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British Columbia Coal Industry Overview 2014



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Ministry of Energy and Mines, British Columbia Geological Survey
Information Circular 2015-03



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**Ministry of Energy and Mines
Mines and Mineral Resources Division
British Columbia Geological Survey**

Front Cover: Folded coal seam-bearing strata in the lower part of the Gething Formation, Brule Mine (Walter Energy, Inc) Northeast Region. Hammer lower right for scale. **Photo by Paul Jago.**

Back Cover: Mining coking coal from the Gates Formation at the Perry Creek (Wolverine) operation (Walter Energy, Inc). **Photo by Paul Jago.**

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Victoria
British Columbia
Canada

January 2015

British Columbia Coal Industry Overview 2014

British Columbia Geological Survey
Ministry of Energy and Mines

Introduction

In 2014, the number of operating coal mines in the province dropped from nine to six as operations at three mines in the Peace River Coalfield were suspended. However, production at the five coal mines in the southeastern part of the province remained steady, and total coal production dipped only slightly from 2013 levels. Coal is currently produced from six mines in two regions. Five mines in the southeastern part of the province produce mainly coking and PCI (pulverized coal injection) coal, whereas the Quinsam mine on Vancouver Island produces thermal coal. Major markets for British Columbia coal include Asian countries, especially Japan, China, South Korea and India, and countries in South America and Europe.

This pamphlet provides a snapshot of the provincial coal industry. It describes British Columbia's coal regions, industry trends, coal transportation infrastructure, and summarizes mining and exploration activities for the past year. It also describes the tenure system, and lists sources of information and contacts. This publication complements more detailed British Columbia Geological Survey annual publications (see **Information Sources** below).

British Columbia coal industry trends in 2014

Global coal prices continued to fall in 2014. Premium hard coking coal (HCC) dropped to \$121 from \$155 in 2013, PCI coal to \$107 from \$125, and thermal coal to \$82 from \$95. (All prices are per tonne, in \$US, Estimated, West Coast port price.) Three metallurgical/PCI coal mines in northeast British Columbia suspended production and the Quinsam thermal coal mine on Vancouver Island reduced its workforce and production. Coal production for British Columbia is forecast to be about 29 million tonnes for 2014, down from about 31 million tonnes in 2013. Coal exploration in mine expansion areas remained busy, but grassroots exploration was less active in 2014 relative to the past three years.

The value of coal production for the province is forecast to be \$3.36 billion for 2014, representing about 46% of all mineral production value in the province (Figs. 1, 2). Exploration expenditures reached nearly \$105 million in 2014 (not including mine development costs), down from \$119 million in 2013. New coal license applications numbered 89 in 2014 for a total of 75,972 hectares, less than half the area applied for in 2013 (Fig. 3). New coal licenses issued numbered 122,

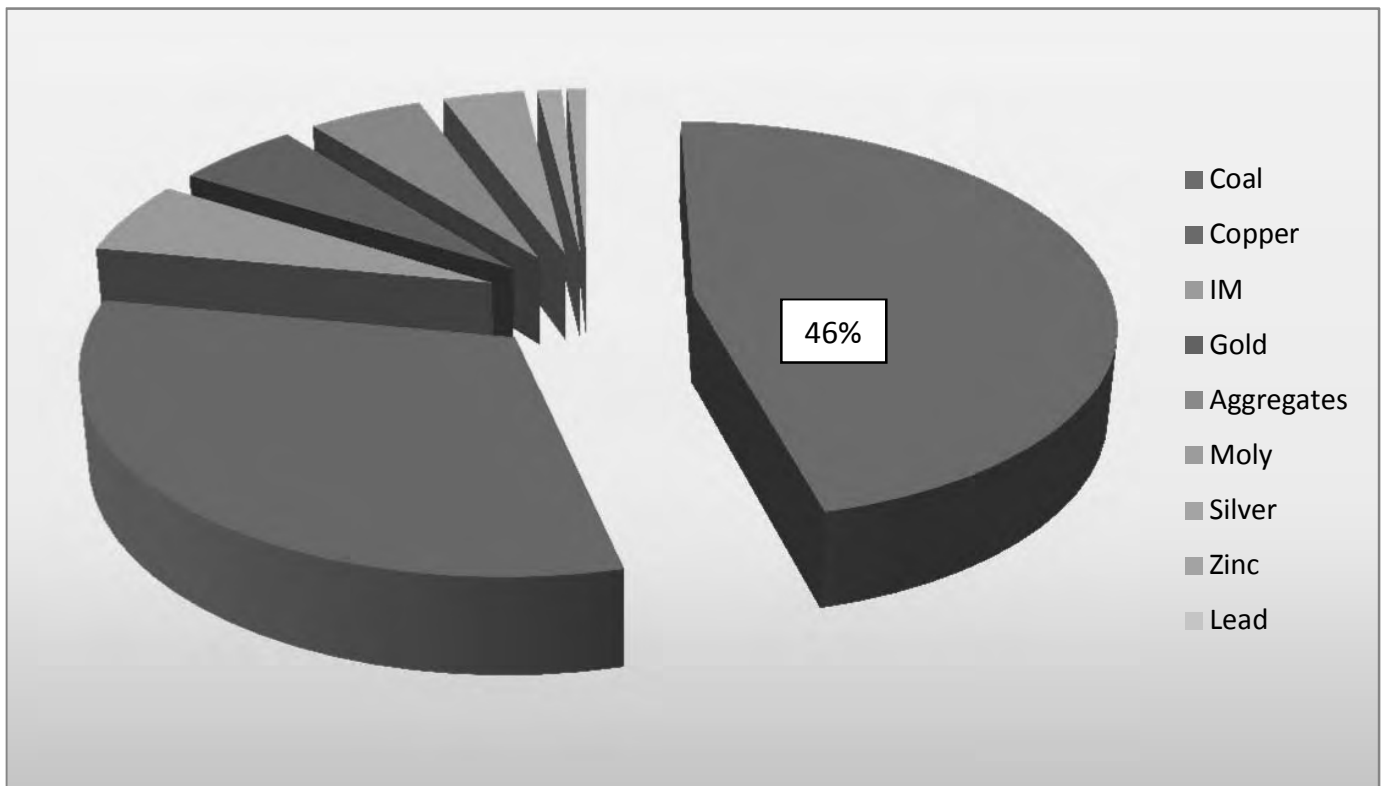


Fig. 1. Forecast production value by mined commodity for British Columbia in 2014. The value of coal production in British Columbia is forecast to be \$3.36 billion this year, representing about 46% of all mineral revenue in the province.

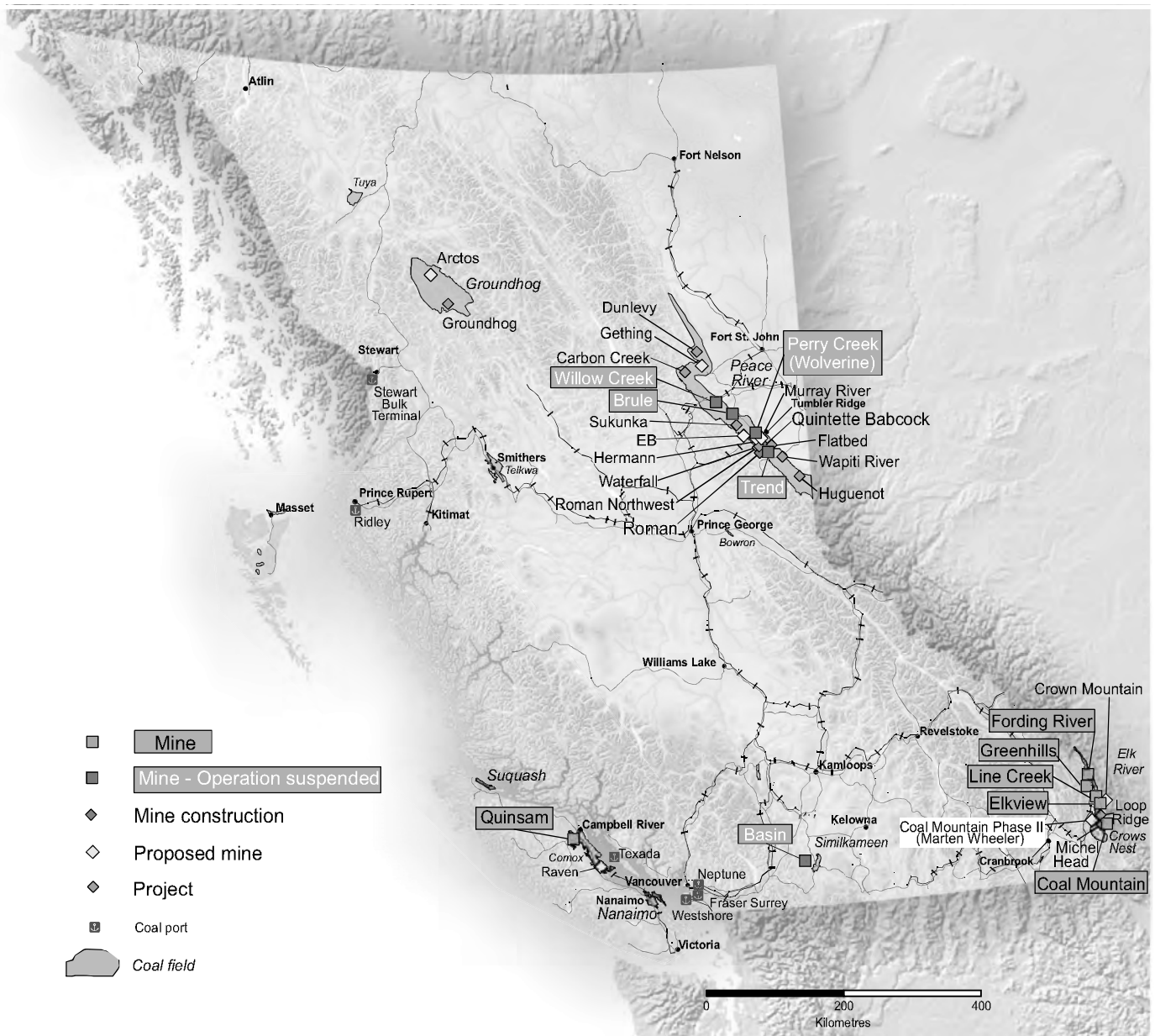


Fig. 2. Coal mines and selected coal projects in British Columbia 2014.

covering 103,941 hectares, a sevenfold increase from 2013 (Fig. 4).

Coal regions of British Columbia

The distribution of Upper Jurassic to Tertiary coal coalfields follows the southeast-to-northwest tectonic and physiographic grain of the province (Fig. 2). Currently, most coal mining is in the Rocky Mountain belt of eastern British Columbia. Farther west, coalfields are in the interior of the province, and on west coast islands (Vancouver Island and Haida Gwaii).

Southeastern British Columbia coal deposits (Figs. 2, 5) are in the Flathead, Crowsnest, and Elk River coalfields, which extend northwest from the Canada-USA border for 175 km along the Rocky Mountains. Economic coal seams

are hosted by the Mist Mountain Formation of the Kootenay Group (Jurassic to Lower Cretaceous). Most of the known resource is metallurgical coal, ranging mainly from high-volatile A bituminous to low-volatile bituminous. Southeastern British Columbia coals are characterized by low total sulphur contents. Potentially mineable coal resources are estimated at 8.0 billion tonnes. Provincial legislation enacted in 2011 prohibits subsurface resource exploration and development in the Flathead River watershed (Fig. 5), so the Flathead coalfield and part of the Crowsnest coalfield are excluded from coal mining activity.

Northeastern British Columbia deposits are in the Peace River coalfield, which extends for 400 km along the Rocky Mountain Foothills (Figs. 2, 6). The coals are distributed

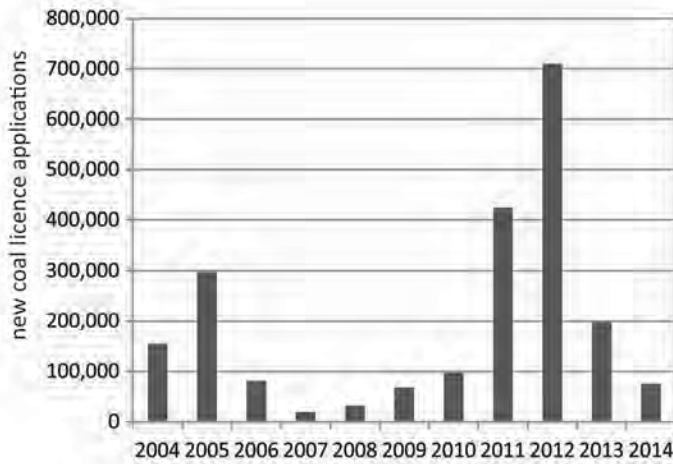


Fig. 3. New coal license applications, 2004 to 2014, in hectares. Value for 2014 as of November 7, 2014.

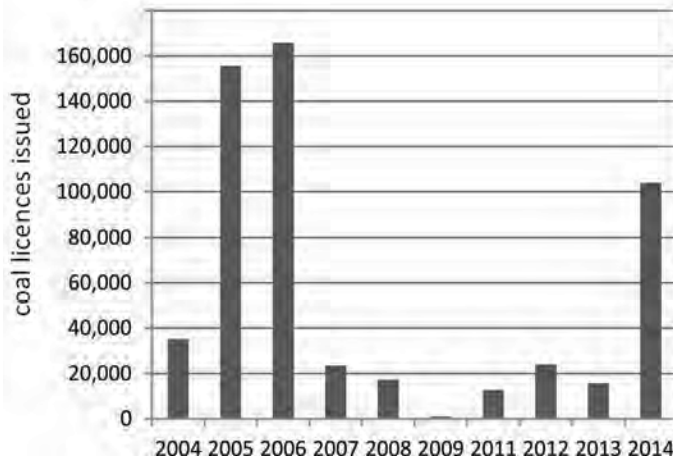


Fig. 4. Coal licenses issued, 2004 to 2014. The number of licenses issued jumped sharply in 2014 over previous years, as many of the record numbers of applications of recent years were processed. Value for 2014 as of November 7, 2014.

through a stratigraphic interval of over 3000 m and are hosted by five Lower Cretaceous units, the most important of which are the Gates Formation (Fort St. John Group), and the Gething Formation (Bullhead Group). Coal in the Gething and Gates formations are bituminous in rank, ranging from high to low volatile. Metallurgical (coking) coals are predominant, and total sulphur contents are typically low. Coal also forms thin seams in the Lower Cretaceous Minnes Group, but it is currently not an exploration target because mineable thicknesses and coal seam continuity have not been documented. Significant deposits of weak coking coal are recognized between the Pine and Sukunka rivers in the Boulder Creek Formation (Lower Cretaceous) of the Fort St. John Group. Coal seams in the Wapiti Formation (Upper Cretaceous) are lower in rank and have potential for thermal coal. Potentially mineable coal resources in the Peace Coalfield have been estimated at 4.9 billion tonnes, with considerable potential for growth as exploration continues. The

marketability of Gething Formation coals has benefitted from increased use of pulverized coal injection (PCI) products in steel making.

In **northwestern** British Columbia, the Groundhog-Klappan Coalfield (Fig. 2) covers approximately 2300 km² and hosts Canada's only significant anthracite deposits (Fig. 7). The estimated potential of the greater Groundhog region is more than 9 billion tonnes of semi-anthracite to meta-anthracite coal. The coal is hosted by Jurassic to Cretaceous deltaic deposits in the Bowser Lake Group. Coal is found in several other smaller Mesozoic basins in the northwestern part of the province, including the Telkwa Coalfield south of Smithers and the Tuya River deposit (Fig. 2).

In the **southern interior** of British Columbia, numerous small Tertiary basins contain coal. Tertiary basin coals in the Similkameen, Merritt, and Hat Creek coalfields range from lignite to high-volatile bituminous, and are generally low in sulphur content.

On **Vancouver Island**, coal in the Nanaimo and Comox coalfields is hosted by several units in the Nanaimo Group (Upper Cretaceous). Coal ranks are generally in the high-volatile bituminous range; sulphur contents are variable.

Coal mining and exploration in 2014

Annual coal production in British Columbia dropped slightly in 2014, mainly due to operations being suspended in the Peace River coalfield. The annual production forecast for 2014, as reported by operators, is about 29 million tonnes, down from about 31 million tonnes in 2013. Production has ranged between 22 and 31 million tonnes for the past 20 years. Coal mining statistics for 2014, including production rates and reserves, are summarized in Table 1; coal mine locations are shown in Figures 2, 5, and 6.

Coal exploration expenditures in British Columbia amounted to about \$105 million in 2014, down from \$119 million in 2013, well below the \$150 million record set in 2012. Most spending was on expansion projects adjacent to active mines and advanced coal projects (Table 2).

Southeastern British Columbia

Mining

Teck Coal Limited, the world's second-largest exporter of metallurgical coal, operates five large open-pit coal mines in the Elk Valley area (Fig. 5). The mines at **Fording River**, **Greenhills**, **Line Creek**, **Elkview**, and **Coal Mountain** produce approximately 70% of Canada's total annual coal exports. All five are open-pit, truck and shovel mines. Total production from the Elk Valley in 2013 was approximately 25.3 Mt of clean coal. Based on Teck Coal's Q3 2014 forecasts, volumes for 2014 are expected increase by 2%, at between 26.5 and 27 Mt. The five mines directly employ over 4500 full-time workers. Construction continued at the West Line Creek Water Treatment Facility downstream from the Line Creek mine, and it is now in the commissioning phase. The plant will remove selenium and other contaminants from Line Creek.

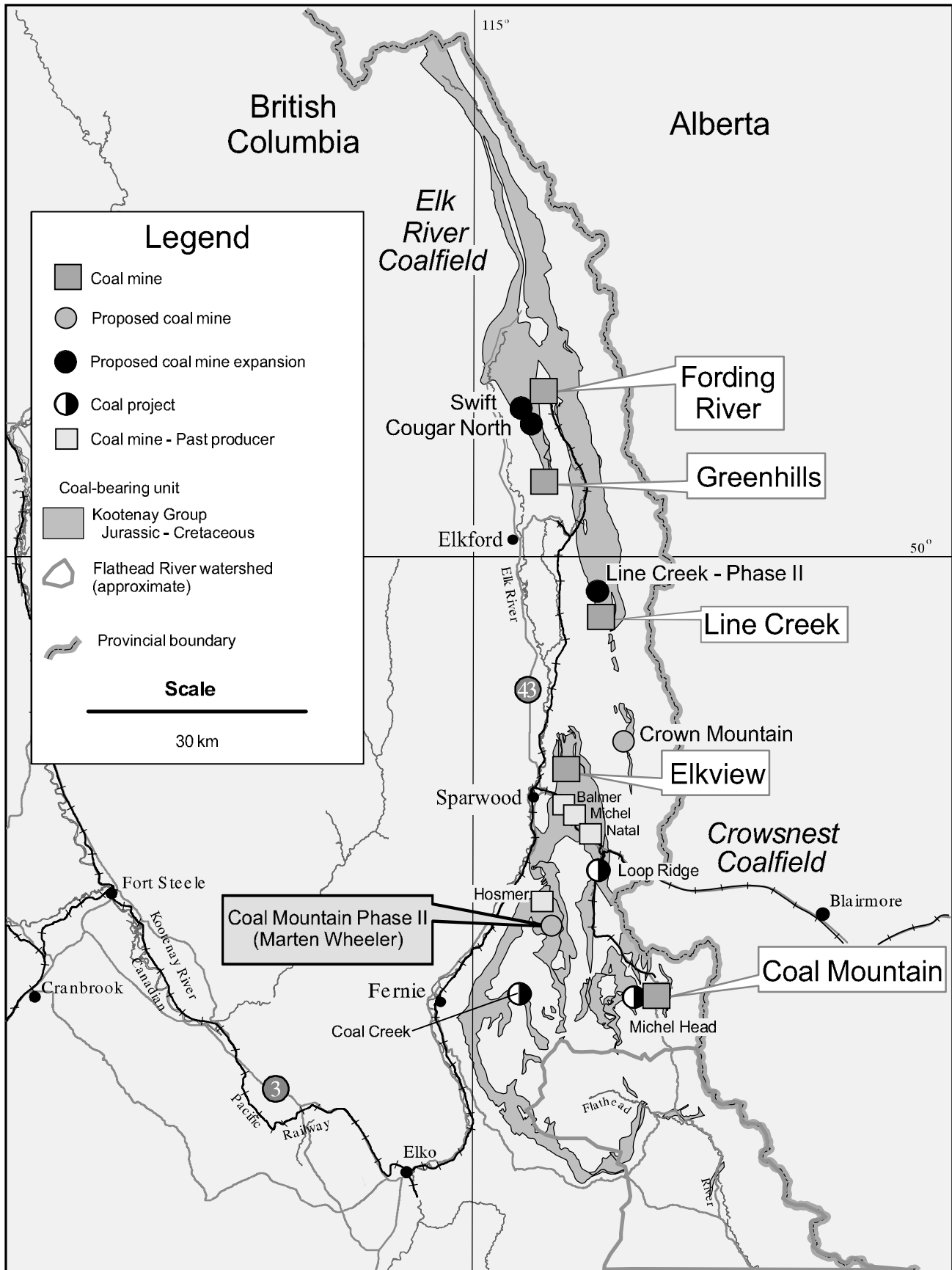


Fig. 5. Coal mines and exploration projects, southeastern British Columbia 2014.

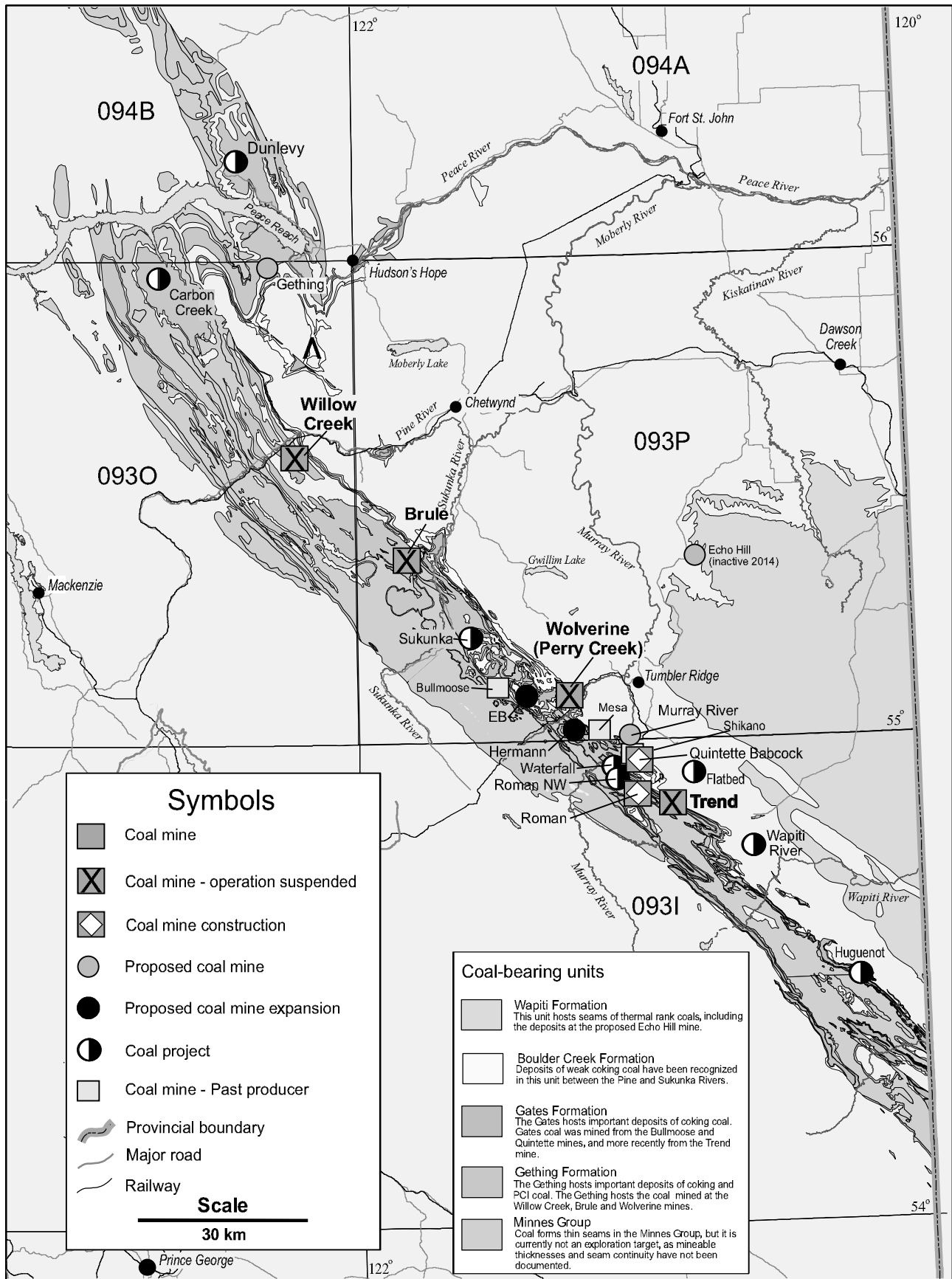


Fig. 6. Coal mines and exploration projects, northeastern British Columbia 2014.

Table 1. Production and reserve estimates for coal producers in British Columbia, 2014.

Mine	Operator	Deposit Type/ Commodity	Forecast 2014 Production	Reserves as of Dec 31, 2013
Brule	Walter Energy, Inc	ULV PCI coal	1.02 Mt	17.5 million tonnes
Coal Mountain	Teck Coal Limited	PCI and thermal coal	2.54 Mt	9.5 million tonnes PCI 0.7 million tonnes thermal
Elkview	Teck Coal Limited	HCC	5.45 Mt	176.3 million tonnes HCC
Fording River	Teck Coal Limited	HCC and thermal coal	8.97 Mt	628.6 million tonnes HCC 4.6 million tonnes thermal
Greenhills	Teck Coal Limited	HCC, PCI and thermal coal	5.15 Mt	53.3 million tonnes HCC 3.04 million tonnes PCI 0.96 million tonnes thermal
Line Creek	Teck Coal Limited	HCC, PCI and thermal coal	3.40 Mt	55.7 million tonnes HCC 3.4 million tonnes PCI 8.3 million tonnes thermal
Quinsam & 7 South	Hillsborough Resources Limited	Thermal coal	220 000 t washed coal	not available
Trend	Anglo American plc	HCC	1.71 Mt washed coal	12.8 Mt
Willow Creek	Walter Energy, Inc	HCC and ULV PCI	0 t (Production suspended in 2013)	18.6 Mt
Wolverine (Perry Creek)	Walter Energy, Inc	HCC	564 000 t	9.4 Mt

HCC = hard coking coal; PCI = pulverized coal injection; ULV = ultra low volatile

The Elk Valley Coalfield is in the Alexander Creek and Greenhills synclines (Fig. 8), and includes the **Fording River**, **Greenhills** and **Line Creek** operations. The Crowsnest Coalfield lies in the Fernie Basin, a broad north-trending synclinorium that hosts the current **Elkview** and **Coal Mountain** operations. Pulverized Coal Injection (PCI) coal is the main product shipped from Coal Mountain.

Exploration

In the southeast, \$36 million was spent on coal exploration in 2014 (Fig. 5), mainly on mine lease and mine evaluation drilling. All five Teck operations have expansion projects in the exploration, permitting, or development stage (Table 2). Spending on grassroots exploration projects was lower than in previous years.

Fording River Operations conducted exploration drilling in the active Eagle, Turnbull and Henretta pits. The Swift project continued work on meeting requirements of the pre-application stage of the Environmental Assessment process. It is west of

the Fording River, and partly encompasses previous Fording River Mine pits on the Greenhills Range. The project is along strike, and directly north of, the Greenhills Cougar North project. When joined, the two projects, will be referred to as the Swift. At the Greenhills Operation, drilling was focused on the active Cougar pit. Baseline studies continued for the pre-application phase for the Cougar Pit Extension.

At the **Line Creek** mine, drilling was done at the Burnt Ridge Extension project as it entered the pre-application phase. Pre-stripping was carried out at Mount Michael and Burnt Ridge North.

At **Elkview** mine, the Baldy Ridge extension entered the pre-application stage of the Environmental Assessment process in June. Exploration drilling continued in the active pits and expansion areas at Baldy Ridge and Natal Ridge. Teck also continued exploration drilling in active pits 6 and 37 at their **Coal Mountain** property. At **Crown Mountain**, Jameson Resources Limited completed a pre-feasibility study in August. The project has now entered the pre-application phase of the

Table 2. Selected exploration and development projects in British Columbia, 2014.

Property name	Operator name	Status	2014 activity	Region
Carbon Creek	Cardero Resource Corp	Exploration	Mapping and prospecting	Northeast
Coal Creek	Crowsnest Pass Coal Mining Ltd	Exploration	Pre-feasibility, Environmental	Southeast
Cougar North (Greenhills Operations)	Teck Coal Limited	Exploration	Drilling	Southeast
Crown Mountain	Jameson Resources Limited	Pre-application (EA)	Pre-Feasibility	Southeast
Dunlevy	Jameson Resources Limited	Exploration	Drilling	Northeast
EB – Mt. Spieker	Walter Energy, Inc	Approved (EA)	Drilling, Test pitting	Northeast
Elkview (Baldy Ridge Extension)	Teck Coal Limited	Pre-Application (EA)	Drilling	Southeast
Flatbed	Colonial Coal International Corp	Preparation forexploration	Exploration permitting, Pre-drilling work	Northeast
Fording-Swift	Teck Coal Limited	Pre-application (EA)	Drilling	Southeast
Gething	Canadian Kailuan Dehua Mines Co Ltd	Pre-application (EA)	Permitting	Northeast
Groundhog	Atrum Coal	Exploration	Drilling, Bulk sample, Trenching	Northwest (Skeena)
Hermann	Anglo	EA certificate extended	Infill drilling	Northeast
Huguenot	Colonial Coal International Corp	Exploration	Prefeasibility completed, Coal quality	Northeast
Line Creek Phase II Burnt Ridge Extension	Teck Coal Limited	Approved (EA)	Pre-stripping	Southeast (Kootenay)
Marten-Wheeler (Coal Mountain Phase II)	Teck Coal Limited	Pre-Application (EA)	Environmental, Geotechnical	Southeast (Kootenay)
Michel Creek (Michel Head, Loop Ridge)	CanAus Coal Limited	Exploration	Drilling, Coal quality	Southeast (Kootenay)
Murray River	HD Mining International Limited	Pre-application (EA)	Bulk sample, Decline and shaft	Northeast
Quinsam	Hillsborough Resources Limited	Mining and Exploration	Drilling	Coast (Vancouver Island)
Quintette-Babcock	Teck Coal Limited	Mining permit in place	Engineering, Bulk sample	Northeast
Roman Mountain	Anglo American plc (Peace River Coal Inc)	Mining permit issued 2014	Drilling, Mine construction	Northeast

Table 2. Continued.

Property name	Operator name	Status	2014 activity	Region
Roman Northwest	Anglo American plc (Peace River Coal Inc)	Exploration	Drilling, Trenching	Northeast
Sukunka	Glencore	Pre-application (EA)	Drilling, Trenching, Hydrogeology, Coal quality, Feasibility, Bulk sample	Northeast
Henretta 4, Eagle & Swift expansions (Fording River Operations)	Teck Coal Limited	Pre-application (EA)	Drilling, Coal quality	Southeast (Kootenay)
Wapiti River	Canadian Dehua International Mines Group Inc	Exploration	Feasibility, Permitting	Northeast
Waterfall	Anglo American plc (Peace River Coal Inc)	Exploration	Drilling, Trenching	Northeast



Fig. 7. Anthracite coal at the Groundhog coalfield in northwest British Columbia, Canada's only significant anthracite deposit.



Fig. 8. Coal beds in the Alexander Creek syncline, Elk Valley coalfield Line Creek Burnt Ridge South pit.

Environmental Assessment process by submitting a project description jointly to the BC Environmental Assessment Office (EAO) and the Canadian Environmental Assessment Agency in October of 2014.

Teck Coal concentrated on environmental baseline and geotechnical work at the **Marten-Wheeler** property in the western part of the Crowsnest Coalfield. The project entered the pre-application phase of the Environmental Assessment (EA) process in September, under the new name of **Coal Mountain Phase 2**. This proposed operation will be an extension of the current Coal Mountain operation, and coal will be processed at, and transported from, the current Coal Mountain location. CanAus Coal Limited ran drilling programs at their **Loop Ridge** and **Michel Head** projects in the Michel Creek area. A prefeasibility study (PFS) and environmental baseline studies are underway at Crowsnest Pass Coal Mining Limited's **Coal Creek** property east of Fernie.

Northeastern British Columbia Mining

As a consequence of low prices for coking and PCI coal, mining at all coal mines in the Peace River Coalfield in 2014 was suspended (Fig. 6). In April, Walter Energy Inc announced plans to suspend operations at the **Wolverine Perry Creek** and **Brule** mines, following the shutdown of the **Willow Creek** operation in 2013. In September, Anglo American plc announced plans to idle the **Trend** mine by the end of the year. Trend and Perry Creek are coking coal operations; the Brule and Willow Creek mines mainly produce premium ULV-PCI thermal coal. Forecast total production in the Peace River Coalfield for 2014 is about 3.3 Mt, down from 5.5 Mt. in 2013.

The planned reopening of the Teck Coal's **Quintette** mine at Mount Babcock is on hold pending a recovery in prices. Infrastructure construction continued at Peace River Coal's **Roman Mountain** project (adjacent to the Trend Mine), but opening of the new mine has been postponed.

Exploration

In 2014, coal exploration spending in northeastern British Columbia totalled \$49.5 million, with most of the spending on mine evaluation and advanced projects.

Dunlevy Energy Inc, a subsidiary of Jameson Resources Ltd, drilled on the western limb of the Dunlevy syncline at their Dunlevy property (Fig. 9) on the north side of Williston Lake.

Cardero Resource Group conducted mapping and prospecting at the Carbon Creek project.

Canadian Kailuan Dehua Mines Co Ltd received a permit for a 100,000 tonne bulk sample at the **Gething** project, and plans to take a 15,000 tonne underground sample employing a room-and-pillar mining method. Recent site work included reclamation activities for previous programs, helicopter-assisted water sampling for baseline studies, and community consultation.

Glencore completed pre-feasibility and advanced to feasibility studies at the **Sukunka** project (Fig. 10). Exploration, hydrogeologic and geotechnical drilling and excavation of a bulk sample were completed in 2014, along with preparation of an application to the Environmental Assessment Office.

Western Coal Corporation (owned by Walter Energy, Inc) continued exploration drilling at the **EB (Mount Spieker)** area, a potential replacement for the Wolverine (Perry Creek) mine. In addition, drilling for coal quality testing was carried out at the **Hermann** property.

Work continued on the bulk sample project at HD Mining International Limited's **Murray River** project with excavation of a 1500 m decline.

Winter drilling and trenching programs were completed at the **Waterfall** and **Roman Northwest** projects from January through early April 2014.

Canadian Dehua International Mines Group Inc completed a feasibility study for a proposed underground mine the **Wapiti River** site.

Colonial Coal International Corporation recently (2013) released a preliminary economic assessment for a combined surface and underground operation at **Huguenot** that would produce an average 3.0 million tonnes per year of clean coal over 31 years. The company received a work permit for its planned Phase 1 drilling program at the **Flatbed** underground prospect.

Northwestern British Columbia

Exploration

In northwestern British Columbia, coal exploration in the Groundhog Coalfield continued, with exploration expenditures totalling about \$18.9 million. Atrum Coal completed a prefeasibility study at their **Groundhog** deposit in 2014, collected and shipped a bulk sample from the port at Stewart, and conducted mine portal definition drilling. Fortune Minerals is in the pre-application phase of the Environmental Assessment process for the **Arctos** project; the site saw no new exploration work in 2014.



Fig. 9. Dunlevy Energy Inc conducted a 2014 drilling program at the Dunlevy project, north of Williston Lake in the Peace coalfield.



Fig. 10. High-quality coking coal in the Skeeter seam, Sukunka project, Peace River Coalfield.

Vancouver Island Mining

Hillsborough Resources Limited continues to produce thermal coal from the **Quinsam** Mine in the Comox Coalfield. Quinsam is an underground room-and-pillar operation. Low

prices resulted in 36 miners being laid off in February, leaving the mine with 110 employees. Forecast 2014 production is 220,000 tonnes, down from 348,000 tonnes in 2013.

Exploration

Near the Quinsam Mine, Hillsborough drilled four exploration holes outside the active mine areas.

Transportation infrastructure

Coal produced in the Elkview and Crowsnest coalfields in southeastern British Columbia is transported by rail to Westshore and Neptune Bulk Terminals in North Vancouver for export. Coal from mines in the northeastern part of the province is transported by rail to the Ridley Terminals near Prince Rupert (Fig. 2). Thermal coal from the Quinsam mine is shipped to international markets from facilities on Texada Island in the Strait of Georgia, and Neptune Terminals and to domestic markets by truck and barge.

Port upgrades and expansions continue. Westshore facility announced plans to invest \$230 million over the next 5 years to upgrade equipment at their Delta facility, which will allow the terminal to increase annual capacity from 33 to 36 million tonnes. Ridley Terminals (Fig. 11) in Prince Rupert is in the fourth year of an expansion to double the annual terminal capacity to 24 million tonnes. However, in November 2014 Ridley announced that the second half of the expansion project will be put on hold for up to 5 years due to a decrease in coal supply from the Peace River coalfield.

Atrum Coal is modelling the option of delivering coal from the Groundhog coalfield via the port at Stewart.

Port Metro Vancouver granted a permit to Fraser Surrey Docks in August to add a coal shipping facility to its existing terminal on the Fraser River, with an annual capacity of four million tonnes. Coal delivered by rail from Wyoming will be loaded on to barges for shipping to the deep-water port at Texada Island, where it will be loaded on ocean-going freighters. Fraser Surrey Docks expects to have the coal facility in operation by the fall of 2015.

Coal tenure

The Mineral Titles Branch of the British Columbia Ministry of Energy and Mines maintains a website that provides information about Coal Titles regulations and resources for researching and acquiring coal tenures in the province (Table 3). Coal tenure in British Columbia is held in two forms: **coal licence** or **coal lease**. The **coal licence** is the initial stage of coal tenure, and is appropriate for exploration. It is analogous to a mineral claim. Acquisition is initiated by a **coal license application**; a Free Miner Certificate is not required to acquire a coal licence. Coal licence holders have the exclusive right to explore and develop Crown-owned coal resources as defined in the Coal Act. Production is limited to a 100,000-tonne sample for testing purposes. A **coal lease** is the appropriate tenure to hold when a mineable resource has been proven and the project is ready to switch from exploration to production of coal.

Regularly updated coal tenure and application maps, both for specific areas and the entire province, can be viewed online (Table 3.)

An application for a coal licence is made to the Minister and must be accompanied by: the prescribed application fee; the prescribed rent in respect of location; and a plan and description of the location under Section 11 of the Coal Act. The application fee is \$25 per hectare plus \$7 per hectare first year rental. Coal licenses must be renewed annually by the anniversary date of the tenure acquisition. Annual renewal requirements include remittance of the annual rental fees and submission of a technical report on all exploration work during the previous year (Table 3).

Before carrying out exploration that involves mechanized ground disturbance, the licence holder must possess a permit under the Mines Act. The application for approval of exploration activities is termed a Notice of Work (NOW). A Notice of Work can be submitted at the same time as the coal license application (Table 3), but the work cannot begin until tenure is granted.

A coal lease gives the holder the exclusive right to explore for, develop, and produce a coal resource on the lease location. The tenure holder must first have held a coal licence over the same location. The initial term for a coal lease is 30 years, followed by 15 years upon renewal. All appropriate approvals and authorizations must be in place before commencing work on a coal lease (Table 3).

An environmental assessment is a key component for proposed major mine construction and expansion projects; please visit the Environmental Assessment Office (EAO), an independent agency of the Government of British Columbia (Table 3).

British Columbia Geological Survey information sources

Founded in 1895, the British Columbia Geological Survey integrates historical data with active research programs and, drawing on continuously advancing concepts and technologies in the Earth sciences, thus supports the coal and mineral industries. The British Columbia Geological Survey preserves, archives, and provides free web-based access to over a century's worth of geoscience information (Table 4). Each year in January, the British Columbia Geological Survey releases its Geological Fieldwork volume (a summary of field activities and current research), summaries of exploration and mining at the provincial and regional levels, and the present coal industry overview (Table 4).

MapPlace is a web service that allows clients to browse, visualize, and analyze geoscience data. Since 1995, MapPlace has provided open geoscience data and custom map-making tools to aid in the discovery of coal and mineral potential in British Columbia. MapPlace allows users to generate custom maps by querying multiple sources, including the: industry and government document archive (Property File); online mineral inventory (MINFILE); mineral assessment report database

Table 3. Websites to access coal tenure information.

To access	Click
Coal titles	http://www.empr.gov.bc.ca/Titles/MineralTitles/Coal/Pages/default.aspx
Coal tenure and application maps	http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Coal/Pages/Maps.aspx
Existing coal tenures	http://www.empr.gov.bc.ca/Titles/MineralTitles/Coal/Pages/Search.aspx
Coal licence application and other forms	http://www.empr.gov.bc.ca/Titles/MineralTitles/Pub/Coal/Pages/Forms.aspx
Annual renewal and technical report requirements	http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/Pages/Reporting_Information.aspx
Notice of Work (FrontCounter BC)	http://www.frontcounterbc.ca/apps/now.html
Coal leases	http://www.empr.gov.bc.ca/Mining/Permitting-Reclamation/Pages/default.aspx
Environmental Assessment Office	http://www.eao.gov.bc.ca/ea_process.html

Table 4. Websites to access British Columbia Geological Survey publications, maps, and databases, at no charge.

To access	Click
British Columbia Geological Survey publication catalogue	http://www.empr.gov.bc.ca/MINING/GEOSCIENCE/PUBLICATIONSCATALOGUE/Pages/default.aspx
British Columbia coal industry overview 2014 (this volume)	http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Pages/IC2015-3.aspx
British Columbia Geological Survey geological fieldwork	http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/Fieldwork/Pages/default.aspx
British Columbia Geological Survey coal geology page	http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/Pages/default.aspx
Provincial Overview of Mines and Mineral Exploration	http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Pages/IC2015-1.aspx
Exploration and Mining in British Columbia	http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/InformationCirculars/Pages/IC2015-2.aspx
Table of British Columbia coal resources (British Columbia Geological Survey GeoFile 2010-11, by B. Northcote)	http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/GeoFiles/Pages/2010-11.aspx
British Columbia coal assessment reports and COALFILE	http://www.empr.gov.bc.ca/Mining/Geoscience/Coal/CoalBC/Pages/CoalDataReports.aspx
MINFILE	http://www.empr.gov.bc.ca/MINING/GEOSCIENCE/MINFILE/Pages/default.aspx
MapPlace (requires Autodesk MapGuide Viewer)	http://www.mapplace.ca http://webmap.em.gov.bc.ca/mapplace/minpot/coal.cfm



Fig. 11. Ridley Terminal at Prince Rupert. The remainder of the expansion of the Ridley coal port has been postponed pending reopening of the Peace coalfield coal mines.

(ARIS); coal assessment report database (COALFILE); regional geochemistry survey (RGS); Mineral Titles Online (MTO) tenure database; British Columbia Geological Survey publication catalogue, and extensive collections of bedrock and surficial geology maps.

MINFILE is a mineral inventory database that contains geological, location, and economic information on more than 14,000 metallic, industrial mineral, and coal occurrences in British Columbia. COALFILE is the database of coal reports. It contains a collection of over 900 assessment reports dating from 1900, many of which were submitted by exploration companies in compliance with the Coal Act. COALFILE contains details of coal exploration reports in a relational database, including data for about 11,000 boreholes, 500 bulk samples, 950 maps, and 3400 trenches. A search engine leads clients to a summary page for each coal assessment report. The reports, boreholes, bulk samples and trenches are spatially referenced on MapPlace.

Industry contacts

The corporate websites of coal exploration and mining groups active in British Columbia are listed in Table 5.

Contacts at the Ministry of Energy and Mines and the British Columbia Geological Survey

Ministry of Energy and Mines and British Columbia Geological Survey personnel (Table 6) are available for consultation. Should you wish to be receive notification of British Columbia Geological Survey publications released throughout the year, please subscribe to our newsletter by emailing Geological.survey@gov.bc.ca.



Turnbull Pit, Forcing River mine.

Table 5. Industry contacts.

Coal Association of Canada	www.coal.ca
Teck Coal Limited	www.teck.com
Walter Energy, Inc.	www.walterenergy.com
Hillsborough Resources Limited	www.hillsboroughresources.com
Anglo American Canada plc	www.angloamerican.ca
Canadian Kailuan Dehua Mines Co. Ltd.	www.kailuandehua.com
Fortune Minerals Limited	www.fortuneminerals.com
Compliance Energy Corporation	www.complianceenergy.com
Crowsnest Pass Coal Mining Ltd.	http://crowsnestpasscoal.com
Cardero Resource Corp.	www.cardero.com
Colonial Coal International Corporation	www.ccoal.ca
Glencore	http://www.glencorexstrata.com/
Canadian Dehua International Mines Group Inc.	http://www.dehua.ca/
Jameson Resources Limited	http://www.jamesonresources.com.au/
Coalmont Energy Corp.	http://coalmontenergy.com/
Atrum Coal	http://atrumcoal.com/
HD Mining International Limited	http://www.hdminingintl.com/

Table 6. British Columbia Ministry of Energy and Mines and British Columbia Geological Survey contacts.

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