

Coal

Kevin Stone

*The author is with the Minerals and Metals Sector,
Natural Resources Canada.
Telephone: (613) 992-5199
E-mail: kstone@nrcan.gc.ca*

CANADIAN DEVELOPMENTS

In Canada, four new coal mines came on stream in 2004. The Willow Creek mine of Pine Valley Mining Corporation commenced commercial production in August 2004. The mine is located approximately 45 km west of the town of Chetwynd in the Peace River District of northeastern British Columbia. The Willow Creek mine is permitted to produce 950 000 t/y of PCI coal. Grande Cache Coal Corporation began its coal production in the 12S B2 surface mine in September and in the No.7 underground mine in November 2004. The Grande Cache mines are located in the Smoky River Coalfield in west-central Alberta within the inner foothills of the Canadian Rocky Mountains. The Grande Cache mines produce hard coking coal at an annual production rate of 2 Mt. The Dillon mine of Western Canadian Coal Corporation started production in November 2004. The mine is located southwest of Chetwynd within Western Canadian Coal's Burnt River property in northeastern British Columbia. The Dillon mine is permitted to produce 250 000 t/y of PCI coal. The Cheviot Creek pit mine of Elk Valley Coal Corporation started production in the fourth quarter of 2004. The mine is located near Hinton, Alberta; its production is expected to be 2.8 Mt/y of coking coal.

Nippon Steel Corporation (NSC) and Pohang Iron and Steel (POSCO) each acquired a 2.5% equity interest in Elk Valley Coal Corporation's Elkview mine. NSC's and POSCO's investments were to secure a long-term supply of coking coal.

PRODUCTION

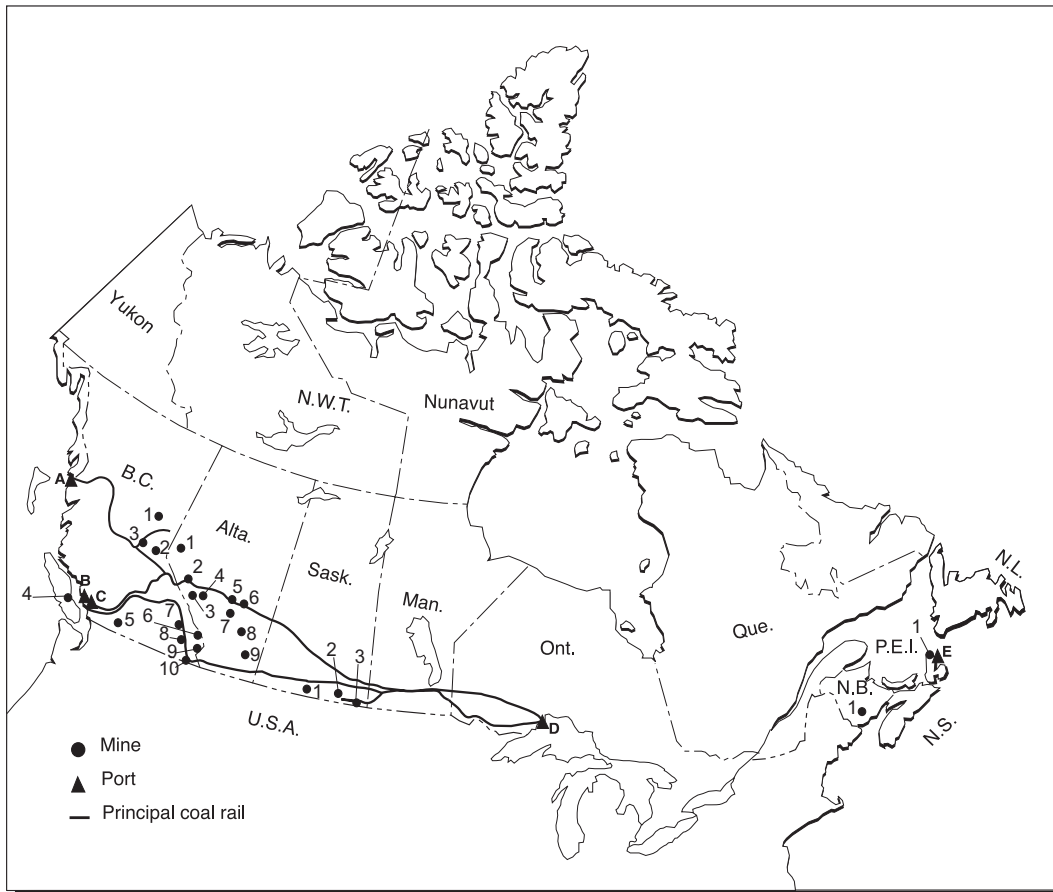
In 2004, Canada produced 66 Mt of coal, an increase of 6% from 2003's production of 62 Mt. British Columbia

and Alberta each produced 27 Mt of coal. British Columbia's coal production increased 17% to 27 Mt in 2004 from 23 Mt in 2003. The entire increase (4 Mt) was for exports. Alberta's production declined 4% from 28.2 Mt in 2003 to 27 Mt in 2004. Saskatchewan's production increased to 11.6 Mt in 2004 from 10.7 Mt in 2003. All of Saskatchewan's and most of Alberta's output is under long-term contracts to supply coal to nearby coal-fired power generation plants. In Atlantic Canada, New Brunswick produced 90 000 t of thermal coal in 2004 and Nova Scotia produced a limited amount of coal used by coal-fired power generation plants.

In 2004, there were 22 coal-producing mines in Canada employing approximately 5000 people. Coal production in Canada essentially comes from 18 large-scale mines, each with a production capacity of over 1 Mt/y in three western provinces. Eight mines in the province of British Columbia produce bituminous coal, of which seven produce coking coal for export and one produces thermal coal. Nine mines are located in the province of Alberta, four of which produce bituminous coal (two coking and two thermal) and five produce subbituminous coal. Three mines in Saskatchewan produce lignite. Some small-scale operations remain in the province of Nova Scotia and New Brunswick that produce bituminous thermal coal for power generation plants.

Major producers are Elk Valley Coal Corporation and Luscar Coal Limited. Elk Valley Coal Corporation is the world's second largest coking coal producer and exporter with five mines in the Elk Valley of British Columbia (Fording River, Coal Mountain, Greenhills, Elkview, and Line Creek) and one mine in Alberta (Luscar/Cheviot Creek). The company's production capacity is approximately 25 Mt/y of coking coal. Luscar Coal Limited (Luscar), owned by the Luscar Energy Partnership, operates seven surface mines in Alberta (Coal Valley, Obed Mountain, Highvale, Paintearth, Sheerness, Whitewood, and Genesee) and three mines in Saskatchewan (Poplar River, Boundary Dam and Bienfait). Combined these mines have a capacity of 40 Mt/y of bituminous, subbituminous and lignite thermal coal that is consumed mainly by domestic electric power generation.

Figure 1
Principal Canadian Coal Mines and Ports



Numbers refer to locations on map above.

MINES

BRITISH COLUMBIA

- 1. Willow Creek
- 2. Dillon
- 3. Wolverine
- 4. Quinsam
- 5. Basin
- 6. Fording River
- 7. Greenhills
- 8. Elkview
- 9. Line Creek
- 10. Coal Mountain

ALBERTA

- 1. Grande Cache
- 2. Obed Mountain
- 3. Cheviot Creek
- 4. Coal Valley
- 5. Highvale
- 6. Whitewood
- 7. Genesee
- 8. Paintearth
- 9. Sheerness

SASKATCHEWAN

- 1. Poplar River
- 2. Boundary Dam
- 3. Bienfait

NEW BRUNSWICK

- 1. Minto

NOVA SCOTIA

- 1. Stellarton

PORTS

BRITISH COLUMBIA

- A. Ridley
- B. Neptune
- C. Westshore

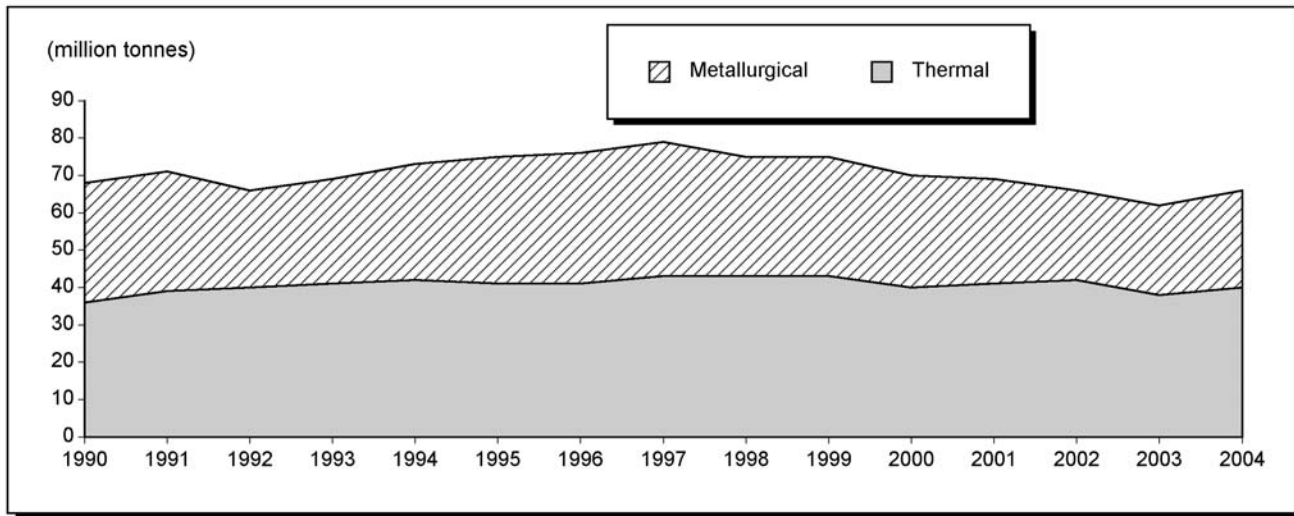
ONTARIO

- D. Thunder Bay

NOVA SCOTIA

- E. International Pier

Figure 2
Canadian Coal Production, 1990-2004



Sources: Natural Resources Canada; Statistics Canada.

EXPORTS

Coal exports are vital to the Canadian coal industry with roughly 40% of Canada's total production being exported. In 2004, Canada exported 26 Mt of coal. Canada is the world's second largest supplier of coking coal. Canada's coking coal exports increased to 24 Mt in 2004. The largest increase was exports to the North American market. Exports increased from 2.4 Mt in 2003 to 3.7 Mt in 2004, an increase of 56%. Exports to the United States increased to 2.6 Mt from the previous year's 1.9 Mt, an increase of 35%. Exports to Mexico doubled from the previous year's 474 000 t to 1.1 Mt in 2004. Exports to European markets increased from 5.9 Mt in 2003 to 6.6 Mt in 2004, a 12% increase. Exports to Asian markets, the largest market for Canada, slid again in 2004, declining 6%. Exports to Japan declined from 7.7 Mt in 2003 to 5.4 Mt in 2004, a decrease of 2.3 Mt. Despite the decline to Asia, exports to China increased to 1.8 Mt in 2004 from the previous year's 670 000 t, a threefold increase. Exports to Turkey almost doubled from 780 000 t in 2003 to 1.3 Mt in 2004.

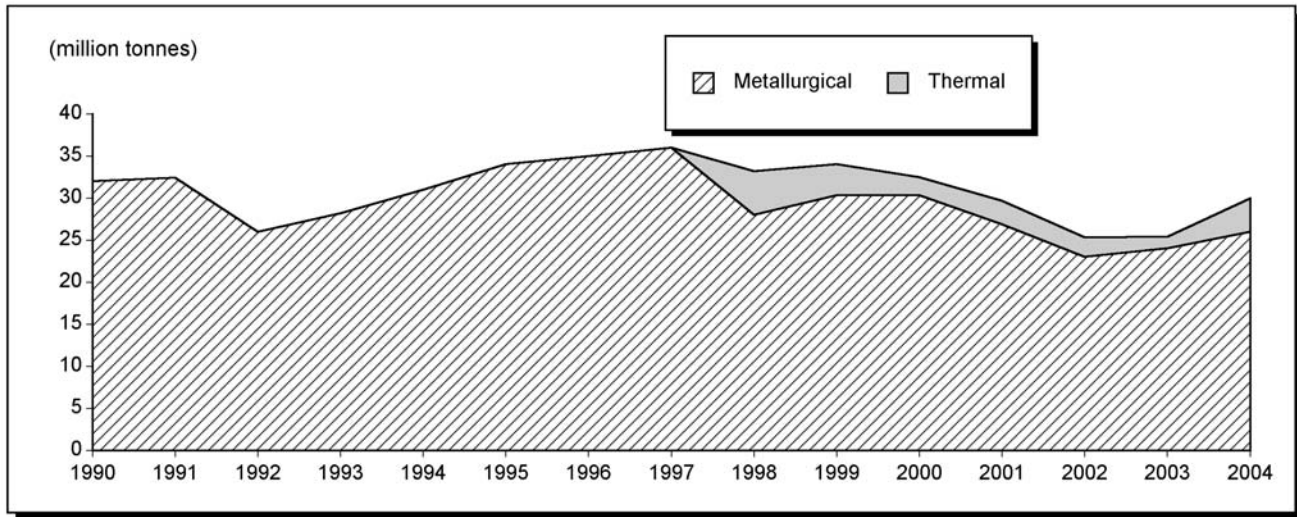
Canadian coal exports were mainly from Elk Valley Coal's five coal mines in British Columbia. In 2004, British Columbia exported 24 Mt of coking coal and 237 000 t of thermal coal. Alberta exported 730 000 t of coal, of which 230 000 t was coking coal and 500 000 t was thermal coal. Seaborne coal was 24.7 Mt in 2004, accounting for 95% of

Canada's total exports of 26 Mt, almost all of it shipped through coal terminals in Vancouver.

Between 1997 and 2000, the price of seaborne hard coking coal dropped by more than 30% due to oversupply in global markets and the economic downturn in some Asian countries. Following an economic recovery period in 2001 and 2002, the Asian economy has been booming since the second half of 2002 and this continued in 2003 and 2004. A similar economic growth was also seen in Latin America. The booming economic activities on both continents boosted global economic activities. Demand for all kinds of commodities kept rising and, for most of the commodities, demand exceeds supply. Rising global demand drives up commodity prices. Coking coal was a typical example. The average realized Canadian coking coal price was US\$44/t f.o.b. Vancouver in the 2002 coal year,¹ US\$45/t in the 2003 coal year, and US\$52/t in the 2004 coal year. Canadian coking coal producers have settled various contract prices of US\$120-\$125/t f.o.b. Vancouver for the 2005 coal year. Canadian coal exporters expect to achieve an average price of US\$122/t in the 2005 coal year, more than double that of the previous year.

¹ The coal year starts on April 1 and ends on March 31 of the following year.

Figure 3
Canadian Coal Exports, 1990-2004



Sources: Natural Resources Canada; Statistics Canada.

CONSUMPTION

Canada's apparent coal consumption was down to 59 Mt in 2004. Electricity generation used 55 Mt and the remaining 4 Mt was consumed by Canada's steel, cement and other industries.

Canada's major consumption of coal is as a fuel for its 23 coal-fired electricity power generation plants, which account for roughly 93% of Canadian coal consumption. The Canadian steel industry consumed roughly 5% of the total with the remaining 2% being consumed by other industrial and domestic consumers.

Alberta, the largest coal-consuming province, consumes about 25 Mt annually for electric power generation, accounting for 45% of the total coal consumption for electric power generation and for 40% of Canada's total coal consumption. Coal-fired power generation provides two thirds of Alberta's total electricity demand and is therefore crucial to the province's energy supply.

Ontario is the second largest coal-consuming province; it consumed approximately 16 Mt of coal in 2004. Electric power generation consumed approximately 12 Mt of coal, the steel industry consumed about 3.4 Mt, and the other industries consumed the rest. Ontario's coal consumption was noticeably lower compared to 2003's consumption of 19 Mt. The decline was mainly in thermal coal consumption, which was down to 12 Mt from the previous year's 16 Mt. This was due to Ontario's plan to phase out coal-fired electricity generation.

Saskatchewan consumed 11.5 Mt of lignite for its coal-fired electricity generation in 2004 and provided 66.7% of Saskatchewan's total electricity supply, an increase of 4.9% from the previous year's level.

Nova Scotia's coal consumption remained at 2 Mt in 2004, the same level as in 2003, and the coal consumed was for electricity generation. New Brunswick consumed about 1 Mt in 2004, a decline from the previous year's 1.3 Mt. New Brunswick's coal consumption was also for electricity generation. Quebec has remained at the same consumption level over the past 10 years at about 700 000 t of coal for industrial purposes.

IMPORTS

Canada imported 19 Mt of coal in 2004, of which 15.6 Mt was thermal coal, mainly for coal-fired electricity generation use in the provinces of Ontario, Nova Scotia and New Brunswick. Coking coal imports were 3.4 Mt, consumed by Canada's steel industry. Of Canada's total coal imports, the United States supplied 16.6 Mt, Colombia supplied 1.5 Mt, and Venezuela provided 762 000 t.

Canada's coal imports decreased 3.4 Mt from the previous year's 22.7 Mt. The decline was in thermal coal imports, which dropped from 19.5 Mt in 2003 to 15.6 Mt in 2004. Ontario, the major thermal coal consumer, imported 11.9 Mt of thermal coal, a drop of 23% from the previous year's 15.4 Mt. This was due to Ontario's plan to phase out coal-fired electricity generation. In New Brunswick,

coal imports also decreased from 1.3 Mt in 2003 to 950 000 t in 2004, a decrease of 340 000 t. Nova Scotia's imports remained the same at 1.8 Mt.

COAL PROJECTS

The Wolverine coal project, owned by Western Canadian Coal Corporation, received an Environmental Assessment approval from the B.C. government in January 2005 and received a mine permit in April 2005. The project is located in Tumbler Ridge in northeastern British Columbia, a historical coal-producing region. The Wolverine project was permitted to produce 1.6 Mt/y of coal with a mine life of 15 years. It is expected to create more than 200 full-time jobs. WCC has an ambitious goal of producing 5 Mt by 2008.

The Basin project, owned by Compliance Energy Corp., is nearly completed. The project is located in southern British Columbia near the town of Princeton. It is expected to produce 400 000 t/y of thermal coal to supply cement manufacturers and other industrial users in British Columbia and the northwestern United States.

In Alberta, construction of the new coal-fired generation unit at the Genesee Generation Station continued and is expected to be commissioned in late 2005. The new unit will require additional subbituminous coal mining capacity at the adjacent Genesee mine. In January 2005, Luscar released a public disclosure document in which Luscar is proposing a two-unit, 1000-megawatt coal-fired electricity generation plant and associated coal mine and coal preparation plant. The project is referred to as the Bow City Power Project and is located near Bow City, Alberta, approximately 180 km southeast of Calgary. The project is based on the Brook Power project originally proposed by Fording Inc. in 2000 and later acquired by Luscar as the result of a coal industry restructuring in 2003. The development is to be carried out in two phases. Phase 1 is to construct a 500-megawatt power unit, a surface mine, a dragline, and a coal preparation plant with expected completion in 2010. Phase 2 is to build a second 500-megawatt unit and a second dragline, and to expand the mine and preparation plant. The second phase is expected to be completed in 2014.

Since 2003, the Nova Scotia government has been pursuing coal mining and development under Nova Scotia's Energy Strategy. In December 2003, the provincial government issued a call for proposals for exploration and development in four areas of the Sydney Coalfield on Cape Breton Island. In April 2004, the government selected a consultant to assist with managing its tendering process for the mineral rights to the Donkin resource. In May 2004, the province accepted proposals from three companies to explore and develop the Sydney Coalfield. In December 2004, the provincial government issued a call

for proposals to develop the Donkin coal resource. Nova Scotia is rich in coal resources and a return of productive coal mining operations will certainly provide economic benefits to the local communities and to the province.

ENVIRONMENT

The Canadian coal industry has made progress with respect to environmental concerns such as the disturbance of land, acid mine drainage, greenhouse gas (GHG) emissions, and the production of particulate associated with the burning of coal. Some coal mining companies have already been recognized for their successful environmental management programs.

New coal mines and mine expansions are required to have environmental assessments under provincial legislation and, in some cases, also require a federal environmental review under the *Canadian Environmental Assessment Act*. Environmental assessments ensure that mining activities, such as the removal of vegetation, relocation of overburden, construction of roads, reclamation of previous mined areas, and mining operations, manage the negative effect on the environment.

Canada and the private sector have invested significant amounts of money in the development of Clean Coal Technologies (CCT) designed to enhance both the efficiency and the environmental acceptability of coal extraction, preparation and consumption. Natural Resources Canada has made financial contributions to projects by the Canadian Clean Power Coalition (CCPC). The CCPC's projects aim to demonstrate that coal-fired power can be produced with emission levels the same as a modern natural-gas-fired turbine plant and that CO₂ can be captured and stored by applying commercial-scale technologies. The goal was to retrofit current coal-fired electricity generation plants while maintaining overall efficiency at or above the current levels and remaining cost-competitive with other power generation technologies. The CCPC completed the projects' feasibility study in 2004 and concluded that: coal-fired generation plant emissions can be comparable to natural-gas-fired power plants; technology limits will be pushed; life-cycle impacts and costs are significant; retrofit costs range from \$730/kW to \$1100/kW; and new plant (Greenfield) costs will be over \$2700/kW.

OUTLOOK

The outlook for the 2005 coal year is positive. Global demand for coking coal continues to increase. Demand exceeds supply. Canadian exporters settled various coking coal contracts at prices around US\$120-\$125/t. All Canadian producers are optimistic about the coking coal market. Canadian coal production is expected to reach 69-70 Mt. Elk Valley Coal, the hard coking coal producer

in Canada, will operate at full capacity to meet the demand. The new producers, Pine Valley Mining, Grande Cache, and Western Canadian Coal, will attempt to achieve a maximum volume of production. Thermal coal production in Canada is expected to remain the same as the majority of production is under long-term contracts. Canada's coal consumption and imports are expected to decrease as Ontario continues to carry out its plan to phase out coal-fired electricity generation. It is expected that world demand for coking coal will be strong as long as economic and industrial activities continue to boom in Asia and Latin America, especially in China, India and Brazil. Therefore, Canadian coal exports are expected to increase to 30 Mt in 2005.

GENERAL INFORMATION

Coal is an organically derived material. It is formed from the remains of decayed plant material compacted into a solid through millions of years of chemical changes under pressure and heat. As the organic maturity process continues, the buried plant material is transformed into different kinds of coal. In general, the longer coal is subjected to heat and pressure, the higher its grade and contained heat volume per unit weight. Bituminous coal and anthracite are high-rank coals, also known as hard coal. Bituminous coal is consumed for both metallurgical and thermal purposes. Anthracite, the highest rank coal, is often called smokeless and is consumed for both domestic and industrial purposes. Lignite and subbituminous are low-rank coals, also known as brown coals, consumed only for the generation of electricity.

Coal is the world's most abundant and widely distributed fossil fuel. The current proven world coal reserve is estimated at 1000 billion t spread over 70 countries. Coal is currently mined in more than 50 countries. Canada holds close to 10 billion t of coal reserves. Coal offers a long-term economical source of energy that, at current production levels, would last for more than 200 years, significantly longer than known reserves of oil and gas.

The latest coal information published by the International Energy Agency (which collects worldwide data on production, consumption and trade) shows the total world's coal output was 4.9 billion t in 2003, including 4 billion t of hard coal and 886 Mt of brown coal. The top 10 coal-producing countries were China (1502 Mt), the United States (970 Mt), India (366 Mt), Australia (339 Mt), Russia (267 Mt), South Africa (239 Mt), Germany (208 Mt), Poland (161 Mt), Indonesia (120 Mt), and Kazakhstan (78 Mt). Canada produces hard and brown (lignite) coal. Canadian coal production was 62 Mt in 2003.

Coal has been consumed as an energy source for hundreds of years. It provided the energy that boosted the industrial

revolution of the 19th century and launched the electric era in the 20th century. Coal was the most important source of the world's primary energy until the late 1960s when it was overtaken by oil. Today, about 70% of total world coal production is consumed for electricity generation, providing about 39% of total world electricity. About 16% of Canada's electricity is generated by coal. Almost all primary steel production worldwide is based on pig iron from blast furnaces fed with coke from coal, and on iron ore.

The Canadian coal industry plays an important role in the Canadian economy, both as a mining industry and as an energy provider. It currently employs approximately 5000 people directly linked to the production of coal and it also creates about 50 000 indirect jobs across the country. The coal industry contributes about \$5 billion to the national economy annually. Coal is the number one commodity in volume hauled by rail in Canada and, in 2004, 32 Mt of coal was hauled by rail. The majority of coal was hauled to Vancouver ports for shipment overseas.

CANADIAN COAL COMPANIES' WEB SITES

The Coal Association of Canada:	www.coal.ca
Fording Canadian Coal Trust:	www.fording.ca
Teck Cominco Ltd.:	www.teckcominco.com
Elk Valley Coal Corp.:	www.elkvalleycoal.ca
Sherritt International Corp.:	www.sherritt.com
Luscar Coal Ltd.:	www.luscar.com
Hillsborough Resources Ltd.:	www.hillsboroughresources.com
Quinsam Coal Corporation:	www.quinsam.com
Pine Valley Mining Corp.:	www.pinevalleycoal.com
Grande Cache Coal Corp.:	www.gccoal.com
Western Canadian Coal Corp.:	www.westerncoal.com
Compliance Energy Corp.:	www.complianceenergy.com

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 64. (2) Information in this review was current as of March 31, 2005. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan.gc.ca/mms/cmy/com_e.html.

NOTE TO READERS

The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The authors and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.

TARIFFS

Item No.	Description	Canada			United States	EU	Japan
		MFN	GPT	USA	Canada	Conventional Rate (1)	WTO (2)
27.01	Coal, briquettes, ovoids and similar solid fuels manufactured from coal; coal whether or not pulverized, but not agglomerated						
2701.11.00	Anthracite	Free	Free	Free	Free	Free	Free
2701.11.00.10	Buckwheat No. 4, 5 or 6	Free	Free	Free	Free	Free	Free
2701.11.00.20	Buckwheat No. 1, 2 or 3	Free	Free	Free	Free	Free	Free
2701.11.00.30	Egg, stove or nut size	Free	Free	Free	Free	Free	Free
2701.11.00.90	Other	Free	Free	Free	Free	Free	Free
2701.12.00	Bituminous coal; metallurgical coal	Free	Free	Free	Free	Free	Free
2701.12.00.11	High volatile	Free	Free	Free	Free	Free	Free
2701.12.00.12	Low volatile	Free	Free	Free	Free	Free	Free
2701.12.00.91	Other high volatile	Free	Free	Free	Free	Free	Free
2701.12.00.92	Other low volatile	Free	Free	Free	Free	Free	Free
2701.19.00	Other coal	Free	Free	Free	Free	Free	Free
2701.20.00	Briquettes, ovoids and similar solid fuels manufactured from coal	Free	Free	Free	Free	Free	3.9%
27.02	Lignite, whether or not agglomerated, excluding jet						
2702.10.00	Lignite, whether or not pulverized, but not agglomerated	Free	Free	Free	Free	Free	Free
2702.20.00	Agglomerated lignite	Free	Free	Free	Free	Free	Free
2704.00.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon; coke and semi-coke of coal						
2704.00.11	Commercially suitable for use as fuel	Free	Free	Free	Free	Free	Free - 3.2%
2704.00.19	Coke and semi-coke of coal; other	Free	Free	Free	Free	Free	Free - 3.2%
2704.00.90	Coke and semi-coke of coal, of lignite or of peat, retort carbon; other	Free	Free	Free	Free	Free	Free - 3.2%

Sources: Canadian *Customs Tariff*, effective January 2005, Canada Border Services Agency; *Harmonized Tariff Schedule of the United States*, 2005; *Official Journal of the European Union* (October 30, 2004 Edition); *Customs Tariff Schedules of Japan, 2004*.

(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, COAL PRODUCTION AND TRADE, 2002-04

	2002		2003		2004 (p)	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
SHIPMENTS						
Nova Scotia	x	x	x	x	x	x
New Brunswick	175 000	19 944	141 000	17 082	x	x
Saskatchewan	x	x	x	x	11 588 000	x
Alberta	30 485 000	384 586	28 226 000	330 462	27 202 000	x
British Columbia	24 398 000	1 034 859	23 062 000	997 742	27 107 000	1 127 024
Total	66 608 000	1 600 505	62 125 000	1 492 219	66 019 000	1 598 061
EXPORTS						
2701.11	Anthracite					
	United States					
	-	-	8 279	1 268	475	200
2701.12	Bituminous coal, metallurgical					
	8 925 934	573 850	7 486 972	445 334	4 883 987	300 796
	3 203 568	208 957	3 268 468	190 294	3 625 115	230 191
	1 592 612	150 666	1 363 065	113 371	1 735 103	150 124
	1 046 394	74 744	1 478 163	99 476	1 813 986	128 145
	-	-	604 350	33 815	1 762 860	116 132
	1 172 716	80 401	1 835 371	109 887	1 469 050	89 485
	1 014 403	86 154	780 474	57 687	1 306 265	89 477
	1 036 453	79 643	1 250 360	84 082	1 139 166	84 484
	1 113 706	76 168	1 077 984	64 740	1 063 763	65 680
	1 077 313	67 082	1 077 311	67 027	990 020	62 620
	705 458	46 748	993 994	58 245	890 750	54 691
	-	-	-	-	552 680	36 455
	259 266	20 319	324 399	23 750	387 968	33 191
	266 224	19 556	444 551	34 864	381 008	32 825
	257 398	16 764	474 067	24 541	482 930	26 189
	227 569	15 811	115 893	6 785	292 931	22 797
	259 076	14 337	231 000	14 312	364 526	17 448
	-	-	-	-	138 713	14 809
	146 909	10 901	196 777	12 136	199 897	12 682
	257 166	15 937	194 846	10 538	204 300	12 469
	331 850	19 188	391 718	20 351	112 816	6 608
	-	-	-	-	49 143	6 353
	69 684	5 355	-	-	-	-
	-	-	68 859	5 602	-	-
	-	-	57 783	3 693	-	-
Total	22 963 699	1 582 581	23 716 405	1 480 530	23 846 977	1 593 651
2701.12	Bituminous coal, other					
	202 416	11 264	431 573	34 595	759 852	56 475
	-	-	-	-	590 288	26 278
	462 148	24 734	266 558	8 135	499 719	25 490
	142 147	5 970	118 251	4 019	44 990	1 704
	1 271 395	48 811	390 817	13 403	-	-
	23 978	1 660	-	-	-	-
	-	-	64 606	3 074	-	-
Total (1)	2 102 084	92 439	1 271 805	63 226	1 894 849	109 947
2701.19	Other coal					
	369	170	1 440	447	1 322	313
	-	-	103	25	1 703	166
	380	182	100	39	880	96
	-	-	26	8	417	35
	-	-	-	-	373	34
	-	-	-	-	98	9
	-	-	-	-	63	6
	60	30	-	-	1	...
	-	-	1	...	-	-
	-	-	1	...	-	-
	-	-	100	5	-	-
Total (1)	809	382	1 771	524	4 857	659

TABLE 1 (cont'd)

	2002		2003		2004 (p)	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS (cont'd)						
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal					
	France	-	-	-	5	1
	Saint Pierre and Miquelon	-	2	...	-	-
	United States	-	171	15	-	-
	Total	-	173	15	5	1
2702.10	Lignite whether or not pulverized, but not agglomerated					
	United States	78 307	9 095	74 632	7 846	66 090
	France	-	-	94	6	176
	Total (1)	78 307	9 095	74 726	7 852	66 266
2702.20	Agglomerated lignite					
	United States	40 625	6 720	32 208	4 765	46 242
	Cuba	-	-	-	-	22
	France	36	7	-	-	36
	Germany	-	-	-	-	8
	Total (1)	40 661	6 727	32 208	4 765	46 308
	Total exports	25 185 560	1 691 224	25 105 367	1 558 180	25 859 737
IMPORTS						
2701.11	Anthracite					
	Ukraine	48 821	4 383	37 398	2 848	169 454
	United States	244 347	29 930	89 429	9 804	276 000
	Russia	41 826	4 204	94 029	6 652	22 960
	China	88 211	12 364	85 379	12 468	462
	United Kingdom	97	35	55	17	77
	Taiwan	1	...	-	-	3
	Lesotho	-	-	-	-	2
	Germany	...	...	-	-	-
	South Africa	7	1	-	-	-
	Canada	-	-	13	2	-
	Total (1)	423 310	50 917	306 303	31 791	468 958
2701.12	Bituminous coal, metallurgical					
	United States	4 291 268	279 715	3 263 576	177 744	3 429 444
	Canada	-	-	..	...	..
	Australia	...	...	8	...	-
	Colombia	23 967	3 321	8 364	1 099	-
	Total (1)	4 315 235	283 036	3 271 948	178 843	3 429 444
2701.12	Bituminous coal, other, high volatile					
	United States	8 317 680	474 243	8 502 324	425 653	6 823 417
	Colombia	84 531	5 264	345 011	15 326	145 449
	Norway	-	-	38 939	1 389	-
	Venezuela	-	-	82 365	4 401	-
	Total (1)	8 402 211	479 507	8 968 639	446 769	6 968 866
2701.12	Bituminous coal, other, low volatile					
	Venezuela	354 817	28 339	615 753	36 673	734 150
	Colombia	871 169	57 177	186 475	9 862	743 724
	United States	91 313	6 816	193 201	13 233	284 420
	Netherlands	-	-	-	-	9
	Aruba	54 631	4 718	-	-	-
	China	195	15	-	-	-
	United Kingdom	49 517	4 217	33 085	2 482	-
	Italy	-	-	58	6	-
	Total	1 421 642	101 282	1 028 572	62 256	1 762 303
						91 408

TABLE 1 (cont'd)

		2002		2003		2004 (p)	
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
IMPORTS (cont'd)							
2701.19	Other coal						
	United States	7 009 139	128 466	7 716 243	131 833	5 778 674	184 032
	Colombia	1 007 614	46 945	1 321 736	42 950	614 747	31 006
	Venezuela	54 144	2 614	—	—	27 937	3 119
	United Kingdom	1 248	61	7 095	236	2 839	236
	Japan	1	...	1	...	120	2
	China	2	...	—	—	24	1
	France	1	...	—	—	4	...
	Germany	—	—	—	—	1	...
	Egypt	1	...	—	—	—	—
	India	53	2	—	—	—	—
	South Africa	2	...	70 281	1 982	—	—
	Australia	—	—	9	1	—	—
	Canada	—	—	3	...	—	—
	Greece	—	—	1	...	—	—
	Iran	—	—	2	...	—	—
	Jordan	—	—	3	...	—	—
	Kazakhstan	—	—	2	...	—	—
	South Korea	—	—	10	...	—	—
	Mexico	—	—	2	...	—	—
	Total (1)	8 072 205	178 088	9 115 388	177 002	6 424 346	218 396
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal						
	United States	234	29	1 195	133	9 045	837
	China	—	—	—	—	159	17
	Germany	—	—	—	—	99	11
	Japan	5	...	13	1	66	7
	Egypt	—	—	...	...	14	2
	South Korea	—	—	—	—	2	...
	Mexico	—	—	—	—	..	...
	Taiwan	—	—	—	—	...	...
	Vietnam	—	—	—	—	2	...
	Lebanon	—	—	40	1	—	—
	Total (1)	239	29	1 248	135	9 387	874
2702.10	Lignite whether or not pulverized, but not agglomerated						
	United States	1 707	162	1 702	173	1 332	136
	Finland	1	...	—	—	—	—
	Total	1 708	162	1 702	173	1 332	136
2702.20	Agglomerated lignite						
	United States	—	—	4	...	2	...
	Total imports	22 636 550	1 093 021	22 693 804	896 969	19 064 638	982 487

Sources: Natural Resources Canada; Statistics Canada.

— Nil; .. Not available; ... Amount too small to be expressed; (p) Preliminary; x Confidential.

(1) Total includes other countries.

Note: Numbers may not add to totals due to rounding.

TABLE 2. CANADIAN COKE TRADE, 2002-04

	2002		2003		2004	
	(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS						
2704.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon					
United States	95 853	11 310	104 920	13 197	132 551	42 117
United Arab Emirates	377	264	153	94	718	118
Netherlands	-	-	-	-	132	14
Cuba	-	-	-	-	16	9
Romania	-	-	-	-	5	...
Costa Rica	404	23	-	-	-	-
Montserrat	120	25	-	-	-	-
Trinidad and Tobago	379	127	-	-	-	-
United Kingdom	1	7	-	-	-	-
Brazil	-	-	12 714	752	-	-
Total (1)	97 134	11 756	117 787	14 043	133 422	42 258
IMPORTS						
2704.00	Coke and semi-coke of coal, of lignite or of peat, whether or not agglomerated; retort carbon					
China	172 310	20 072	93 194	17 076	317 292	115 419
United States	604 168	66 939	416 783	66 028	602 615	59 335
Ukraine	-	-	-	-	51 744	18 045
Brazil	43 833	4 171	75 561	7 581	11 989	2 741
Germany	7 179	1 344	3 186	622	3 827	892
Japan	1	...	36 064	5 799	19	7
France	2	...	12	2	36	3
Belgium	6	1	8	1	6	1
Netherlands	-	-	5 063	958	...	...
Italy	1	...	-	-	-	-
Poland	-	-	26 716	7 833	-	-
Total (1)	827 500	92 527	656 587	105 900	987 528	196 443

Sources: Natural Resources Canada; Statistics Canada.

- Nil; ... Amount too small to be expressed.

(1) Total includes other countries.

Note : Numbers may not add to totals due to rounding.

TABLE 3. COAL PRODUCTION BY TYPE AND PROVINCE, 1990-2004

	Alberta		Total	British Columbia	New Brunswick	Nova Scotia	Saskatchewan	Canada
	Bituminous	Subbituminous		Bituminous	Bituminous	Bituminous	Lignite	Total
	(000 tonnes)							
1990	9 153	21 252	30 405	24 556	548	3 415	9 407	68 331
1991	10 312	22 242	32 554	24 963	498	4 138	8 981	71 134
1992	10 508	23 020	33 528	17 174	399	4 486	10 027	65 614
1993	11 498	23 660	35 159	20 628	389	3 647	9 000	68 824
1994	10 195	25 489	35 684	22 604	331	3 509	10 684	72 815
1995	11 523	25 621	37 144	23 349	263	2 482	10 739	74 979
1996	11 164	24 985	36 150	25 420	272	3 171	10 838	75 853
1997	10 560	25 782	36 343	27 878	173	2 715	11 652	78 762
1998	10 871	25 285	36 156	24 866	272	2 118	11 790	75 204
1999	9 903	24 229	34 203	24 844	251	1 537	11 659	75 204
2000	6 728	24 168	30 896	25 681	229	1 165	11 190	69 163
2001	5 971	24 940	30 911	27 007	165	881	(a) 11 390	70 355
2002	4 957	25 528	30 485	24 398	175	x	(a) 11 365	66 608
2003	3 346	24 880	28 226	23 099	141	x	(a) 10 665	62 163
2004 (p)	2 000	25 282	27 202	27 107	90	x	(a) 11 588	66 019

Sources: Natural Resources Canada, Statistics Canada

(p) Preliminary; x Confidential.

(a) Saskatchewan Bureau of Statistics, *Monthly Statistical Review*.

TABLE 4. CANADIAN COAL CONSUMPTION, 1990-2004

	Electricity	Steel	Industry	Producer	Non-Energy	Total
	(000 tonnes)					
1990	42 136	4 996	1 730	144	349	49 354
1991	43 873	4 906	1 473	165	315	50 732
1992	45 808	4 885	1 504	88	311	52 596
1993	43 112	4 665	1 392	128	386	49 683
1994	45 273	4 780	1 513	129	370	52 065
1995	45 954	4 189	1 595	186	415	52 338
1996	46 607	4 446	1 641	166	442	53 302
1997	49 799	4 490	1 721	144	450	56 605
1998	52 455	4 119	1 713	105	430	58 821
1999	52 037	4 360	1 745	179	382	58 703
2000	55 824	4 265	1 959	160	469	62 676
2001	55 537	4 255	1 870	335	396	62 393
2002	55 590	4 201	1 970	152	413	62 325
2003 (e)	56 600	3 270	2 000	150	400	62 400
2004 (e)	53 000	3 400	2 000	150	400	59 000

Sources: Natural Resources Canada, Statistics Canada.
(e) Estimate.

TABLE 5. CANADIAN COAL TRADE, 1990-2004

	Metallurgical		Thermal		Total Canada	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
EXPORTS						
1990	31 986	2 109 070	...	...	32 058	2 118 544
1991	32 402	2 043 515	...	...	32 483	2 051 543
1992	25 910	1 666 905	...	...	26 134	1 684 015
1993	28 249	1 845 140	...	...	28 352	1 855 193
1994	31 243	2 039 875	...	...	31 311	2 047 200
1995	34 054	2 228 708	...	...	34 215	2 238 002
1996	34 594	2 495 138	...	...	34 697	2 503 686
1997	35 614	2 572 747	...	...	35 886	2 594 762
1998	27 972	2 060 927	5 215	301 593	33 186	2 362 520
1999	30 289	1 746 020	3 672	154 126	33 960	1 900 146
2000	30 305	1 632 441	2 195	89 358	32 501	1 721 799
2001	26 914	1 715 603	2 782	118 792	29 696	1 834 395
2002	22 964	1 582 580	2 222	108 642	25 185	1 691 222
2003	23 716	1 480 528	1 389	77 651	25 105	1 558 178
2004 (p)	23 996	1 598 071	2 042	123 882	26 039	1 721 954
IMPORTS						
1990	4 021	185 421	10 819	426 879	14 840	612 300
1991	4 171	189 627	7 665	288 520	11 835	478 147
1992	4 733	216 429	9 017	375 259	13 750	591 688
1993	4 721	227 404	4 002	183 819	8 723	411 223
1994	4 048	201 583	5 007	232 349	9 055	433 932
1995	4 183	211 235	5 566	264 198	9 749	475 434
1996	5 465	283 250	6 183	288 448	11 647	571 697
1997	4 616	238 944	10 202	453 898	14 818	692 843
1998	4 536	258 201	15 318	671 063	19 854	929 264
1999	3 857	204 018	16 103	717 592	19 960	921 609
2000	3 493	183 214	15 932	755 576	19 425	938 790
2001	3 987	229 475	15 443	799 304	19 430	1 028 779
2002	4 315	283 037	18 321	809 983	22 636	1 093 020
2003	3 272	178 844	19 422	719 127	22 694	896 970
2004 (p)	3 429	242 105	15 633	740 236	19 063	982 340

Source: Natural Resources Canada.
... Amount too small to be expressed; (p) Preliminary.