

# Diamonds – 2012 Annual Review

*Author: Louis Perron, Senior Policy Advisor - Diamonds  
Minerals and Metals Sector, Natural Resources Canada  
Telephone: 613-992-4828, e-mail: louis.perron@nrcan-rncan.gc.ca*

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## CANADIAN PRODUCTION

Canada's 2012 rough diamond production is valued at an estimated \$2.0 billion, for a production level of 10.5 million carats (Mct). These numbers represent a 2.8% decrease in volume and a 20.1% decrease in value (in Canadian dollars) over 2011. The decrease in volume mostly stemmed from the treatment of lower-grade ore while the drop in value was due to a significant drop in market prices brought on by weak global demand. Another factor at play in the drop in value was the 1.06% depreciation of the Canadian dollar versus the U.S. dollar (sales are made in U.S. dollars). On a value basis, Canada was the world's third largest rough diamond producer after Botswana and Russia, accounting for approximately 15.9% of world production.

Canada's diamond production came from four mines in 2012: the Ekati™, Diavik, and Snap Lake mines located about 300 kilometres (km) northeast of Yellowknife in the Northwest Territories (N.W.T.) and the Victor mine located in northern Ontario (Figure 1). The opening of these mines has created some 8,000 direct and indirect jobs (including contractors working on projects under construction and jobs in ancillary industries) and contributed to the formation of more than 100 Aboriginal companies.

### Ekati™ Mine

Canada's first diamond-producing mine, Ekati™, came into production in 1998. It was developed by BHP Billiton Ltd. (BHP). However, Chuck Fipke and Stuart Blusson, who discovered the deposit in 1991, each hold a 10% interest in the mine. In 2012, Ekati achieved a production level of 1.83 Mct, down 29% from 2011. The processed ore graded an average of 0.43 carats per tonne (ct/t), 23% less than in 2011 due to the mining of lower-grade material, which was consistent with the mine plan. Production was primarily sourced from the Koala and Koala North underground mines and from the Fox open-pit mine. The company pursued its \$323 million pushback of the existing limits of the Misery pit, which is an open-pit mine it operated between 2001 and 2005. Mining is scheduled to start in late 2015 and to last until mid-2017. This would enable the extension of Ekati's mine life by one year to 2019. As of December 31, total probable ore reserves in the Ekati Core Zone stood at 20.6 million tonnes (Mt) grading 1.00 ct/t.

On November 13, Dominion Diamond Corporation (formerly Harry Winston Diamond Corporation) acquired BHP's 80% ownership of the Ekati mine for US\$553 million. The acquisition includes BHP's 80% interest in the Core Zone Joint Venture, including existing operations and a 58.8% interest in the Buffer Zone Joint Venture surrounding the Core Zone.

## **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% of the mine, and Dominion Diamond Diavik Limited Partnership (DDDLP) (formerly Harry Winston Diamond Mines Ltd.), which owns 40%. DDMI, the manager of the mine, is a wholly owned subsidiary of Rio Tinto plc, while DDDL is a wholly owned subsidiary of Dominion Diamond Corp. of Toronto, Ontario. Production at Diavik reached 7.2 Mct in 2012 for an average grade of 3.52 ct/t. This represents a 7.8% increase in carats produced compared to 2011 and a 17.7% increase in the average grade. These results fell short of the company's 8.2-Mct forecast; the shortfall resulted from lower amounts of ore processed, including reprocessed ore, and the processing of a higher proportion of lower-grade ore containing higher-value carats. Diavik's production during 2012 can be broken down as follows: 26% from the A154 South kimberlite with a grade of 4.75 ct/t, 13% from the A154 North kimberlite with a grade of 2.25 ct/t, 60% from the A418 kimberlite with a grade of 3.58 ct/t, and 1% from reprocessed ore.

Open-pit mining of Diavik's A418 orebody concluded in September. Since then, all mining has been carried out underground. The company pursued its evaluation of the A21 pipe, located south of current mining operations, to determine if it is viable to mine. A decision on development of this pipe was still pending at year-end. If it proves to be viable, the pipe could be developed at a cost of about \$514 million with production beginning as early as 2017. At the end of 2012, Diavik's reserves in the A154 South, A154 North, and A418 pipes stood at 18.3 Mt grading 2.9 ct/t for a total of 52.5 Mct (32.9 Mct of proven reserves and 19.6 Mct of probable reserves) to which about 1 Mct can be added from the stockpile. These reserves should allow underground operations at Diavik to extend well beyond 2020.

In order to reduce its reliance on diesel fuel and to lower its carbon footprint, DDMI built a \$33 million wind farm that started delivering power on September 28. It is expected to lower the mine's annual diesel consumption by 10% and reduce its carbon footprint by 6%.

During 2012, the work force at Diavik's operations averaged 1,071, with northern and Aboriginal employment averaging 508 (47%) and 238 (22%), respectively.

## **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, N.W.T. Initially owned by Tahera Diamond Corp., a Toronto-based firm, the deposit comprised at least six kimberlite lobes hosting about 5.5 Mt grading 0.85 ct/t. Designed with a production capacity of around 500,000 carats per year (ct/y) and a nine-year life, the mine was in commercial production between July 1, 2006, and January 16, 2008, at which time operations were suspended due to various project shortcomings and difficult economic conditions. In July 2010, Shear Minerals Ltd. bought the property and worked, over a two-year period, to increase the deposit's resources. On December 8, 2011, a debt financing agreement was concluded with Antwerp-based Taché Company N.V., as well as a rough diamonds purchasing agreement, which enabled the sale of rough diamonds recovered from stockpiled material. On September 4, 2012, Shear suspended operations due to declining rough diamond prices. Shear reported delivering 47,516 ct to Taché in 2012.

## **Snap Lake Mine**

The Snap Lake diamond deposit, 100% owned by De Beers Canada Inc., 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 metres (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 method to mine the deposit, which is estimated to contain 18.3 Mt grading 1.46 ct/t. Although mining operations started in October 2007, Snap Lake achieved commercial production status in the first quarter of 2008 and was officially opened on July 25. At full production, the mine is designed to produce about 1.4 Mct/y and to have a life of just over 20 years.

Snap Lake's 2012 production decreased by 1.1% to 870,000 ct compared to 2011, for a recovered grade of 0.948 ct/t, which was 12% less than in 2011. The production shortfall stems from higher-than-expected ore dilution and from having to manage complex water issues. As in 2011, company efforts concentrated on ramping up the operation to meet its design capacity. Recruiting programs resulted in the addition of 79 person-years, enabling the mine to reach the highest operational work force since it was commissioned. During the year, the average production work force was 757 with northern and Aboriginal employment averaging 126 (17%) and 149 (20%), respectively.

### **Victor Mine**

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 the mine officially opened on July 26, 2008. Developed at a cost of \$991 million, the Victor kimberlite consists of two pipes that coalesce at the surface: Victor Main and Victor Southwest. These pipes have mineable reserves estimated at 27.4 Mt averaging 0.23 ct/t. In 2012, ore was mined from both pipes with production reaching about 690,000 ct, 11.5% less than in 2011, for an average grade of 0.226 ct/t. Work was also under way during the year to explore the potential to develop the Tango extension, which is a kimberlite located about 7 km from the Victor pit.

## **CANADIAN DEVELOPMENTS**

Compared to 2011, diamond exploration expenditures across Canada diminished by 14.1% to \$78.9 million in 2012. Projects at an advanced stage of exploration or at an early stage of mine development are described below.

In north-central **Quebec**, Stornoway Diamond Corp. continued to advance exploration and development work on its wholly owned **Renard** property. DIAQUEM Inc., a wholly owned subsidiary of SOQUEM (a Quebec state enterprise), has a 37% interest in Stornoway. The feasibility study made public on November 16, 2011, indicates probable mineral reserves of 23 Mt with an average grade of 0.78 ct/t and a weighted average diamond valuation of US\$180/ct. These reserves were outlined in Renard kimberlites 2, 3, and 4, and would be extracted in a combination open-pit and underground mine over an 11-year mine life at an annual average production rate of 1.7 Mct. Initial capital costs to develop the mine are estimated at \$802 million.

On December 6, the Renard project received the global Certificate of Authorization from the Quebec government, which represents the principal regulatory approval required to commence mine construction. Construction of Route 167, which is to provide permanent road access to the project site, is well under way and should be ready by the end of 2013 for mine construction to start.

In the **Northwest Territories**, the **Gahcho Kué** project, owned by De Beers Canada Inc. (51%) and Mountain Province Diamonds Inc. (49%), is located 90 km southeast of the Snap Lake project. Of the eight diamondiferous kimberlites found to date on the property, the larger 5034, Hearne, and Tuzo kimberlite bodies were confirmed to be economically viable by a National Instrument 43-101-compliant definitive feasibility study completed on December 8, 2010. This study indicated that the Gahcho Kué project has probable mineral reserves of about 31.3 Mt grading 1.57 ct/t that could be mined at a rate of

3.0 Mt/y over an 11-year mine life for an average production rate of about 4.5 Mct/y. However, drilling at depth on the Tuzo pipe during the year appeared to indicate a significant grade increase at depth, which would improve current reserve figures. The base-case model used an average realized diamond price of US\$102.48/ct. The later feasibility study was approved by the partners in June 2011.

On January 3, 2013, the Mackenzie Valley Environmental Impact Review Board closed the public record for the project's environmental impact review. Under the project's work plan, the environmental impact review process is expected to be completed by July 2013. Given that construction is expected to take about two years, the mine could be in production in early 2015. The project is expected to create close to 690 jobs during the construction phase and some 370 jobs during the operational phase. Construction costs are estimated at between \$650 million and \$750 million.

In **Nunavut**, **Peregrine Diamonds Ltd.** pursued work on its Chidliak property located 150 km northeast of Iqaluit where an additional 2 kimberlites were discovered during 2012 for a total of 61. The summer exploration program included 2,378 m of core drilling on the CH-1, CH-7, and CH-44 kimberlites, limited reverse circulation drilling, some ground geophysical surveys, and prospecting work. The collection of a large bulk sample from the CH-6 kimberlite, currently one of seven kimberlites on the property that exhibit economic diamond mining potential, was postponed to 2013. On September 5, Peregrine announced the completion of an option and subscription agreement with De Beers Canada Inc. whereby De Beers has the exclusive right, until December 31, 2013, to enter into an earn-in and joint-venture agreement with Peregrine on a De Beers-Peregrine (50.1%-49.9%) ownership basis for the Chidliak diamond project. De Beers is required to invest \$58.5 million in Chidliak to earn a 50.1% interest in the project.

In the Fort-à-la-Corne region of northern **Saskatchewan**, Shore Gold Inc. and Newmont Mining Corp. of Canada Ltd. pursued work to advance the **Star** and **Fort-à-la-Corne** diamond projects to a production decision. Based on a 2011 feasibility study, mineral reserves on the Star and Orion South kimberlites are estimated at 279 Mt grading 0.123 ct/t and rough diamonds valued at an average price of US\$242/ct. These could be mined by open pit over a 20-year period at an average rate close to 2 Mct/y and at a pre-production capital cost estimated at \$1.9 billion. During 2012, the companies focused on providing responses to comments and information requests on the revised Environmental Impact Statement for the project and on pursuing options to finance their portion of it.

## **CANADIAN DIAMOND MANUFACTURING**

Canada maintains a small diamond manufacturing industry that includes a few gem-cutting and polishing factories, approximately 20 major diamond jewellery manufacturers, and a wide array of factories that manufacture a variety of industrial diamond tools such as drill bits, segments for circular blades, grinding wheels, and specialty tools.

### **Diamond Cutting and Polishing**

Canada has a small diamond cutting and polishing industry, which provides work for about 55 people. Diamond cutting and polishing factories are located in Yellowknife (N.W.T.), Vancouver (British Columbia), Prince Albert (Saskatchewan), and Sudbury (Ontario). Limited cutting and polishing work is also carried out in Winnipeg (Manitoba), Toronto (Ontario), and Montréal (Quebec). Crossworks Manufacturing Ltd., a subsidiary of HRA-SunDiamond Group of Companies, operates the factories in Vancouver, Yellowknife, and Sudbury. In the two latter cases, the company takes advantage of agreements between the producing companies and the government whereby up to 10% by value of the

rough diamond production is provided to the factory at market price. Embee Diamonds, a division of Embee Diamond Technologies Inc., operates the factory located in Prince Albert close to the Fort-à-la-Corne area where mining companies are actively developing new diamond deposits.

## **TRADE**

*Note: No tariff is applied to any of the Harmonized System (HS) trade codes appearing in Table 1 of this review.*

The value of Canada's total primary exports of diamonds in 2012 (Table 1) is estimated at \$2.24 billion, a 12.9% drop compared to 2011, due to lower prices during the year. Canada's most important diamond export item is classified under HS code 7102.10, representing unsorted diamonds. Exports under this code, on a value basis (\$1.7 billion), were directed mostly to the United Kingdom (66%), Belgium (28%), and India (7%). The second most important trade item on a value basis (\$498 million) 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 were specifically destined for cutting and polishing. Diamonds in this category were sent to Belgium (72%), India (11%), the United Kingdom (8%), and Israel (3%). The third most important export on a value basis (\$73 million) falls under HS code 7102.39, which represents cut gem-quality diamonds. These exports, sent mostly to the United States (73%), Vietnam (15%), Israel (4%), and Belgium and China (2% each) in 2012, have grown significantly over the past decade and reflect the increase in cutting and polishing capacity and branding efforts in Canada. The rest of Canada's exports, industrial and synthetic diamonds exported mostly to China and the United States, amounted to a meager \$54,000.

On the import side, Canada's total primary imports of diamonds in 2012, estimated to be valued at \$614 million, decreased by 14% relative to 2011. The top import item was cut diamonds, most exceeding 0.5 ct in weight, which were destined for jewellery manufacturing. Imports in 2012 reached \$441 million, a 9% increase from 2011. Shipments were mostly from Israel, the United States, India, and Belgium. The second highest import item, uncut gem diamonds (mostly [87%] Canadian goods returned for the Canadian cutting industry's branding programs), corresponding to HS codes 7102.31 and 9813.00.00.41, amounted to \$155 million in 2012, a 47% decrease in value compared to 2011. This correction follows significant increases in recent years and may indicate market softness in 2012. The rest of Canada's diamond imports (unsorted diamonds, various industrial grades, natural dust, and synthetic diamonds) were valued at \$17 million. These were mostly imported from South Korea, the United States, Ireland, South Africa, Belgium, and China.

## **WORLD DEVELOPMENTS**

### **Production**

World production of natural rough diamonds in 2012, as publicly reported by the Kimberley Process Certification Scheme (refer to Table 2 and to the world map available on the Internet at [www.nrcan.gc.ca/minerals-metals/sites/www.nrcan.gc.ca/minerals-metals/files/files/pdf/busi-indu/dia-map09-eng.pdf](http://www.nrcan.gc.ca/minerals-metals/sites/www.nrcan.gc.ca/minerals-metals/files/files/pdf/busi-indu/dia-map09-eng.pdf)) is estimated in 2012 at 127.9 Mct valued at US\$12.6 billion for an average price of US\$98.70/ct. This represents a 3.2% increase in production on a carat basis and a 12.3% decrease on a value basis over 2011. Aside from Zimbabwe (42%), Namibia (30%), Australia (17%), and the Democratic Republic of Congo (12%), none of the large producers increased their production volume. On a carat basis, production in South Africa decreased by 14%, Botswana by 10%, Canada by 3%, and Russia by 0.6%, while Angola remained the same. On a value basis, Zimbabwe (35%), Sierra Leone (31%), Australia (22%), Russia (7%), and Namibia (3%) experienced significant increases while South Africa (41%), Botswana (24%), Canada (21%), Lesotho (16%), and Angola (5%) registered drops. The

higher carat production came from more successful marine operations in Namibia, from new production capacity in Zimbabwe's Marange alluvial diamond fields, and from more favourable mining conditions at Australia's Argyle mine, while the significant production declines observed in the countries mentioned above resulted mostly from the depletion of reserves and the transfer to underground operations. The significant decrease in value stems essentially from a significant decrease in market prices as a result of weaker demand.

## **Demand**

Overall, according to the *Diamond Intelligence Briefs*, worldwide retail sales of diamond jewellery in 2012 increased by 1.8% to an estimated US\$72.1 billion compared to 2011. However, the value of the diamond content in diamond jewellery retail sales was estimated at US\$21.9 billion, or 30% of retail sales, which was 7% less than in 2011. Retail markets are reported to have been dominated again by the Americas (37%), but to a smaller degree, while demand from India and China remained strong with shares of 12% and 11%, respectively. Japan accounted for 9%; the Gulf area for 9%; Hong Kong, Turkey, and Taiwan for 2% each; and others for 16%.

## **PRICES**

While there are no internationally set prices for rough gem-quality diamonds, as there are for metals and other commodities, De Beers SA's marketing agency, the Diamond Trading Company (DTC), which controls about 40% 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 sales. Prices reached at these sights are dictated by supply and demand considerations for each of the many categories of diamonds. Overall, the prices experienced during the year by the DTC are reported to have decreased by 12%. If these prices are compared with the average (all categories aggregated) per-carat value indicated by Kimberley Process production statistics for 2012, the latter decreased by 15.1% relative to 2011 for an average per-carat price of US\$98.70.

## **OUTLOOK**

In the short term, Canada's 2013 diamond production is forecast to remain at about the same level as that in 2012. The opening of the Gahcho Kué mine, tentatively set for early 2015, 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 rely more on underground operations. This will enable Canada's share of the world's diamond production to hover at between 12% and 20% for the foreseeable future.

At the international level, consumer demand for diamond jewellery is expected to grow as disposable income increases, especially in India and China, while the supply of rough diamonds is expected to decrease as mining reserves are not replenished by significant discoveries. This should force mid- to long-term prices for rough diamonds and for diamond jewellery to increase, albeit at a slower pace than observed in 2011.

*Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to the document entitled "Definitions and Valuation: Mineral Production, Shipments, and Trade." (2) Information in this review was current as of January 1, 2013. (3) This and other reviews, including previous editions, are available on the Internet at [www.nrcan.gc.ca/mining-materials/markets/commodity-reviews/8360](http://www.nrcan.gc.ca/mining-materials/markets/commodity-reviews/8360).*

# Diamonds - Other Information

## USES<sup>1</sup>

Diamond is 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 diamond's unique properties are put to great use. About 170 million carats (Mct), or 36,000 kilograms (kg), of diamonds are mined annually worldwide. In addition to mined diamonds, close to 600 Mct (or 120,000 kg) of synthetic diamonds are 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 diamond uses 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 diamonds are superior to their natural diamonds counterpart because their properties can be tailored to specific applications and they 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. Beveling 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 diamonds 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 increase for many of the applications cited above, including some of those that use natural

diamonds. 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.

## **KIMBERLEY PROCESS CERTIFICATION SCHEME**

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.

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.

More information on the Kimberley Process is available on Natural Resources Canada's web site at [www.kimberleyprocess.com](http://www.kimberleyprocess.com) or at the following web sites:

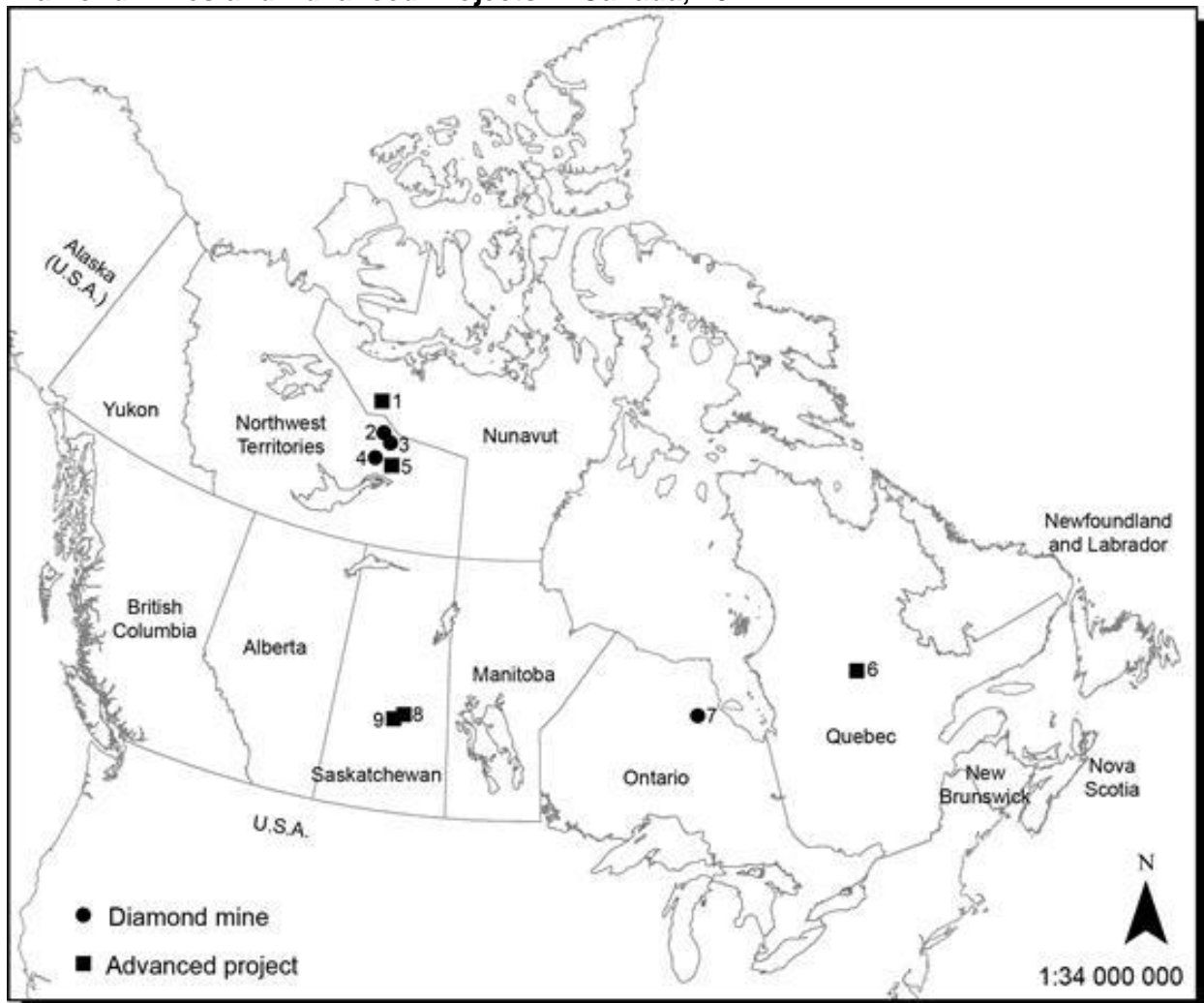
- Partnership Africa Canada      [www.pacweb.org](http://www.pacweb.org)
- World Diamond Council      [www.worlddiamondcouncil.com](http://www.worlddiamondcouncil.com)
- Global Witness      [www.globalwitness.org](http://www.globalwitness.org)

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<sup>1</sup> 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>).



**Figure 1**  
**Diamond Mines and Advanced Projects in Canada, 2012**



*Numbers refer to locations on map above.*

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

**TABLE 1. CANADA, DIAMOND PRODUCTION AND TRADE, 2010-12**

	2010		2011		2012 (p)	
	(carats)	(\$000)	(carats)	(\$000)	(carats)	(\$000)
<b>PRODUCTION</b>						
Ontario	798,897	347,680	801,574	455,887	720,506	386,645
Northwest Territories	11,005,199	2,029,468	9,950,428	2,053,345	9,670,393	1,614,897
Nunavut	–	–	–	–	59,719	3,670
<b>Total</b>	<b>11,804,096</b>	<b>2,377,147</b>	<b>10,752,002</b>	<b>2,509,232</b>	<b>10,450,618</b>	<b>2,005,212</b>
<b>EXPORTS</b>						
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set					
	United Kingdom	4,604,818	1,574,846	3,195,926	1,400,438	2,741,149
	Belgium	3,619,317	330,496	3,562,831	401,022	4,182,811
	India	45,954	4,907	883,274	126,751	785,629
	Other countries	27	6	1,101	106	174
	<b>Total</b>	<b>8,270,116</b>	<b>1,910,255</b>	<b>7,643,132</b>	<b>1,928,317</b>	<b>7,709,763</b>
7102.21	Diamonds, industrial, unworked or simply sawn, cleaved or bruted					
	Australia	–	–	–	14	...
	Hong Kong	–	–	14	1	–
	United Kingdom	–	–	1,393	69	–
	<b>Total</b>	<b>–</b>	<b>–</b>	<b>1,407</b>	<b>70</b>	<b>14</b>
7102.29	Diamonds, industrial, other					
	China	–	–	–	260	26
	United States	1	3	84	45	13
	<b>Total</b>	<b>1</b>	<b>3</b>	<b>84</b>	<b>45</b>	<b>262</b>
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted					
	Belgium	1,640,748	370,337	1,476,532	428,250	1,518,501
	India	1,168,185	26,688	1,422,747	64,665	1,819,421
	United Kingdom	698,315	78,644	45,152	5,687	107,564
	Israel	26,988	57,792	41,118	67,610	13,646
	Other countries	2,920	5,564	5,078	4,099	18,385
	<b>Total</b>	<b>3,537,156</b>	<b>539,025</b>	<b>2,990,627</b>	<b>570,311</b>	<b>3,477,517</b>
7102.39	Diamonds, non-industrial, other					
	United States	33,151	78,318	35,133	50,502	18,725
	Vietnam	3,904	12,713	3,583	10,278	4,374
	Israel	899	4,495	2,987	4,429	1,211
	Belgium	1,879	3,315	5,093	1,961	539
	Hong Kong	4,335	568	13,933	2,777	1,474
	United Kingdom	112	338	134	309	294
	Japan	5	280	31	52	213
	India	199	72	10	21	283
	Other countries	4,473	9,368	1,168	4,399	10,607
	<b>Total</b>	<b>48,957</b>	<b>109,467</b>	<b>62,072</b>	<b>74,728</b>	<b>37,720</b>
7105.10	Natural or synthetic diamond dust and powder					
	United States	8,129	5	12,086	5	32,907
	China	–	–	–	–	449
	Other countries	–	–	31,000	38	–
	<b>Total</b>	<b>8,129</b>	<b>5</b>	<b>43,086</b>	<b>43</b>	<b>33,356</b>
<b>Total exports</b>	<b>11,864,359</b>	<b>2,558,755</b>	<b>10,740,408</b>	<b>2,573,514</b>	<b>11,258,632</b>	<b>2,242,291</b>
<b>IMPORTS</b>						
7102.10	Diamonds, unsorted, whether or not worked, but not mounted or set					
	India	24	80	1	14	39
	United States	11	35	6	54	6
	Canada	6	3	–	–	32
	Belgium	1	14	11	16	1
	Other countries	261	108	39	17	101

	<b>Total</b>	<b>303</b>	<b>240</b>	<b>57</b>	<b>101</b>	<b>179</b>	<b>136</b>
7102.21.00.10	Diamonds, industrial, unworked or simply sawn, cleaved or bruted; bort and black diamonds, for borers						
	Australia	15,034	57	21,496	89	(a)	(a)
	Belgium	78,974	265	134,609	496	(a)	(a)
	South Africa	136,084	1,109	170,656	1,164	(a)	(a)
	United States	9	...	51,054	263	(a)	(a)
	Other countries	41,893	124	267	13	(a)	(a)
	<b>Total</b>	<b>271,994</b>	<b>1,555</b>	<b>378,082</b>	<b>2,025</b>	<b>(a)</b>	<b>(a)</b>
7102.21.00.90	Diamonds, industrial, unworked or simply sawn, cleaved or bruted; other						
	Australia	873	32	1,221	55	(a)	(a)
	Botswana	424	15	535	35	(a)	(a)
	Saudi Arabia	68	3	1,030	5	(a)	(a)
	South Africa	17,954	374	6,375	322	(a)	(a)
	Other countries	3,159	65	1,292	41	(a)	(a)
	<b>Total</b>	<b>22,478</b>	<b>489</b>	<b>10,453</b>	<b>458</b>	<b>(a)</b>	<b>(a)</b>
7102.21.00.00	Diamonds, industrial, unworked or simply sawn, cleaved or bruted						
	South Africa	(a)	(a)	(a)	(a)	170,154	1,542
	Belgium	(a)	(a)	(a)	(a)	124,466	282
	Australia	(a)	(a)	(a)	(a)	32,185	273
	United States	(a)	(a)	(a)	(a)	21,604	207
	Botswana	(a)	(a)	(a)	(a)	35,146	186
	Other countries	(a)	(a)	(a)	(a)	6,802	111
	<b>Total</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>390,357</b>	<b>2,601</b>
7102.29.00.10	Diamonds, industrial, other; bort and black diamonds, for borers						
	Hong Kong	22	5	–	–	(a)	(a)
	Israel	15	...	–	–	(a)	(a)
	Japan	...	...	9	2	(a)	(a)
	Thailand	6	1	–	–	(a)	(a)
	United States	61	14	115	15	(a)	(a)
	Other countries	–	–	43	11	(a)	(a)
	<b>Total</b>	<b>104</b>	<b>20</b>	<b>167</b>	<b>28</b>	<b>(a)</b>	<b>(a)</b>
7102.29.00.90	Diamonds, industrial, other; other						
	Belgium	690	262	45	14	(a)	(a)
	Japan	189	75	1,763	114	(a)	(a)
	United States	1,018	265	721	216	(a)	(a)
	South Africa	26	8	125	36	(a)	(a)
	Other countries	425	64	402	74	(a)	(a)
	<b>Total</b>	<b>2,348</b>	<b>674</b>	<b>3,056</b>	<b>454</b>	<b>(a)</b>	<b>(a)</b>
7102.29.00.00	Diamonds, industrial, other						
	United States	(a)	(a)	(a)	(a)	13,306	317
	Congo, Democratic Republic of	(a)	(a)	(a)	(a)	426	102
	United Arab Emirates	(a)	(a)	(a)	(a)	239	89
	Japan	(a)	(a)	(a)	(a)	1,016	86
	Other countries	(a)	(a)	(a)	(a)	152	58
	<b>Total</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>15,139</b>	<b>652</b>
7102.31	Diamonds, non-industrial, unworked or simply sawn, cleaved or bruted						
	Canada	53,205	40,051	29,170	44,835	67,856	37,790
	United Kingdom	24,279	38,321	5,530	13,696	7,715	8,938
	South Africa	2,349	1,568	16,449	18,181	7,544	4,022
	Israel	4,591	3,649	–	–	3,688	2,342
	Belgium	21,113	12,493	8,772	8,627	3,062	2,228
	United States	...	...	9	7	1,537	2,113
	Other countries	303	166	1,899	1,673	2,429	1,089
	<b>Total</b>	<b>105,840</b>	<b>96,248</b>	<b>61,829</b>	<b>87,019</b>	<b>93,831</b>	<b>58,522</b>
7102.39.00.10	Diamonds, non-industrial, other, of a weight not exceeding 0.5 carats each						
	India	38,863	14,077	43,721	19,729	44,416	20,424

	Israel	15,295	7,739	10,066	7,868	14,174	12,242
	Belgium	27,535	17,419	17,809	13,383	15,498	11,480
	United States	11,315	6,294	11,860	6,365	14,054	9,479
	Australia	1,077	1,539	903	822	2,901	1,745
	Canada	358	472	2,018	1,779	922	1,306
	China	3,696	883	1,842	503	1,994	630
	Other countries	1,981	783	1,683	691	2,505	1,287
	<b>Total</b>	<b>100,120</b>	<b>49,206</b>	<b>89,902</b>	<b>51,140</b>	<b>96,464</b>	<b>58,593</b>
7102.39.00.20	Diamonds, non-industrial, other, of a weight exceeding 0.5 carats each						
	Israel	58,334	91,355	48,213	84,703	50,556	104,622
	United States	36,635	81,518	38,718	87,338	33,085	102,500
	India	118,152	83,001	78,704	74,332	60,665	78,226
	Belgium	36,057	50,560	26,413	43,000	20,304	38,209
	Australia	27,136	30,966	20,025	23,876	26,999	25,920
	Canada	28,844	21,251	20,079	29,939	7,520	19,906
	Armenia	291	438	1,861	1,955	6,391	4,760
	Hong Kong	1,056	1,283	1,529	2,184	1,110	1,830
	China	4,833	5,026	2,881	1,532	1,096	1,335
	Argentina	–	–	–	–	1,331	1,115
	Other countries	4,964	7,579	4,654	4,891	3,833	3,804
	<b>Total</b>	<b>316,302</b>	<b>372,977</b>	<b>243,077</b>	<b>353,750</b>	<b>212,890</b>	<b>382,227</b>
7105.10.00.10	Diamond dust for borers; dust mixed with a carrier in cartridges or in tubes						
	United States	370,750	739	318,992	676	(a)	(a)
	Ireland	14,506	38	75,666	72	(a)	(a)
	South Korea	22,000	15	62,567	71	(a)	(a)
	Australia	546	2	1,674	7	(a)	(a)
	Other countries	5,420	19	–	–	(a)	(a)
	<b>Total</b>	<b>413,222</b>	<b>813</b>	<b>458,899</b>	<b>826</b>	<b>(a)</b>	<b>(a)</b>
7105.10.00.91	Natural diamond dust and powder						
	United States	202,317	682	191,608	523	(a)	(a)
	South Korea	111,532	404	124,641	503	(a)	(a)
	China	13,329	55	49,732	204	(a)	(a)
	Other countries	51,892	158	30,684	104	(a)	(a)
	<b>Total</b>	<b>379,070</b>	<b>1,299</b>	<b>396,665</b>	<b>1,334</b>	<b>(a)</b>	<b>(a)</b>
7105.10.00.90	Dust and powder of natural or synthetic precious or semi-precious stones, of diamonds, other						
	South Korea	(a)	(a)	(a)	(a)	4,315,947	2,550
	United States	(a)	(a)	(a)	(a)	2,432,754	1,916
	Spain	(a)	(a)	(a)	(a)	54,429	166
	China	(a)	(a)	(a)	(a)	377,104	136
	Ireland	(a)	(a)	(a)	(a)	163,594	79
	Ghana	(a)	(a)	(a)	(a)	20,880	18
	United Arab Emirates	(a)	(a)	(a)	(a)	7,111	7
	Other countries	(a)	(a)	(a)	(a)	183,471	10
	<b>Total</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>7,555,290</b>	<b>4,882</b>
7105.10.00.92	Synthetic diamond dust or powder						
	South Korea	6,901,897	3,759	10,848,795	5,948	(a)	(a)
	United States	3,947,359	2,459	7,473,398	3,263	(a)	(a)
	Ireland	5,754,875	2,528	7,062,778	3,153	(a)	(a)
	Other countries	431,902	289	586,246	137	(a)	(a)
	<b>Total</b>	<b>17,036,033</b>	<b>9,035</b>	<b>25,971,217</b>	<b>12,501</b>	<b>(a)</b>	<b>(a)</b>
7105.10.00.20	Dust and powder of natural or synthetic precious or semi-precious stones, of diamonds, synthetic						
	Ireland	(a)	(a)	(a)	(a)	7,350,313	3,298
	South Korea	(a)	(a)	(a)	(a)	5,503,975	3,252
	United States	(a)	(a)	(a)	(a)	4,944,889	2,368
	Other countries	(a)	(a)	(a)	(a)	457,577	110
	<b>Total</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>18,256,754</b>	<b>9,028</b>

9813.00.00.41	Diamonds of Section XIV otherwise classifiable to 71.02; diamonds otherwise classifiable to 7102.10, 7102.21 or 7102.31						
	Canada	101,880	94,174	576,775	206,599	174,001	96,925
	United States	366	375	–	–	–	–
	<b>Total</b>	<b>102,246</b>	<b>94,549</b>	<b>576,775</b>	<b>206,599</b>	<b>174,001</b>	<b>96,925</b>
9813.00.00.49	Diamonds of Section XIV otherwise classifiable to 71.02; other diamonds otherwise classifiable to 7102.29 or 7102.39						
	Canada	170	227	–	–	95	97
	United States	7	7	1	1	–	–
	<b>Total</b>	<b>177</b>	<b>234</b>	<b>1</b>	<b>1</b>	<b>95</b>	<b>97</b>
<b>Total imports</b>		<b>18,750,237</b>	<b>627,339</b>	<b>28,190,180</b>	<b>716,236</b>	<b>26,795,000</b>	<b>613,663</b>

Sources: Natural Resources Canada; Statistics Canada.

– Nil; . . . Amount too small to be expressed; (p) Preliminary.

(a) As of 2012, Harmonized System (HS) codes 7102.21.00.10 and 7102.21.00.90 were replaced by 7102.21.00.00; HS codes 7102.29.00.10 and 7102.29.00.90 were replaced by 7102.29.00.00; and HS codes 7105.10.00.10 and 7105.10.00.91 were replaced by 7105.10.00.90.

Notes: Numbers may not add to totals due to rounding. HS code descriptions in this table may have been abbreviated.

**TABLE 2. WORLD PRODUCTION OF NATURAL ROUGH DIAMONDS, 2011 AND 2012**

Country	Production 2011		Production 2012			
	Volume	Value	Volume	Variation vs. 2011	Value	Variation vs. 2011
	(ct)	(US\$)	(ct)	(%)	(US\$)	(%)
Botswana	22,904,554	3,902,115,905	20,554,928	-10.26	2,979,400,297	-23.65
Russia	35,139,800	2,674,713,800	34,927,650	-0.60	2,873,728,990	7.44
<b>Canada</b>	<b>10,752,002</b>	<b>2,550,875,199</b>	<b>10,450,618</b>	<b>-2.80</b>	<b>2,007,217,351</b>	<b>-21.31</b>
South Africa	8,205,399	1,730,323,570	7,077,431	-13.75	1,027,131,960	-40.64
Angola	8,328,519	1,162,625,478	8,330,996	0.03	1,110,222,942	-4.51
Namibia	1,255,816	872,567,637	1,628,780	29.70	900,497,644	3.20
Zimbabwe	8,502,648	476,218,678	12,060,163	41.84	644,033,522	35.24
Lesotho	224,180	359,147,279	478,926	113.63	301,452,475	-16.06
Australia	7,829,805	220,720,064	9,180,923	17.26	269,419,306	22.06
Congo, Democratic Republic of	19,249,057	179,608,541	21,524,266	11.82	183,135,862	1.96
Sierra Leone	357,161	124,150,581	541,166	51.52	163,196,193	31.45
Central African Republic	323,576	60,893,287	365,917	13.09	62,129,597	2.03
Guinea	303,785	33,401,985	266,800	-12.17	43,552,930	30.39
Liberia	41,932	16,183,202	41,985	0.13	16,164,275	-0.12
Tanzania	40,691	11,279,450	46,414	14.06	10,757,388	-4.63
Ghana	301,937	15,259,202	232,897	-22.87	10,165,729	-33.38
Guyana	50,817	9,581,760	44,244	-12.93	7,653,787	-20.12
India	12,315	2,200,000	26,990	119.16	4,808,000	118.55
Congo, Republic of	76,548	1,810,894	51,588	-32.61	3,816,504	110.75
Brazil	45,536	3,150,000	46,292	1.66	2,843,233	-9.74
Togo	71	15,048	456	542.25	90,421	500.88
China	201	50,000	1,855	822.89	43,500	-13.00
Indonesia	–	–	–	–	–	–
Venezuela	–	–	–	–	–	–
<b>Total</b>	<b>123,946,352</b>	<b>14,396,670,107</b>	<b>127,881,284</b>	<b>3.17</b>	<b>12,621,461,905</b>	<b>-12.33</b>

Source: Kimberley Process Certification Scheme.

– Nil.