Ekati™ ore reserves were estimated at 44.1 Mt grading 0.53 ct/t, for a total of about 23.3 Mct. BHP Billiton Diamonds Inc. employs about 800 people and has, on average, an additional 700 workers through on-site contractors providing a variety of support services.

Diavik Mine

Canada's second diamond mine, Diavik, began production in early 2003. It is an unincorporated joint venture between Diavik Diamond Mines Inc. (DDMI), which owns 60%, and Harry Winston Diamond Mines Ltd. (HWDML), which owns 40%. DDMI, the manager of the mine, is a wholly

Figure 1
Diamond Mines and Advanced Projects in Canada, 2008



1. Jericho
2. Ekati
3. Diavik
4. Snap Lake
5. Gahcho Kué
6. Foxtrot
7. Victor
8. Star
9. Fort-à-la-Corne

owned subsidiary of Rio Tinto plc, while HWDML is a wholly owned subsidiary of Harry Winston Diamond Corp. of Toronto, Ontario. The two joint-venture participants retain the right to market, independently, their respective share of the diamonds produced from Diavik.

Production at Diavik in 2008, occurring from the A154 South and North kimberlites, as well as from the A418 kimberlite, reached 9.2 Mct, a 23% decrease compared to 2007. The lower production is reportedly due to an overall reduction in grade that started in the fourth quarter of 2007. Open-pit mining of Diavik's A418 orebody was initiated in the second quarter of 2008. It is planned to be in operation until the first quarter of 2012, at which time all mining operations will be carried out from underground as production from the A154 pit is scheduled to cease in early 2010. Work on the underground mine construction and related surface works continued during 2008 and should be completed to allow underground production to begin in the first quarter of 2010. Meanwhile, a decision was made to defer the development of the A21 pipe pending additional studies.

In response to the downturn in the economy at the end of the year, DDMI announced that the Diavik mine will temporarily cease diamond production and will be placed on a care and maintenance schedule between July 14 and August 24, 2009, and between December 1, 2009, and January 11, 2010.

During 2008, the work force at Diavik's operations averaged 808 workers with northern and Aboriginal employment averaging 540 (67%) and 273 (34%), respectively. During the same period, Diavik and its contractors also employed an average of 628 workers for capital projects such as underground mine construction. At the end of 2008, Diavik's ore reserves were estimated at 20 Mt averaging 3.1 ct/t, for a total of about 62 Mct.

Jericho Project

The Jericho mine, Canada's third diamond mine and its first outside the N.W.T., is located in Nunavut about 420 km northeast of Yellowknife and 170 km north of the Diavik mine at Lac de Gras in the N.W.T. Owned by Tahera

Diamond Corp., a Toronto-based firm, the deposit comprises at least six kimberlite lobes hosting about 5.5 Mt grading 0.85 ct/t with an average value of US$93/ct.

Designed with a production capacity of around 500 000 ct/y and a nine-year life, the mine achieved commercial production on July 1, 2006. However, the company experienced start-up problems related to ore mining and processing that were compounded by higher operational costs related to an early closure of the ice road in 2006, which limited the transport of supplies to the mine site. The company was eventually able to improve its production rate. However, additional financial losses incurred by the company, linked to the appreciation of the Canadian dollar versus the U.S. dollar and higher oil prices, forced the company to enter into protection under the *Companies' Creditors Arrangement Act* on January 16, 2008. Mining operations were suspended on February 6, enabling the production of only 118 000 ct in 2008. As of the end of the year, the company was still trying to reach an agreement with its creditors.

Snap Lake Project

The Snap Lake diamond deposit, 100% owned by De Beers Canada (part of the De Beers Group), is located approximately 220 km northeast of Yellowknife in the N.W.T. The deposit is unique in that the kimberlite is in the form of a dyke, as opposed to the more common carrot-shaped pipe. The dyke is a tabular-shaped structure about 2.7 m thick that dips at a shallow angle of 15 degrees. Because of its shape, the company is using a modified room and pillar underground mining method to mine the deposit, which is estimated at 18.3 Mt grading 1.46 ct/t.

While mining operations started in October 2007, it achieved a commercial production status in the first quarter of 2008 and was officially opened on July 25. At full production, Snap Lake is expected to employ about 535 employees, to produce about 1.4 Mct/y (with an average value of about US$144/ct), and to have a life of just over 20 years.

In order to align with market demand, De Beers announced in early 2009 that the Snap Lake mine will take a production holiday for six weeks in July and August 2009, and for another four weeks in December 2009.

Victor Project

In northern Ontario, about 90 km west of the coastal community of Attawapiskat on the James Bay coast, the commissioning of the 100%-owned De Beers Victor project was initiated at the end of December 2007 and was officially opened on July 26, 2008. Developed at a cost of $991 million, the Victor kimberlite has a surface area of 15 ha and consists of two pipes that coalesce at the surface: Victor Main and Victor Southwest. It has mineable reserves estimated at 27.4 Mt averaging 0.23 ct/t. While at full capacity the mine is expected to produce an average of 600 000 ct/y over a 12-year open-pit mine life, it achieved production of 730 000 ct valued at $306.8 million in 2008. Employment on site is expected to stabilize at around 400 people during production. As with the Snap Lake mine, the Victor mine will take a production holiday for six weeks in July and August 2009. It also took a two-week production holiday over the 2008/09 Christmas period.

Gahcho Kué

The Gahcho Kué project, owned by De Beers Canada Inc. (51%) and Mountain Province Diamonds Inc. (49%), is located south of Lac de Gras, 90 km southeast of the Snap Lake project and approximately 300 km northeast of Yellowknife. Of the eight diamondiferous kimberlites found to date on the Gahcho Kué property, the larger 5034, Hearne, and Tuzo kimberlite bodies are currently considered to be potentially economically viable. As of mid-2006, the weighted average modeled value per carat for the 5034 pipe was estimated at about US$110, while the average value for the three pipes was estimated at about US$83. Technical studies completed so far have outlined an indicated resource of about 14.4 Mt grading 1.64 ct/t and an inferred resource of about 17 Mt grading 1.35 ct/t that could be mined out at a rate of 2.1 Mt/y over a 15-year mine life.

In 2008, a bulk sampling program on the Tuzo pipe was undertaken to recover approximately 1500 ct. The data from this bulk sampling program, along with close to 600 ct recovered from the Tuzo pipe in earlier years, are being incorporated into a diamond revenue model for this pipe.

Gahcho Kué is presently in the permitting and advanced exploration phase with an Environmental Impact Statement for the project scheduled to be submitted in the last quarter of 2009. Given that the review process is expected to take 18-24 months, permitting is expected to take 6 months, and construction about 2 years, the mine could be in production in mid-2014. Work in 2009 will focus on three areas of baseline data collection: caribou, hydrology, and upland birds.

Exploration Developments

Exploration for diamonds, as for other commodities, fell significantly in 2008 across Canada. Following is a discussion on developments achieved on projects at an advanced stage of exploration.

The **Northwest Territories** and **Nunavut** remained focal points for diamond exploration. In 2008, Peregrine Diamonds Ltd. (71.74%) and partners Archon Minerals Limited (17.48%) and DHK Diamonds Inc. (10.78%) completed an internal preliminary technical assessment and mineral resource estimation on the DO-27 kimberlite pipe, one of two pipes on their **WO diamond project** located 23 km southeast of the Diavik mine. Based on the model established for the DO-27 pipe, an indicated mineral resource of 19.5 Mt grading 0.94 ct/t was estimated to a

depth of 325 m for a total of 18.2 Mct. A modeled valuation report by WWW International Diamond Consultants Ltd. (WWW) in 2007 ranged from US$43 to US$70/ct with a "base case" average of US$51/ct. The more valuable stones recovered were a 4.35-ct fancy yellow octahedron and a 4.19-ct white stepped octahedron, both valued at US$1900/ct. Using these results to assess the economic potential of the DO-27 kimberlite, the company concluded that development of the DO-27 project was not currently economic, but believes that the latter could support a mining operation in the future provided market conditions improve.

In **Nunavut**, joint-venture partners Stornoway Diamond Corporation (90% after the acquisition of BHP's interest in 2008) and Hunter Exploration Group (10%) pursued exploration of the **Aviat project** located on the Melville Peninsula north of Hudson Bay where 12 kimberlite bodies have been discovered to date. These range from small pipe-like intrusions to shallowly dipping (8-20°) stacked sheets or dyke-like intrusions. An independent conceptual study of four dykes of Aviat's Eastern Sheet Complex (ESC) carried out in 2008 estimated their content at 12.4-16.0 Mt of kimberlite material grading 2.35 ct/t. Representing about 78% of the estimated total kimberlite volume, Dyke ES 1 was the focus of additional work during the 2008 field season. At the end of the year, a 202-t sample was being collected to better estimate its grade and size distribution. Pending the results of this sampling expected to be completed by the end of the first quarter of 2009, Stornoway will initiate desktop studies to review potential mining methods at Aviat and, subsequently, the optimum sampling strategy for achieving a NI 43-101 compliant mineral resource estimate.

Also in Nunavut, **Peregrine Diamonds Ltd.** pursued work on its Chidliak property located 150 km northeast of Iqaluit where three diamondiferous kimberlites were discovered during the year. The most promising for now, CH-1, is estimated at 6 ha in size. A 2.28-t sample collected on surface returned a diamond content of 1.56 ct/t and included a 2.01-ct, gem-quality octahedron diamond. Under an exploration agreement, BHP Billiton is earning a 51% interest in the property by funding a total of $22.3 million in future exploration expenditures.

Developing well is the **Churchill diamond project** (Shear Minerals Ltd. [58%] and Stornoway Diamonds Corp. [42%]) located between the communities of Rankin Inlet and Chesterfield Inlet on the west coast of Hudson Bay. To date, the partners have discovered close to 90 kimberlites on the Churchill and Churchill West projects, including the Kahuna Dyke, which has been traced for over 5 km, varies in width from 2.8 m to 4 m, and has yielded a diamond content of 1.04 ct/t based upon a 356-t sample. The majority of these diamonds are described as white and colourless with the five largest stones being 5.44, 2.05, 1.54, 1.44, and 1.32 ct in size. The company was finalizing arrangements at the end of the year for an independent market valuation to be conducted on the 337-ct Kahuna diamond parcel to obtain a preliminary estimate of average diamond value. Highlights from the 2008 exploration season include the discovery of nine new kimberlites, two of which (Killiq and the Kahuna breccia) were high-interest kimberlites. In addition to the new discoveries, the joint venture also collected a 26.1-t sample from the Notch kimberlite to provide a preliminary assessment of commercial diamond content (stones >0.85 mm in size) and stone quality.

In the Fort-à-la-Corne region of northern **Saskatchewan**, Shore Gold Inc. released in June a NI 43-101 compliant resource estimate on the Star kimberlite that includes indicated resources of 122.7 Mt at a grade of 0.136 ct/t and inferred resources of 30.3 Mt at a grade of 0.131 ct/t. In addition to this estimate, a further 100-120 Mt of Star kimberlite grading between 10 and 13 ct per 100 t is designated a "potential mineral deposit." About 60% of this resource is part of Shore Gold's Star property while the rest, named Star West, is part of the Fort-à-la-Corne joint venture (FALC-JV) owned by Shore Gold's wholly owned subsidiary, Kensington Resources Ltd. (60%) and Newmont Mining Corp. of Canada Ltd. (40%). Based on the resource estimate, a proposal for the development of a joint Star-Orion South diamond project was submitted in November to the Saskatchewan Ministry of Environment. The project includes an open pit on the Star kimberlite, a potential second pit at Orion South (see details in the paragraph below), a common processing plant, and associated infrastructure. The overall modeled price estimate on Star kimberlite diamonds determined by WWW in March 2008 was US$172/ct with a low value of US$141/ct and a high value of US$225/ct. A 2009 budget of $17.9 million is earmarked for the preparation of a prefeasibility study for the Star diamond project for the completion of a feasibility study by the first quarter of 2010. Assuming the company completes the feasibility study for the project in 2010 and the environmental assessment and permitting stages run smoothly, the deposit could be brought into production as early as 2013.

The nearby **Fort-à-la-Corne diamond project** owned by the FALC-JV is one of the largest diamondiferous clusters in the world with over 60 kimberlite bodies identified on the property. During 2008, the FALC-JV proceeded with large-diameter diamond (LDD) drilling programs on the Orion South (OS), Orion North, and Star West kimberlites, and with shaft sinking on the OS kimberlite to collect a 5000-ct diamond parcel sufficient for an initial NI 43-101 resource estimate of the OS kimberlite to be conducted in 2009. Based on additional core drilling, a revised mineral resource of the OS kimberlite was released in October, identifying between 333 and 375 Mt of kimberlite material, including a significant increase of Early Joli Fou kimberlite lithology, which is the target lithology for diamonds in the OS kimberlite. LDD and underground bulk sampling are scheduled to be completed in late January 2009. Newmont has elected not to participate in the 2009 FALC-JV budget beyond the completion of the LDD drilling in late January.

In north-central **Quebec**, Stornoway Diamond Corp., in a 50:50 joint venture with Soquem Inc., pursued exploration and development of the **Foxtrot property** where 14 kimberlite bodies have been identified so far. This number includes an extensive dyke system located west of the Renard Cluster. In October, Stornoway announced the receipt of a positive economic study for the Foxtrot project, including a NI 43-101 compliant resource estimate, a diamond processing plant design, a mine plan, and an economic assessment. The resource report comprises 11.6 Mt of indicated resources averaging 0.60 ct/t located in Renard 2, 3, and 4, and 7.2 Mt of inferred resources averaging 0.63 ct/t located in Renard 2, 3, 4, and 9. An extensive upside was also identified in the form of an additional 14-32 Mt of potential mineral resource ranging between 0.31 and 1.64 ct/t located in Renard 2, 3, 4, and 9, and in the Hibou and Lynx dykes. An evaluation by WWW in 2007 recommended that a modeled "base case" diamond price estimate of US$109/ct be adopted for both of the Renard 2 and Renard 3 samples with a high modeled price estimate of US$122/ct and a low modeled price estimate of US$105/ct. The recommendation for the Renard 4 sample was a base-case price estimate of US$69/ct, with a high modeled price estimate of US$73/ct and a low modeled price estimate of US$63/ct. The conceptual mine plan combines open-pit mining and sub-level, open-stope underground mining, and is designed to enable a production rate of 3500 t/d or 1.3 Mt/y. The capital expense is estimated to be $308 million and operating costs are estimated to average $50.35/t.

The joint-venture partners are intent on expanding and optimizing the mineral resources of the Foxtrot Project in 2009 through additional drilling and sampling of the Renard 2, 3, and 9 kimberlites. Results from a 500-t sample acquired from the Hibou Dyke during the year are expected in early 2009 and may help upgrade the dyke material to the resource category and its incorporation into the Renard conceptual mine plan.

USES[1]

Diamonds are best known as a gemstone, but only 20% of the world's production by weight is used in jewellery. The other 80%, known as bort, is destined for industrial uses and research applications where diamonds' unique properties are put to great use. About 170 Mct, or 36 000 kg, of diamonds are mined annually worldwide. In addition to mined diamonds, there are close to 600 Mct (120 000 kg) of synthetic diamonds produced annually for industrial use.

Diamond is the hardest known material and has the highest thermal conductivity of any material at room temperature. It is more than twice as hard as its nearest competitors: cubic boron nitride and silicon nitride. Because it is the hardest substance known, diamond has been used for centuries as an abrasive in cutting, drilling, grinding, and polishing. This currently represents the dominant industrial use of diamond. Even though it has a higher unit cost, diamond has proven to be more cost-effective in many industrial processes because it cuts faster and lasts longer than alternative abrasive materials. Diamond also has chemical, electrical, optical, and thermal characteristics that make it the best material available to industry for wear- and corrosion-resistant coatings, special lenses for laser radiation equipment, heat sinks in electrical circuits, wire drawing, polishing silicon wafers and disk drives in the computer industry, and other advanced technologies.

Most uses of diamonds in these technologies do not require large diamonds; in fact, most diamonds that are gem-quality except for their small size can find an industrial use. Diamonds are embedded in drill tips or saw blades, or are ground into a powder for use in grinding and polishing applications. Synthetic industrial diamond is superior to its natural diamond counterpart because its properties can be tailored to specific applications and it can be produced in large quantities. It is for these reasons that synthetic diamonds account for about 82% of the industrial diamonds used in the world.

Diamond tools have numerous industrial functions. Diamond drilling bits and reaming shells are used principally for gas, mineral, and oil exploration. Other applications of diamond bits and reaming shells include foundation testing, masonry drilling, and inspecting concrete. The primary uses of point diamond tools are for dressing and truing grinding wheels, and for boring, cutting, finishing, and machining applications. Bevelling glass for automobile windows is another application. Cutting dimension stone and cutting/grooving concrete in highway reconditioning are the main uses of diamond saws; other applications include cutting composites and forming refractory shapes for furnace linings. Very fine diamond saws are used to slice brittle metals and crystals into thin wafers for electronic and electrical devices. Diamond wire dies are essential for the high-speed drawing of fine wire, especially from hard, high-strength metals and alloys. The primary uses of diamond grinding wheels include edging plate glass, grinding dies, grinding parts for optical instruments, and sharpening and shaping carbide machine tool tips.

Synthetic diamond grit and powder are used in diamond grinding wheels, saws, impregnated bits and tools, and as a loose abrasive for polishing. Loose powders made with synthetic diamond for polishing are used primarily to finish cutting tools, gemstones, jewel bearings, optical surfaces, silicon wafers, and wire-drawing dies for computer chips.

The use of polycrystalline diamond shapes (PDSs) and polycrystalline diamond compacts (PDCs) continues to

[1] The sources for some information in this section were the U.S. Geological Survey's *2005 Minerals Yearbook* article on Industrial Diamonds (http://minerals.usgs.gov/minerals/pubs/commodity/diamond/diamomyb05.pdf) and Wikipedia (http://en.wikipedia.org/wiki/Diamond).

increase for many of the applications cited above, including some of those that use natural diamond. The use of PDSs, PDCs, and matrix-set synthetic diamond grit for drilling bits and reaming shells has increased in recent years. PDSs and PDCs are used in the manufacture of single- and multiple-point tools, and PDCs are also used in a majority of the diamond wire-drawing dies.

CANADIAN DIAMOND MANUFACTURING

Diamond Cutting and Polishing

Canada has a small diamond-manufacturing industry. At the end of 2008, there were six diamond manufacturers operating across Canada located in Yellowknife (N.W.T.), Vancouver (British Columbia), and Matane (Quebec). These cutting and polishing factories provide work for about 150 workers. Limited cutting and polishing work is also performed in Winnipeg (Manitoba), Toronto (Ontario), and Montréal (Quebec).

Yellowknife, N.W.T.

There are four factories operating in Yellowknife where, under territorial government policy, all diamond mining companies have made a commitment to provide 10% by value of their production to the northern factories at market price.

The first facility to open in Yellowknife was established by Sirius Diamonds Ltd. in June 1999. Its assets were purchased in 2005 by Arslanian Cutting Works (NWT) Ltd. (Arslanian), which neighbours Sirius and which operates the latter independently under the Polar Diamonds name. The company currently employs about 15 people, most of whom are Northerners. Production from this facility is marketed under the Polar Bear brand name.

Arslanian, Yellowknife's largest output plant with about 40 employees, began production in December 2000. In order to maximize production, Arslanian uses experienced polishers from its factories in Armenia. The company also established a one-on-one training program to train Northerners. The factory markets its diamonds under the Polar Ice brand name.

Laurelton Diamonds, 100% owned by Tiffany & Co. New York, has rough diamond supply agreements with Harry Winston and with Tahera, and employs approximately 55 people in its Yellowknife factory. Its polished diamond production is marketed through Tiffany's retail outlets.

A fourth factory, Crossworks Manufacturing Ltd. (a subsidiary of HRA-SunDiamond Group of Companies), started its operation in Yellowknife in the first half of 2008 and employs 11 workers.

Matane, Quebec

In February 2005, Diarough Canada, a subsidiary of Diarough N.V., an Indian company with headquarters in Antwerp, Belgium, opened a cutting and polishing factory in Matane. Operations at this plant provide work for over 40 people. The plant operates at a production capacity of about 15 000 ct/y and specializes in the production of cut diamonds ranging in size from 0.3 to 2 ct destined for the North American market.

Vancouver, British Columbia

In operation since 2001, the Vancouver diamond cutting and polishing factory is owned by Hyperion Industries, a private company partly owned by HRA-SunDiamond Group of Companies. The factory is fully automated and currently employs about 12 workers. Hyperion Industries concentrates on cutting and polishing Canadian diamonds in order to add value to its product through the various branding programs it designs for its clients, such as the Ikuma brand designed for the Ben Bridge Jewellery chain. The size of rough diamonds favoured at the factory is around 1 ct. The plant is said to be producing at an average of 1500-1700 ct per month.

Diamond Jewellery Manufacturing

The largest mark-up in the pipeline for diamonds is at the jewellery stage. There are approximately 20 major plants located mainly in the Toronto region with a few in Montréal. There are also several smaller plants in Montréal. The elimination on May 2, 2006, of the 10% excise tax on diamonds and jewellery is a recent development that will lower the cost of jewellery in Canada and foster increased activity. A recent Diamond Trading Company study identified Canada as the world's sixth leading diamond-buying culture on account of its diamond value market share (1.8%) despite its relatively small population.

Diamond Tools and Equipment Manufacturing

Diamond products manufactured in Canada include drill bits, segments for circular blades, grinding wheels, and specialty tools. The major manufacturing plants are Fordia and K&Y Diamond Limited at Ville St-Laurent, Diamond Production and North Star Abrasives at Montréal, Diacan at Québec City, and Diamond Systems at Dorval, all in Quebec; Tru-Form Diamond Tool Company at Georgetown, JKS Boyle, Longyear, JKS Lamage, and Pilot Diamond Tools, all in North Bay, Diatech Diamond Tools in Toronto, Hammond Diamond Tooling Ltd. in Collingwood, and Northern Super Abrasives at Oakville, all in Ontario; Dimatec at Winnipeg, Manitoba; Diaset Products Ltd. at Delta, British Columbia; and Hobic Bit Industry at Richmond, British Columbia.

Synthetic Diamond Production

Crystalline Manufacturing Ltd. of Calgary, Alberta, produces synthetic diamond films using the Carbon Vapour Deposition (CVD) method.

KIMBERLEY PROCESS CERTIFICATION SCHEME

Background

The Kimberley Process (KP) is an international agreement between diamond-producing and trading countries, representatives of civil society, and industry that was negotiated to prevent conflict diamonds from entering into legitimate diamond trade. Conflict diamonds are those diamonds sold by rebel forces to purchase arms for use in conflict against legitimate governments. The KP derives its name from the city in South Africa that is synonymous with diamonds. It came into force on January 1, 2003.

Under the Kimberley Process Certification Scheme, all exports of rough diamonds must be accompanied by a certificate (issued by the government or an agency authorized by the government of the exporting country) confirming that shipments of rough diamonds are free from conflict diamonds. Trade in rough diamonds can only occur between participants. In order to be a participant, governments are required to have appropriate legislation in place that allows for adequate enforcement of the terms and conditions of the Scheme.

The Kimberley Process met November 3-6, 2008, in New Delhi, India, for its sixth annual plenary. A report was provided on the visit of the KP Chair's team to the Bolivarian Republic of Venezuela and on the latter's decision to separate from the KPCS for a period of two years during which time Venezuela will no longer export and import rough diamonds, but will participate in KP activities. The Plenary noted with concern the continuing challenges to KP implementation in Zimbabwe and recommended further monitoring of developments and concerted actions in that respect. The Plenary also noted that Canada will demit the Chair of the Working Group on Statistics at the end of the year, at which time the responsibility will be assumed by the United States. The only new Participant admitted to the KP in 2008 was Mexico.

On December 31, there were 50 Participants in the Kimberley Process, including the European Community with 27 member countries. However, two of these Participants, namely Venezuela and Ivory Coast, are listed as having a special status as they have temporarily suspended their rough diamond imports and exports. These 50 Participants are believed to represent 99% of the world trade in diamonds. India chaired the KP in 2008 and was replaced by Namibia for 2009. More information is available on the Internet at www.kimberleyprocess.com or at the following web sites: Partnership Africa Canada (www.pacweb.org), The World Diamond Council (www.worlddiamondcouncil.com), and Global Witness (www.globalwitness.org).

Implementation of the Kimberley Process Certification Scheme in Canada

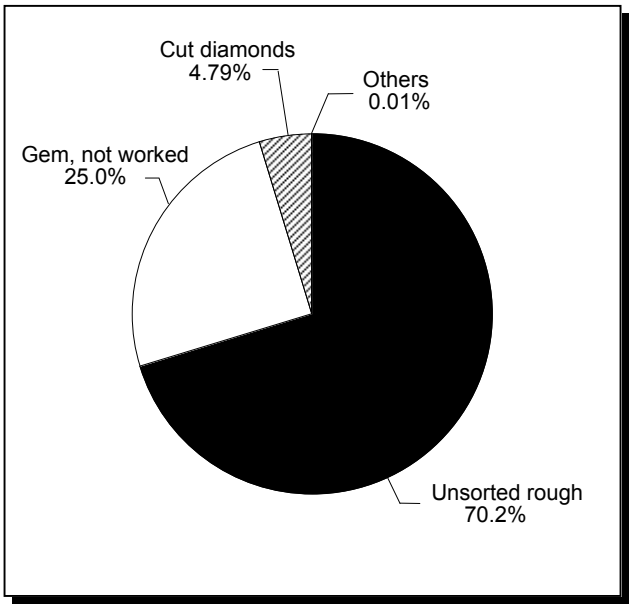
In order for Canada to meet its obligations as a Participant in the Kimberley Process Certification Scheme, new legislation and regulations needed to be created. On October 12, 2002, Bill C-14, *The Export and Import of Rough Diamonds Act*, was passed into law and permitted Canada to begin implementation of the certification scheme on January 1, 2003.

In 2008, 288 Kimberley Process certificates were issued by Canada. These were primarily for exports to the European Community, India, and the United States. In addition, 315 shipments imported under subheadings 7102.10, 7102.21 or 7102.31 in the schedule to the *Customs Tariff*, thus requiring a Kimberley Process certificate issued by the exporting country, were received in Canada. These shipments came from the European Community, the United States, and India. More information on the implementation of the Kimberley Process in Canada is available on the Internet at www.nrcan-rncan.gc.ca/mms-smm/busi-indu/kpd-pkd-eng.htm.

TRADE

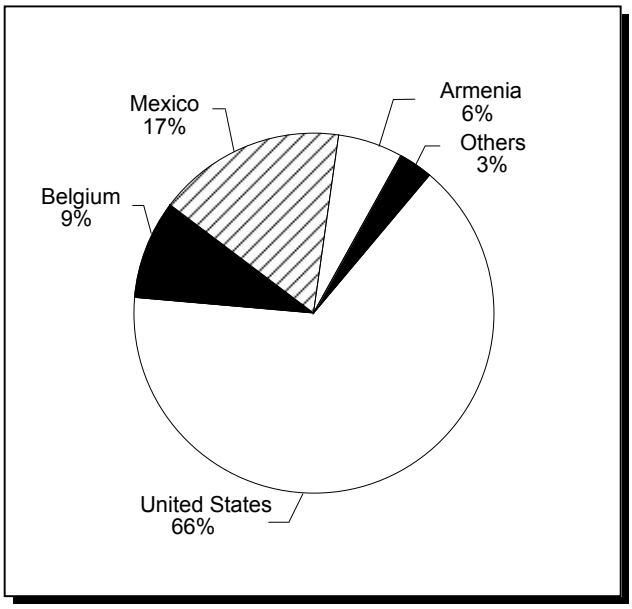
Canada's total primary exports of diamonds in 2008 are estimated to be valued at $2.59 billion, an increase of 36% compared to 2007. The higher exports are directly related to the higher value of Canada's rough diamond production during the year as its most important diamond export item is classified under Harmonized System (HS) code 7102.10, representing unsorted diamonds (Figure 2). Exports under this code, on a value basis ($1820 million), were mostly directed towards Belgium (68%) and the United Kingdom (32%). The second most important trade item, on a value basis ($647 million, 8% more than in 2007), is classified under HS code 7102.31, diamonds, non-industrial, unworked or simply sawn, cleaved or bruted, and largely represents Canadian mined diamonds that were sorted before export and are specifically destined for cutting and polishing. Diamonds in this category were destined for Antwerp, Belgium (85%), the United Kingdom (11%), and India (3%). The third most important export, on a value basis ($124 million, 36% more than in 2007), falls under HS code 7102.39, which represents cut gem-quality diamonds. These exports (Figure 3), sent mostly to the United States (66%), Mexico (17%), and Belgium (9%) in 2008, have significantly increased over the past decade (Figure 4) and reflect the increase in cutting and polishing capacity and branding efforts in Canada. (Note that in the case of exports to Mexico, the data are being investigated for inaccuracy.) The rest of Canada's exports (industrial and synthetic diamonds) amounted to over 6202 ct valued at $237 000. These were mostly exported to the United States.

Figure 2
Canadian Diamond Exports, By Product Type, By Value, 2008



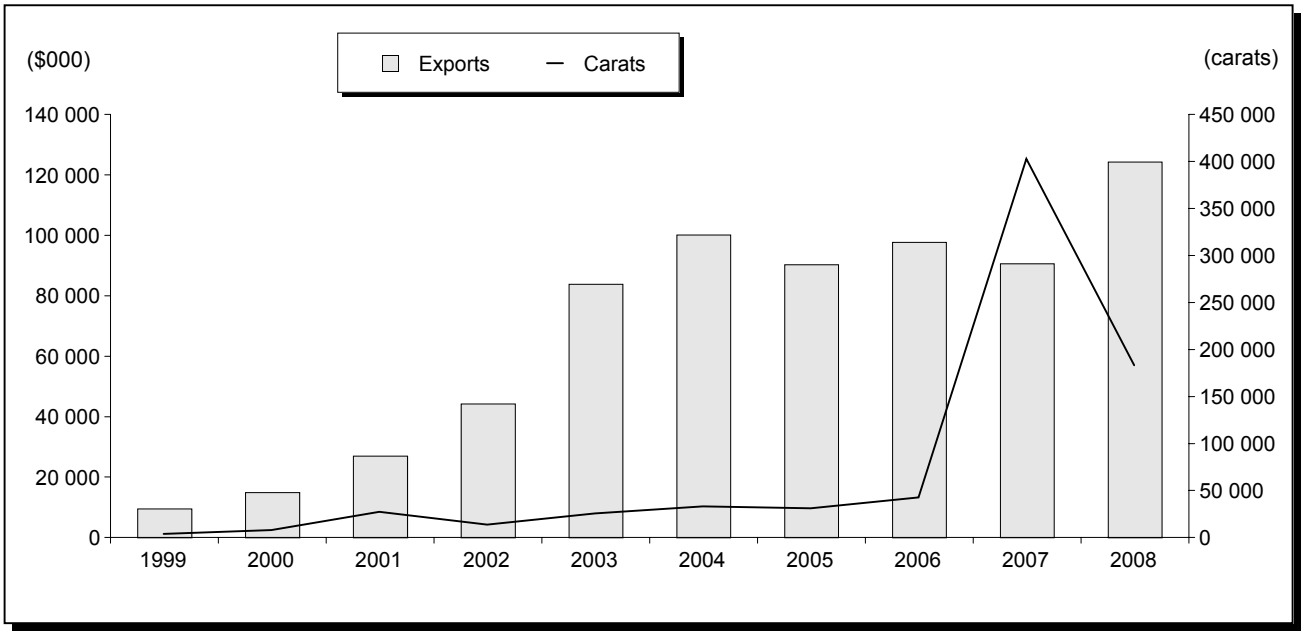
Source: Statistics Canada.

Figure 3
Canadian Cut Diamond Exports, By Country, By Value, 2008



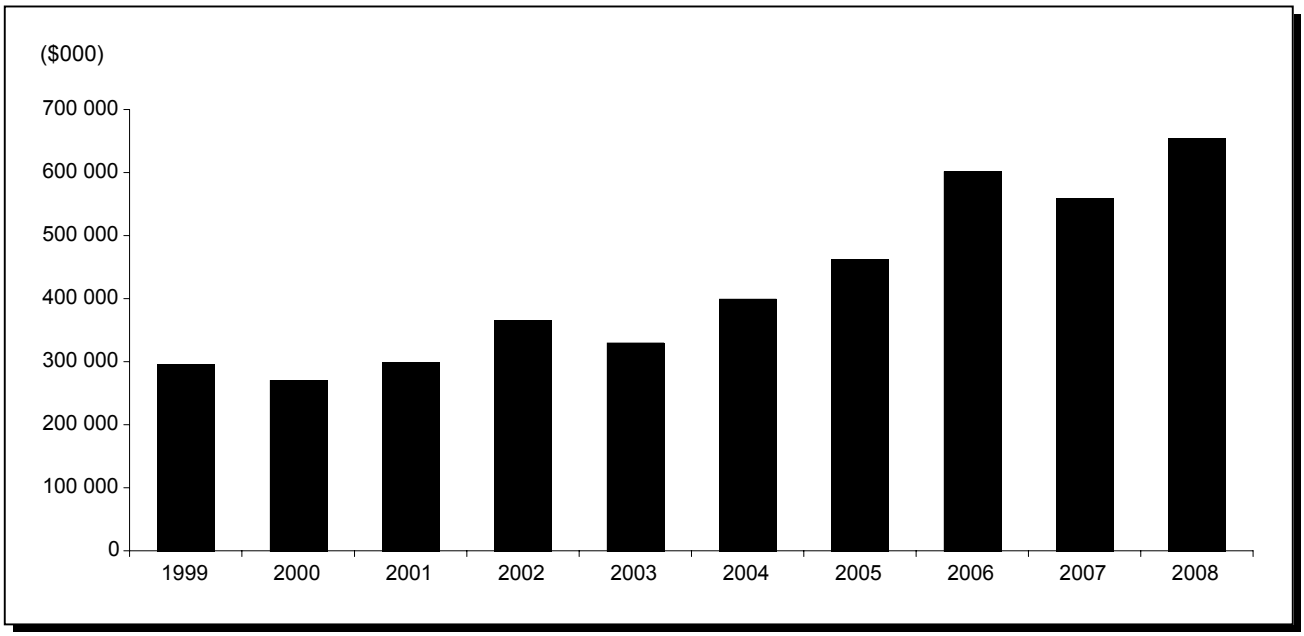
Source: Statistics Canada.

Figure 4
Canadian Cut Diamond Exports, 1999-2008



Source: Statistics Canada.

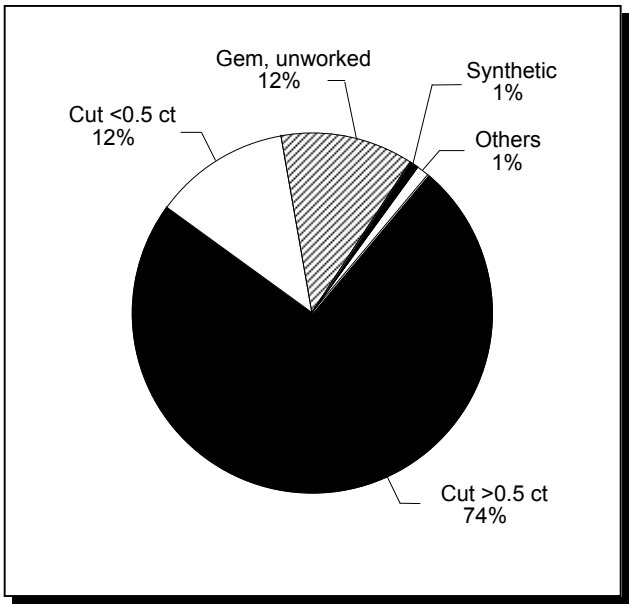
Figure 5
Total Value of Canadian Diamond Imports, 1999-2008



Source: Statistics Canada.

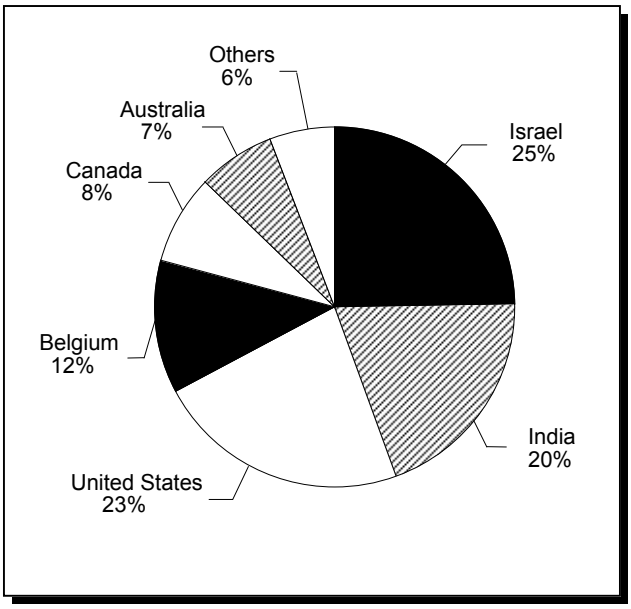
On the import side, Canada's total primary imports of diamonds in 2008 (Figure 5) are estimated to be valued at $654.0 million, a 17% increase relative to 2007. Canada's top import item (Figure 6) is cut diamonds exceeding 0.5 ct in weight destined for jewellery manufacturing. Imports in 2008 reached $485 million, a 26% increase over 2007. Shipments (Figure 7) were from Israel (25%), the United States (23%), India (20%), and Belgium (12%). The second item of importance, again on a value basis ($79 million, a drop of 29% over 2007 and 58% compared to 2006), was cut diamonds not exceeding 0.5 ct in weight that are also intended for jewellery manufacturing. Shipments in this case (Figure 8) came from India (40%), Belgium (25%), and the United States and Israel (12% each). It is interesting to note, as shown in Figure 9, that imports of cut diamonds greater than 0.5 ct have steadily increased over the past decade, indicating either an increase in jewellery manufacturing in Canada and/or branding/marketing activities. However, imports of smaller cut diamonds have faltered in the past two years, as shown in Figure 10. The third item of importance, uncut gem diamonds (mostly Canadian goods returned for the Canadian cutting industry's branding programs), amounted to $76 million in 2008, a sharp increase in value (75%) compared to 2007 (Figure 11). The rest of Canada's diamond imports (various industrial grades, natural dust, and synthetic diamonds [Figure 12]) were valued at $14.4 million. These were mostly imported from the United States, Ireland, South Africa, Belgium, and South Korea.

Figure 6
Canadian Diamond Imports, By Product Type, By Value, 2008



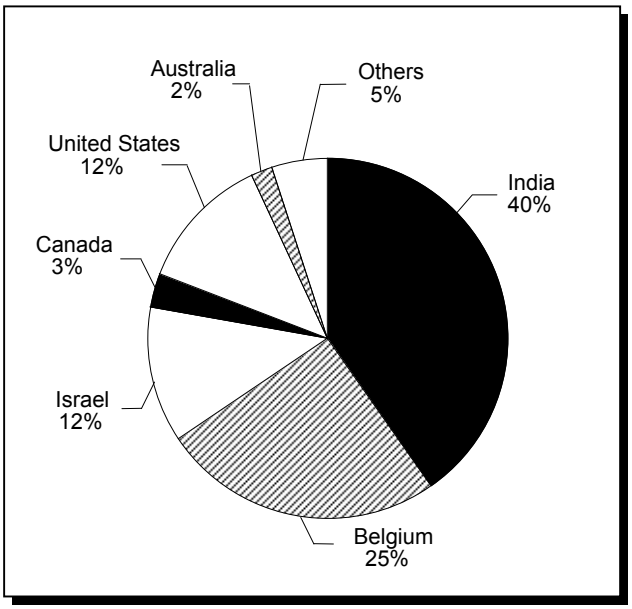
Source: Statistics Canada.

Figure 7
Canadian Cut Diamond Imports (>0.5 ct), By Country, By Value, 2008



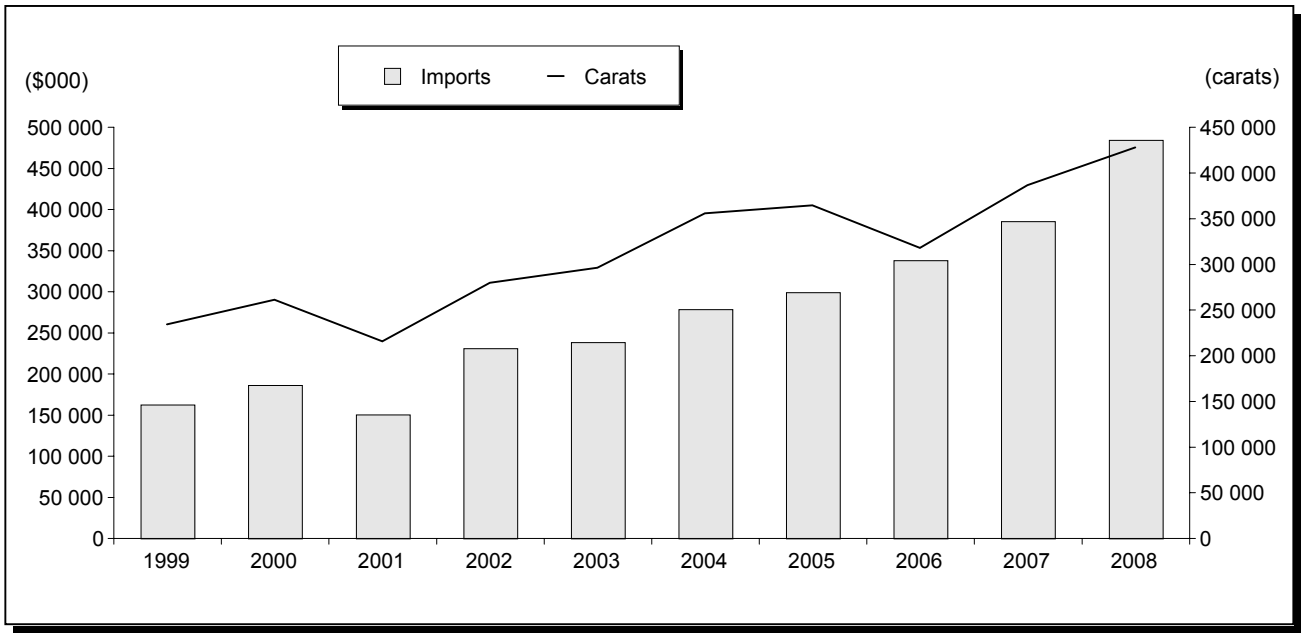
Source: Statistics Canada.

Figure 8
Canadian Cut Diamond Imports (<0.5 ct), By Country, By Value, 2008



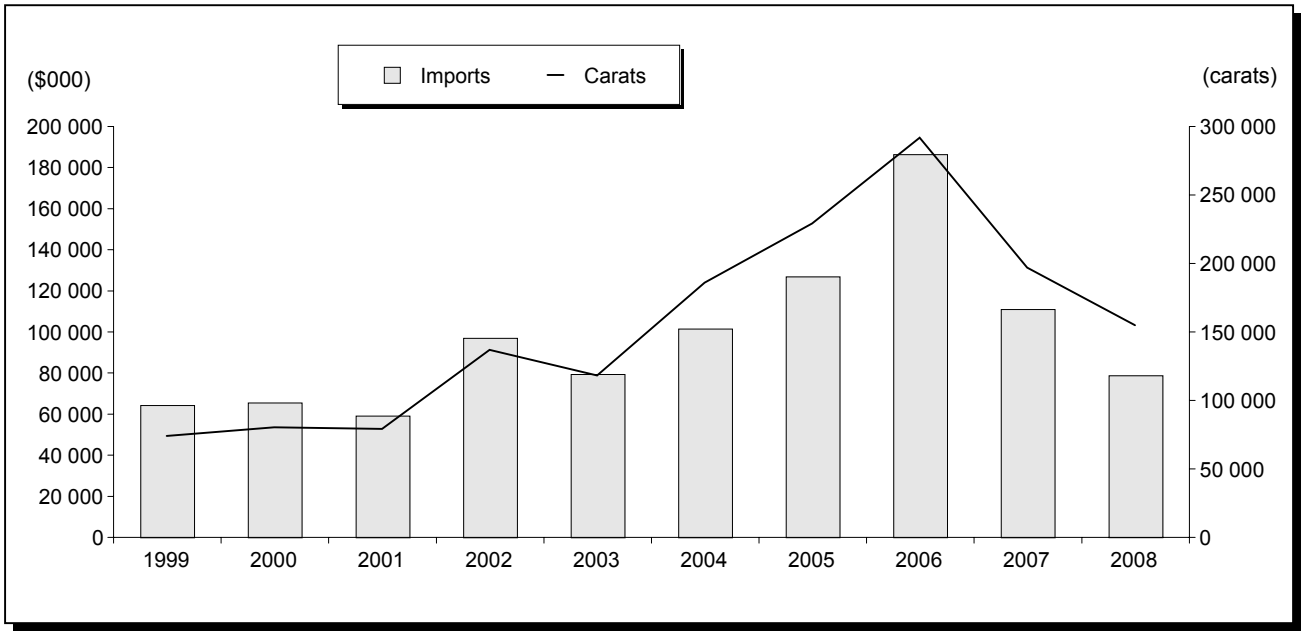
Source: Statistics Canada.

Figure 9
Canadian Cut Diamond Imports (>0.5 ct), 1999-2008



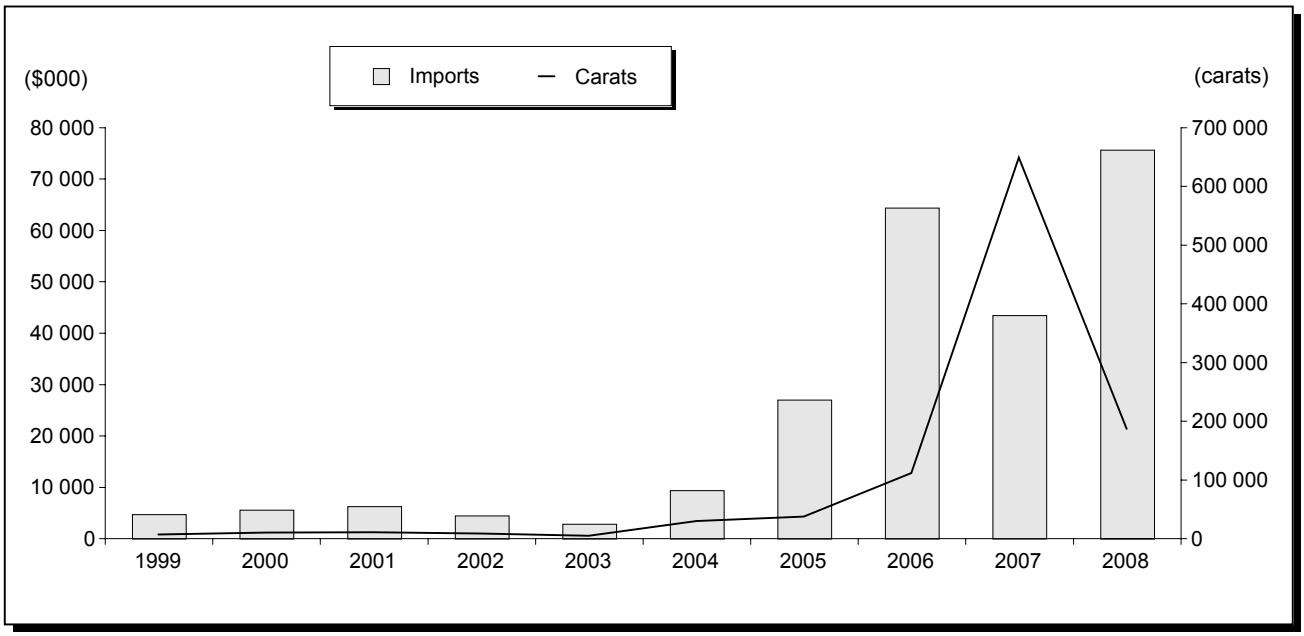
Source: Statistics Canada.

Figure 10
Canadian Cut Diamond Imports (<0.5 ct), 1999-2008



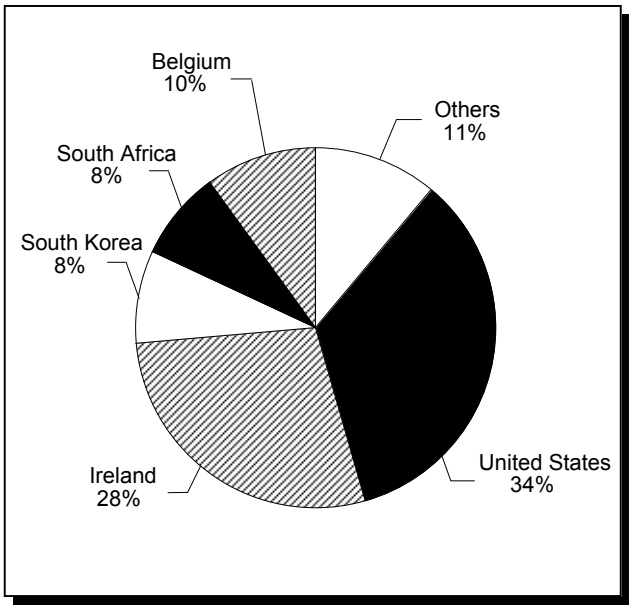
Source: Statistics Canada.

Figure 11
Canadian Gem-Quality Rough Diamond Imports, 1999-2008



Source: Statistics Canada.

Figure 12
Canadian Synthetic Diamond Imports, By Country, By Value, 2008



Source: Statistics Canada.

World Natural Rough Diamond Production and Demand

Production

World production of natural rough diamonds in 2008, as publicly reported by the Kimberley Process Certification Scheme (see the world map in Figure 13 and the table below), is estimated at 162.9 Mct valued at US$12.7 billion, for an average price of US$78.16/ct. This represents a 3.2% drop in production on a carat basis and an increase of 5.0% on a value basis over that of 2007. The lower carat production is due to declining production in Australia, Canada, South Africa, Russia, Botswana, and other countries, which offset production increases in the Democratic Republic of Congo, Guinea, Namibia and Zimbabwe. The increase in value stems essentially from higher values reported by Canada, Namibia, Botswana, and the Democratic Republic of Congo. Refer to Figures 14 and 15 for the relative share of the world's rough diamond production of each of the main producers.

Demand

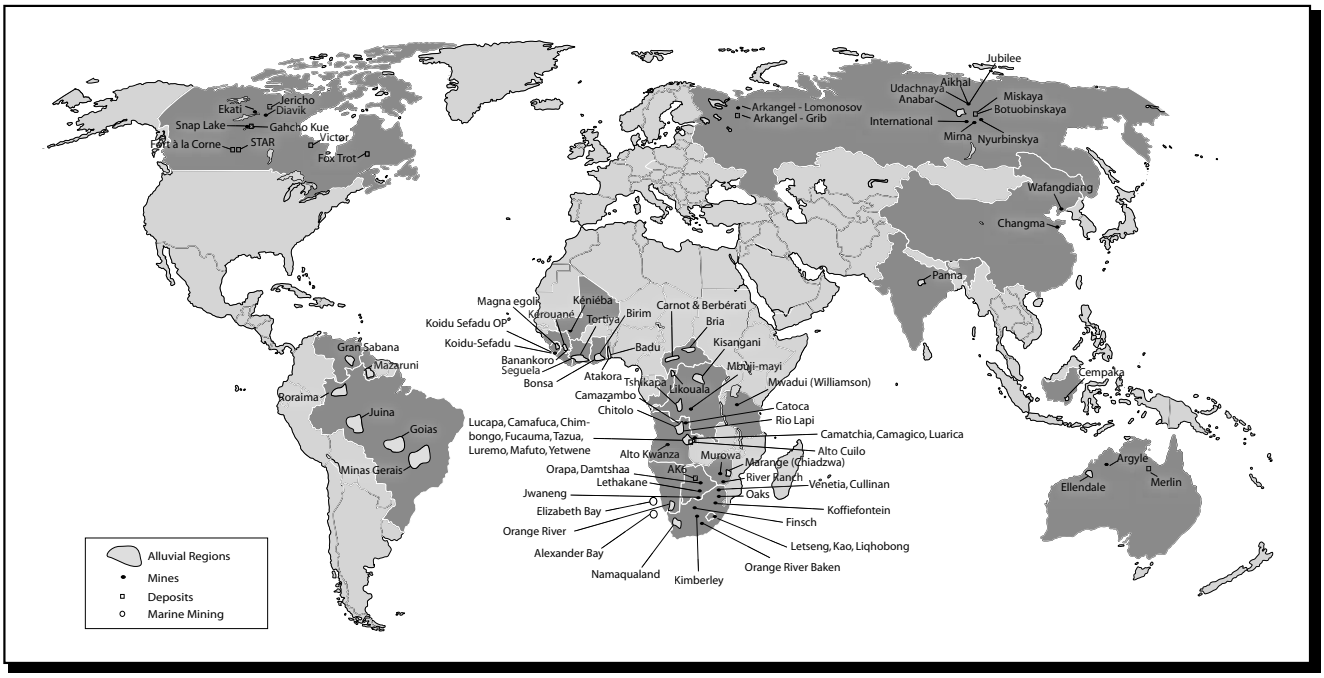
Until August, when the impact of the economic recession started to be felt, demand for rough diamonds was reported to have been in overall balance with supply. However, as

WORLD PRODUCTION OF NATURAL ROUGH DIAMONDS, 2007 AND 2008

	Production 2007		Production 2008			
Country	Volume	Value	Volume	Variation vs. 2007	Value	Variation vs. 2007
	(ct)	(US$)	(ct)	(%)	(US$)	(%)
Botswana	33 638 000	2 960 144 000	32 276 000	-4.05	3 273 001 000	10.57
Russia	38 291 200	2 625 100 500	36 925 150	-3.57	2 508 957 130	-4.42
Canada	17 143 529	1 674 464 485	14 802 699	-13.65	2 254 710 604	34.65
South Africa	15 210 833	1 417 331 400	12 901 019	-15.19	1 236 240 109	-12.78
Angola	9 701 709	1 271 955 353	8 906 974	-8.19	1 209 789 970	-4.89
Namibia	2 266 100	715 434 111	2 435 195	7.46	918 033 931	28.32
Australia	18 538 645	364 629 604	14 932 137	-19.45	326 394 285	-10.49
Congo, Democratic Republic of	28 452 496	364 783 294	33 401 928	17.40	431 833 163	18.38
Lesotho	454 014	328 146 969	253 054	-44.26	222 680 825	-32.14
Sierra Leone	603 623	141 565 685	371 261	-38.49	98 772 171	-30.23
Central African Republic	467 711	59 857 871	377 209	-19.35	47 752 281	-20.22
Guinea	1 018 723	46 101 145	3 098 490	204.15	53 698 456	16.48
Zimbabwe	695 016	31 400 904	797 198	14.70	43 825 425	39.57
Guyana	289 108	34 399 461	193 027	-33.23	31 190 623	-9.33
Tanzania	279 333	28 315 099	237 676	-14.91	24 083 955	-14.94
Ghana	894 783	23 202 422	643 289	-28.11	18 460 766	-20.44
Liberia	21 700	2 657 542	47 007	116.62	9 891 785	272.22
Indonesia	17 812	4 691 285	30 529	71.39	7 899 876	68.39
Brazil	256 964	25 807 516	80 226	-68.78	6 221 579	-75.89
Congo, Republic of	–	–	110 000	0.00	5 250 000	0.00
China	61 373	1 110 000	69 480	13.21	1 370 000	23.42
Togo	17 362	1 709 644	8 787	-49.39	927 757	-45.73
Venezuela	14 503	1 192 285	9 381	-35.32	1 293 116	8.46
Total	168 334 537	12 124 000 573	162 907 717	-3.22	12 732 278 808	5.02

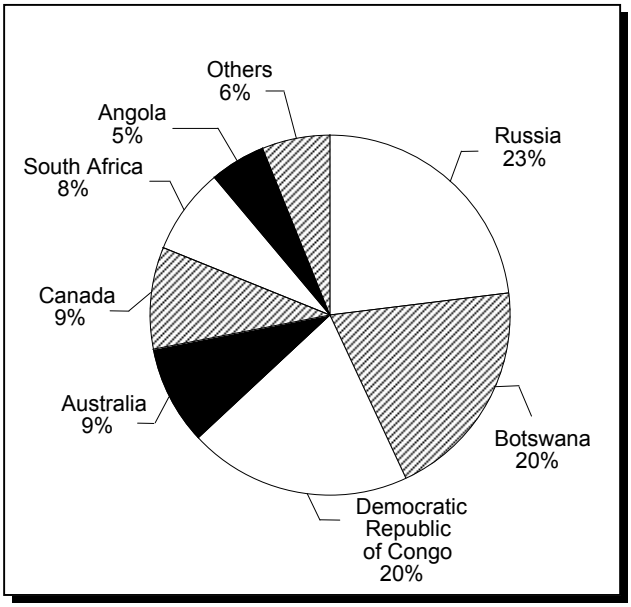
Source: Kimberley Process Certification Scheme.
– Nil.

Figure 13
World Diamond Mines and Deposits, 2008



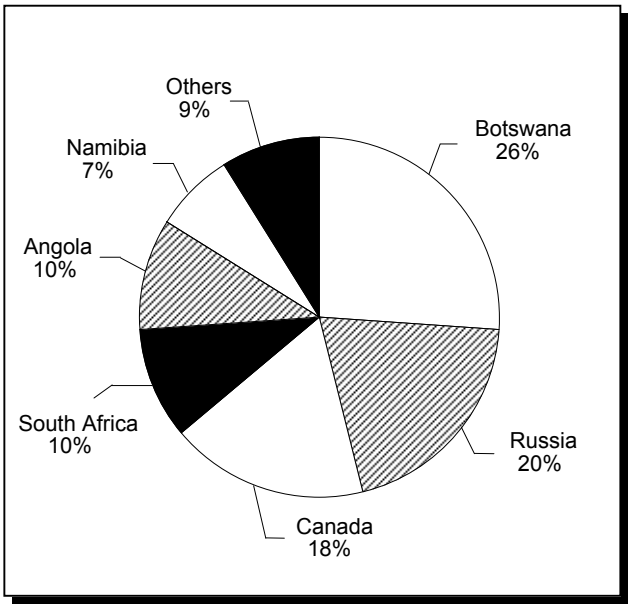
Source: Created by Natural Resources Canada using industry sources.

Figure 14
Share of World Rough Diamond Production (Carat Basis), 2008



Source: Kimberley Process Certification Scheme.

Figure 15
Share of World Rough Diamond Production (Value Basis), 2008



Source: Kimberley Process Certification Scheme.

occurred in 2007, smaller and lower-quality diamonds were in significant oversupply, as indicated by stagnant prices for those categories, while demand for larger, better-quality diamonds is reported to have exceeded supply. According to the *Diamond Intelligence Briefs*, worldwide retail sales of diamond jewellery in 2008 are estimated at US$64.8 billion, a drop of 11.4% compared to 2007. The value of the diamond jewellery content is estimated at US$18.4 billion, or 28.4% of the retail sales. Retail markets are reported to have been dominated by the Americas (48%), while Japan accounted for 12%, Asia-Arabia for 10%, Asia-Pacific for 8%, Europe for a meager 1%, and others for 11%. Note that in emerging markets such as China and India, demand is expected to grow at an annual rate of 10-15%, compared to a rate of about 3% in North America, over the coming decade.

PRICES

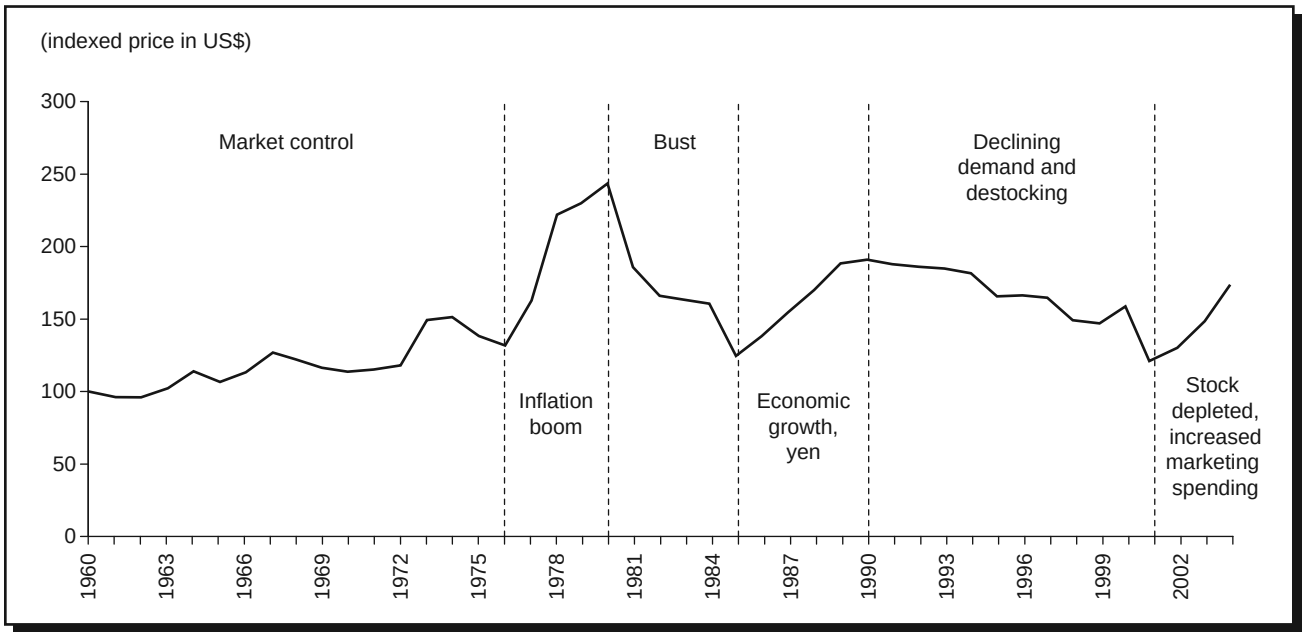
There are no internationally set prices for rough diamonds such as there are for precious metals like gold, silver, and platinum, and for base metals such as copper, lead, and zinc. The market prices for rough natural diamonds are almost constantly in a state of flux.

Natural Diamonds

Gem-quality rough diamonds: While there are no internationally set prices for rough gem-quality diamonds, De Beers SA's marketing agency, the Diamond Trading Company (DTC), which controls nearly half of the world's rough diamond supply, holds 10 sales a year, at regular intervals, to market its production. These are called sights. Other major rough diamond producers also hold similar sights. In 2008, pushed by a significant imbalance between supply and demand, especially for diamonds greater than 1 ct in size, rough diamond prices increased significantly, some by as much as 15% over 2007 prices, and are said to have peaked in August before spiraling downward on account of the economic recession. As an indication (all categories aggregated), the average per-carat value indicated by Kimberley Process production statistics for 2008 was 8.5% higher than in 2007. The price of a rough stone depends on its carat weight, shape, clarity, and colour. Prices vary widely, but the following is an indication of the prices paid at cutting and polishing factories for gem-quality rough stones: a 1-ct stone that sells for around US$20 is very low quality, US$200 is medium quality, US$400 is good quality, and US$1000+ is top quality. Figure 16 provides a historical perspective of rough diamond prices during the period 1960-2004 (the last year for which updates were done).

Natural industrial diamonds: Crushing bort sells for about US30¢/ct, casting sells for US$1-$2/ct, industrial stones sell for US$7-$10/ct, flets (e.g., a high-quality thin macle) sell for US$50/ct, and dies (larger diamonds of high quality but with poor [often yellow] colour that makes them unsuitable as gems) sell for up to US$200/ct.

Figure 16
Historical Rough Diamond Prices, 1960-2004



Source: Rio Tinto Diamonds (2005).

Synthetic Diamonds

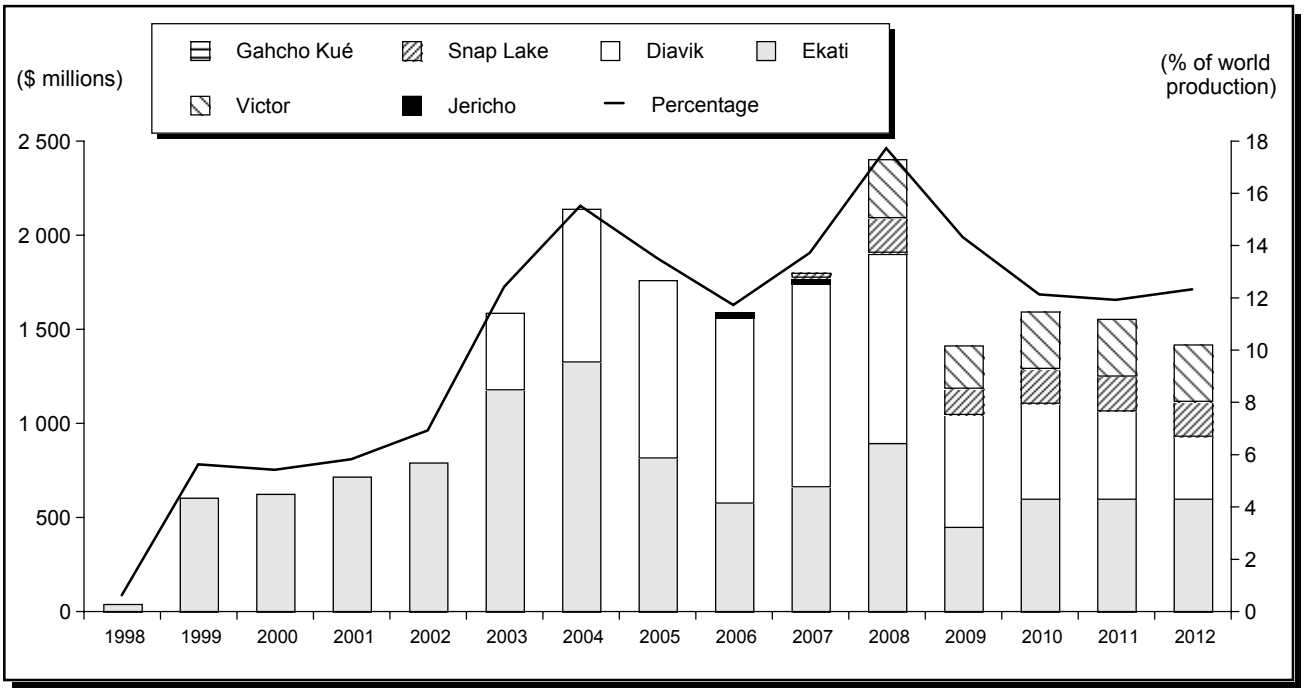
Synthetic diamond prices depend on their particle strength, size, and shape, and on whether or not the diamonds are coated with a metal, etc. For this reason, there are several hundred prices for synthetic industrial diamonds. Generally speaking, synthetic diamonds used in grinding and polishing vary in price from US30¢/ct to US$1/ct. Strong and blocky material for use in sawing and drilling, and known in the trade as SDA and MBS (Saw Diamond Abrasive and Metal Bond Sawing), produced respectively by De Beers and General Electric, sells for up to US$3/ct. Large single crystals with excellent structure for use in specific applications sell for several hundred dollars per carat.

OUTLOOK

Although Canada's status as an important diamond-producing country is recent, this industry already generates mining revenues estimated in 2008 at $2.4 billion and provides an estimated 4000 direct Canadian jobs and an equivalent number of indirect jobs in the service industries. The scheduled opening of the Gahcho Kué mine in 2014 and potential new production capacity from a number of projects currently at an advanced stage of development are expected to compensate for lower production from Diavik and Ekati in the years to come as they gradually become underground operations and will enable Canada's share of the world's diamond production to hover between 12 and 15% for the foreseeable future (Figure 17). This ensures prosperous times to come for the economy of many Canadian regions, including Aboriginal communities and major Canadian cities as hubs for the financial markets, equipment manufacturing companies, and allied industries. However, in order to weather the current economic downturn, Canadian diamond mining operators will be forced to slash their production and align themselves with market demand in the short term. Canada's 2009 diamond production is forecast to be approximately 11.3 Mct, down 25% from 2008. Likewise, because of the tightening of financial market conditions, Canadian exploration expenditures for diamonds are forecast to stand at about $47 million in 2009.

With a large amount of credit still tied up in inventory in the diamond centres, weakness in consumer demand for diamond jewellery, and significant stockpiles of rough diamonds being hoarded by producers, there is little support for an overall recovery in prices in the short term. World rough diamond producers will also be wary to not swamp the market with supplies when the first signs of a recovery do occur in fear of weakening prices further. Given this dynamic, markets are probably looking at mid- to late 2010 before recovering most of the ground lost during the recession.

Figure 17
Canada's Diamond Production, Projected Gross Revenues, (1) **1998-2012**



Sources: Natural Resources Canada; BHP Billiton Diamonds Inc.; De Beers Canada Inc.; Diavik Diamond Mines Inc.; Tahera Diamond Corporation.
(1) As of August 2008.

The arrival of Canada on the diamond industry scene has helped change the way business is done, the effects of which will continue for the short to medium term. For example, De Beers' control on supplies of rough diamonds has declined from about 95% in the mid-1900s to less than 45% by value currently. As a result, a number of industry players are positioning themselves to be present at various levels of the diamond pipeline from "mines to market" either to ensure their supply of rough diamonds or to maximize their profits. At the same time, mining-based countries, such as South Africa, Botswana, Angola, and Namibia, aim to encourage the development of a domestic downstream industry to maximize the benefits accruing from the mining of their resources. In the polished diamond industry, there has been a movement towards branding and associating the product with purity or high quality of colour, clarity, and cut, or with other known brand names, as seen with the Canadian Arctic Diamond certificate of the Government of the Northwest Territories; the Aurias and Canada Mark diamonds from BHP Billiton, which guarantee the source as Canada and the quality of cut to be up to triple excellent; and the joint marketing agreement between De Beers and LVMH, the European marketer associated with luxury goods. However, the success these brands gain with customers will require significant long-term marketing efforts.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 58. (2) Information in this review was current as of January 16, 2009. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan-rncan.gc.ca/mms-smm/busi-indu/cmy-amc/com-eng.htm.

NOTE TO READERS

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TARIFFS

Item No.	Description	Canada MFN	Canada GPT	Canada USA	United States Canada	EU Conventional Rate (1)	Japan WTO (2)
7102.10	Diamonds, whether or not worked, but not mounted or set: unsorted	Free	Free	Free	Free	Free	Free
7102.21	Diamonds, whether or not worked, but not mounted or set: industrial: unworked or simply sawn, cleaved or bruted	Free	Free	Free	Free	Free	Free
7102.29	Diamonds, whether or not worked, but not mounted or set: industrial: other	Free	Free	Free	Free	Free	Free
7102.31	Diamonds, whether or not worked, but not mounted or set: non-industrial: unworked or simply sawn, cleaved or bruted	Free	Free	Free	Free	Free	Free
7102.39	Diamonds, whether or not worked, but not mounted or set: non-industrial: other	Free	Free	Free	Free	Free	Free
7105.10	Dust and powder of natural or synthetic precious or semi-precious stones: of diamond	Free	Free	Free	Free	Free	Free

Sources: Canadian *Customs Tariff*, effective January 2009, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2009; *Official Journal of the European Union* (Tariff Information), September 19, 2008 edition; *Customs Tariff Schedules of Japan, 2009*.
(1) The customs duties applicable to imported goods originating in countries that are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties shown in column 3 of the Schedule of Duties.
(2) WTO rate is shown; lower tariff rates may apply circumstantially.

TABLE 1. CANADA, DIAMOND PRODUCTION AND TRADE, 2006-08

Item No.		2006		2007		2008 (p)	
		(carats)	($000)	(carats)	($000)	(carats)	($000)
PRODUCTION							
	Ontario	–	–	–	–	730 461	306 852
	Northwest Territories	12 976 288	1 567 019	16 773 187	1 764 893	13 954 600	2 084 047
	Nunavut	301 415	31 595	370 342	34 821	117 638	12 654
	Total	13 277 703	1 598 613	17 143 529	1 799 714	14 802 699	2 403 554
EXPORTS							
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set						
	United Kingdom	2 133 041	484 054	3 465 845	588 009	4 861 875	1 242 805
	Belgium	5 683 744	548 092	7 073 069	627 073	6 054 539	577 302
	Other countries	192	59	176	26	162	60
	Total	7 816 977	1 032 205	10 539 090	1 215 108	10 916 576	1 820 167
7102.21	Diamonds, industrial, unworked or simply sawn, cleaved or bruted						
	United Kingdom	–	–	–	–	318	40
	Other countries	733	33	1	3	1	. . .
	Total	733	33	1	3	319	40
7102.29	Diamonds, industrial, other						
	United States	296	237	34	54	395	190
	Afghanistan	–	–	–	–	. .	. . .
	Total	296	237	34	54	395	190
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted						
	Belgium	2 807 012	456 686	4 355 399	504 201	3 860 113	547 279
	United Kingdom	865 314	58 784	1 150 405	69 051	763 448	69 895
	India	1 447 501	26 063	1 292 536	24 174	1 008 057	20 846
	Other countries	33	11	577	72	5 021	8 692
	Total	5 119 860	541 544	6 798 917	597 498	5 636 639	646 712
7102.39	Diamonds, non-industrial, other						
	United States	26 228	80 483	21 644	56 892	29 161	81 800
	Mexico	–	–	309 240	12 952	126 072	20 955
	Belgium	4 160	7 548	12 782	17 255	6 991	11 402
	Armenia	–	–	–	–	4 455	6 878
	Israel	11 245	8 555	602	313	1 474	978
	Australia	175	722	629	983	123	572
	United Kingdom	69	181	55 402	730	12 106	521
	India	–	–	29	226	1 598	471
	Hong Kong	21	136	1 622	1 235	295	241
	Other countries	20	117	188	99	432	504
	Total	41 918	97 742	402 138	90 685	182 707	124 322
7105.10	Natural or synthetic diamond dust and powder						
	United States	12 664	9	44 168	19	5 488	7
	Australia	6 983	36	2 697	14	–	–
	Other countries	7 618	16	1 377	7	–	–
	Total	27 265	61	48 242	40	5 488	7
	Total exports	13 007 049	1 671 822	17 788 422	1 903 388	16 742 124	2 591 438
IMPORTS							
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set						
	India	–	–	–	–	53	118
	United States	–	–	5	16	29	106
	Other countries	–	–	79	66	32	85
	Total	–	–	84	82	114	309

TABLE 1 (cont'd)

Item No.		2006		2007		2008 (p)	
		(carats)	($000)	(carats)	($000)	(carats)	($000)
IMPORTS (cont'd)							
7102.21.00.10	Diamonds, industrial, bort and black, diamonds for borers, unworked or simply sawn, cleaved or bruted, but not mounted or set						
	South Africa	35 985	411	120 033	826	86 911	666
	Belgium	70 800	355	66 120	215	109 884	444
	Australia	1 587	64	27 806	112	3 723	42
	United States	13 911	84	6 107	37	3 621	28
	Saudi Arabia	–	–	6 100	33	5 000	24
	Ghana	30 650	181	1 000	4	4 500	18
	Botswana	7 700	44	12 935	61	1 071	13
	United Kingdom	3 212	28	2 530	15	1 041	6
	Other countries	11 404	74	7 525	19	9	. . .
	Total	175 249	1 241	250 156	1 322	215 760	1 241
7102.21.00.90	Diamonds, industrial, other, unworked or simply sawn, cleaved or bruted, but not mounted or set						
	South Africa	1 997	332	11 929	555	13 138	495
	Australia	3 585	191	6 371	201	11 246	265
	Botswana	1 000	5	613	18	505	23
	United States	8 542	61	7 361	38	2 410	21
	Other countries	11 812	968	26 588	394	388	16
	Total	26 936	1 557	52 862	1 206	27 687	820
7102.29.00.10	Diamonds, industrial, other, bort and black, diamonds for borers, but not mounted or set						
	United States	140	32	1 385	162	1 674	194
	Belgium	–	–	–	–	812	188
	Other countries	53 170	247	15 888	81	185	44
	Total	53 310	279	17 273	243	2 671	426
7102.29.00.90	Diamonds, industrial, other, other than bort and black, for borers, worked but not mounted or set						
	Belgium	2 018	1 017	9 459	1 356	3 035	810
	Armenia	–	–	–	–	1 394	282
	United States	10 501	112	14 295	376	5 796	198
	India	75	26	9 954	3 387	379	131
	Japan	–	–	2 126	73	477	99
	South Africa	50	12	–	–	3 213	44
	Ghana	149	51	4 628	40	8 521	35
	Other countries	757	38	2 051	1 069	293	51
	Total	13 550	1 256	42 513	6 301	23 108	1 650
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted, not mounted or set						
	Canada	52 742	47 139	637 188	41 064	146 256	67 742
	South Africa	7 992	781	210	17	35 960	4 496
	Belgium	7 953	7 517	2 835	1 052	2 199	2 060
	United Kingdom	–	–	1	. . .	1 391	1 312
	Other countries	41 914	8 979	8 070	1 367	139	49
	Total	110 601	64 416	648 304	43 500	185 945	75 659
7102.39.00.10	Diamonds, non-industrial, other, of a weight not exceeding 0.5 carats each						
	India	155 402	73 678	107 661	37 859	88 227	31 630
	Belgium	40 291	26 043	34 400	25 474	32 079	19 632
	United States	21 919	15 065	15 994	10 144	12 778	9 770
	Israel	45 930	24 880	25 206	19 822	13 500	9 696
	Canada	20 739	40 418	6 272	11 491	2 570	2 528
	Australia	1 329	964	802	1 156	1 053	1 869

TABLE 1 (cont'd)

Item No.		2006		2007		2008 (p)	
		(carats)	($000)	(carats)	($000)	(carats)	($000)
IMPORTS (cont'd)							
	China	274	122	485	328	1 051	874
	Thailand	168	78	385	81	855	781
	United Arab Emirates	133	43	497	206	829	748
	Brazil	480	1 283	508	918	613	630
	Russia	2 899	2 261	3 004	2 692	361	206
	Hong Kong	215	147	731	288	143	106
	Other countries	1 628	1 460	634	560	502	314
	Total	291 407	186 442	196 579	111 019	154 561	78 784
7102.39.00.20	Diamonds, non-industrial, other, of a weight exceeding 0.5 carats each						
	Israel	72 278	74 498	83 473	91 990	90 820	120 689
	United States	47 800	84 026	51 851	75 107	56 338	112 531
	India	117 858	57 311	157 842	82 153	172 662	96 973
	Belgium	43 366	61 212	48 391	67 821	39 423	56 514
	Canada	4 462	8 758	18 362	28 877	18 114	36 587
	Australia	16 628	30 177	17 750	28 033	20 532	32 802
	Botswana	568	322	–	–	1 535	8 246
	China	711	526	1 283	1 179	3 078	4 585
	South Africa	5 186	15 127	1 060	4 741	1 245	4 409
	Armenia	–	–	–	–	1 827	3 692
	Russia	884	1 357	993	2 062	10 076	3 137
	United Arab Emirates	1 880	300	227	501	6 274	1 621
	Hong Kong	1 084	1 103	933	946	1 188	1 000
	Thailand	2 340	700	2 555	926	2 466	685
	Indonesia	92	31	42	28	772	390
	Iceland	17	61	235	353	77	233
	Italy	86	13	1	8	396	107
	Other countries	2 019	2 602	930	1 095	653	594
	Total	317 259	338 124	385 928	385 820	427 476	484 795
7105.10.00.10	Diamond dust for borers; dust mixed with a carrier in cartridges or in tubes						
	United States	414 380	661	768 675	1 130	493 332	814
	Ireland	25 082	20	69 932	65	62 000	33
	South Korea	1 023	4	–	–	5 002	18
	Israel	–	–	22 000	13	938	3
	Other countries	20 742	41	6 858	14	500	2
	Total	461 227	726	867 465	1 222	561 772	870
7105.10.00.91	Natural diamond dust and powder						
	United States	255 820	657	228 795	539	385 940	1 037
	Ireland	24 420	99	130 834	472	34 430	105
	South Korea	36 408	48	56 552	104	55 707	90
	United Kingdom	10 530	43	37 066	42	16 738	29
	Belgium	15 219	20	18 116	26	15 291	28
	Other countries	37 669	131	19 475	42	6 913	17
	Total	380 066	998	490 838	1 225	515 019	1 306
7105.10.00.92	Synthetic diamond dust or powder						
	Ireland	2 445 673	2 087	2 132 596	2 988	3 663 643	3 920
	United States	4 708 340	3 638	4 182 990	3 351	2 797 048	2 693
	South Korea	416 994	283	1 196 175	713	2 026 553	1 087
	China	65 886	152	308 510	170	140 959	221
	Other countries	699 954	365	664 464	168	332 285	179
	Total	8 336 847	6 525	8 484 735	7 390	8 960 488	8 100
	Total imports	10 166 452	601 564	11 436 737	559 330	11 074 601	653 960

Sources: Natural Resources Canada; Statistics Canada.
– Nil; **. .** Not available; **. . .** Amount too small to be expressed; (p) Preliminary.
Note: Numbers may not add to totals due to rounding.