



# British Columbia Coal Industry Overview 2019



Ministry of  
Energy, Mines and  
Petroleum Resources

Information Circular 2020-02

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

**Front Cover:**

Top. Entrance to the No.1 mine of the Nicola Coal and Coke Company at Merritt in 1908.  
From Royal BC Museum Archives, reference code I-56897.

Bottom. Shovel and truck operations at Fording River, Kootenay coalfields, southeastern British Columbia.  
**Photo by Fiona Katay.**

**Back Cover:**

The 7N2 highwall, Willow Creek mine, northeastern British Columbia.  
**Photo courtesy of Conuma Coal Resources Limited.**

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<https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/publications>

Victoria  
British Columbia  
Canada

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# British Columbia coal industry overview 2019

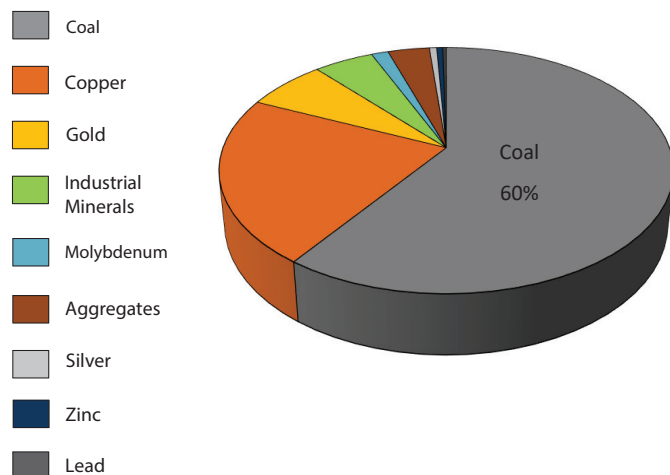
British Columbia Geological Survey  
Ministry of Energy, Mines and Petroleum Resources



## Introduction

Coal prices weakened in the second half of 2019 after three years of stable and strong prices. Coal production volumes for the province are forecast to total 30.0 million tonnes, down slightly from 31.1 million tonnes in 2018. Coal remains British Columbia's most valuable mined commodity, with sales of \$5.08 billion US this year (Fig. 1). Coking coal, PCI (pulverized coal injection) products and small amounts of thermal coal are currently produced from four mines in the Kootenay Mountains in the southeastern part of the province and from three mines in the Peace coalfields in the northeastern part (Fig. 2). The Quinsam mine on Vancouver Island ceased operations in June. Major markets for British Columbia coal include Asian countries, especially Japan, China, South Korea, and India. Products are also sold to steel mills in eastern Canada and to South America and Europe.

This pamphlet provides an annual summary of the provincial coal industry. It describes the geology of British Columbia's coal regions, industry trends, coal transportation infrastructure, and mining and exploration activities. It also describes the tenure system, and lists sources of information and contacts.



**Fig. 1.** Forecast production value by mined commodity for British Columbia in 2019. The value of coal production is forecast to be \$5.08 billion this year, representing about 60% of all mineral revenue in the province.

## British Columbia coal industry trends and news in 2019

Coal prices were strong early in 2019 but declined in the summer. Having dipped as low as \$130/tonne late in the year, hard coking coal prices averaged \$183/tonne for the year. Third quarter realized prices for pulverized coal injection (PCI)

averaged \$132/tonne; the price slipped below \$100/tonne on occasion. Thermal coal prices averaged \$99/tonne for the year. (All prices are \$US, west coast port price.)

Full production continued at four open-pit mines operated by Teck Coal Limited in the Elk Valley (Fording River, Greenhills, Line Creek, and Elkview). The Coal Mountain mine reached the end of its mine life in 2018, but produced intermittently from stockpiles until the second quarter of 2019. Pit operations are now suspended. The Coal Mountain plant and load out facilities continued to process coal from Teck operations into the third quarter. Combined coal production for the year from the Southeast Region is forecast to be 25.5 million tonnes. Conuma Coal Resources Limited continued full production at three mines in the Peace River coalfield in the Northeast Region: Willow Creek, Brule and Wolverine (Perry Creek). The company forecasts its 2019 total production to reach 4.6 million tonnes. The Quinsam thermal coal mine on Vancouver Island closed during the summer due to unprofitability. Due to price decreases, the value of coal production for the province is forecast at \$5.08 billion US for 2019, down from \$6.1 billion US in 2018. The value of coal products constituted 60% of all mineral sales in the province (Fig. 1) this year. In July 2019, the Federal Government sold Ridley Terminals, the coal port near Prince Rupert, to two American private-equity firms and two British Columbia First Nations.

As of mid-November, the province had two new licence applications, which included a total of 935 hectares (Fig. 3). One new coal licence covering 1527 hectares was issued (Fig. 4). No new leases were issued.

## Coalfields of British Columbia

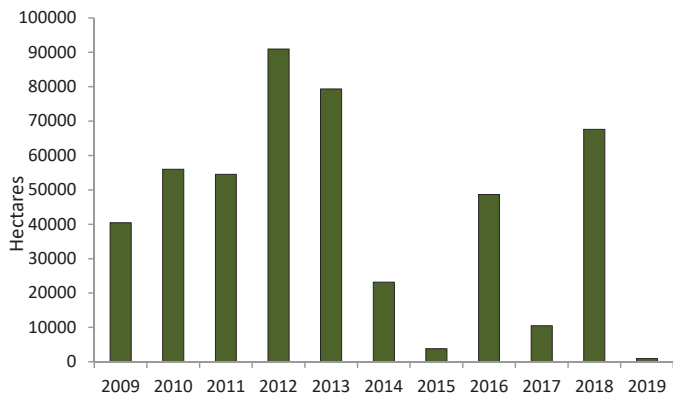
The distribution of Upper Jurassic to Tertiary coalfields follows the southeast-to-northwest tectonic and physiographic grain of the province (Fig. 2). Currently, most coal mining is in the Rocky Mountain belt of eastern British Columbia. Coalfields are also in the interior of the province and on Vancouver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

In **southeastern British Columbia**, deposits are in the Elk River, Crowsnest and Flathead coalfields, which extend from the Canada-USA border to the northwest for 175 km along the Rocky Mountains (Figs. 2, 5). Economic coal seams are hosted by the Mist Mountain Formation of the Kootenay Group (Jurassic to Lower Cretaceous; Fig. 6). Most of the known resource is metallurgical (coking and PCI) coal, ranging mainly from high-volatile bituminous to low-volatile bituminous, with some semi-anthracite in southern Crowsnest coalfield. Southeastern British Columbia coals are characterized by low total sulphur contents. Potentially mineable coal resources

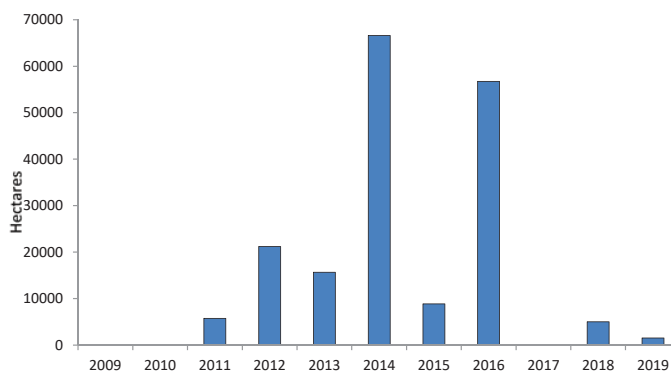




**Fig. 2.** Coalfields and operating coal mines in British Columbia.



**Fig. 3.** New coal licence applications, 2009 to 2019, in hectares, as of November 18, 2019. This chart includes applications made in 2019 that were converted to licences before November 18.



**Fig. 4.** Coal licences issued, 2009 to 2019, in hectares, as of November 18, 2019.



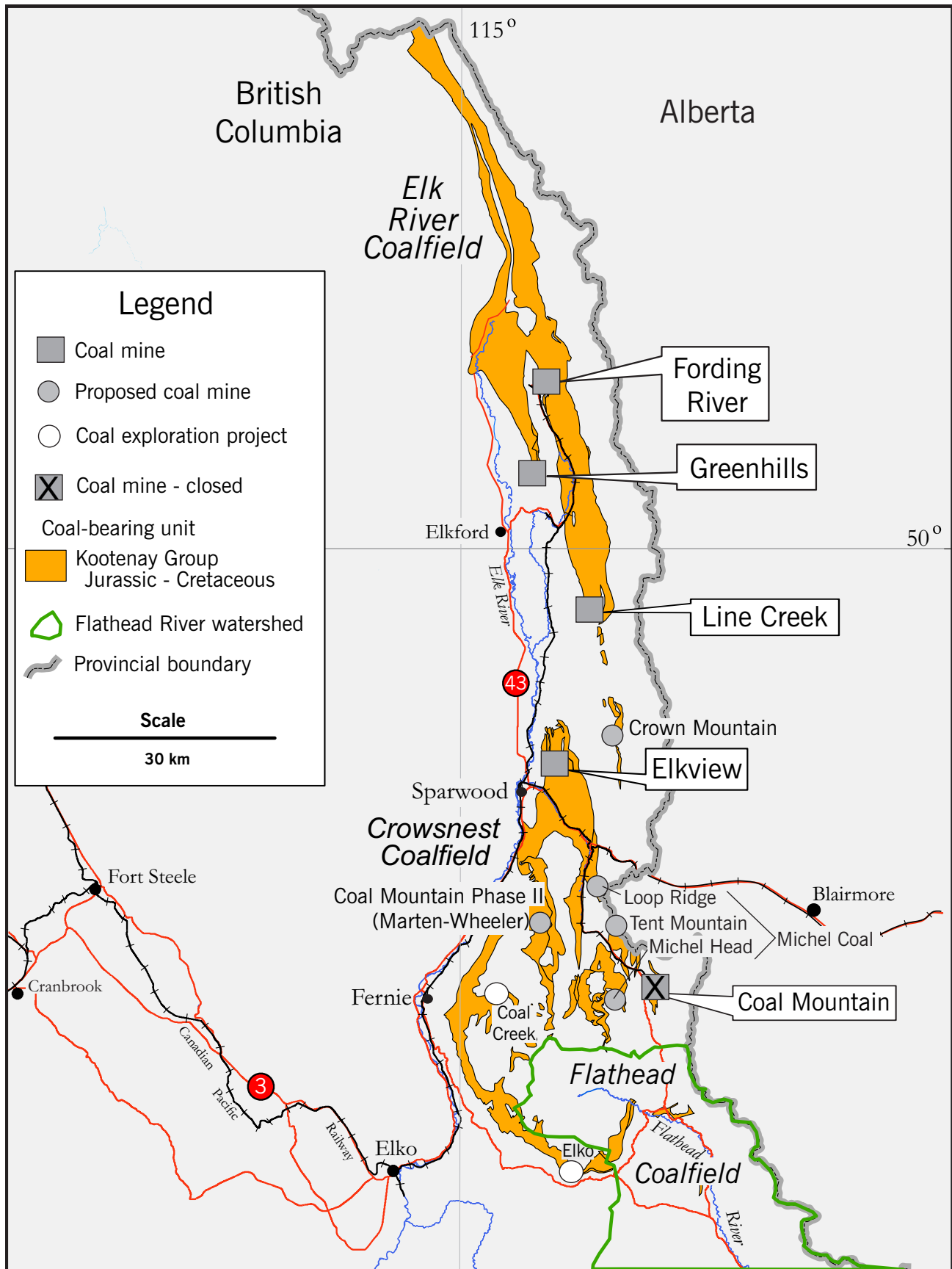


Fig. 5. Coal mines and selected exploration projects, southeastern British Columbia.

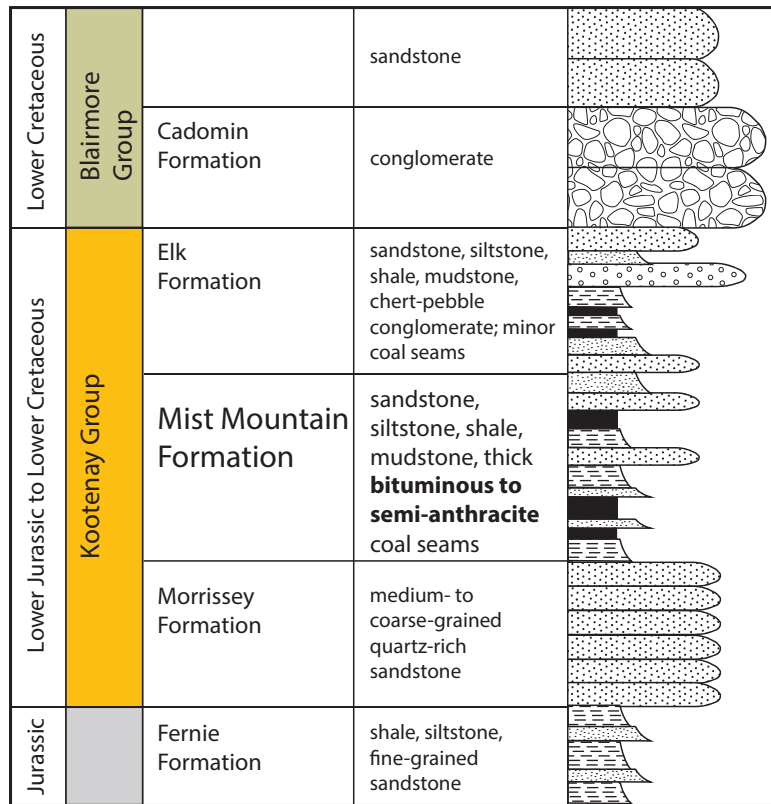


Fig. 6. Coal stratigraphy of southeastern British Columbia.

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 parts of the Flathead and Crowsnest coalfields are excluded from coal mining activity.

The **northeastern British Columbia** deposits are in the Foothills and Plains coalfields, together known as the Peace River coalfields. The Foothills coalfield extends for 400 km along the eastern flank of the Rocky Mountains (Figs. 2, 7). The coals are distributed through a stratigraphic interval of more than 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; Fig. 8). Coals in the Gething and Gates formations are bituminous in rank, ranging from high to low volatile. Metallurgical (coking and PCI) coals are predominant, and total sulphur contents are typically low.

The Minnes Group (Lower Cretaceous) hosts coal. However, mineable thicknesses and continuity have not been documented, and the Minnes Group coals are not current exploration targets. Deposits of weak coking coal are recognized in the Boulder Creek Formation (Upper Cretaceous) but are not mined. Potentially mineable coal resources in northeastern British Columbia coalfields have been estimated at 4.9 billion tonnes.

In **northwestern British Columbia**, the Groundhog coalfield (Fig. 2) extends across an area of approximately 2300 km<sup>2</sup> and hosts Canada's only significant anthracite deposits. 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**, Paleocene to Eocene basins host coals in the Similkameen, Merritt, and Hat Creek coalfields. These coals range in rank from lignite to high-volatile bituminous and are generally low in sulphur.

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 high-volatile bituminous in rank; ash and sulphur contents vary.

### Coal mining and exploration in 2019

Coal production in 2019 is forecast to reach 30 million tonnes. Production from Teck Resources Limited's four mines in the southeastern part of the province is forecast to be about 25.5 million tonnes. Conuma Coal Resources Limited produced about 4.6 million tonnes from the Perry Creek, Brule, and Willow Creek mines in the Peace River coalfields (Table 1). Please refer to the Provincial Overview of Exploration and Mining in British Columbia (British Columbia Geological Survey Information Circular 2020-01) for coal exploration expenditure numbers.

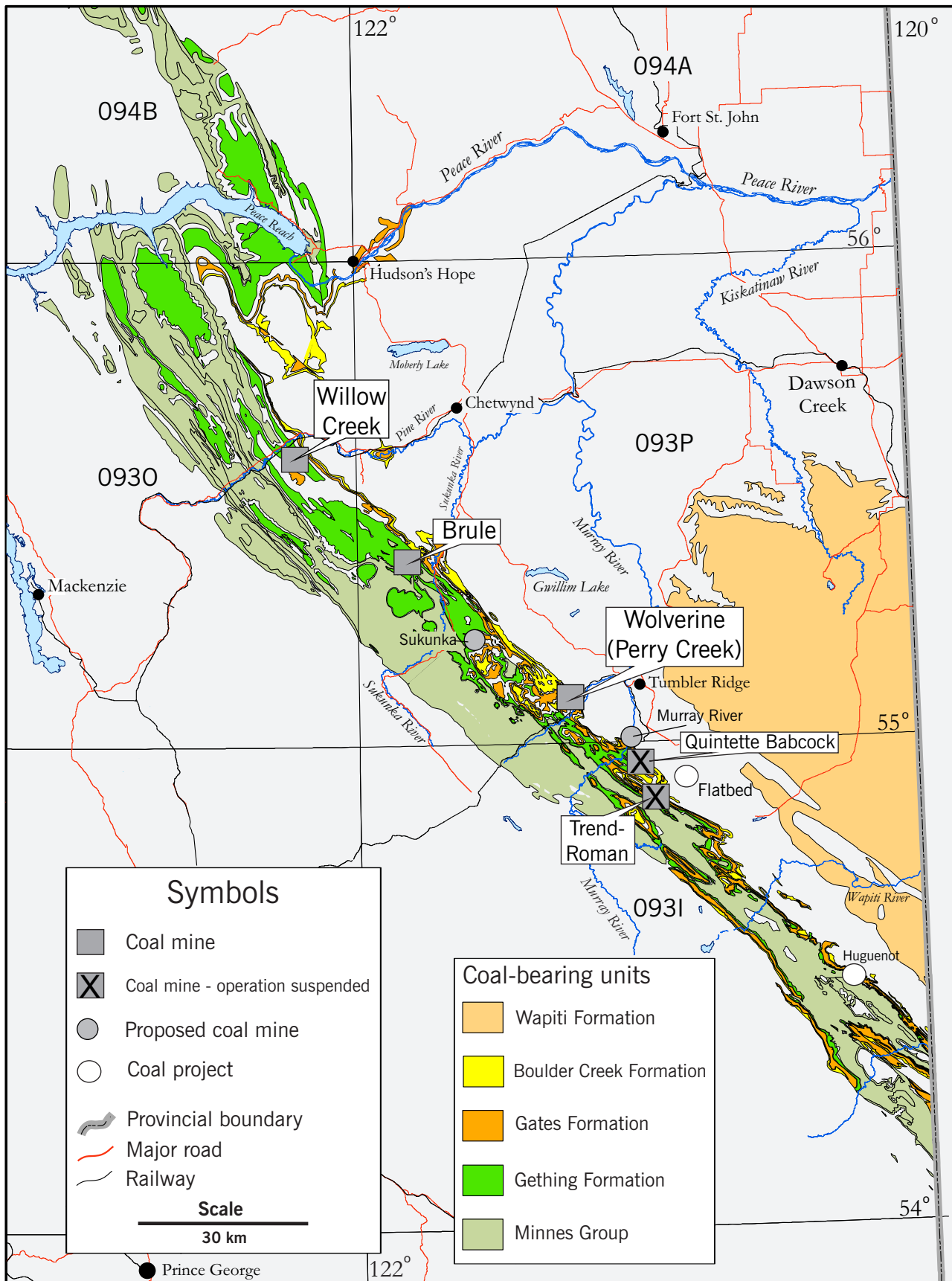


Fig. 7. Coal mines and selected exploration projects, northeastern British Columbia.



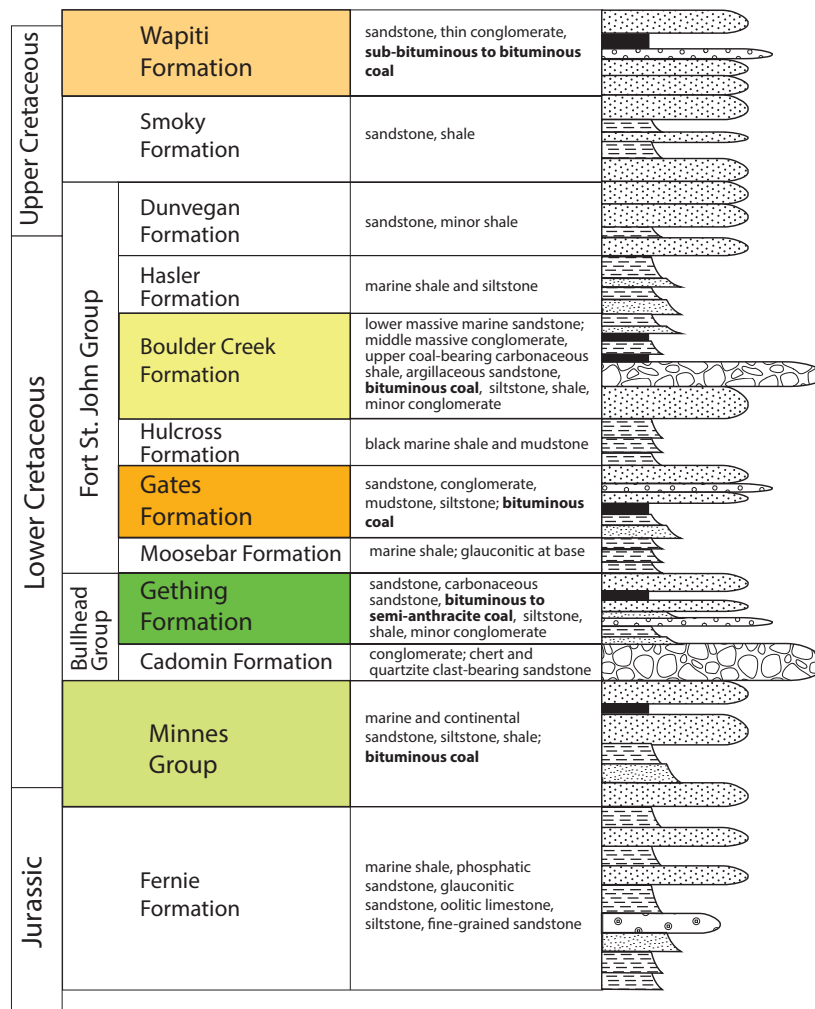


Fig. 8. Coal stratigraphy of northeastern British Columbia.

Table 1. Coal mines in British Columbia; production forecast for 2019 based on Q3 reporting, and reserve numbers.

Mine	Operator	Commodity	Forecast 2019 Production	Reserves as of December 31, 2018 except where noted (Proven + Probable)
Brule	Conuma Coal Resources Limited	PCI	2.62 Mt clean	12.26 Mt (Projected as of year-end 2019)
Coal Mountain	Teck Coal Limited	PCI	0.2 Mt clean	0 Mt
Elkview	Teck Coal Limited	HCC	7.1 Mt clean	265.1 Mt HCC clean
Fording River	Teck Coal Limited	HCC	8.15 Mt clean	387.9 Mt HCC clean
Greenhills	Teck Coal Limited	HCC	6.1 Mt clean	165.1 Mt HCC clean
Line Creek	Teck Coal Limited	HCC and thermal coal	3.95 Mt clean	60.2 Mt HCC clean 10.5 Mt thermal clean
Quinsam & 7 South	Quinsam Coal Corporation	Thermal coal	No new production Sales from stockpile	not available
Willow Creek	Conuma Coal Resources Limited	HCC and PCI	820,000 t	11.04 Mt (Projected as of year-end 2019)
Wolverine (Perry Creek) including Hermann	Conuma Coal Resources Limited	HCC	1.19 Mt	26.99 Mt (Projected as of year-end 2019)

HCC = hard coking coal; PCI = pulverized coal injection

## Southeastern British Columbia

### Mining

Teck Coal Limited, the world's second-largest exporter of metallurgical coal, operates four open-pit coal mines in the Elk River valley area (Fig. 5). The mines at **Fording River**, **Greenhills**, **Line Creek**, and **Elkview** produced more than 90% of Canada's total annual metallurgical coal exports. The main product is coking coal, and pulverized coal injection (PCI) coal; small amounts of thermal coal are also produced. All four are open-pit, truck and shovel mines. Teck forecasts clean coal production totalling about 25.5 million tonnes from southeastern British Columbia in 2019. At **Fording River**, production from the Eagle Mountain, Swift, and Lake areas is forecast to be 8.15 million tonnes. Production continued from the Cougar pit at the **Greenhills** mine; the total forecast for 2019 is 6.1 million tonnes. Production at the **Line Creek** mine (Fig. 9) was mainly from the Burnt Ridge extension (BRX), Mount Michael (MTM), and Mine Services extension (MSX) pits and is forecast to reach 3.95 million tonnes by then end of 2019.

At the **Elkview** mine, production was from the Baldy Ridge, Natal Ridge, and Adit Ridge areas. Production in 2019 is forecast at 7.1 million tonnes of clean coal product. Pit operations at the **Coal Mountain** mine were suspended in the third quarter of 2018 as it reached the end of its mine life. Coal from stockpiles, and from Teck's other operations was processed intermittently through the Coal Mountain plant and load out facilities in the third quarter of 2019.

All mining in the Elk Valley watershed is subject to conditions laid out in the trans-border Elk Valley Water Quality Plan, which addresses the management of substances released by mining activities in the Elk River watershed. All producing and proposed mine projects are engaged in research and development into both improved technologies for active water treatment facilities, as well as alternative and passive treatment methods to better meet targets.

Teck Coal Limited has committed to constructing five active



Fig. 9. Mining at Line Creek mine, southeastern British Columbia. Photo by Janet Riddell.

water treatment facilities. The first facility has operated at the Line Creek mine since February 2016, and a second treatment step was successfully added in 2018. Construction on the second facility at Fording River began in 2019, with the design modifications used at Line Creek. At least four more facilities may be needed to meet water quality objectives. Passive water treatment trials have also been underway to reduce the reliance on, and increase the effectiveness of, active water treatment. The first saturated rock fill pilot project was constructed at Elkview in 2018. It uses biological processes enhanced by the addition of nutrients (methanol and phosphoric acid) to remove nitrate and selenium from the water.

### Exploration

It was an active exploration year at all four active Teck Coal Limited operations and several other companies continued with early- and advanced -stage exploration projects (Table 2). At **Fording River**, exploration drilling was concentrated in producing pits and the Castle Mountain area. To test seam extensions and coal quality, 33,059 m of RC drilling was completed in 103 holes, and 2510 m of large-diameter core drilling in 15 holes. The producing pits and extension areas also saw additional geotechnical drilling and environmental baseline work. Future expansions are planned, including highwall pushback at the Turnbull and Henretta pits, and expansion in the Castle Mountain and Greenhills Ridge areas. At the **Greenhills** Mine, the Cougar Pit Extension (CPX) continued in 2019, with 2401 m of reverse circulation drilling and 844 m of large-diameter coring. The project area is immediately north of the existing Greenhills operations. The work included in-pit drilling to update structural and seam quality models, and further step-out drilling in their permitted extension areas for the next phases of mining. Additional geotechnical drilling was conducted, and environmental baseline work continued.

At **Line Creek**, exploration work at the Burnt Ridge North extension area included 59 reverse circulation holes (totalling 12,239 m) to update geological models, and nine large-diameter holes (totalling 744 m) for coal quality. Additional drilling was completed for geotechnical assessments, and environmental baseline studies are ongoing. At the **Elkview** mine, drilling continued in active pits and expansion areas, including 32 reverse circulation holes (totalling 7348 m) and large-diameter coring (1200 m).

Jameson Resources Limited is completing a feasibility study at the **Crown Mountain** project with data obtained during the 2018 field program. They continued to work on an environmental assessment application and environmental baseline surveys.

In 2019, work continued at North Coal Limited's **Michel Coal** project, which includes the Loop Ridge, Tent Mountain, and Michel Head areas. Work focussed on collecting environmental baseline data, permitting, mine design, and water treatment design.

Jameson Resources Ltd. (Crown Mountain) and North Coal Ltd. (Michel Coal) are doing design and test work for their

**Table 2.** Selected coal exploration and development projects in British Columbia 2019.

<b>Property name</b>	<b>Operator name</b>	<b>Status</b>	<b>2019 activity</b>	<b>Region</b>
<b>Brule</b>	Conuma Coal Resources Limited	Producing mine	Exploration drilling on Dillon and Brule leases	Northeast
<b>Coal Creek</b>	Crows Nest Pass Coal Mining Limited	Exploration	Environmental baseline Prefeasibility	Southeast
<b>Crown Mountain</b>	Jameson Resources Limited	Pre-application EA*	Mine design Spoil pile design Feasibility study Engineering Environmental	Southeast
<b>Elko</b>	Pacific American Coal	Exploration	Updated resource estimate	Southeast
<b>Elkview-Baldy Ridge Extension (BRE)</b>	Teck Coal Limited	Approved EA	Drilling Coal quality	Southeast
<b>Fording-Swift</b>	Teck Coal Limited	Approved EA	Drilling Coal quality Water treatment construction	Southeast
<b>Greenhills-Cougar Pit Extension (CPX)</b>	Teck Coal Limited	Approved EA	Drilling Coal quality	Southeast
<b>Hermann</b>	Conuma Coal Resources Limited	EA amendment application	Drilling	Northeast
<b>Huguenot</b>	Colonial Coal International Corporation	Exploration	PEA <sup>‡</sup> update	Northeast
<b>Line Creek Phase II</b>	Teck Coal Limited	Approved EA	Drilling Coal quality Pre-stripping Water treatment improvements	Southeast
<b>Michel Coal</b>	North Coal Limited	Pre-application EA	Permitting Environmental baseline monitoring Mine design	Southeast
<b>Murray River</b>	HD Mining International Limited	Mining permit in place	Pending investment decision	Northeast
<b>Quintette-Babcock</b>	Teck Coal Limited	Mining permit in place	Development on hold	Northeast
<b>Roman Mountain</b>	Anglo American plc (Peace River Coal Inc.)	Mining permit in place	Development on hold	Northeast
<b>Telkwa</b>	Allegiance Coal	Exploration	Drilling Groundwater monitoring Geotechnical	Northwest
<b>Wolverine (Perry Creek)</b>	Conuma Coal Resources Limited	Producing mine	Exploration drilling on-lease	Northeast
*EA Environmental Assessment. ‡PEA Preliminary Economic Assessment				



proposed mine projects, because both projects fall under the collective water quality limits outlined in the Elk Valley Water Quality Plan.

Pacific American Coal Limited updated their resource estimate at the **Elko** project, using data compiled from drilling in 2018.

Crows Nest Pass Coal Mining Limited continued environmental baseline studies and began work on a prefeasibility study at their **Coal Creek** property.

### Northeastern British Columbia Mining

Conuma Coal Resources Limited produced about 4.6 million tonnes of coal from three mines in the Peace River coalfields, 2.6 million tonnes from **Brule** (Fig. 10), 1.2 million tonnes from **Wolverine (Perry Creek)** and 0.8 million tonnes from **Willow Creek**. Anglo American plc's **Trend** coal mining operations, suspended in 2014, remained idle throughout 2019. The planned reopening of the **Quintette** mine (Teck Resources Limited) at Mount Babcock remains on hold, as does the opening of the **Roman Mountain** expansion area for the Trend mine (Anglo American plc).

#### Exploration

Conuma Coal Resources Ltd. drilled a total of 55 holes at its **Hermann** project (Fig. 11). In July, the company applied to the British Columbia Environmental Assessment Office for an amendment to the Wolverine Environmental Assessment Certificate to open the Hermann pit as a satellite to the **Wolverine** mine. If approved, the Hermann pit would produce 1.5 to 3.0 Mt of coal per year and add up to 7 years to the life of the wash plant at the Wolverine mine. Conuma continued drilling on its **Brule** mine coal lease area and was planning in-pit drilling at the Wolverine mine to test possible expansion underground.

With Mines Act approval for its **Murray River** underground coal mine in place since 2018, HD Mining International Ltd.



**Fig. 10.** Syncline in the Brule mine, northeastern British Columbia. Photo by John DeGrace.



**Fig. 11.** Coal of the “C1” seam, overlain by polymictic conglomerate, Notikewin member of the Gates Formation, Hermann project, northeastern British Columbia. Photo by John DeGrace.

awaited an investment decision to move ahead. The proposed mine contains a Proven reserve estimated at 291 Mt of mineable coal.

Colonial Coal International Corporation updated the 2018 preliminary economic assessment on its **Huguenot** property in November 2019 to include consideration of a revised plan, which includes only open-pit mining, and other operational changes to reduce capital costs, risks, and construction time.

### Northwestern and north-central British Columbia Exploration

Allegiance Coal completed 47 drill holes at the Tenas area of the **Telkwa** coal deposit in the winter of 2019. They also drilled 25 PQ holes (totalling 750 m) for coal quality and structural information, and to enable geophysical logging. Sonic drilling of 22 holes (totalling 600 m) was done to gain geotechnical information about the surficial geology for the design of proposed waste rock locations. Additional groundwater monitoring wells were installed.

### Vancouver Island Mining and exploration

The **Quinsam** thermal coal mine near Campbell River ceased operations in June 2019 due to operational issues and unprofitability. Quinsam Coal Corporation filed for bankruptcy in July. The Bowra Group of Vancouver was appointed as Receiver and is taking enquiries from parties interested in purchasing the assets of the Corporation.

### Transportation infrastructure

Most coal produced in the Elk River and Crowsnest coalfields in southeastern British Columbia is transported by rail (Fig. 12) to Westshore Terminals in Delta and Neptune Bulk Terminals in North Vancouver for export (Fig. 2). Lesser volumes are transported by rail to steel mills in eastern Canada.



**Fig. 12.** Metallurgical coal at rail load-out facility, Elk Valley, southeastern British Columbia. Photo by Fiona Katay.

The coalfields of northeastern British Columbia are connected by rail to Ridley Island Terminals near Prince Rupert.

In July 2019, the Government of Canada sold Ridley Island Terminal. Two American private-equity firms, Riverstone Holdings and AMCI Group together own a 90% stake in the terminal. Two British Columbia First Nations, the Lax Kw'alaams and Metlakatla, together own the remaining 10%. Current capacity at Ridley is 12 million tonnes of coal per year.

The Westshore facility has a capacity of 33 million tonnes per year. Current coal capacity at the Neptune Terminals is 12.5 million tonnes per year. Neptune continues to make improvements to terminal access and capacity. Capacity after improvements is expected to be 18.5 million tonnes of coal by 2021.

In January 2019, Port Metro Vancouver cancelled Fraser Surrey Docks' permit to add a coal shipping facility to its existing terminal on the Fraser River. Cancellation of the permit, which was obtained in 2014, was triggered by failure to meet the permit condition that the project was to be substantially started by November 2018.

## Coal tenure

The Mineral Titles Branch of the British Columbia Ministry of Energy, Mines and Petroleum Resources 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 licence 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. Coal licences and leases will not be issued on **coal land reserves**, which are closed to exploration, development, and production of coal. Spatial data and maps showing active coal tenure, applications, and coal reserves are available online at the Mineral Titles Online site (Table 3) and on MapPlace, the database-driven geospatial web service of the British Columbia Geological Survey (Table 4).

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 plus \$7 per hectare first year rental. Coal licences must be renewed annually by the anniversary date of the tenure acquisition. Annual renewal requirements include remitting annual rental fees and submitting a technical report on all exploration work during the previous year. 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 licence application, but 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 up to 30 years, and can be renewed for periods of up to 15 years. All appropriate approvals and authorizations must be in place before commencing work on a coal lease.

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

## British Columbia Geological Survey information sources

Celebrating its 125th anniversary in 2020, the British Columbia Geological Survey is the oldest scientific organization in the province. The Survey conducts research to establish the geological evolution and mineral resources of the province, partnering with federal, provincial, and territorial geoscience agencies, and other national and international organizations. Drawing on continuously advancing concepts and technologies, the Survey creates knowledge to guide societal decisions centred on the Earth sciences, connecting government, the coal and minerals industries, and communities to the province's geology and mineral resources. Each year in January, the British Columbia Geological Survey releases its summary of field activities and current research (Geological Fieldwork volume), summaries of exploration and mining at the provincial and regional levels (Exploration and Mining in British Columbia volume), and the present British Columbia Coal Industry Overview.

MapPlace is the British Columbia Geological Survey

**Table 3.** Websites to access coal tenure information.

To access	click
Coal titles	<a href="http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles">http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles</a>
Coal and mineral tenure: Online viewer map and downloadable spatial data	<a href="https://www.mtonline.gov.bc.ca/mtov/home.do">https://www.mtonline.gov.bc.ca/mtov/home.do</a>
Coal licence application and other forms	<a href="http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles/forms-maps-publications/coal-titles-forms">http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles/forms-maps-publications/coal-titles-forms</a>
Coal Act and Regulation	<a href="http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles/legislation">http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/mineral-titles/coal-titles/legislation</a>
Annual technical report requirements	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/assessmentreports/submissioncoal">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/assessmentreports/submissioncoal</a>
Permitting and Reclamation, and Notice of Work submissions	<a href="http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/permitting">http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/permitting</a>
Environmental Assessment Office	<a href="https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments">https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments</a>

**Table 4.** Websites to access British Columbia Geological Survey publications and databases.

To access	click
British Columbia Geological Survey	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey</a>
British Columbia Geological Survey publication catalogue	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/publications">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/publications</a>
British Columbia Geological Survey coal geology page	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/geology/coal-overview">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/geology/coal-overview</a>
British Columbia coal assessment reports and COALFILE	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/assessmentreports#COALFILE">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/assessmentreports#COALFILE</a>
MINFILE	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/mineralinventory">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/mineralinventory</a>
MapPlace	<a href="https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/mapplace">https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/british-columbia-geological-survey/mapplace</a>

database-driven geospatial web service that allows users to mine information in the: industry and government document archive (Property File); online mineral inventory (MINFILE); mineral assessment report database (ARIS); coal assessment report database (COALFILE); regional geochemistry survey (RGS); Mineral Titles Online (MTO) tenure database; digital geology of British Columbia database; the British Columbia Geological Survey publication catalogue; and extensive collections of bedrock and surficial geology maps.

MINFILE is an inventory documenting more than 14,900 metallic mineral, industrial mineral, and coal occurrences in

British Columbia. COALFILE is a collection of assessment reports, maps, and data from boreholes, trenching, and sampling of coal occurrences. It includes more than 1000 assessment reports dating from 1900 and data for about 15,900 boreholes, 550 bulk samples, 5400 maps, 3650 trenches, and 480 coal ash analyses. A search engine leads clients to a summary page for each coal assessment report.

### 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, Mines and Petroleum Resources and the British Columbia Geological Survey

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



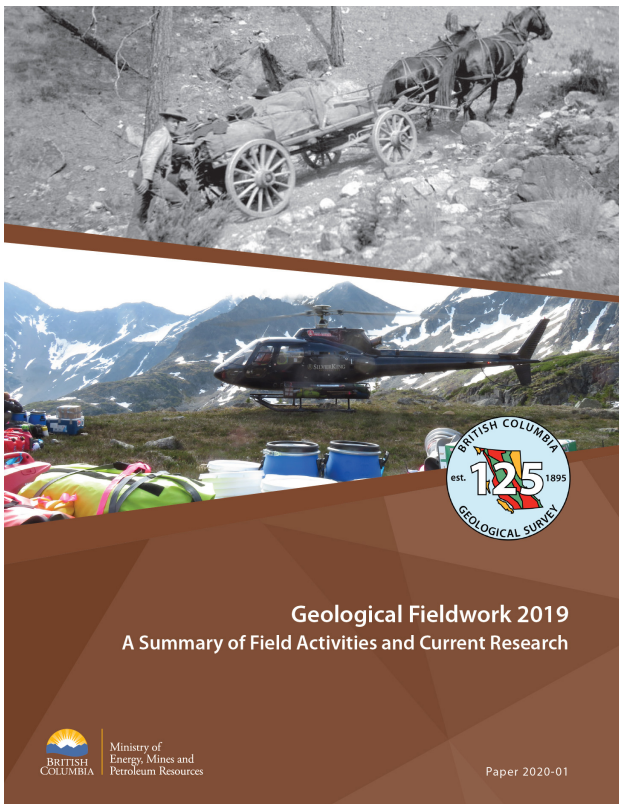
**Table 5.** Industry contacts.

Coal Association of Canada	<a href="http://www.coal.ca">www.coal.ca</a>
Teck Coal Limited	<a href="http://www.teck.com">www.teck.com</a>
Conuma Coal Resources Limited	<a href="http://www.conumacoal.com">www.conumacoal.com</a>
Atrum Coal NL	<a href="http://atrumcoal.com/">http://atrumcoal.com/</a>
Bowra Group (Receiver for Quinsam Coal Corporation)	<a href="https://www.bowragroup.com/quinsam-coal-corporation">https://www.bowragroup.com/quinsam-coal-corporation</a>
Anglo American Canada plc	<a href="http://www.angloamerican.ca">www.angloamerican.ca</a>
Canadian Dehua International Mines Group Incorporated	<a href="http://www.dehua.ca/">http://www.dehua.ca/</a>
Centermount Coal Limited	<a href="http://www.centerpointcanada.com/">http://www.centerpointcanada.com/</a>
Colonial Coal International Corporation	<a href="http://ccoal.ca">http://ccoal.ca</a>
Crowsnest Pass Coal Mining Limited	<a href="http://www.crowsnestpasscoal.com">http://www.crowsnestpasscoal.com</a>
Glencore Canada Corporation	<a href="http://www.sukunkaproject.ca">www.sukunkaproject.ca</a>
HD Mining International Limited	<a href="http://www.hdminingintl.com/">http://www.hdminingintl.com/</a>
Jameson Resources Limited	<a href="http://www.jamesonresources.com.au/">http://www.jamesonresources.com.au/</a>
North Coal Limited	<a href="http://www.northcoal.ca">www.northcoal.ca</a>
Pacific American Coal Limited	<a href="http://www.pamcoal.com/">http://www.pamcoal.com/</a>

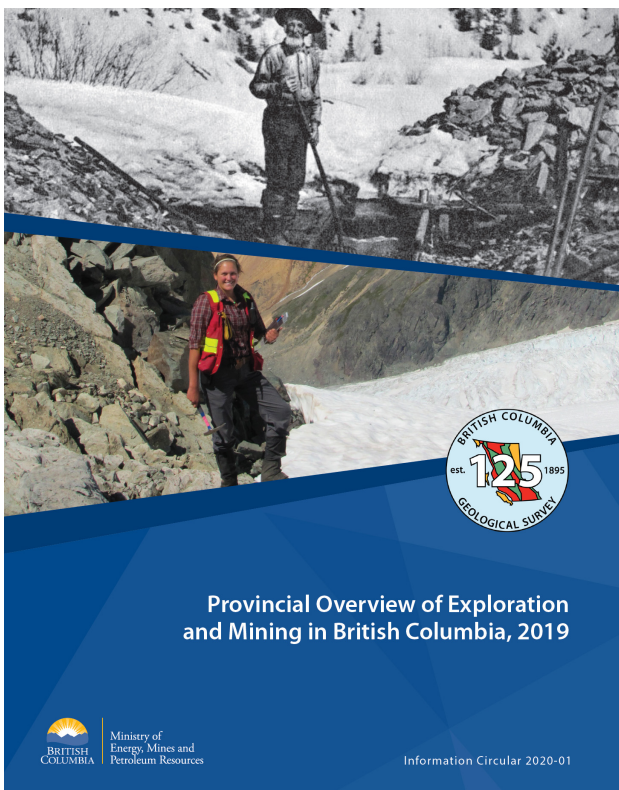
**Table 6.** British Columbia Ministry of Energy, Mines and Petroleum Resources contacts.

Gordon Clarke; Director, Mineral Development Office British Columbia Geological Survey, Vancouver	604-660-2094 <a href="mailto:gordon.clarke@gov.bc.ca">gordon.clarke@gov.bc.ca</a>
Janet Riddell; Coal Geologist British Columbia Geological Survey, Victoria	778-698-8064 <a href="mailto:janet.riddell@gov.bc.ca">janet.riddell@gov.bc.ca</a>
Chris Smith; Director, Coal Titles Mineral Titles Branch, Victoria	778-698-7150 <a href="mailto:chris.smith@gov.bc.ca">chris.smith@gov.bc.ca</a>
Jessica Norris; Coal Assessment Report Geologist British Columbia Geological Survey, Victoria	778-698-7223 <a href="mailto:jessica.norris@gov.bc.ca">jessica.norris@gov.bc.ca</a>
Fiona Katay; Regional Geologist, Southeast Cranbrook	250-919-4724 <a href="mailto:fiona.katay@gov.bc.ca">fiona.katay@gov.bc.ca</a>
Sean Tombe; Regional Geologist, Northwest Smithers	250-877-2694 <a href="mailto:sean.tombe@gov.bc.ca">sean.tombe@gov.bc.ca</a>
Bruce Northcote; Regional Geologist, Southwest Vancouver	604-660-2713 <a href="mailto:bruce.northcote@gov.bc.ca">bruce.northcote@gov.bc.ca</a>
Vacant; Regional Geologist, South Central Kamloops	Mineral Development Office 604-660-2713 <a href="mailto:bruce.northcote@gov.bc.ca">bruce.northcote@gov.bc.ca</a>
Vacant; Regional Geologist, Northeast and North Central Prince George	Mineral Development Office 604-660-2094 <a href="mailto:gordon.clarke@gov.bc.ca">gordon.clarke@gov.bc.ca</a>

The British Columbia Geological Survey is celebrating its 125<sup>th</sup> anniversary in 2020. Each year it publishes Geological Fieldwork, a Summary of Fieldwork and Current Research, and the Provincial Overview of Mining and Exploration in British Columbia. All British Columbia Geological Survey publications can be downloaded, at no cost, from [www.BCGeologicalSurvey.ca](http://www.BCGeologicalSurvey.ca)

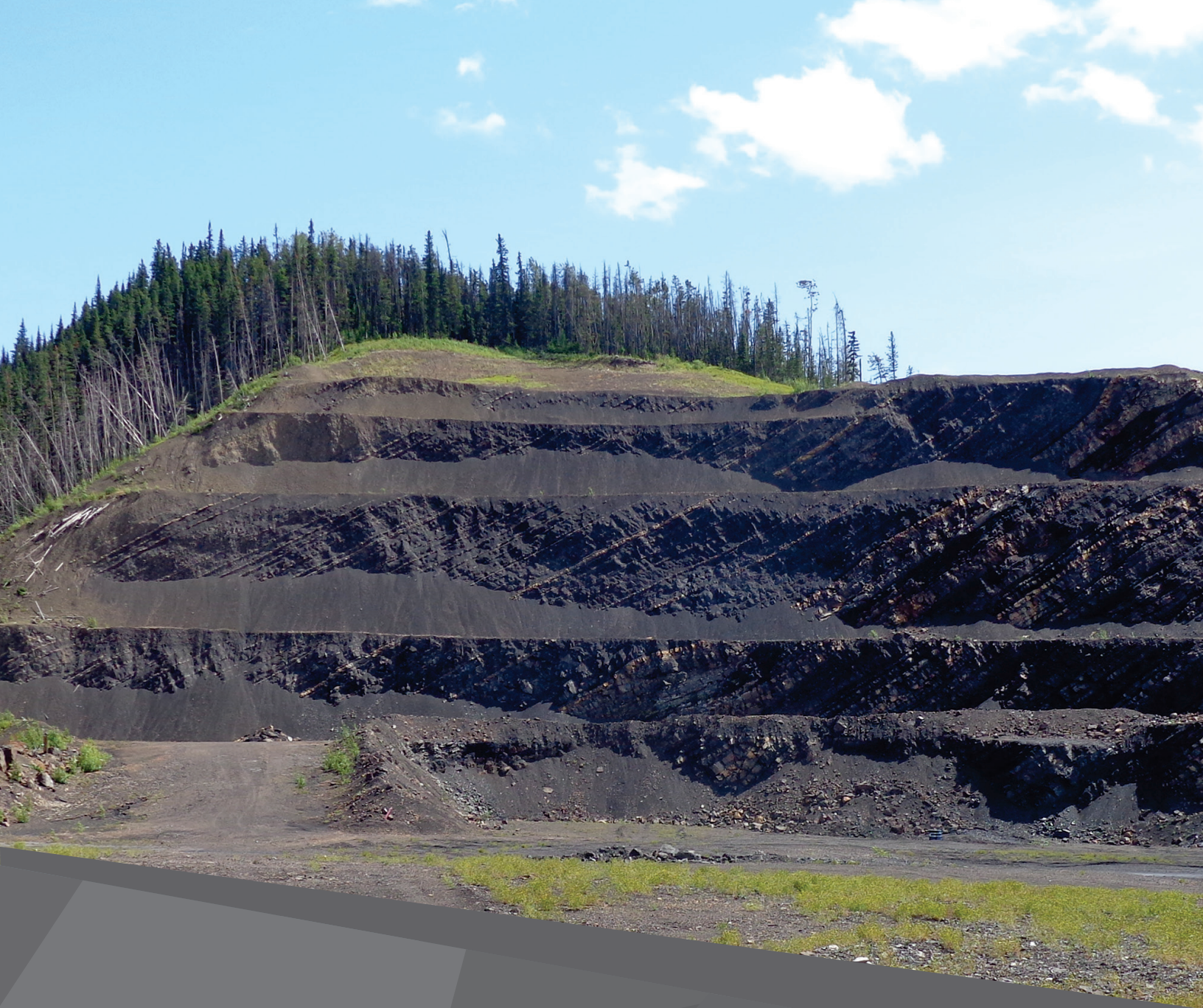


Geological Fieldwork volume, Paper 2020-01. Top photo of camp move to Highland Valley in 1910 by Frank Cyril Swannell. Bottom photo of camp move near eastern Hogem batholith in 2018 by Dejan Milidragovic.



Provincial Overview of Mining and Exploration in British Columbia volume, Information Circular 2020-01. Top photo of a “forty-niner” tending a dumpbox, Lightning Creek, South Central Region circa 1860, from Royal BC Museum Archives. Bottom photo of British Columbia Geological Survey field assistant mapping in the Golden Triangle, Northwest Region by JoAnne Nelson.





Ministry of  
Energy, Mines and  
Petroleum Resources

