

Exploration and Mining in British Columbia, 2020: A summary



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1. Introduction

Reflecting its complex geological history, British Columbia is endowed with diverse minerals and deposit types. British Columbia is Canada's largest exporter of coal, leading producer of copper, and only producer of molybdenum. Also produced are significant amounts of gold, silver, lead, and zinc, and more than 30 industrial minerals including gypsum, magnesite, limestone, and dimension stone. Numerous quarries produce sand and gravel or crushed aggregate. In 2020, many mineral exploration projects remained active (Fig. 1).

Flanked by the Pacific Ocean, British Columbia offers easy access to global markets. Mine operations benefit from tax incentives and a well-developed infrastructure, including low-cost electricity, an integrated road and rail network, and large deep-water ports. Exploration benefits from an extensive geoscience database and a web-based mineral tenure system.

This summary uses information from the British Columbia Coal Industry Overview (British Columbia Geological Survey Information Circular 2021-02) and incorporates the Regional Geologist reports in this volume. The Regional Geologists (Fig. 2; Table 1) represent the provincial government on geological matters at a regional level. Within their communities, they provide information on exploration trends, possible investment opportunities, land use processes, First Nation capacity building, and public outreach. Since 1993, the Regional Geologists reported to regional office directors. In 2020, the Regional Geologists were repatriated to the British Columbia Geological Survey as part of the Mineral Development Office.

Noteworthy acquisitions and proposed mergers were announced in 2020. Artemis Gold Inc. acquired the **Blackwater Gold** project from New Gold Inc. for approximately \$210 million. The project has both provincial and federal environmental assessment approval. BW Gold Ltd. (a wholly owned subsidiary of Artemis) plans to move the project forward with construction starting in Q2, 2022. In November, Serengeti Resources Inc. and Sun Metals Corp. entered into an agreement whereby Serengeti would acquire all issued shares of Sun Metals. The transaction would consolidate the contiguous

copper-gold exploration and development assets of the **Kwanika** and **Stardust** projects. A financing of \$10.35 million connected with the merger transaction was completed. In December, Seabridge Gold Inc. purchased the **Snowfield** deposit (Measured and Indicated resources of 25.9 Moz Au, 75.8 Moz Ag, 2.98 Blbs Cu, 258.3 Mlbs Mo, and 22.5 Moz Re) from Pretium Resources Inc. for \$100 million US.

Despite the Covid-19 pandemic, provincial mining production and exploration expenditures improved over the previous year.

2. Mine production

The Ministry of Energy, Mines and Low Carbon Innovation forecasts the total value of mine production for 2020 at \$9.28 billion (Fig. 3) including coal, copper, gold, industrial minerals, aggregate, molybdenum, and silver. This is \$0.48 billion more than the 2019 preliminary estimate by the Ministry using Natural Resources Canada values and estimate of \$8.80 billion (Fig. 4) and is mostly due to an increase in gold and copper prices.

At the start of 2020 the price of copper was US\$2.75/lb dropping to US\$2.02/lb by late March before starting a steady upward trend to US\$3.62/lb by the end of the year. Gold started 2020 at US\$1527/oz rising to US\$2067/oz in early August and closing out the year at US\$1887/oz.

Metallurgical coal prices fluctuated through 2020 mainly due to market disruptions caused by the Covid-19 pandemic (all prices are per tonne, \$US, West Coast port price). Prices for British Columbia hard coking coal averaged \$127/tonne for the year. At the start of 2020, the price was about \$142; as Covid-19 forced mines to close in China, temporarily disrupting supply, the price rose steadily to as high as \$164 in mid-March. Prices began to decline toward the end of March as steel production and infrastructure work were disrupted. A dispute between Australia and China affected prices through the fall, and coking coal prices fell below \$100/tonne in mid-November. Pulverized Coal Injection (PCI) prices averaged between \$75 and \$80 for the year.

As in previous years, coal was the highest value mine

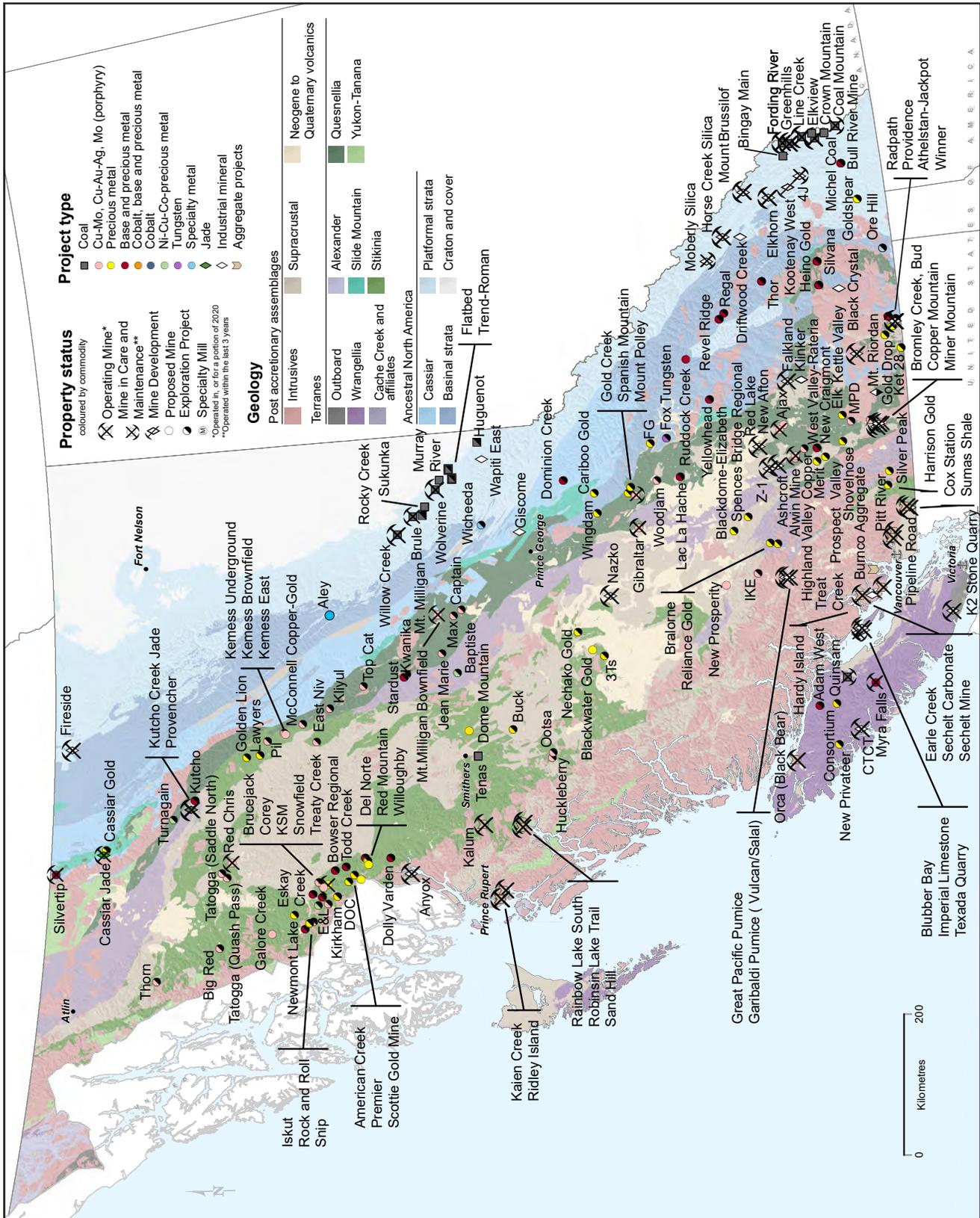


Fig. 1. Mines, mine development, selected proposed mines, and selected exploration projects in British Columbia, 2020. Based on Clarke et al., 2021, British Columbia Geological Survey Open File 2021-01.



Fig. 2. Geographic regions and Regional Geologist offices.

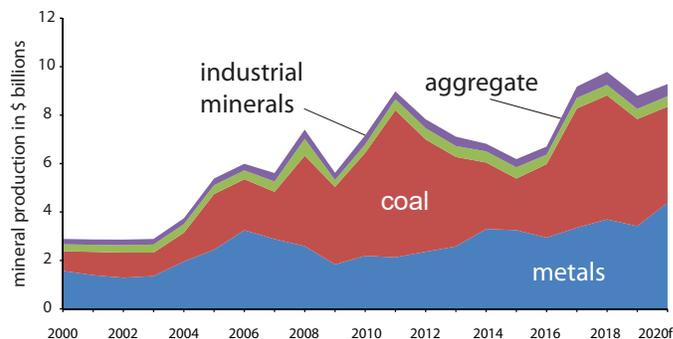


Fig. 4. Value of British Columbia mineral production by year 1998-2020; value for 2019 is preliminary estimate, value for 2020 is forecast.

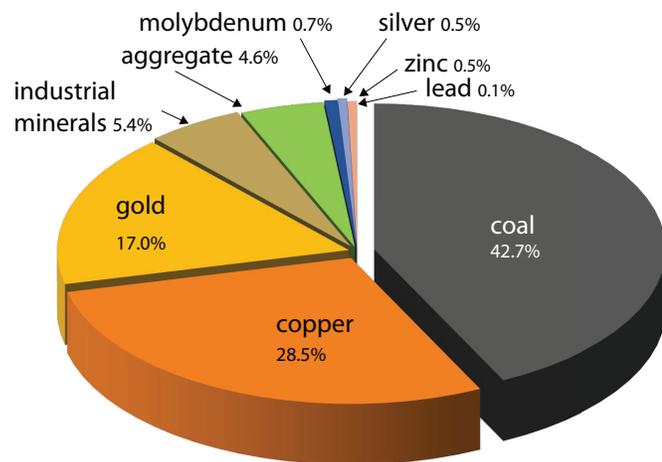


Fig. 3. 2020 forecast value of British Columbia mineral production by commodity; total is \$9.28 billion.

product (42.7%) followed by copper (28.5%). In 2020, nine metal mines operated during at least part of the year (Fig. 1; Table 2). Metallurgical coal was produced at four large open-pit operations in the southeastern part of the province and three open-pit operations in the northeastern part. Conuma Coal Resources Limited’s **Willow Creek** mine in the northeast ceased operations in Q2 of 2020. About 30 industrial mineral mines and more than 1000 aggregate mines and quarries were in operation.

3. Mining highlights

3.1. Metal mines

Metal mines accounted for \$4.39 billion (forecast) of all mine production in 2020, representing about 47% of total output (Fig. 3). Nine mines produced in 2020 (Fig. 1; Table 2). In the Northwest Region producing metal mines included **Brucejack**, **Red Chris** and **Silvertip**.

At the **Brucejack** mine, production for the first three quarters totalled 259,443 oz of gold at a head grade of 8.4 g/t Au and 364,233 oz Ag. The mill throughput in the first nine months of the year totalled 3642 tpd with 997,821 t milled. In March, the company filed a technical report with Indicated and Measured mineral resources totalling 23.2 Mt grading 10.1 g/t Au and 65.5 g/t Ag, and Proven and Probable mineral reserves totalling 15.7 Mt grading 8.4 g/t Au and 59.6 g/t Ag.

Table 1. Mineral Development Office and Regional Geologist contact information.

Region	Community	Regional Geologist	Phone	email
Northwest	Smithers	Sean Tombe	250-877-2649	Sean.Tombe@gov.bc.ca
Northeast and North Central	Prince George	vacant	-	-
South Central	Kamloops	vacant	-	-
Southeast	Cranbrook	Fiona Katay	250-919-4724	Fiona.Katay@gov.bc.ca
Southwest	Vancouver	Bruce Northcote	604-660-2713	Bruce.Northcote@gov.bc.ca
Mineral Development Office	Vancouver	Gordon Clarke	604-660-2094	Gordon.Clarke@gov.bc.ca

Table 2. Operating metal mines, 2020, forecast mine production, reserves, and resources.

Mine	Region	Operator (partner)	Commodity; deposit type; MINFILE	Forecast 2020 Production (based on Q1- Q3)	Reserves	Resource	Comments
Brucejack	Northwest	Pretium Resources Inc.	Au, Ag; Intermediate-sulphidation epithermal; 104B 193	345,000 oz Au 485,000 oz Ag	P+Pr: 15.7 Mt 8.4 g/t Au, 59.6 g/t Ag	M+I: 23.2 Mt 10.1 g/t Au, 65.5 g/t Ag Inf: 9.4 Mt 10.3 g/t Au, 44.3 g/t Ag	April 2020 updated mineral reserves and resources; based on VOK and West zone deposits.
Red Chris	Northwest	Newcrest Mining Limited (70%), Imperial Metals Corporation (30%)	Cu, Au, Ag; Hybrid calc-alkalic to alkalic porphyry; 104H 005	66.4 Mlbs Cu 53,700 oz Au	P+Pr: 301.5 Mt 0.36% Cu, 0.27 g/t Au	M+I: 1.034 Bt 0.35% Cu, 0.35 g/t Au, 1.14 g/t Ag Inf: 787.1 Mt 0.29% Cu, 0.32 g/t Au, 1.04 g/t Ag (These resource figures do not consider any mining since the start-up in 2014)	Infill drilling beneath East zone intersected discrete high-grade Au-Cu pods of mineralization with highlights including 514 m grading 1.3 g/t Au and 0.77% Cu including 166 m grading 3.0 g/t Au and 1.5% Cu (from hole RC634).
Silvertip	Northwest	Coeur Mining Inc.	Ag, Pb, Zn; Manto carbonate-replacement; 104O 038	139,000 oz Ag 2.46 Mlbs Zn 2.18 Mlbs Pb	P+Pr: 1.61 Mt 289 g/t Ag, 5.6% Pb, 8.24% Zn	M+I: 1.18 Mt 222.73 g/t Ag, 4.09% Pb, 8.58% Zn Inf: 0.53 Mt 271.04 g/t Ag, 5.02% Pb, 9.31% Zn	Mining operations temporarily suspended at the end of February. Exploration included 60,000 m of drilling; early results indicate potential for resource growth along a 3.5 km north-south strike length.
Mt. Milligan	North Central	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 194, 191	83.2 Mlbs Cu 1590 Koz Au	P+Pr: 191.0 Mt 0.23% Cu, 0.39 g/t Au	M+I: 125.4 Mt 0.19% Cu, 0.35 g/t Au (additional to reserves)	Concentrator design capacity 62,500 tpd. Estimated mine life +20 years. More than 350 employees.

Table 2. Continued.

Copper Mountain	South Central	Copper Mountain Mining Corporation 75%, Mitsubishi Materials Corporation 25%	Cu, Au, Ag; Porphyry Cu-Au, Alkalic; 092HSE001	70-75 Mlb Cu+Au, Ag (management's guidance)	P+Pr: 462.339 Mt 0.23% Cu, 0.10 g/t Au, 0.72 g/t Ag	M+I: 645.395 Mt 0.20% Cu, 0.10 g/t Au, 0.50 g/t Ag Inf: 323.502 Mt 0.20% Cu, 0.10 g/t Au, 0.50 g/t Ag	Deep drilling intersected mineralization at Ingerbelle. New 21-year life of mine plan with higher throughput (Nov. 2020). Resources inclusive of reserves.
Gibraltar	South Central	Taseko Mines Limited 75%, Sojitz Corp. 12.5%, Dowa Holdings Co Ltd. 6.25%, Furukawa Co. Ltd. 6.25%	Cu, Mo; Porphyry Cu±Mo±Au; 093B 012	130 Mlb Cu+Mo (±5%) (management's guidance)	P+Pr: 564 Mtons 0.25% Cu, 0.008% Mo	M+I: 1081 Mt 0.25% Cu, 0.007% Mo	Resources inclusive of reserves. Exploration drilling in 2020.
Highland Valley	South Central	Teck Resources Limited	Cu, Mo; Porphyry Cu±Mo±Au; 092ISW012, 45	120,000-125,000 t Cu and 3.4-4.0 Mlbs Mo (management's guidance)	P+Pr: 484 Mt 0.31% Cu, 0.007% Mo	M: 552.3 Mt 0.29% Cu, 0.008% Mo I: 861.6 Mt 0.23% Cu, 0.009% Mo Inf: 270.5 Mt 0.20% Cu, 0.008% Mo	2040 extension plan under consideration.
New Afton	South Central	New Gold Inc.	Au, Ag, Cu; Porphyry Cu-Au, Alkalic; 092INE023	Approximately 65-75 Mlbs Cu and 62,000-72,000 oz Au including Ag by-product (management's guidance)	P+Pr: 47.301 Mt 0.66 g/t Au, 1.9 g/t Ag, 0.77% Cu	M+I: 57.008 Mt 0.61 g/t Au, 2.1 g/t Ag, 0.74% Cu Inf: 14.022 Mt 0.38 g/t Au, 1.3 g/t Ag, 0.42% Cu	M+I resources are exclusive of reserves. Exploration is ongoing at Cherry Creek 3 km west of mine and regionally.
Myra Falls	Southwest	Nyrstar Myra Falls Ltd.	Zn, Cu, Pb, Au, Ag; Noranda/Kuroko massive sulphide; 092F 330, 71, 72, 73	Not reported	P+Pr: 4.7 Mt 7.11% Zn, 0.78% Pb, 0.92% Cu, 76.55 g/t Ag, 1.78 g/t Au	M+I: 7.64 Mt 6.59% Zn, 0.72% Pb, 0.99% Cu, 72.52 g/t Ag, 1.79 g/t Au	Resumed production in April 2019, continued 2020. Underground drilling, approx. 20,000 m in 42 holes, VTEM survey.

P = Proven; Pr = Probable; M = Measured; I = Indicated; Inf = Inferred

At the **Red Chris** mine, production to the end of the third quarter of 2020 totalled 40,275 oz Au and 49.8 Mlbs Cu. As of 2014, open pit/block cave Measured plus Indicated resources totalled 1.034 Bt with grades of 0.35% Cu, 0.35 g/t Au, and 1.14 g/t Ag. Additional Inferred resources totalled 787.1 Mt with average grades of 0.29% Cu, 0.32 g/t Au, and 1.04 g/t Ag. This year, brownfield exploration drilling was carried out and electromagnetic and gravity surveys were completed to generate future targets. Resource definition infill drilling was also completed and confirmed several discrete high-grade pods in the East zone. Highlights from this infill drilling included 514 m grading 1.3 g/t Au and 0.77% Cu including 166 m grading 3.0 g/t Au and 1.5% Cu (from hole RC634).

At the end of February, Coeur Mining Inc. announced a temporary suspension of mining and processing at the **Silvertip** mine, placing the project on care and maintenance. In the first quarter of 2020 the mill produced 139,000 oz Ag, 2.46 Mlbs Zn, and 2.18 Mlbs Pb from 29,240 t milled. In February 2019, Coeur released an updated mineral resource and reserve estimate. The company reported Proven plus Probable reserves of 1.61 Mt grading 289 g/t Ag, 5.6% Pb, and 8.24% Zn. Measured plus Indicated resources were reported at 1.18 Mt grading 222.73 g/t Ag, 4.09% Pb, and 8.58% Zn. Additional Inferred resources were reported at 0.53 Mt grading 271.04 g/t Ag, 5.02% Pb, and 9.31% Zn. Coeur carried out an exploration program directed at expanding the resource and extending the mine life. Early drill results indicate the potential for resource growth along a 3.5 km north-south strike length, prompting the company to spend \$1 million US towards underground development to facilitate follow-up drilling.

In the North Central Region, the **Mt. Milligan** open-pit copper-gold mine is in its seventh year. Production to the end of the 3rd quarter totalled 62.4 Mlb of Cu and 119,191 oz Au from 14.6 Mt of ore grading 0.26% Cu and 0.41 g/t Au. Metal recoveries averaged 78.9% for Cu and 63.5% for Au.

In the South Central Region, operating mines included **Copper Mountain**, **Gibraltar**, **Highland Valley**, and **New Afton**. At the **Copper Mountain** mine, production to the end of the third quarter totalled 54.5 Mlbs Cu, 20,268 oz Au and 247,560 oz Ag. Mill expansion, to 65,000 tpd, is to be commissioned in 2024. The new projected mine life is 21 years based on current reserves. Exploration drilling at the New Ingerbelle pit included about 4000 m in five holes. The holes tested the depth of mineralization; one hole returned 585 m grading 0.33% Cu, 0.21 g/t Au, and 0.45 g/t Ag, and another 120 m grading 0.69% Cu, 0.37 g/t Au, and 1.55 g/t Ag. New Ingerbelle reserves were added to Copper Mountain's mine plan in 2019.

At the **Gibraltar** mine, production to the end of the 3rd quarter totalled 98.1 Mlb Cu and 1.72 Mlb Mo at a copper grade of 0.23% and 85.0% recovery. Taseko has a multi-year permit for exploration north and northwest of the mine. They reported about 4000 m of mostly diamond drilling in 2020.

At the **Highland Valley** mine, production to the end of the third quarter totalled 85.4 Mlb Cu and 2.8 Mlb Mo at a copper

grade of 0.28% and 86.0% recovery. Teck Resources Limited plans to return to the Bethlehem pit, which was last active in 1982. An expansion project has a Mines Act permit and the project is at the pre-feasibility stage. If implemented, it could extend mine life 13 years (to 2040) or beyond and raise the average production rate to 175,000 tpd.

At the **New Afton** mine, production to the end of the third quarter totalled 53.6 Mlbs copper and 47,858 oz Au from 4.119 Mt of ore grading 0.72% Cu and 0.45 g/t Au. Metal recoveries averaged 82% for Cu and 80.0% for Au. Underground drilling included delineation of the East Extension zone. Surface drilling started in late October on the Cherry Creek trend, 3 km west of the mine's mill. Phase 1 is a 10,000 m program to test both epithermal and porphyry targets along a 12 km trend.

3.2. Coal mines

Seven coal mines (Fig. 1; Table 3) accounted for a forecast production of \$3.97 billion for 2020. This production represents about 43% of all total mineral output in the province. Coal was produced at four large open-pit operations of Teck Coal Limited in southeastern British Columbia and three open-pit operations of Conuma Coal Resources Limited in northeastern British Columbia. Conuma Coal Resources Limited's **Willow Creek** mine in the northeast, ceased operations in Q2 of 2020.

3.3. Industrial minerals, aggregates, and jade

About 30 industrial mineral mines and more than 1000 aggregate operations are active in British Columbia (selected operations are listed in Table 4). With forecast production figures for industrial minerals of \$430 million (5.4% of total mineral production) and for aggregates of \$500 million (4.6% of total mineral production), these operations are important to the economy of the province. British Columbia produces the world's best quality nephrite jade. The Northwest Region was the most active for jade producers.

In the Northeast Region, Fireside Minerals Ltd. mines veins of massive white barite. The barite is crushed and bagged on site and trucked to Fort St. John and Alberta for use in the drilling industry. In the South Central Region, industrial mineral commodities produced include roofing granules (from basalt), limestone, dimension stone, opal, railway ballast, diatomaceous earth, and zeolite. The Southeast Region hosts several industrial mineral mines, the largest of which are in the Rocky Mountain foreland belt. Commodities produced include magnesite, silica, gypsum, graphite, mineral wool, and abrasives. In the Southwest Region a number of operations remained in steady production and continue to be a major employer.

4. Mine development projects

As used herein, the term 'mine development projects' refers to those where the decision to produce has been made, necessary permits have been acquired, financing has been secured, and on-site construction has started. In 2020, only

Table 3. Operating coal mines, 2020, forecast mine production, reserves, and resources.

Mine	Region	Operator (partner)	Commodity; deposit type; MINFILE	Forecast 2020 Production (based on Q1-Q3)	Reserves	Resource	Comments
Brule	Northeast	Conuma Coal Resources Limited	PCI; Bituminous coal; 093P 007	2.1 Mt	P+Pr: 12.26 Mt	na	About 230 employees.
Willow Creek	Northeast	Conuma Coal Resources Limited	HCC, PCI; Bituminous coal; 093O 008	700,000 t	P+Pr: 11.04 Mt	na	Placed on care and maintenance in July.
Wolverine	Northeast	Conuma Coal Resources Limited	HCC; Bituminous coal; 093P 025	1.19 Mt	P+Pr: 26.99 Mt	na	About 300 employees, mine and plant.
Elkview	Southeast	Teck Coal Limited (95%); Nippon Steel & Sumitomo Metal Corp. (2.5%), POSCO (2.5%)	HCC; Bituminous coal; 082GNE017	6.672 Mt clean	P: 11.9 Mt Pr: 258.0 Mt	M: 320.9 Mt I: 146.8 Mt Inf: 219.0 Mt	Baldy Ridge Extension (BRE) approved (2016); exploration drilling in active pits and expansion areas; coal quality testwork; P+Pr reserves expected to support approximately 36 more years at current production rate.
Fording River	Southeast	Teck Coal Limited	HCC; Bituminous coal; 082JSE012	6.156 Mt clean	P: 74 Mt Pr: 191.2 Mt	M: 418.3 Mt I: 921.6 Mt Inf: 711.3 Mt	Exploration drilling in active pits and Castle Mountain expansion area; coal quality testing; geophysical work; Project description submitted for provincial and federal environmental assessment reviews of Castle Mountain project; water treatment facility commissioned in Q4; P+Pr reserves are projected to support 43 years of mining at current production rate.
Greenhills	Southeast	Teck Coal Limited (80%); POSCAN (20%)	HCC Bituminous coal; 082JSE007	4.918 Mt clean	P: 11.6 Mt Pr: 283.4 Mt	M: 179.5 Mt I: 227.6 Mt Inf: 168.5 Mt	Cougar Pit Expansion (CPX) approved (2016); exploration drilling in expansion areas; coal quality testing; P+Pr reserves are projected to support another 50 years of mining at current planned production rates.
Line Creek	Southeast	Teck Coal Limited	HCC, TC; Bituminous coal; 082GNE020	3.170 Mt clean	HCC P: 3.2 Mt Pr: 41.9 Mt TC P: 0.5 Mt Pr: 12.7 Mt	HCC M: 305.1 Mt I: 405.3 Mt Inf: 417.9 Mt TC M: 7.2 Mt I: 5.8 Mt Inf: 3.3 Mt	Burnt Ridge Extension (BRX) approved (2016); exploration drilling and coal quality test work in expansion areas; first active water treatment facility commissioned (2016); P+Pr reserves at Line Creek are projected to support another 15 years of mining at planned production rates.

HCC = hard coking coal; PCI = pulverized coal injection; TC = thermal coal; ULV = ultra low volatile
P = Proven; Pr = Probable; M = Measured; I = Indicated; Inf = Inferred

Table 4. Selected operating industrial mineral mines and quarries, 2020, forecast mine production, reserves, and resources.

Mine	Region	Operator (partner)	Commodity; deposit type; MINFILE	Forecast 2020 Production (based on Q1-Q3)	Reserves	Resource	Comments
Anyox	Northwest	True-Grit Abrasives	Slag steel	80,000 t	na	na	Slag is mined, cleaned, and barged for roofing and sand for sand blasting.
Cassiar Jade	Northwest	Dynasty Jade Ltd.	Nephrite jade; Gems and semi-precious stones; 104P 005	unknown	na	na	Placer production; reclaiming jade from Cassiar mine asbestos stockpiles.
Kaien Creek	Northwest	Terus Construction Ltd.	Industrial rock; Crushed rock	unknown	na	na	Drilling, blasting, and crushing.
Kalum	Northwest	Kalum Quarry Ltd.	Industrial rock; Crushed rock	unknown	na	na	Drilling, blasting, crushing, production for CN Railway and others.
Kutcho Creek Jade	Northwest	Continental Jade Ltd.	Nephrite jade; Gems and semi-precious stones; 104I 078	unknown	na	na	Mining and trenching.
Provencher	Northwest	Glenpark Enterprises Ltd.	Nephrite jade; Gems and semi-precious stones; 104I 092	unknown	na	na	Mining, trenching.
Rainbow Lake South	Northwest	Spring Creek Aggregates Ltd.	Industrial rock; Crushed rock	unknown	na	na	Drilling, blasting, crushing, production for CN Railway and LNG projects.
Ridley Island	Northwest	Terus Construction Ltd.	Industrial rock; Crushed rock	unknown	na	na	Drilling, blasting, crushing, production for CN Railway and LNG projects.
Robinson Lake Trail	Northwest	Haisla & Progressive Ventures Construction Ltd.	Industrial rock; Crushed rock	unknown	na	na	Drilling, blasting, crushing, production for CN Railway and LNG projects.
Sand Hill	Northwest	Terus Construction Ltd.	Industrial rock; Crushed rock	unknown	na	na	Crushing for CN Railway and LNG projects.
Fireside	Northeast	Fireside Minerals Ltd.	Barite; Vein barite; 094M 003, 19	na	na	na	Product is bagged and trucked to Fort St. John and to Alberta, where it is used to produce high-density drilling mud.

Table 4. Continued.

Ashcroft	South Central	IG Machine and Fibers Ltd. (IKO Industries Ltd.)	Basalt (roofing granules); 092INW104	300,000 t (approx. target)	na	Approx. 13.3 Mt in 2002	Typically mines 500,000 t with 60% processed into granule products.
Bromley Creek (Zeotech)	South Central	Absorbent Products Ltd. (owner International Zeolite Corp.)	Zeolite; Open system zeolites; 092HSE243	na	na	M+I: (as of 2013-06-30) 550,000 t	
Bud	South Central	Absorbent Products Ltd.	Bentonite; 092HSE162	na	na	na	
Falkland	South Central	Lafarge Canada Inc.	Gypsum; 082LNW001	na	na	na	Finding alternate uses since closure of Lafarge's Kamloops cement plant.
Kettle Valley Quarries	South Central	Kelowna Sand and Gravel Ltd./Kettle Valley Stone Company	Ashlar, flagstone, thin veneer; 082ENW109, 111, 112	na	na	na	
Klinker	South Central	Opal Resources Canada Inc.	Opal; 082LSW125	Intermittent operation	na	na	
Nazko	South Central	Can Lava Mining Corporation	Lava Rock; Cinder cone; 093B 060	na	na	Historical: 45 Mt	1998 resource estimate. Exploration permitted on adjacent property.
Red Lake	South Central	Absorbent Products Ltd.	Diatomaceous earth; Lacustrine diatomite; 092INE081	na	na	na	
Z-1	South Central	Progressive Planet Solutions Inc.	Zeolite; Open system zeolites; 092INW095	na	na	Approx. 800,000 t	Historical resource.
Elkhorn	Southeast	CertainTeed Gypsum Canada Inc.	Gypsum, anhydrite; Bedded gypsum; 082JSW021	Gypsum: 300,000 t Anhydrite: 120,000 t	na	na	Mine expected to remain open until 2023; the company will replace production by developing the Kootenay West mine (EAO certificate granted in 2018).

Table 4. Continued.

Horse Creek Silica	Southeast	HiTest Sand Inc.	Silica; Silica sandstone; 082N 043	na	na	Estimated: 3 Mt at 99.5% silica (1987)	Seasonal quarry; variety of aggregate and industrial use products; amending quarry permits; mine planning; geotechnical and environmental baseline studies.
Mount Brussilof	Southeast	Baymag Inc.	Magnesite; Hydrothermal sparry magnesite; 082JNW001	230,000 t	P: 50 Mt	na	MgO, and MgOH; sediment-hosted sparry magnesite.
Winner	Southeast	Rockwool Inc.	Gabbro/basalt; Crushed rock for mineral wool; 082ESE265	Quarrying feed stock for mineral wool plant	na	na	Crushing, screening, stockpiling; environmental monitoring.
Blubber Bay	Southwest	CRH Canada Group Inc.	Limestone, dolostone; Limestone; 092F 479	Up to 75,000 t Dolostone annually	na	100+ years	Opens for contracts.
Cox Station	Southwest	Mainland Construction Materials	Aggregate; Crushed rock; 092GSE103	Approx. 2-3 Mtpy	na	na	
CTCT	Southwest	Vancouver Island Marble Quarries Ltd.	Marble; Limestone; 092E 020	Typically, about 400 t annually	na	na	Supplies Matrix Marble and Stone Inc.
Earle Creek	Southwest	Lafarge Canada Inc.	Sand and Gravel	Typically >1 Mtpy	na	na	Supplies Matrix Marble and Stone Inc.
Garibaldi Pumice (Vulcan/Salal)	Southwest	Garibaldi Pumice Ltd.	Pumice; Volcanic ash; 092JW 039	10,000 m ³ , in anticipation of lower demand	na	11,396,000 m ³ pumice 4,990,000 m ³ pumicite (fines)	2014 resource. Additional exploration 2015, 2018, 2019.
Imperial Limestone	Southwest	Imperial Limestone Co. Ltd.	Limestone; Limestone; 092F 394	Approx. 600,000 t	na	na	
K2	Southwest	K2 Stone Quarries Inc.	Dimension stone, flagstone; 092C 159	15,000-20,000 t annually	na	na	Production number represents material extracted.
Orca	Southwest	Polaris Minerals Corporation (US Concrete Inc. and Namgis First Nation)	Sand and Gravel	Up to 6 Mtpy	na	na	Planning increased production.
Pitt River	Southwest	Lafarge Canada Inc.	Aggregate; Crushed rock; 092GSE007	Typically >1 Mtpy	na	na	
Sechelt	Southwest	Lehigh Hanson Materials Limited	Sand and Gravel	Typically 5-6 Mtpy	na	Several decades	

Table 4. Continued.

Sumas Shale	Southwest	Sumas Shale Ltd. (Lafarge Canada Inc., Clayburn Industrial Group)	Shale, clay, sandstone; Residual kaolin; 092GSE024	About 500,000 t annually	na	50+ years	Approximately 55% shale, 45% sandstone for cement production.
Texada Quarry	Southwest	Texada Quarrying Ltd. (Lafarge Canada Inc.)	Limestone, aggregate; Limestone; 092F 395	Typically, approx. 3.5 Mtpy	na	100+ years	Mostly produces limestone for cement manufacture.
Treat Creek	Southwest	Lehigh Hanson Materials Limited	Aggregate; Crushed rock	Approx. 500 ktpy	na	na	

P = Proven; Pr = Probable; M = Measured; I = Indicated; Inf = Inferred

CertainTeed Gypsum Canada Inc.'s **Kootenay West** project (Fig. 1; Table 5) was considered under development.

4.1. Kootenay West (CertainTeed Gypsum Canada Inc.)

CertainTeed Gypsum's **Kootenay West** project is a new gypsum mine under construction in the Southeast Region. The operation plans to produce 400,000 tpy over a 42-year mine life.

5. Selected proposed mine or quarry projects

Projects at the proposed mine or quarry (or mine evaluation) stage have a resource defined or largely defined and are at least preparing to submit a project description to initiate the environmental assessment process or are waiting on permit amendments. Projects that have permits in place but have yet to obtain financing to begin site construction are also considered to be at the proposed stage. Selected projects (Fig. 1; Table 6) discussed below are grouped by region and commodity types.

5.1. Northwest Region

Proposed metal mines include Blue Lagoon Resources Inc.'s **Dome Mountain** project, Galore Creek Mining Corporation's **Galore Creek** project, Seabridge Gold Inc.'s **KSM** project,

Kutcho Copper Corp.'s **Kutcho** project and Ascot Resources Ltd.'s **Premier** and **Red Mountain** projects. Telkwa Coal Ltd., a subsidiary of Allegiance Coal Ltd., is proposing to develop the **Tenas** coal mine project.

5.1.1. Proposed metal mines

The **Dome Mountain** gold project is operated by Blue Lagoon Resources Inc. The project contains an Indicated resource of 227,276 t grading 10.71 g/t Au and Inferred resources of 530,183 t grading 7.52 g/t Au (with a cut and fill method at 3.42 g/t Au cut-off; Blue Lagoon Resources Inc., 2020). The project currently holds both an Environmental Management Act Permit and a Mining Permit, providing for an annual production of up to 75,000 t. The company entered into a milling agreement with Nicola Mining Inc. in which ore will be trucked for processing at a mill west of Merritt.

The **Galore Creek** gold-copper project is operated by the Galore Creek Mining Corporation (GCMC). Ownership of GCMC is equally split between Teck Resources Limited and Newmont Corporation. Newmont purchased 50% interest from Novagold Resources Inc. in July 2018. The project contains a Measured plus Indicated resource of 1.103 Bt grading 0.47% Cu, 0.26 g/t Au, and 4.2 g/t Ag, with an additional Inferred

Table 5. Mine development projects.

Mine	Region	Operator (partner)	Commodity; deposit type; MINFILE	Reserves	Resource	Comments
Kootenay West	Southeast	CertainTeed Gypsum Canada Inc.	Gypsum; Evaporitic bedded gypsum; 82JSW005, 20	na	North and South quarries: Total 16.9 Mt (at average quality of 83-85%)	Mine construction; granted a conditional EA certificate in January 2018; environmental baseline and geotechnical work, permitting, and modifications to mine design; construction began in 2019; 400,000 tpy; 43-year mine life.

Table 6. Selected proposed mine projects.

Project	Region	Operator (partner)	Commodity; deposit type; MINFILE	Reserves	Resource	Comments
Dome Mountain	Northwest	Blue Lagoon Resources Inc.	Au, Ag; Au-quartz veins; 093L 276	na	I: 227 kt 10.09 g/t Au Inf: 530 kt 7.52 g/t Au (resource based on cut and fill)	Preliminary Economic Assessment filed in July 2020; 3700 m drilling; property-wide airborne radiometric, electromagnetic, and magnetic surveys completed.
Galore Creek	Northwest	Galore Creek Mining Corporation (Teck Resources Limited (50%), Newmont Goldcorp Corporation (50%))	Cu, Au, Ag; Alkaline porphyry; 104G 090	P+Pr: 528 Mt 0.59% Cu, 0.32 g/t Au, 6.02 g/t Ag	M+I: 1.103 Bt 0.47% Cu, 0.26 g/t Au, 4.2 g/t Ag Inf: 198 Mt 0.27% Cu, 0.21 g/t Au, 2.7 g/t Ag	Baseline environmental sampling continued. Exploration deferred because of Covid-19 pandemic.
KSM	Northwest	Seabridge Gold Inc.	Cu, Au, Ag, Mo; Calc-alkalic porphyry; 104B 191	P+Pr: 2.198 Bt 0.55 g/t Au, 0.21% Cu, 2.6 g/t Ag, 42.6 g/t Mo	M+I: 3.04 Bt 0.52 g/t Au, 0.21% Cu, 2.8 g/t Ag, 48 g/t Mo Inf: 4.60 Bt 0.38 g/t Au, 0.32% Cu, 2.2 g/t Ag, 29 g/t Mo (Total for KSM deposits)	Prefeasibility Study and Preliminary Economic Assessment update filed in April 2020. 4000 m of geotechnical drilling completed on Mitchell Treaty tunnels.
Kutcho	Northwest	Kutcho Copper Corp.	Cu, Pb, Zn; Noranda/ Kuroko VMS; 104I 060	P+Pr: 10.4 Mt 2.01% Cu, 3.19% Zn, 34.61 g/t Ag, 0.37 g/t Au	M+I: 17.26 Mt 1.85% Cu, 2.72% Zn, 0.49 g/t Au, 33.9 g/t Ag Inf: 10.71 Mt 1.18% Cu, 1.76% Zn, 0.26 g/t Au, 21.5 g/t Ag	Reserves collected from 2017 Prefeasibility Study and resources updated separately in 2019. Feasibility Study has begun and will be completed by the second quarter in 2021.
Red Mountain	Northwest	Ascot Resources Ltd.	Au, Ag; Subvolcanic and precious metal veins; 103P 086	na	M+I: 3.19 Mt 7.63 g/t Au, 21.02 g/t Ag Inf: 0.41 Mt 5.32 g/t Au, 7.33 g/t Ag	Feasibility Study filed in May 2020.
Tenas	Northwest	Allegiance Coal Ltd. (95%), Itochu Corp. (5%)	PCI; Bituminous coal; 093L 156	P+Pr: 62.9 Mt coal	na	Entered provincial environmental assessment in November of 2018 proposed to produce about 775,000-825,000 t of metallurgical coal annually, with a mine-life of 22 years.

Table 6. Continued.

Murray River	Northeast	HD Mining International Ltd.	Coal; Bituminous; 093I 035	P: 261.6 Mt mineable coal	M+I: 314.2 Mt Coal in situ Inf: 373.9 Mt Coal in situ	Provincial and Federal EA certificates in place. Mine plan and reclamation program approved April 2018. Would produce 6 Mtpy from two longwall faces over 25-year mine life with 764 direct jobs.
Sukunka	Northeast	Glencore Canada Corporation	Coal; Bituminous; 093P 014	na	145.0 Mt Coal in situ	20+ year mine life at 1.5-2.5 Mt saleable coal per year, 250 permanent jobs once operational. Permitting in progress.
Wapiti East	Northeast	Fertoz International Inc.	P ₂ O ₅ ; Sedimentary phosphate deposits; 093I 008, 22, 15	na	I+Inf: 1.54 Mt 21.6% P ₂ O ₅	Permitting in progress. Proposed seasonal shallow open pit mine with annual production of less than 75,000 t over a +20year mine life.
Aley	North Central	Taseko Mines Ltd.	Nb; Carbonatite-hosted; 094B 027	P+Pr: 83.8 Mt 0.50% Nb ₂ O ₅ (at 0.30% Nb ₂ O ₅ cut-off)	M+I: 285.8 Mt 0.37% Nb ₂ O ₅ (at 0.20% Nb ₂ O ₅ cut-off)	Proposed open-pit mine with 10,000 tpd ore processing rate and average annual production of 9000 t Nb over a 24-year mine life.
Blackwater Gold	North Central	Artemis Gold Inc.	Au, Ag; Epithermal Au-Ag-Cu (intermediate sulphidation); 093F 037	P+Pr: 334.4 Mt 0.75 g/t Au, 5.8 g/t Ag at a 0.20 g/t AuEq cut-off containing 8.0 Moz Au, 62.3 Moz Ag	M+I: 597 Mt (including reserves) 0.61 g/t Au, 6.4 g/t Ag at a 0.20 g/t AuEq cut-off containing 11.7 Moz Au, 122.4 Moz Ag	Federal and Provincial Environmental Assessment certificates in place. Project acquired by Artemis from New Gold Inc. for approximately \$210 million. A 35,000 m grade control reverse circulation drill program began in late fall.
Giscome	North Central	Graymont Western Canada Inc.	CaCO ₃ ; Limestone; 093J 041, 25	na	I: >100 Mt of limestone (>95% calcium carbonate, <5% magnesium carbonate) in situ	Environmental Assessment in place. Proposed 600,000 tpy limestone quarry to feed a vertical lime kiln producing 198,000 t of lime annually over a 50+ year mine life.
Kemess Underground (KUG)	North Central	Centerra Gold Inc.	Cu, Au, Ag; Porphyry Cu±Mo±Au; 094E 021	Pr: 107.38 Mt 0.27% Cu, 0.54 g/t Au, 1.99 g/t Ag containing 629.6 Mlbs Cu, 1.87 Moz Au, 6.88 Moz Ag	I: 173.7 Mt (including reserves) 0.182% Cu, 0.3 g/t Au, 1.55 g/t Ag containing 1195 Mlbs Cu, 3.33 Moz Au, 13.87 Moz Ag	Permitted, proposed underground panel cave mine with 24,600 tpd ore processing rate and life-of-mine average annual production of 106,000 oz Au and 47 Mlbs Cu over a 12-year mine life.
Ajax	South Central	KGHM Ajax Mining Inc. (KGHM Polska Miedz SA 80%, Abacus Mining and Exploration Corporation 20%)	Cu, Au; Alkalic porphyry; 092INE012, 13	P+Pr (NSR cut-off US\$7.10/t): 426 Mt 0.29% Cu, 0.19 g/t Au, 0.39 g/t Ag	M+I (NSR cut-off US\$7.10/t): 568 Mt 0.26% Cu, 0.18 g/t Au, 0.35 g/t Ag	Environmental certification denied by provincial (2017) and federal ministers (2018). Proponents are investigating a possible re-submission.

Table 6. Continued.

Cariboo Gold	South Central	Osisko Development Corp.	Au; Au-quartz veins; 093H 140, 139, 19, 6	na	M+I: 21.441 Mt 4.6 g/t Au Inf: 21.649 Mt 3.9 g/t Au	Updated project description has average production rate of 4750 tpd and mine life up to 15 years. Ongoing exploration drilling.
New Prosperity	South Central	Taseko Mines Limited	Cu, Au; Porphyry; 092O 041	P+Pr (NSR cut-off \$5.50/t): 831 Mt 0.23% Cu, 0.41 g/t Au containing (recoverable) 3.6 Blb Cu, 7.7 Moz Au	M+I: 1010 Mt 0.24% Cu, 0.41 g/t Au (at 0.14% Cu cut-off)	Granted provincial environmental certificate and time extensions but denied federal approval. Taseko and T̓silhqot̓'in Nation in discussion.
Ruddock Creek	South Central	Ruddock Creek Mining Corporation (Imperial Metals 45.3%, Mitsui Mining and Smelting Co. 30%, ITOCHU Corp. 20%, JOGMEC 4.7%)	Pb, Zn, Ag; Broken Hill-type; 082M 082	na	M+I: 6.2 Mt 6.50% Zn, 1.33% Pb Inf: 6.678 Mt 6.33% Zn, 1.20% Pb (resources at a 4.0% Pb+Zn cut-off)	Project at environmental assessment pre-application stage. Feb. 2013 resource, prior to 2018-2019 drilling.
Bingay Main	Southeast	Centermount Coal Ltd.	Coal; Bituminous coal; 082JSE011	na	na	Pre-application stages of EA; letter submitted for project to remain in EA.
Black Crystal	Southeast	Eagle Graphite Corp.	Graphite; Crystalline flake graphite; 082FNW260, 283	na	Regolith + calcsilicate; M+I: 19.23 Mt at 1.35% fixed carbon Inf: 23.92 Mt at 1.3% fixed carbon (2018)	Research and development; possible application for Li-ion batteries.
Crown Mountain	Southeast	NWP Coal Canada Limited (Jameson Resources Limited (80%), Bathurst Resources Limited (20%))	Coal (HCC and PCI); Bituminous coal; 082GNE018	HCC: P: 42.60 Mt Pr: 4.91 Mt PCI: P: 7.13 Mt Pr: 1.19 Mt (2014)	HCC+PCI: M: 68.9 Mt I: 6.0 Mt (2014)	Pre-application of EA (2014); Application Information Requirements (AIR; 2018); water quality and treatment studies; engineering studies and mine design; bankable feasibility study; 15-year mine life; 3.7 M tpy.

Table 6. Continued.

Driftwood Creek	Southeast	MGX Minerals Inc.	Magnesite; Sparry magnesite; 082KNE068	na	M+I: 7.847 Mt 43.27% MgO Inf: 55.8 Mt (2016; using cut-off grade of 42.5% MgO)	1200 tpd quarry proposed; 169,700 t of MgO, average grade of 43.27% MgO, 19-year mine life; environmental baseline and engineering studies; preliminary test work indicates recovery rates of 93.4% reverse flotation and removal of up to 70% silica and 30% calcium oxides; bulk of resource is within 100 m of surface.
Michel Coal	Southeast	North Coal Limited	Coal (HCC and PCI); Bituminous coal; 082GSE050	na	HCC: M: 44.6 Mt I: 42.5 Mt open-pit and underground (2015)	Entered pre-application of EA in 2015; received AIR requirements in September 2020; geotechnical studies and updates to mine design; coal quality testing indicates coal has similar characteristics to Elk Valley hard coking coal; environmental baseline and mine design.
Black Bear and Orca	Southwest	Polaris Materials Corporation (US Concrete, Inc. and Namgis First Nation)	Aggregate; na	na	20 years (proposed life)	Orca environmental certificate amendment application. Proposed 250,000 tpy near the Orca quarry revised to 3-4 Mtpy.
BURNCO Aggregate	Southwest	BURNCO Rock Products Ltd.	Aggregate; Sand and gravel; na	na	Approx. 20 Mt	Has environmental certification, would require Mines Act and other permits.
Sechelt Carbonate	Southwest	Ballinteer Management Inc.	Limestone, dolostone, aggregate; Limestone, dolomite, crushed rock; 093GNW031	na	Carbonate rock: 76.1 Mt Gabbro: >700 Mt	Proponent requests project remain in environmental assessment preapplication stage.

HCC = hard coking coal; PCI = pulverized coal injection; TC = thermal coal; P = Proven; Pr = Probable; M = Measured; I = Indicated; Inf = Inferred

resource of 198 Mt grading 0.27% Cu, 0.21 g/t Au, and 2.7 g/t Ag (Teck Resources Limited, 2020). Although environmental baseline sampling continued, the company did not conduct exploration in 2020 because of the Covid-19 pandemic.

The **KSM** project is operated by Seabridge Gold Inc. and consists of four porphyry Cu-Au deposits: Kerr, Sulphurets, Mitchell, and Iron Cap. It is the largest undeveloped gold project in the world by resources: the total KSM Measured and Indicated resource is 3.04 Bt grading 0.52 g/t Au, 0.21% Cu, 2.8 g/t Ag, and 0.0048% Mo and an Inferred resource of 4.59 Bt grading 0.38 g/t Au, 0.32% Cu, 2.4 g/t Ag, and 0.0029%

Mo (Seabridge Gold Inc., 2020). A Preliminary Economic Assessment published in April proposes a mine life of 44 years producing 27.6 Moz Au and 17.0 Blbs Cu. The initial capital for mine construction and development is \$5.2 billion, with a four-year payback period. This year no exploration was done on the project, although 4000 m of geotechnical drilling was completed along the proposed route of the Mitchell Treaty tunnels, which will serve to supply consumables and electricity to the mine and transfer ore to the mill.

Kucho Copper Corp.'s **Kutch** project has Measured and Indicated resources of 17.3 Mt grading 1.85% Cu, 2.72% Zn,

0.49 g/t Au, and 33.9 g/t Ag and with an Inferred resource of 10.7 Mt at 1.18% Cu, 1.76% Zn, 0.26 g/t Au, and 21.5 g/t Ag. The company entered the environmental assessment process late in 2019 and has received a Section 11 Order that defines the scope of the assessment and the Indigenous Nations that the company will engage with.

The **Premier** project is operated by Ascot Resources Ltd. with an Indicated resource of 4.14 Mt grading 8.01 g/t Au, 35.1 g/t Ag and an Inferred resource of 5.06 Mt grading 7.25 g/t Au, 28.7 g/t Ag. Ascot is targeting construction to begin as early as 2021. Major projects will include mill refurbishment, construction of a tailings dam and water treatment plant, and underground development. Recently a SAG and Ball mill was bought for \$6.5 million and is expected to be delivered to the site at the end of the second quarter of 2021. In the last two years, the company completed additional environmental baseline monitoring and collected data for supporting permit amendments to the Mines Act (originally issued in 2018), the Environmental Management Act, and several ancillary permits. Construction depends on receiving these approvals. The company targeted permit amendments and submission to the province in the fourth quarter of 2020.

The **Red Mountain** project is a proposed high-grade underground gold mine. The project has both provincial and federal Environmental Assessment Certificates. The project was purchased by Ascot Resources from IDM Mining in 2019 for \$45 million. Earlier this year a Feasibility Study was completed. Red Mountain is estimated to contain Measured and Indicated resources of 3.19 Mt grading 7.63 g/t Au and 21.02 g/t Ag and an additional Inferred resource of 405,000 t grading 5.32 g/t Au and 7.33 g/t Ag (reported at 3.0 g/t Au cut-off for long hole stoping). Proven plus Probable reserves are reported as 2.54 Mt at 6.52 g/t Au, 20.60 g/t Ag.

5.1.2. Proposed coal mines

Telkwa Coal Ltd., a subsidiary of Allegiance Coal Ltd., is proposing to develop the **Tenas** project, which is 25 km south of Smithers and 7 km southwest of the community of Telkwa. Itochu Corp. has a 5% interest. The Telkwa coalfield produced 433,000 t of thermal coal from rocks of the Skeena Group (Early Cretaceous) between 1918 and 1970. Currently there are four separate pits on approximately 1050 ha, where the current focus is the Tenas pit. The project has entered the provincial Environmental Assessment process. It is estimated that the project would produce approximately 775,000-825,000 t of steelmaking coal annually with a mine-life of about 25 years. In 2017, the company released a reserve estimate of Proven plus Probable reserves of 62.9 Mt of coal. This year, no exploration was completed. In June, Allegiance Coal Ltd. and the Environmental Assessment Office held a virtual open house to explain the environmental assessment process and to answer questions from the public.

5.2. Northeast Region

Proposed mines in the Northeast Region include HD Mining

International Ltd.'s **Murray River** and Glencore Canada Corporation's **Sukunka** coal projects. Fertoz International Inc. proposes the **Wapiti East** industrial mineral mine (phosphate).

5.2.1. Proposed coal mines

Murray River is a proposed underground mine that would extract metallurgical coal from the Gates Formation. In 2015, HD Mining International Ltd. completed bulk sampling for testing coal quality, processing, and marketability. In April 2018, the company received its Mines Act permit. An adit, driven to collect the bulk sample in 2015 but also to be used for the mining conveyor, descends 1.3 km down a decline. Two vertical shafts are to be completed, one for moving staff and equipment, and the other for ventilation. HD Mining plans to construct its own wash plant and use existing rail facilities. The project is expected to provide about 764 jobs in direct employment during a 25-year mine life. In 2020, HD Mining applied for and received an Environmental Act Certificate extension to October 2025. Murray River awaits a final investment decision by HD Mining's parent company, China Huiyong Holdings.

Glencore Canada Corporation and JX Nippon Oil and Energy Corporation's **Sukunka** project has been planned as both an open-pit and underground operation. The project is listed on The British Columbia Environmental Assessment Office website as 'in progress'.

5.3. North Central Region

There are four proposed mines in the North Central Region. Three are proposed metal mines and include, Taseko Mines Ltd.'s **Aley** Niobium project; Artemis Gold Inc.'s **Blackwater** Au-Ag project and Centerra Gold Inc.'s Cu-Au-Ag **Kemess Underground** project. Graymont Western Canada Inc.'s **Giscome** project is a proposed industrial mineral mine (limestone).

5.3.1. Proposed metal mines

Taseko Mines Ltd.'s wholly-owned **Aley** niobium-bearing carbonatite project is near the western extremity of platformal strata. The carbonatite intrusion is oval in map view, measuring about 2.0 by 2.8 km. Within that body, reserves stand at 84 Mt grading 0.5% Nb₂O₅. An open-pit mine is proposed, processing 10,000 tpd and producing ferroniobium. The projected mine life is 24 years with an output of about 9 Mkg of niobium annually, making it among the largest niobium deposits in the world. Environmental assessment is underway. In 2020, Taseko continued with technical work, environmental monitoring, and product marketing initiatives.

Artemis Gold Inc. acquired the **Blackwater Gold** project from New Gold Inc. for approximately \$210 million. At a 0.20 g/t AuEq cut-off, the total Measured and Indicated mineral resource is estimated at 597 Mt at 0.65 g/t AuEq (0.61 g/t Au, and 6.4 g/t Ag), for a total of 12.4 million AuEq oz. Revised pre-feasibility study results included an unlevered after-tax Net Present Value of \$2.2 billion, an after tax Internal Rate of

Return of 35% and payback on initial capital costs of two years. The project has both provincial and federal Environmental Assessment approval. BW Gold Ltd. (a wholly owned subsidiary of Artemis) plans to start construction in Q2, 2022. The project is accessible by existing roads, but development would require construction of a 140-km power transmission line from a substation south of the community of Endako. In the fall, Artemis began a planned 35,000 m reverse circulation grade control drill program and continued with metallurgical test work.

Centerra Gold Inc.'s **Kemess Underground (KUG)** project is estimated to contain an Indicated resource of 173.7 Mt grading 0.182% Cu, 0.3 g/t Au, and 1.55 g/t Ag. Within this resource are Probable reserves of 107.4 Mt grading 0.27% Cu, 0.54 g/t Au, and 1.99 g/t Ag. The former Kemess South mine closed in 2011. However, infrastructure remains in place, and both the camp and ore processing plant will be used to service KUG, which is about 6.5 km north of the former processing plant. KUG is considered a stand-alone operation, to be mined by panel caving, with crushed ore conveyed underground to the processing plant. Processing rate would be 24,600 tpd with a life of mine average production of 106,000 oz Au and 47 Mlbs Cu over a 12-year mine life. **Kemess East (KE)**, about 1 km east of KUG, is an underground operation that could be integrated into the KUG project and use facilities developed for KUG. KE has an Indicated resource of 177.5 Mt grading 0.36% Cu, 0.4 g/t Au, and 1.97 g/t Ag and an Inferred resource of 29.3 Mt grading 0.314% Cu, 0.3 g/t Au, and 2.00 g/t Ag. The KUG project has approval for development, but Centerra has not declared a timeline.

5.3.2. Proposed industrial mineral mines or quarries

At their **Giscome** limestone project, Graymont Western Canada Inc. plans to exploit a high-purity Paleozoic limestone deposit. Crushed stone would be transported about 5 km by conveyor to lime kilns at a former stone quarry, owned and operated by CN Rail, in the community of Giscome. An existing CN Rail line would be used for transporting the product. The project has environmental assessment approval but, due to weak markets for lime in the region, Graymont has not yet decided to initiate construction.

5.4. South Central Region

Proposed mine projects in the South Central Region include KGHM Ajax Mining Inc.'s **Ajax**, Osisko Development Corp.'s **Cariboo Gold**, Taseko Mines Limited's **New Prosperity** and, Ruddock Creek Mining Corporation's **Ruddock Creek** projects. All are metal mine projects.

5.4.1. Proposed metal mines

The **Ajax** porphyry copper-gold project, owned by KGHM Ajax Mining Inc., is an 80:20 joint venture between KGHM Polska Miedź S.A. and Abacus Mining and Exploration Corporation. A revised feasibility study released in 2016 modelled Ajax as a 65,000 tpd open-pit mine with a projected

18-year life. In December 2017, the project was denied certification by the British Columbia Ministries of Environment and Climate Change Strategy and Energy, Mines and Petroleum Resources. In June 2018, the Ministers of Natural Resources and Fisheries, Oceans and the Canadian Coast Guard denied federal certification. Although KGHM Ajax has not announced plans for the site, Abacus issued an update stating that the project remains a priority and that they have begun re-engaging potentially affected groups and are considering whether to reapply for environmental certification.

Barkerville Gold Mines Ltd., operator of the **Cariboo Gold** project, became a subsidiary of Osisko Gold Royalties Ltd. in 2019. In 2020, Osisko placed the project in a new company, Osisko Development Corp. and raised funds to advance its projects. The project entered the early engagement phase of the provincial environmental assessment process in 2019. In 2020, Osisko submitted a revised project description to the British Columbia Environmental Assessment Office. Proposed average production rate is 4750 tpd with a projected mine life up to 15 years. Revised resource estimates in all zones at a 2.1 g/t Au cut-off total was 21.441 Mt at 4.6 g/t Au in Measured and Indicated categories, and 21.649 Mt at 3.9 g/t Au in Inferred category. A concentrator on site would serve as a pre-concentrator to reduce transportation costs to the QR mill, 111 km away. Tailings generated at the mine site would be disposed of as paste backfill; tailings at the mill site would be dry stacked. The QR mill currently has a capacity of 850 tpd and would require modification to process the higher feed grades of the pre-concentrated material. A large exploration project in 2020 included six to eight drill rigs late in the year. The company expects about 59,000 m in 216 core holes by the end of the year. To date, the highest-grade intersection is 6530 g/t Au along 0.50 m. An underground bulk sample is in permitting stages. It is to access Cow Mountain through a portal on the Bonanza Ledge access road and would also provide platforms for underground drilling. The former Bonanza Ledge mine is part of the Cariboo Gold project. The company expect to resume mining at Bonanza Ledge in 2021 with a two-year mine plan.

The **New Prosperity** project of Taseko Mines Limited, is a porphyry gold-copper deposit with Proven and Probable reserves of 830 Mt grading 0.42 g/t Au and 0.23% Cu. In 2014, the federal government issued a decision to deny the project. Taseko was later unsuccessful in seeking a judicial review of this decision. British Columbia extended the expiry date of the project certificate that was granted to Taseko in 2010 to early 2021. In 2017, the British Columbia Ministry of Energy, Mines and Petroleum Resources issued a permit for a detailed site investigation of the proposed mine infrastructure. The most recent activity concerning this project has been in the courts. The Tsilhqot'in Nation challenged the 2017 permit arguing the province breached its duty to consult and accommodate. In 2019, the case reached the Supreme Court of Canada, which ruled that Taseko could proceed with investigative work. However, before the work could begin, the Tsilhqot'in

Nation filed a complaint on different grounds (infringement of aboriginal rights) and a new injunction halted work. Taseko and the Tsilquot' in Nation, facilitated by the provincial government, have since agreed to suspend litigation and regulatory matters as they discuss the conflict in confidence. The **Ruddock Creek** project remains in the pre-application phase of environmental assessment. A mineral resource estimate, released in March 2012, reported 4.65 Mt grading 6.77% Zn and 1.38% Pb (Indicated) and 5.38 Mt grading 6.69% Zn and 1.31% Pb (Inferred), using a 4.0% combined Pb+Zn cut-off. Ruddock Creek Mining Corporation is the operator and manager of the joint venture (Imperial Metals Corporation 45.3%; Mitsui Mining and Smelting Co. Ltd. 30%; Itochu Corporation 20%; Japan Oil, Gas and Metals National Corporation 4.7%).

5.5. Southeast Region

Proposed mine projects in the Southeast Region include Centermount Coal Ltd.'s **Bingay Main**, NWP Coal Canada Ltd.'s **Crown Mountain** and North Coal Ltd.'s **Michel** coal projects. As well, there are two proposed industrial mineral mine projects: Eagle Graphite Corp.'s **Black Crystal** and MGX Minerals Inc.'s **Driftwood Creek** project.

5.5.1. Proposed coal mines

Centermount Coal Ltd. is proposing an open-pit mine on the **Bingay Main** property. The mine would produce approximately 1 Mtpy during an estimated 15-year lifespan, with a total resource of approximately 13 Mt. The coal is medium volatile to high volatile-A bituminous in rank. Although the project has been delayed, in 2020 the company requested that it remain in the environmental assessment process.

NWP Coal Canada limited is jointly owned by Jameson Resources Limited (80%) and Bathurst Resources Limited (20%). Their **Crown Mountain** project entered the environmental assessment process in 2014 and received Application Information Requirements in April 2018. Environmental baseline and mine design work progressed in 2020, with planned submissions for environmental assessment to both federal and provincial agencies in early 2021. A bankable feasibility study completed this year indicates that the project could produce 3.7 Mtpy during a mine life of 15 years and has an estimated net present value of \$217 million with an internal rate of return of 27.2%. Coal quality test work indicates that approximately 84% of the coal is hard coking coal, the remainder PCI coal. Environmental baseline work and geotechnical drilling continued, as did engineering work on spoil pile design and water treatment. The company is exploring the use of biological processes in anoxic waste rock piles as one means to sequester and manage selenium runoff.

North Coal Ltd., a wholly owned subsidiary of CoalMont Pty Ltd., received the Application Information Requirements (AIR) for their **Michel Coal** project in September 2020. The project will undergo both federal and provincial reviews, and will include their Loop Ridge, Loop South, Tent Mountain, and Michel Head areas, with two open pits. The project is expected

to produce between 2.3 and 4 Mt annually, with a 30-year mine life. In 2020, work on environmental baseline and monitoring, permitting, and mine design continued, in addition to trail construction for further drilling. Water treatment options being explored will use diversion, and active and passive techniques. Coal seams are 5 to 20 m thick and are characteristic of Elk Valley hard coking coals (HCC). Variations in coal quality characteristics in their different mining areas will allow them flexibility in blending product to client specifications. Structure and spacing of the seams give the project a low (~6:1) strip ratio. The resource estimate (2018) includes 44.6 Mt Measured and 42.5 Mt Indicated (open pit and underground).

5.5.2. Proposed industrial mineral mines or quarries

Eagle Graphite Corp. operates the **Black Crystal** flake graphite open-pit quarry on Hodder Creek and a processing plant 10 km west of Passmore. Disseminated fine to coarse flake graphite is distributed along foliation in organic-rich calcsilicates and marbles, across an area of about 500 m². At the quarry location, the graphitic horizon is 30-40 m thick, immediately underlying overburden, and dips sub-parallel to topography. Graphite is in two zones: a 'hard rock' zone, and an overlying 'regolith' zone. The regolith zone, reflecting near surface weathering, averages 2-4 m thick and has grades of up to 6.95% carbon. Most of the deposit is friable, and blasting is not required. Sand and aggregate are by-products.

The **Driftwood Creek** project is owned by MGX Minerals Inc. The deposit of sparry magnesite is 100 to 300 m wide to a depth of approximately 110 m, and has been traced along strike for 2000 m. The proposed quarry is a 1200 tpd operation that would produce 169,700 t of MgO at an average grade of 43.27% MgO, with a 19-year mine life. In 2020, the company continued environmental baseline studies, engineering design work, and work on a Preliminary Economic Assessment.

5.6. Southwest Region

Proposed quarries in the Southwest Region include Polaris Materials Corporation's **Black Bear**, BURNCO Rock Products Ltd.'s **BURNCO Aggregate** and Ballinteer Management Inc.'s **Sechelt Carbonate** projects.

5.6.1. Proposed quarries

Polaris Materials Corporation is including the **Black Bear project** near its **Orca** sand and gravel quarry in an Environmental Certificate amendment for Orca. If the project proceeds, it will be a source of up to 3-4 Mtpy of crushed basalt, an increase over the 250,000 tpy proposed in a 2017 project description.

The **BURNCO Aggregate Project** in the McNab Creek Valley now has environmental certification and may proceed with British Columbia Mines Act and other permitting. Fisheries and Oceans Canada concluded that the project is unlikely to cause significant environmental harm. The proposed sand and gravel mine would ramp up to a 1.6 Mtpy operation, initially barging product to BURNCO Rock Products Ltd.'s ready-mix

concrete plants in South Burnaby and Port Kells. BURNCO submitted revisions to the project in 2014, changing production rate, relocating some facilities, and specifying a mine life of 16 years.

Ballinteer Management Inc. now holds the property comprising the **Sechelt Carbonate** project. They filed engineering, archeological, and baseline environmental studies for assessment in 2016; activity was not reported for 2017-2020. The property contains resources of calcite- and dolomite-bearing carbonate rock and gabbroic rock for potential use as aggregate. The original proposal was for a 4-6 tpy carbonate quarry producing both limestone and dolostone. Product was to be shipped from a barge load out on Sechelt Inlet.

6. Exploration expenditures

In 2020, exploration expenditures, drilling estimates, and other metrics for British Columbia were captured in the British Columbia Mineral and Coal Exploration Survey. The survey is a joint initiative between the Province of British Columbia Ministry of Energy, Mines and Low Carbon Innovation, the Association for Mineral Exploration, and EY LLP. A full report will be available in March. The new survey does not capture exploration expenditures for aggregates, which had previously been done for the Southwest region only.

Total metal, industrial mineral and coal exploration expenditures are estimated at \$422.7 million for 2020, up \$93.2 million from the 2019 survey total of \$329.5 million. Of this, \$44.8 million was from coal projects and \$378.0 million was from metal and industrial mineral projects (Fig. 5). Exploration expenditures by region (Fig. 6) can be further divided into five categories: grassroots, early stage, advanced

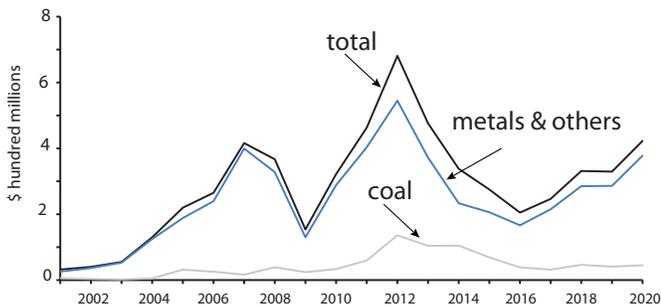


Fig. 5. Exploration expenditures per year, by type.

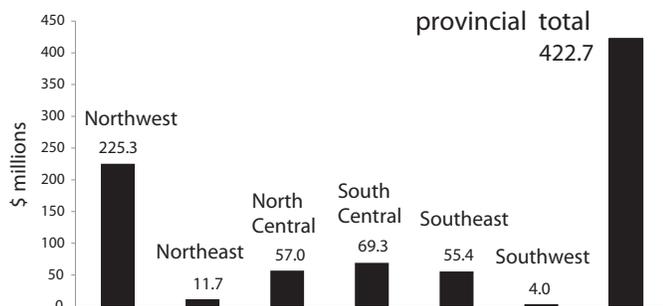


Fig. 6. 2020 exploration expenditures by region.

stage, mine evaluation, and mine lease (Figs. 7, 8). The provincial combined total for grassroots and early-stage exploration in the 2020 survey is 33.4%, down from the 2019 total of 39.8%.

The total reported metres drilled for the province was 991,350 m, up from the 2019 total of 709,730 (see Fig. 9 for regional breakdown).

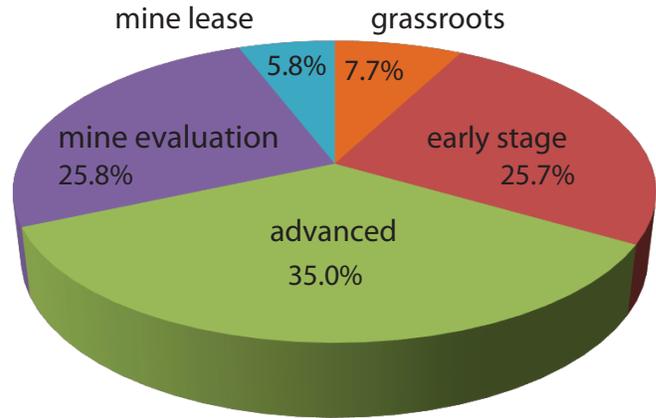


Fig. 7. 2020 exploration expenditures by category.

7. Exploration land tenure

Acquisition of new mineral claims in 2020 was down slightly compared to 2019 (Fig. 10). The total for 2020 was 1,895,560 hectares vs. 1,913,583 hectares for the previous year. New coal licenses issued in 2020 totalled 811 hectares down significantly from the 2019 total of 9045 hectares (Fig. 11).

8. Selected exploration project highlights

There was a significant increase of \$93.2 million in expenditures in 2020 compared to 2019. After initial disruptions in March, explorationists quickly adapted to Covid-19 protocols and continued to discover, define, and expand porphyry and porphyry-related copper-gold and copper-molybdenum deposits, gold deposits of various types, and stratiform base-metal, specialty metals, industrial minerals, and coal deposits. Expenditures may have benefitted from availability of venture capital spurred by increases in the price of gold and copper. Data from the British Columbia Mineral and Coal Exploration Survey show a slight decrease in grassroots and early-stage projects (combined). Below, selected exploration projects (Fig. 1; Table 7) are grouped by project type and region; the individual regional sections of this volume provide further details.

8.1. Selected precious metal projects

8.1.1. Northwest Region

Mountain Boy Minerals Ltd. carried out more than 2000 m of drilling at their **American Creek** project. Drilling targeted three areas (MB Silver, Wolfmoon, and Dorothy) and tested the

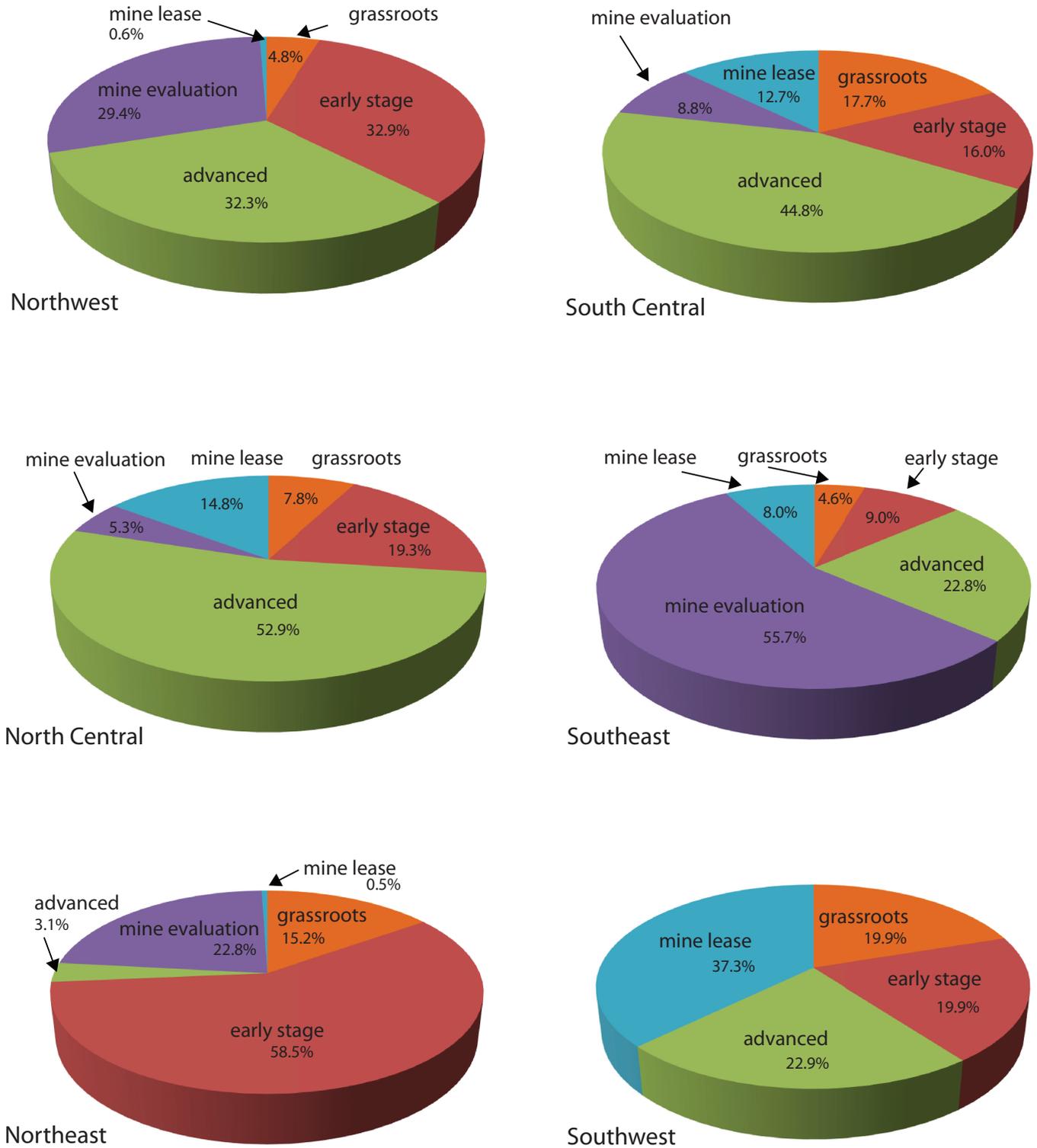


Fig. 8. 2020 exploration expenditures by category for regions.

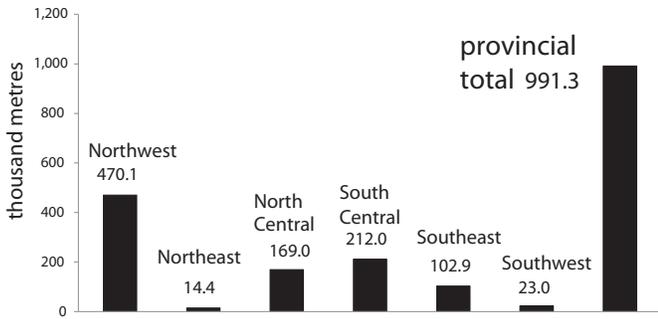


Fig. 9. 2020 exploration drilling by region.

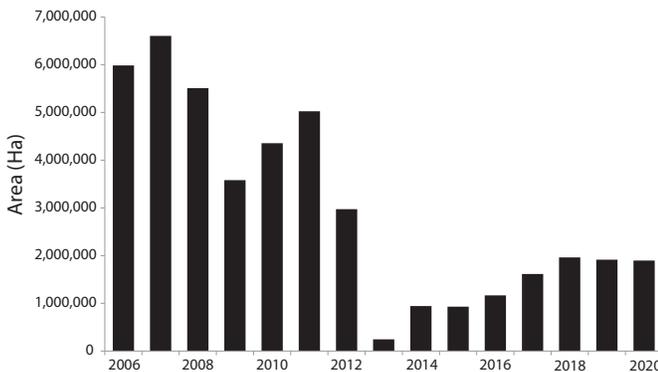


Fig. 10. New mineral claims by year.

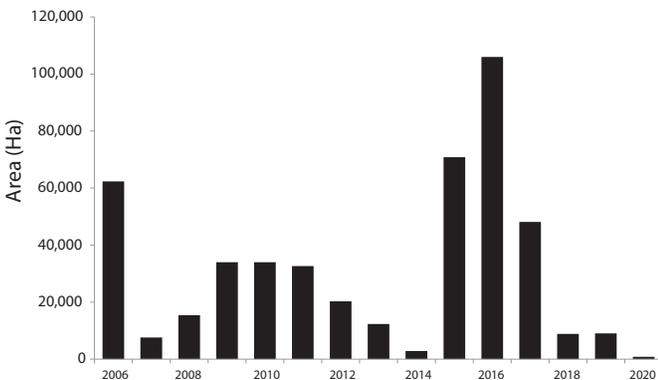


Fig. 11. New coal license issuances by year.

extent of epithermal mineralization. Drilling at the MB Silver target was designed to test a high-grade silver intersection (5.18 m grading 5258 g/t Ag) drilled in 2006. The Maybee zone and untested Upper Ruby zone at Dorothy were drilled to better understand mineralized structures that extend from the MB Silver veins to the south. Grab samples collected in 2019 from a structurally controlled alteration zone that coincides with an IP anomaly at Wolfman yielded assays of 28 g/t Au and 1200 g/t Ag; drilling this year tested this zone.

At their **Buck** project, Sun Summit Minerals Corp. (previously San Marco Resources Inc.) carried out early-season fieldwork included geological mapping, rock sampling, and IP geophysics. Highlights from grab samples include

13.3 g/t Au and 44.1 g/t Ag at the Trench zone. Drilling (1806 m) completed earlier this year targeted potential depth extensions from a known mineralized zone and yielded highlights including 91 m grading 0.75 g/t Au. Later in the year the company drilled an additional 4200 m to test the lateral extent of epithermal mineralization at the Buck breccia. In later drilling, most holes intersected vein pyrite-sphalerite-marcasite ±chalcopyrite±galena mineralization, which appear spatially related to pervasive silica-sericite-carbonate-clay alteration. Highlight assays included 17 m grading 5.86 g/t Au, 2.07 g/t Ag and 7.5 m grading 10.19 g/t Au, 7.42 g/t Ag.

Margaux Resources Inc. changed its name in September to Cassiar Gold Corp. and operates the **Cassiar Gold** project. Exploration this year focussed on Taurus and Table Mountain and included geological mapping, sampling, and drilling. Approximately 5000 m of drilling was used for infill and extension at the Taurus resource (Inferred: 21.83 Mt grading 1.43 g/t Au with a 0.7 g/t Au cut-off) and highlights include 32.79 m grading 1.78 g/t Au. Exploration targets were also drilled to test the lateral and vertical continuity of gold-bearing veins. Results at Taurus include 18.22 m grading 5.34 g/t Au and 83.42 m grading 1.20 g/t Au.

At their **DOC** project, Hanstone Gold Corp. drilled 2724 m to test six of twelve prospective areas. Initial results include 2.25 m grading 6.18 g/t Au, 47.78 g/t Ag and 7.02 m grading 2.27 g/t Au. Prospecting, geological mapping, and satellite analysis were also completed.

Enduro Metals Corporation’s **Newmont Lake** project contains four main zones (Burgundy, McLymont, Cuba, and Chachi) and is prospective for epithermal Au-Ag, skarn Cu-Au-Ag, and alkalic porphyry Cu-Au deposits. This year, exploration included IP geophysics, hyperspectral, and geochemical surveys in conjunction with lithological and alteration mapping. Previously unsampled core from a former operator was also assayed and returned 144 m grading 3.18 g/t Au and 3.66 g/t Ag. Approximately 6000 m of diamond drilling was also completed to test for new gold mineralization. Step-out drilling at the newly discovered NE extension assayed 8.85 m grading 31.09 g/t Au and 1.07% Cu.

Scottie Resources Corp.’s **Scottie Gold** project is centred on the past producing Scottie Gold mine, which operated from 1981 to 1985, producing 95,426 oz of Au at 16.2 g/t Au. More than 7000 m of diamond drilling was completed this year, focussing on the Blueberry vein, Scottie Gold mine, and Domino zone. At the Scottie Gold mine, the O-zone is one of six parallel mineralized structures; the drilling was used to test interpreted orientations. Highlights from the O-zone include 2.53 m grading 109.4 g/t Au and 32.4 g/t Ag. Results for the Blueberry zone included 6.1 m grading 22.3 g/t Au and 13.7 m grading 8.96 g/t Au. Airborne magnetic and electromagnetic surveys and IP geophysical surveys were also completed.

The **Snip** deposit is another past producing mine with renewed exploration interest. Skeena Resources Ltd. filed an independent technical report in September containing an Indicated resource of 539,000 t grading 14.0 g/t Au (containing

Table 7. Selected exploration projects.

Project	Region	Operator (partner)	Commodity; deposit type; MINFILE	Resource (NI 43-101 compliant unless indicated otherwise)	Comments
American Creek	Northwest	Mountain Boy Minerals Ltd.	Ag, Pb, Zn, Au; Polymetallic veins; 104A 011	na	2000 m of drilling at MB Silver, Wolfmoon, and Dorothy zones.
Big Red	Northwest	Libero Copper & Gold Corp.	Cu, Au; Alkalic porphyry; 104G 208	na	Mapping and sampling with a grab sample highlight of 104 g/t Au at the Ridge zone and 19.1 g/t Au at ME-18; 3500 m RC drilling. Results available for first hole, 24.38 m grading 0.38% Cu, 0.06 g/t Au and 2.2 g/t Ag.
Bowser Regional	Northwest	Pretium Resources Inc.	Au, Cu, Pb, Zn; Epithermal vein and VMS	na	More than 25,000 m of drilling to test A6, Hanging Glacier, Koopa, Snowfield East, Haimila. Hanging Glacier highlight: 13 m with 9.5 g/t Au in 102 m with 2.1 g/t Au.
Buck	Northwest	Sun Summit Minerals Corp.	Au, Ag, Zn, Pb, Cu; Polymetallic veins; 093L 009	na	6000 m of drilling. Highlights include 17 m grading 5.86 g/t Au, 2.07 g/t Ag and 7.5 m grading 10.19 g/t Au, 7.42 g/t Ag.
Cassiar Gold	Northwest	Cassiar Gold Corp.	Au; Precious metal veins; 104P 012	Inf: 21.83 Mt 1.43 g/t Au (0.7 g/t Au cut-off)	5000 m of infill and extension drilling at Taurus resource; exploration targets also drilled. Results at Tarus include 18.22 m grading 5.34 g/t Au and 83.42 m grading 1.20 g/t Au.
Corey	Northwest	Eskay Mining Corp. (80%) and Kirkland Lake Gold Ltd. (20%)	Au, Ag, Cu, Zn; Noranda/Kuroko massive sulphide; 104B 385	na	Airborne and ground-based geophysics. Drilling (4000 m) at the TV and Jeff targets; highlights at TV include 4.1 m grading 11.09 g/t Au, 44.2 g/t Ag, highlights at Jeff include 5.1 m grading 31.23 g/t Au, 138.1 g/t Ag.
Del Norte	Northwest	Decade Resources Ltd.	Ag, Zn, Pb; Polymetallic veins; 104A 176	na	Drilling 5975 m in 31 holes at the Argo and Eagle Nest zones.
DOC	Northwest	Hanstone Gold Corp.	Au, Ag; Intrusion-related, mesothermal; 104B 014	na	Drilling (2724 m) to test six of twelve prospective zones. Initial results include 2.25 m grading 6.18 g/t Au, 47.78 g/t Ag and 7.02 m grading 2.27 g/t Au.

Table 7. Continued.

Dolly Varden	Northwest	Dolly Varden Silver Corporation	Cu, Pb, Zn, Ag, Au; Kuroko VMS with polymetallic veins; 103P 188	I: 3.42 Mt at 299.8 g/t Ag Inf: 1.29 Mt at 277.0 g/t Ag	Preliminary metallurgical testing, 11,000 m of drilling, geochemical sampling, prospecting and geological mapping. Highlights at Chance target of 15.20 m grading 488.3 g/t Ag, 0.55% Pb, and 0.05% Zn in a previously unknown offset of the Chance vein.
E&L	Northwest	Garibaldi Resources Corp.	Ni, Cu, Co, Pt, Pd, Au; Tholeiitic intrusion hosted; 104B 006	na	Drilling extended the strike length of the mineralized E&L intrusion from 200 to 650 m and to 578 m at depth.
Eskay Creek	Northwest	Skeena Resources Limited	Au, Ag, Cu, Pb, Zn; VMS and precious metal veins; 104B 008	I: 12.7 Mt 4.3 g/t Au, 110 g/t Ag (pit constrained) Inf: 14.4 Mt 2.3 g/t Au, 47 g/t Ag (pit constrained) I: 819 kt 6.4 g/t Au, 139 g/t Ag (underground) Inf: 295 kt 7.1 g/t Au, 82 g/t Ag (underground)	The company exercised its option to acquire 100% of the project; Barrick Gold Inc. expected to still own 12.4%. Highlights from drilling include 56.34 m grading 2.17 g/t Au and 234 g/t Ag. Company raised \$46 million late in 2020.
Huckleberry	Northwest	Imperial Metals Corporation	Cu, Mo, Ag, Au; Calc-alkaline porphyry; 093E 037	M+I: 180 Mt 0.32% Cu, 0.01% Mo Inf: 48 kt 0.46% Cu (for Main Zone; resource published 2011)	Drilling (~2500 m) to test mineralized extent below the East zone pit. Highlights include 361 m grading 0.35% Cu.
Iskut	Northwest	Seabridge Gold Inc.	Cu, Au; Porphyry; 104B 694	na	Anomalous surface samples and coincident IP and magnetic anomalies guided 8961 m of drilling. Preliminary results of 158 m at 0.16 g/t Au, 0.16% Cu.
Kirkham	Northwest	Metallis Resources Inc.	Cu, Au; Porphyry; 104B 209	na	Field mapping, drill core relogging, an IP survey, and short-wave-infrared analysis guided 3820 m of drilling.
Newmont Lake	Northwest	Enduro Metals Corporation	Au, Cu, Ag; Intrusion-related Au pyrrhotite veins; 104B 126	na	IP geophysics, hyperspectral, geochemical surveys, lithological and alteration mapping, and 6000 m of drilling. Results include 8.85 m grading 31.09 g/t Au, 1.07% Cu.

Table 7. Continued.

Ootsa	Northwest	Surge Copper Corp.	Cu, Au, Ag, Mo; Calc-alkaline porphyry; 093E 105	M+I: 224 Mt 0.22% Cu, 0.15 g/t Au, 0.021% Mo, 2.8 g/t Ag Inf: 5.2 Mt 0.18% Cu, 0.09 g/t Au, 0.019% Mo, 2.6 g/t Ag (2016 Prefeasibility Study)	Late-season drilling included 10,000 m to test IP chargeability anomaly on the Seel trend. Highlights include 176.1 m grading 0.35% Cu, 0.40 g/t Au, 1.7 g/t Ag including 126.0 m grading 0.43% Cu, 0.50 g/t Au, 2.0 g/t Ag and 700 m grading 0.23% Cu, 0.16 g/t Au 0.031% Mo and 3.1 g/t Ag.
Rock and Roll	Northwest	Etruscus Resources Corp.	Cu, Zn, Pb, Au; Besshi VMS and intrusion-related precious metal veins; 104B 377	Inf: 2.02 Mt 0.71 g/t Au, 87.1 g/t Ag, 0.23% Cu, 0.23% Pb, 0.98% Zn	Mineralization around the Black Dog deposit was drilled (~2000 m).
Scottie Gold Mine	Northwest	Scottie Resources Corp.	Au, Ag, Cu; Intrusion-related and polymetallic veins; 104B 034	na	Drilling (>7000 m) focussed on the Blueberry and Bow veins, Domino zone and the Scottie Gold mine. Highlights from the O-zone at the Scottie Gold mine include 2.53 m of 109.4 g/t Au, 32.4 g/t Ag. Results for the Blueberry zone included 6.1 m grading 22.3 g/t Au and 13.7 m grading 8.96 g/t Au.
Snip	Northwest	Skeena Resources Limited	Au, Ag; Intrusion-related, mesothermal; 104B 250	I: 539 kt 14.0 g/t Au Inf: 942 kt 13.3 g/t Au	An independent Technical Report was filed September 2020. 5000 m was drilled for resource expansion.
Tatogga (Quash Pass)	Northwest	GT Gold Corp.	Cu, Au, Ag, Pb, Zn; Polymetallic veins; 104G 161	na	Drilling (4841 m) tested Au and Cu geochemical trends coincident with IP chargeability anomalies.
Tatogga (Saddle North)	Northwest	GT Gold Corp.	Cu, Au, Ag; Porphyry; 104G 432	I: 298 Mt 0.28% Cu, 0.36 g/t Au, 0.8 g/t Ag Inf: 543 Mt 0.25% Cu, 0.31 g/t Au, 0.7 g/t Ag	A maiden resource was filed in August.
Thorn	Northwest	Brixton Metals Corporation	Ag, Au, Cu, Zn, Pb; Subvolcanic Cu-Ag-Au (As-Sb); 104K 031	I: 7.4 Mt 35.54 g/t Ag, 0.51 g/t Au, 0.13% Cu, 0.32% Pb, 0.59% Zn	Drilling (>5000 m), rock (1200) and soil (5000) sampling. Land size of project increased by optioning adjacent properties.
Todd Creek	Northwest	P2 Gold Inc. (70%), ArcWest Exploration Inc. (30%)	Cu, Au, Pb, Zn; Porphyry, volcanogenic, hydrothermal; 104A 001	na	Drilling (1027 m) with near surface intersections of 1.8 m grading 4.19% Cu, 0.19 g/t Au, 4.90 g/t Ag. Airborne magnetic and radiometric surveys.

Table 7. Continued.

Treaty Creek	Northwest	Tudor Gold Corp. (80%) , (Teuton Resources Corp. (20%), American Creek Resources Ltd. (20%))	Cu, Au; Porphyry; 104A 004	na	Drilling (~40,000 m) focused on Goldstorm zone and newly discovered Perfect Storm zone. Highlights of 348 m of 2.04 g/t Au, 4.13 g/t Ag within 930 m of 1.07 g/t Au, 2.80 g/t Ag.
Turnagain	Northwest	Giga Metals Corp.	Ni, Co, Pt, Cu, Mo; Alaskan-type, magmatic; 104I 014	M+I: 1.073 Bt 0.220% Ni, 0.013% Co Inf: 1.142 Bt 0.217% Ni, 0.013% Co	A Preliminary Economic Assessment (PEA) was completed in October.
Willoughby	Northwest	Strikepoint Gold Inc.	Au, Ag, Zn, Pb; Precious and polymetallic veins; 103P 006	na	Surface sampling focused on targeting newly exposed mineralization, results included up to 37.3 g/t Au and 263 g/t Ag. 1700 m of drilling followed up on previously identified Au and Ag mineralization.
3Ts	Northwest	Independence Gold Corp.	Au, Ag; Epithermal Au-Ag, low sulphidation; 093F 055	Tommy and Ted-Mint veins Inf: 5.45 Mt 2.52 g/t Au, 71.5 g/t Ag (at a cut-off grade of 1 g/t Au)	Drilling, 11 DDH, 2200 m. Results included 3.0 m grading 30.94 g/t Au and 130.0 g/t Ag and 67.6 m grading 3.63 g/t Au and 132.83 g/t Ag.
Baptiste (Decar)	North Central	FPX Nickel Corp.	Ni, Fe; na; 093K 116	Baptiste deposit I: 1996 Mt 0.122% Ni, DTR (Davis Tube Recoverable) Inf: 593 Mt 0.114% Ni, DTR Ni (0.06% Ni cut-off)	New Preliminary Economic Assessment released. Potential for robust operating margins.
Captain	North Central	Orestone Mining Corp.	Cu, Au; Alkalic porphyry Cu-Au; 093J 026, 094C 180	na	Drilling, three DDH, 942 m.
Dominion Creek	North Central	High Range Exploration Ltd.	Au, Ag, Zn, Pb; Polymetallic veins Ag-Pb-Zn+/-Au; 093H 133	na	Plans to extract a 10,000 t bulk sample. Nicola Mining Inc. has entered into a mining and profit-sharing agreement with High Range. As part of their due diligence Nicola collected a 9.7 kg grab sample and chip sampled at the Number 16 vein. The grab sample graded 62.1 g/t Au, 320 g/t Ag, 23.4% Pb, and 12.4% Zn. Chip sample results included 0.5 m grading 34.9 g/t Au, 176 g/t Ag, 12.7% Pb, and 8.6% Zn and 0.75 m grading 13.2 g/t Au, 46 g/t Ag, 2.7% Pb, and 2.7% Zn.

Table 7. Continued.

East Niv	North Central	Serengeti Resources Inc.	Cu, Au; Alkalic porphyry Cu-Au; na	na	Mapping, sampling, and IP geophysical surveys. Data identified a 3.5 km ² porphyry Cu-Au target area.
Golden Lion	North Central	Evergold Corp.	Au, Ag; Epithermal Au-Ag, low sulphidation; 094E 077	na	Drilling, 10 DDH, 2500 m and IP surveying. Drill results included 73.12 m grading 0.69 g/t Au and 61.70 m grading 0.76 g/t Au.
Jean Marie	North Central	Pacific Empire Minerals Corp.	Cu, Au, Ag, Mo; Porphyry Cu±Mo±Au; na	na	Rock sampling, ground geophysics, airborne geophysics and reverse circulation drilling (15 holes, 1692 m). Rock sample results included 8.79 g/t Au, 86.6 g/t Ag, and 1.75% Cu from the newly identified Leap target area, and continuous chip sampling results of 4 m grading 1.37% Cu, 0.08 g/t Au, and 67.4 g/t Ag at C zone south.
Kemess Brownfield	North Central	Centerra Gold Inc.	Cu, Mo, Au; Porphyry Cu±Mo±Au; 094E 315	Kemess East I: 177.5 Mt 0.36% Cu, 0.4 g/t Au, 1.97 g/t Ag Inf: 29.3 Mt 0.314% Cu, 0.3 g/t Au, 2.00 g/t Ag	Potential to be integrated into the Kemess Underground project. Diamond drilling, 4257 m at Kemess East and 3302 m at Nugget target.
Kliyul	North Central	Pacific Ridge Exploration Ltd.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 094D 023	I: historic non NI 43-101 compliant: 2.3 Mt 1.30 g/t Au, 0.45% Cu, 6.9 g/t Ag	IP and ground magnetic geophysical surveys, sampling and core relogging. Geophysics defined potential to expand Kliyul Main zone and two new targets, Kliyul East and Kliyul West.
Kwanika	North Central	Kwanika Copper Corporation (67% Serengeti Resources Inc., 33% Posco International Corporation)	Cu, Au, Ag; Porphyry Cu±Mo±Au; 093N 073	Central zone pit M+I: 104.6 Mt 0.23% Cu, 0.21 g/t Au, 0.78 g/t Ag (at a cut-off grade of 0.13% CuEq) Central zone underground M+I: 118.9 Mt 0.30% Cu, 0.29 g/t Au, 0.96 g/t Ag (at a confining shape basis of 0.27% CuEq) South zone pit Inf: 33.3 Mt 0.26% Cu, 0.08 g/t Au, 1.64 g/t Ag, 0.01% Mo	Drilling, nine DDH, 4350 m. Results included 698 m grading 0.40% Cu, 0.65 g/t Au, 1.9 g/t Ag and new deep mineralization that graded 0.15% Cu, 0.2 g/t Au, 0.6 g/t Ag over 150 m.

Table 7. Continued.

Lawyers	North Central	Benchmark Metals Inc.	Au, Ag; Epithermal Au-Ag, low sulphidation; 094E 066	Inf: Cliff Creek N zone 550 Kt 4.51 g/t Au, 209.15 g/t Ag Duke's Ridge zone 58 Kt 4.30 g/t Au, 139.13 g/t Ag	Highlight drilling results included 57.91 m grading 1.90 g/t Au, 91.96 g/t Ag, 31 m grading 2.98 g/t Au, 72.77 g/t Ag, 128.10 m grading 1.65 g/t Au, 110.02 g/t Ag and 15 m grading 7.01 g/t Au, 307.9 g/t Ag.
Max	North Central	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093K 020	na	Drilling, 11 DDH, 5441 m.
McConnell Copper-Gold	North Central	GGL Resources Corp.	Cu, Au, Ag; Porphyry Cu±Mo±Au; 094D 030	na	20 line-km of IP and ground magnetic surveys over a known porphyry Cu-Au zone.
Mt. Milligan Brownfield	North Central	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 094N 194	na	Drilling, 69 DDH, 32,671 m.
Nechako Gold	North Central	Tower Resources Ltd.	Au, Ag; Epithermal Au-Ag, low sulphidation; 093F 060, 4	na	Drilling, 41 RCH, 350 m, 11 DDH, 1590 m. Results included 7.1 m of core grading 2.75 g/t Au and 40.2 g/t Ag.
Pil	North Central	Finlay Minerals Ltd.	Cu, Au, Ag; Porphyry Cu±Mo±Au, alkalic porphyry Cu-Au; 094E 310, 377	na	Geological mapping and soil and rock sampling. Targets included the Pil South, Copper Ridge, WG, Gold and Spruce zones.
Stardust	North Central	Sun Metals Corp.	Cu, Au, Ag, Zn; Cu skarn; 093N 09	Canyon Creek I: 985,000 t 1.34% Cu, 1.59 g/t Au, 36.8 g/t Ag, 0.62% Zn	Drilling, 17 DDH, 11,988 m. Results included 1.57% Cu, 1.08 g/t Au, 28.2 g/t Ag over 44 m and 4.45 m grading 5.58% Cu, 5.99 g/t Au, 190.5 g/t Ag.
Top Cat	North Central	Serengeti Resources Inc.	Cu-Au; Alkalic porphyry Cu-Au; 094C 174	na	Mapping, sampling, IP surveying and data compilation.
Wicheeda	North Central	Defense Metals Corp.	Nb, REE; Carbonatite-hosted deposits; 093J 014	I: 4.89 Mt 3.02% LREO Inf: 12.1 Mt 2.90 % LREO Resources at a cut-off grade 1.5% total metal LREO = sum of Ce ₂ O ₃ + +La ₂ O ₃ +Nd ₂ O ₃ +Nd ₂ O ₃ +Pr ₂ O ₃ +Sm ₂ O ₃ Total metal % = sum of Ce+La+Nd+Pr+Sm+Nb percentages	Baseline environmental studies, flotation pilot plant studies and a 43-101 report updating resources.

Table 7. Continued.

Flatbed	Northeast	Colonial Coal International Corp.	Coal; Bituminous coal; 0931 049	na	Permitting, First Nations consulting, environmental monitoring and data review.
Huguenot	Northeast	Colonial Coal International Corp.	Coal; Bituminous coal; 0931 036	M+I: 132.0 Mt (in situ surface mineable)	Permitting, First Nations consulting, environmental monitoring and data review.
Rocky Creek	Northeast	CTI Plus Resources Ltd.	Coal; Bituminous coal; 093P 004	na	Drilling, 50, DDH, 818 m, 19 RCH, 3154 m. Coal quality testing. Trench sampling and mapping.
Trend-Roman	Northeast	Peace River Coal Inc. (subsidiary of Anglo American plc)	Coal; Bituminous coal; na	na	Drilling, six DDH, 3204 m. Testing for underground potential near the former Trend-Roman mine.
Alwin Mine	South Central	GSP Resource Corp.	Cu, Ag; Cu; ±Ag quartz veins; porphyry Cu+/-Mo+/-Au; 092ISW010, 21	Historical: 390,000 t 2.5% Cu, 11.7 g/t Ag, 0.69 g/t Au	Drilling, approximately 2000 m in 10 holes. Initial result 12.1 m grading 2.27% Cu.
Blackdome-Elizabeth	South Central	Tempus Resources Ltd.	Au, Ag; Au quartz veins, epithermal Au-Ag-Cu, low sulphidation; 092O 053, 12	I: 144,500 t 11.29 g/t Au, 50.01 g/t Ag Inf: 90,600 t 8.79 g/t Au, 18.61 g/t Ag	Drilling, 5087 m in 26 holes at Blackdome; 2400 m in 12 holes at Elizabeth.
Bralorne	South Central	Talisker Resources Ltd.	Au; Au-quartz veins; 092JNE001	M+I: 260,000 tons 0.351 oz/ton Au Inf: 317,000 tons 0.231 oz/ton Au	Drilling, 23,000 m planned by year end. Updated resources estimate not including latest drilling. Example highlight intersection 995 g/t Au along 0.5 m within 227.55 g/t Au along 2.25 m.
Elk	South Central	Gold Mountain Mining Corp.	Au, Ag; Au quartz veins; 092HNE009, 295, 41, 261	M+I: 2,699,000 t 5.22 g/t Au, 9.23 g/t Ag Inf: 454,000 t 6.4 g/t Au, 14.17 g/t Ag	Preliminary economic assessment, drilling 3200 m in 12 holes.
FG	South Central	Kore Mining Ltd.	Au, Ag; Au-quartz veins; 093A 061	M: 5,600,000 t 0.812 g/t Au I: 9,570,000 t 0.755 g/t Au Inf: 27,493,000 t 0.718 g/t Au	Drilling, approximately 7400 m in 23 holes. Expanded land position.
Fox Tugsten	South Central	Happy Creek Minerals Ltd.	W; W skarns; 093A 259, 260, 261, 211	I: 582,000 t 0.826% WO ₃ Inf: 565,400 t 1.231% WO ₃	Drilling, approximately 1100 m in 7 holes.
Gold Creek	South Central	Kore Mining Ltd.	Au, Ag; Au-quartz veins; 093A 127	na	Drilling, 1550 m in 5 holes (early December).

Table 7. Continued.

Highland Valley (West Valley-Rateria)	South Central	Happy Creek Minerals Ltd.	Cu, Mo, Au, Ag, Re; Porphyry Cu±Mo±Au; 092ISE199	na	Drilling approximately 2400 m in 5 holes.
IKE	South Central	Amarc Resources Ltd.	Cu, Mo, Ag; Porphyry Cu±Mo±Au; 092O 025, 67	na	Technical report and surface work (geology, geochemistry, geophysics).
Lac La Hache	South Central	Engold Mines Ltd.	Cu, Au, Ag, Fe; Alkalic porphyry Cu-Au, Cu skarn; 092P 120, 108, 2, 153	Aurizon Inf: 1,073,000 t 2.48 g/t Au, 0.64% Cu, 5.98 g/t Ag Spout zone I: 7.6 Mt 0.28% Cu, 0.05 g/t Au, 1.26 g/t Ag, 11.4% magnetite Inf: 15.8 Mt 0.21% Cu, 0.04 g/t Au, 0.93 g/t Ag, 8.32% magnetite	Drilling at Ann North, G1 and recently discovered Road Gold zone. Highlight intersection 22.4 m grading 1.29% Cu, 0.11 g/t Au, 4.36 g/t Ag and 26.91% Fe at G1.
Merit	South Central	Independence Gold Corp.	Au, Ag; H05: Epithermal Au-Ag; 092ISW106	na	Prospecting, rock sampling, ground magnetic survey, metallurgy. Sample highlight 9.5 g/t Au and 341 g/t Ag.
Miner Mountain	South Central	Sego Resources Inc.	Cu, Au; Alkalic porphyry Cu-Au; 092HSE203, 78	na	Trenching and drilling 3970 m. Granby mineralization extended 80 m.
MPD	South Central	Kodiak Copper Corp	Cu, Au; Alkalic porphyry Cu-Au; 092HNE243, 55, 191, 244	na	Drilling approximately 7000 m in 10 holes, magnetic and ZTEM surveys. Highlight 282 m grading 0.70% Cu and 0.49 g/t Au.
Mt. Riordan	South Central	Garnet Peak Resources Inc.	Garnet; Garnet skarns; 082ESW102	Historical: 11,848,200 t 78% (west) 17,955,000 t 80% (north) 10,663,380 t 77% (south)	Mainly permitting, community relations. Permit received for drilling and bulk sample.
New Craigmont	South Central	Nicola Mining Inc.	Cu, Au; Cu skarns; 092ISE035	Inf: 18.669 Mt 0.13% Cu	Portal area and southern waste dump resource estimate. Metallurgical testing.
Reliance Gold	South Central	Endurance Gold Corporation	Au, Sb, Ag; Au quartz veins, stibnite veins and disseminations; 092JNE033, 136, 191	na	Reverse circulation drilling 978 m in 17 holes. Rock channel sampling highlight of 8.97 g/t Au along 9.6 m.

Table 7. Continued.

Shovelnose	South Central	Westhaven Gold Corp.	Au, Ag; Epithermal Au-Ag-Cu, low sulphidation; 092HNE309, 308	na	Drilling, 43,000 m in 100 holes. Highlights included outcrop discovery of Franz zone (51.10 g/t Au and 165.00 g/t Ag grab, 7.78 m 14.84 g/t Au and 39.4 g/t Ag drill intercept) 2.8 km from South zone. FMN zone discovered between Franz and South zone (5.5 m 4.58 g/t Au, 267.4 g/t Ag). Several other targets identified.
Spanish Mountain	South Central	Spanish Mountain Gold Ltd.	Au, Ag; Au-quartz veins; 093A 043	M+I: 273.2 Mt 0.47 g/t Au, 0.71 g/t Ag Inf: 52.4 Mt 0.37 g/t Au, 0.67 g/t Ag	Exploration drilling, geotechnical drilling, test pits. Began Preliminary Feasibility Study.
Spences Bridge and Regional	South Central	Talisker Resources Ltd.	Au, Ag; Epithermal Au-Ag-Cu, low sulphidation; 092O 54, 60, 143, 092INW092, 110, 092ISW118, 124, 84	na	Large regional prospecting and sampling program continued in 2020. About 6000 soil samples, mapping, talus fines sampling, rock sampling.
Wingdam	South Central	Omineca Mining and Metals Ltd.	Au; Au-quartz veins; 093H 012	na	Drilling, approximately 300 m in 13 holes (program to continue into 2021). Airborne magnetic survey.
Woodjam	South Central	Consolidated Woodjam Copper Corp.	Cu, Au; Alkalic porphyry Cu-Au; 093A 269, 78	Inf: 227.5 Mt 0.31% Cu (Woodjam South) Inf: 32.8 Mt 0.22% Cu, 0.59 g/t Au (Deerhorn) Inf: 8.3 Mt 0.22% Cu, 0.26 g/t Au (Takom)	Drilling, 1737 m in 4 holes at Deerhorn. Highlight intersection of 110 m 2.57 g/t Au and 0.44% Cu including 26 m of 5.89 g/t Au and 0.92% Cu. IP survey at Megaton target.
Yellowhead	South Central	Taseko Mines Limited	Cu, Au, Ag; Noranda/Kuroko; 082M 008, 9	M+I: 1292 Mt 0.25% Cu, 0.028 g/t Au, 1.2 g/t Ag Inf: 109 Mt 0.21% Cu, 0.024 g/t Au, 1.2 g/t Ag	Updated Feasibility Study considers a 25-year 90,000 tpd open pit operation. Proven + Probable reserves are 817 Mt 0.28% Cu.
Athelstan-Jackpot	Southeast	Belmont Resources Inc.	Au, Ag, Cu, talc; Polymetallic veins Ag-Pb-Zn±Au, carbonate-hosted talc; 082ESE047	na	Data compilation, mapping, sampling, lidar, drone-based magnetic survey; ground IP.

Table 7. Continued.

Bull River Mine	Southeast	Braveheart Resources Inc.	Cu-Ag-Pb-Zn±Au; Polymetallic veins; 082GNW002, 6, 15	I: 1.51 Mt 1.91% Cu, 0.41 g/t Au, 15.6 g/t Ag (at 1% CuEq cut-off) Inf: 0.34 Mt 1.58% Cu, 0.36 g/t Au, 10.7 g/t Ag (at 1% CuEq cut-off) (2018)	Drilling (5 DD holes, 831 m); environmental baseline studies; updating mine plan and permitting; design work on the TSF; drill results include 4.24 m grading 1.39% Cu, 1.33 g/t Au, and 9.51 g/t Ag.
Gold Drop	Southeast	GGX Gold Corp.	Au, Ag, Te; Alkaline intrusion associated Au; 082ESE055, 150, 152, 153, 285, 286, 287	na	Drilling (24 DD holes, 2700 m) at C.O.D vein and C.O.D West; trenching; mapping, rock sampling. Two new veins discovered. Results up to 10.15 g/t Au and 142 g/t Ag from trenching at C.O.D South.
Gold Shear	Southeast	PJX Resources Inc.	Au, Cu, Pb, Zn; Polymetallic veins, Au-quartz veins; 082FSE108	na	David zone; vein target 1.2 to 4.5 m width; results include 2.5 m grading 25.07 g/t Au, 2.1 m grading 14.06 g/t Au, and 1.2 m grading 19.85 g/t Au; mapping and sampling identified four parallel mineralized shear ones, traced along strike for 1600 m; grab samples returned up to 250 g/t Au.
Henio Gold	Southeast	MGX Minerals Inc.	Au-Ag-Pb-Zn; Skarn; 082FNW234, 294, 295, 296, 297, 220	na	Heino-Money and Tillicum zones; data compilation; lidar; mapping; metallurgical test work (94.1% recovery of Au); sample results up to 207 g/t Au.
Iron Range	Southeast	Private partner (Eagle Plains Resources Ltd.)	Pb-Zn-Ag±Cu, Au; Vein, breccia, IOCG; 082FSE014, 15, 16, 17, 18, 19, 20, 21, 22, 23	na	Drilling (10 DD holes, 1000 m); mapping, sampling.
Ket 28	Southeast	Grizzly Discoveries Inc.	Au; Au-veins; 082ESW210	na	Drilling (15 DD holes, 1975 m); initial results include 3.08 m grading 7.37 g/t Au.
Ore Hill	Southeast	Apex Resources Inc.	Au±Ag, Pb, Zn; Au-quartz veins, polymetallic veins; 082FSW040, 48, 50, 51, 52, 53 082FSE 030, 31, 34, 25	na	Drilling (1600 m, 12 DD holes); mapping, rock sampling; two magnetic anomalies coincident with soil geochemical anomalies and historic production; results include 0.30 m grading 32.9 g/t Au; assays pending.

Table 7. Continued.

Providence	Southeast	Ximen Mining Corp.	Au±Ag, Pb, Zn; Au-quartz veins, polymetallic veins; 082ESE001, 135, 165	na	Drilling (6 DD holes, 1172 m); mapping, grab and chip sampling, soil geochemistry; two grab samples assayed 884 g/t Ag and 1.36 g/t Au; 436 g/t Ag and 4.4 g/t Au.
Radpath	Southeast	KG Exploration (Canada) Inc.	Au-Cu-Pb-Zn-Ag±Mo; Cu-Au-Ag skarn, VMS, polymetallic veins, Au-vein, porphyry; 082ESE077, 57, 146, 158	na	Drilling (4 DD holes, 1200 m); mapping, sampling, soil geochemistry; following up on targets identified on ground magnetics and airborne geophysics; rock sample results include up to 11.9 g/t Au.
Regal	Southeast	Affinity Metals Corp.	Ag-Pb-Zn±Au; Polymetallic veins, SEDEX; 082N 004, 3, 16	Regal 590,703 t 71.6 g/t Ag, 2.66% Pb, 1.26% Zn, 1.1% Cu, 0.13% Sn and 0.015% W (1982; noncompliant)	Results reported for 2019 drilling include 11.1 m grading 143.29 g/t Ag. Drilling at the Allco (19 DD holes, 3443 m).
Revel Ridge	Southeast	Rokmaster Resources Corp.	Ag-Pb-Zn±Au; SEDEX, Irish-type carbonate-hosted, polymetallic veins; 0825M 003	Main zone M+I: 4.2 Mt 5.59 g/t Au, 53.4 g/t Ag, 1.87% Pb, 3.43% Zn Inf: 4.562 Mt 4.36 g/t Au, 61.8 g/t Ag, 1.88% Pb, 2.59% Zn Yellowjacket zone I: 771 kt 0.9 g/t Au, 62.6 g/t Ag, 2.6% Pb, 9.93% Zn Inf: 23 kt 0.11 g/t Au, 55.4 g/t Ag, 2.65% Pb, 7.68% Zn	J&L mine; rehabilitation of portal and underground workings at the Main Zone; underground drilling began late in the year, continuing into 2021 (6000 m, 20 DD holes completed); mapping and sampling; metallurgical test work; updated resource estimate; environmental baseline and monitoring; began an updated PEA; grab samples results up to 6.57 g/t Au, 311 g/t Ag, 9.53% Zn, and 7.02 % Pb; chip sample results include 0.3 m grading 5.6 g/t Au, 173 g/t Ag, 0.72% Zn, and 6.65% Pb.
Silvana	Southeast	Klondike Silver Corp.	Ag-Pb-Zn±Au; Polymetallic veins; 082FNW050, 13, 082KSW006	na	Underground drilling (10 DD holes); facility upgrades; environmental monitoring; mill on care and maintenance; environmental baseline work.

Table 7. Continued.

Thor	Southeast	Taranis Resources Inc.	Ag-Pb-Zn±Au; Polymetallic veins and breccia, stratiform volcanogenic massive sulphide; 082KNW030, 31, 60, 61	I: 640,000 t 0.88 g/t Au, 187 g/t Ag, 0.14% Cu, 2.51% Pb, 3.51% Zn Inf: 424,000 t 0.98 g/t Au, 176 g/t Ag, 0.14% Cu, 2.26% Pb, 3.2% Zn (2013)	Drilling (8 DD holes, 1200 m); mapping; sampling; geophysics; update of geological model; environmental baseline studies; permitting for 10,000 t bulk sample; channel sample results at Scab zone include: 3.05 m grading 3.72 g/t Au, 345 g/t Ag, 0.07% Cu, 2.24% Pb and 0.38% Zn; and 2.52 m grading 1.29 g/t Au, 72 g/t Ag, 0.02% Cu, 1.40% Pb and 0.71% Zn; initial drill results from the first drill hole include: 0.76 m grading 3.96 g/t Au, and 2.9 m grading 0.5 g/t Au, 252.5 g/t Ag, 0.14% Cu, 1.64% Pb, and 5.3% Zn.
Adam West	Southwest	GoldHaven Resources Corp.	Au, Ag, Cu; Volcanic redbed Cu; 092L 222	na	Rock geochemistry. Highlight 46.4% Cu, 144 g/t Ag, 16.55 g/t Au.
Consortium	Southwest	Gold Basin Resources Corporation	Au, Ag, Cu; Au quartz veins, Cu+/-Ag quartz veins; 092K 175	na	Rock and soil geochemistry. Grab samples up to 30.4 g/t Au.
Harrison Gold	Southwest	Bear Mountain Gold Mines Ltd., Bayhorse Silver Inc.	Au, Ag; Au quartz veins; 092HSW092	Historical I: 1.845 Mt 2.79 g/t Au Inf: 0.6 Mt 2.8 g/t Au	Sampling, metallurgical testing. Underground development, bulk sample.
New Privateer	Southwest	Privateer Gold Ltd.	Au, Ag; Au-quartz veins; 092L 008, 311, 155	na	Drilling 3000 m in 16 holes, soil survey.
North Island	Southwest	Northisle Copper and Gold Inc.	Cu, Au, Mo, Re; Porphyry Cu±Mo±Au; 092L 185, 240, 200	I: 341,743,000 t 0.24% Cu, 0.29 g/t Au, 0.008% Mo, 0.48 ppm Re Inf: 190,788,000 t 0.19% Cu, 0.24 g/t Au, 0.007% Mo, 0.35 ppm Re	Resource estimate combines Red Dog and Hushamu. 2020 work included metallurgical tests which improved recoveries at Red Dog and Hushamu.
Silver Peak	Southwest	Homegold Resources Ltd., M. Nugent	Ag; Polymetallic veins; 092HSW011	na	Trenching, sampling, drilling.

M = Measured; I = Indicated; Inf = Inferred

244,000 oz Au). The company began a 5000 m drill program in the fall that could be used to expand the resource.

At their **Willoughby** project Strikepoint Gold Inc. completed 1700 m of drilling to test disseminated gold and silver mineralization identified from previous drilling and surface sampling, and to improve continuity of high-grade mineralization. Surface sampling was also conducted and focussed on outcrops newly exposed by glacier retreat. Results included up to 37.3 g/t Au and 263 g/t Ag.

8.1.2. North Central Region

Independence Gold Corp. announced that approximately 2200 m in 11 holes would be drilled in the fall at its **3Ts** project. Drill collar location selection was largely based on an extensive compilation and a 3D geological model of the known epithermal vein system, in addition to magnetic and spectral surveys that were completed in 2019. Highlight results included 3.0 m grading 30.94 g/t Au and 130.0 g/t Ag and 67.6 m grading 3.63 g/t Au and 132.83 g/t Ag.

At their **Golden Lion** project, Evergold Corp. reported broad intersections of epithermal mineralization from more than 2500 m of drilling in ten holes at the GL1 “Main” prospect. The company also carried out an IP survey that defined a resistivity and chargeability anomaly encompassing 100s of m of strike length, broad widths, and untested down-dip potential. Results included 73.12 m grading 0.69 g/t Au and 61.70 m grading 0.76 g/t Au.

Benchmark Metals Inc. planned to complete up to 100,000 m of diamond drilling in 2020 at their **Lawyers** project. The project is a regional-scale prospect that follows northwest-trending linear magnetic and radiometric anomalies with multiple gold-silver showings for more than 20 km. The project has four discrete zones (Cliff Creek, Duke’s Ridge, Phoenix and AGB) targeted for their bulk tonnage potential. Highlight results included: 57.91 m grading 1.90 g/t Au and 91.96 g/t Ag; 31 m grading 2.98 g/t Au and 72.77 g/t Ag; 128.10 m grading 1.65 g/t Au and 110.02 g/t Ag; and 15 m grading 7.01 g/t Au and 307.9 g/t Ag. Results will be used to prepare a global resource estimate and a Preliminary Economic Assessment in early 2021.

Tower Resources Ltd. completed 1590 m of diamond drilling in 11 holes and 350 m of reverse circulation drilling in 41 holes on epithermal gold and silver targets at their **Nechako Gold** project. Results included 7.1 m of core grading 2.75 g/t Au and 40.2 g/t Ag.

8.1.3. South Central Region

Tempus Resources Ltd. acquired the **Blackdome-Elizabeth** project when it bought Sona Resources Corp., a subsidiary of Skeena Resources Ltd. in 2019. In 2020, they drilled 5087 m in 26 holes at Blackdome and completed about 2400 m in 12 holes of a planned 6000 m program at Elizabeth before shutting down for winter. Highlight results at Blackdome included 0.6 m grading 28.3 g/t Au and 513 g/t Ag. The linked Blackdome and Elizabeth properties were the subject of a 2010 Preliminary

Economic Assessment in which mining would occur at both sites, with processing at an existing mill at Blackdome. Tempus is focussed on verifying and expanding the existing resource.

Talisker planned 23,000 m of drilling in 2020, continuing into early 2021 at their **Bralorne** project. Target veins are near the mine. Highlight intersections include 995 g/t Au along a 0.5 m interval within 2.25 m grading 277.55 g/t Au. Bralorne is a past-producing gold mine, which last operated between 2010 and 2014 when it suspended operation because the tailings storage facility reached capacity. The mine had been operating at a 100 tpd trial basis. The 100 tpd mine permit was updated in 2017, but Talisker anticipates a larger operation.

Freeform Capital Partners Inc. and Bayshore Minerals Incorporated are combining to operate under the name Gold Mountain Mining Corp., a subsidiary of Bayshore which holds the **Elk** property. Before the deal, Freeform reported results of a Preliminary Economic Assessment including an updated resource estimate with Measured and Indicated resources of 2,699,000 t at 5.22 g/t Au and 9.23 g/t Ag, and Inferred resource of 454,000 t at 6.40 g/t Au and 14.17 g/t Ag that support a conceptual 10-year 70,000 tpy mine. Bayshore reported a 3200 m, 21-hole drill program in the fall, before the planned reverse takeover was completed. **Elk** produced about 51,500 oz of Au between 1992 and 1995 from 14,730 t of ore, mainly from an open pit. Bulk sampling resumed in 2012-14 when 7761 t with an average grade of 14.81 g/t Au were processed.

Kore Mining Ltd. drilled 5746 m in 15 holes at the **FG**, reporting highlight intersections including 11.0 m grading 10.0 g/t Au near surface. They also reported a discovery, the Lower Zone, below the existing FG resource where they intersected 52.5 m of 1.1 g/t Au. Highlight intersections in the Lower zone include a step out 215 m down dip returning 31.3 m grading 3.2 g/t Au.

By early December, Kore drilled 1550 m in 5 holes at the **Gold Creek** orogenic gold project, part of their Cariboo land holdings. Targets are gold-bearing quartz veins and stratabound vein zones in metasedimentary rocks, including a black phyllite. The company is considering placing its British Columbia exploration properties in Karus Gold Corp., a company separate from its more advanced US projects.

Endurance Gold Corporation carried out mapping and sampling in the Bridge River camp at the **Reliance** property. Work included biogeochemical and rock sampling. Highlight results of channel sampling included 8.97 g/t Au along 9.6 m at the Eagle South showing. Following up on the channel sampling, a reverse circulation drill program was underway in early December at the Imperial, Imperial North, Eagle South, and Eagle targets. The company reported 978 m in 17 holes.

Westhaven Gold Corp. continued drilling the **Shovelnose** low sulphidation epithermal prospect with a 43,166 m program. In addition to continued drilling at the South zone, the 2018 discovery area, and nearby Lear zone, new targets include the Franz zone, a prospecting discovery in outcrop approximately 2.8 km northwest of the South zone. Initial grab samples

returned up to 51.10 g/t Au and 165.00 g/t Ag. Subsequent drill intersections included 7.78 m of 14.84 g/t Au and 39.40 g/t Ag. The company reports 5.50 m of 4.58 g/t Au and 267.40 g/t Ag at another newly discovered zone (FMN) between the South and Lear zones and the Franz zone. Shylock is another drill target, about 1.5 km southeast of the South zone. Westhaven reported several other targets 500 m to 4 km from the South zone emerging from 2019-20 geophysics, soil geochemistry, prospecting, and mapping.

Spanish Mountain Gold Ltd. expects to deliver a Preliminary Feasibility Study for the **Spanish Mountain** gold property in the first quarter of 2021. The current Preliminary Economic Assessment is based on a Measured and Indicated resource of 273.2 Mt grading 0.47 g/t Au and 0.71 g/t Ag. In their phase one scenario, 39 Mt at an average diluted grade of 1.00 g/t Au and 0.74 g/t Ag would feed an 11-year, 10,000 tpd operation with average life of mine production of 104,000 oz/y Au. The new study is considering a 20,000 tpd mill throughput. The resource estimate is to be updated. The project has been in the pre-application phase of environmental assessment since 2011 but the company withdrew at the end of 2019. They expect to resume when the project scope is finalized. The company began drilling in the fall to expand resources in the Main zone. They drilled about 4500 m in 28 reverse circulation holes. There was additional sonic drilling for geotechnical purposes and some core drilling. They also dug 84 test pits.

Talisker Resources Ltd. holds claims covering most of the Spences Bridge belt, which consists of Lower Cretaceous calc-alkaline volcanic rocks extending for 220 km along a northwest trend. Talisker resumed its **Spences Bridge** project in 2020 with a crew of 20 geologists collecting stream-sediment samples and evaluating more than 100 anomalies found in a 2019 survey. The follow up included about 6000 soil samples from across three broadly prospective areas as well as mapping and stream, talus fine, and rock sampling. By the end of the season they reported generating 13 prospects.

Omineca, Mining and Metals Ltd. through its subsidiary CVG Mining Ltd., expanded its holdings near the **Wingdam** project and commenced a gold exploration project seeking lode gold sources of paleoplacer gold, which is the target of an underground bulk sampling project. The hard rock program is planned to include 9000 m of drilling in 27 holes, 2-3 km northwest of the placer operation. By the end of 2020, the company completed about 3000 m in 13 holes and flew an airborne magnetic survey. The placer project had been on care and maintenance since 2012, but now dewatering of the underground workings has begun. Private companies have an option to earn up to 50% of that project by progressing to bulk sampling.

8.1.4. Southeast Region

At their **Athelstan-Jackpot** project Belmont Resources Inc. conducted initial mapping and sampling and flew lidar, a drone magnetic survey, and a ground IP survey. The mineralized trend of the Athelstan and Jackpot historic producers coincides with

IP resistivity and chargeability anomalies, and the company has prioritized targets for drilling next year.

GGX Gold Corp. continued drilling and trenching at the **Gold Drop** property. In 2020, the company drilled a second hole to test a 1834 by 1377 m anomaly from their 2019 airborne geophysics. The first hole encountered calc-silicate altered rocks and magnetite mineralization, with elevated copper, zinc, and iron, interpreted to be weak skarn mineralization. Trenching uncovered two new quartz veins (the Perky, and Lively) at the COD West area, and at the southern extension of the COD vein samples assayed up to 10.15 g/t Au and 142 g/t Ag. The company drilled at the COD vein to test mineralization at depth and at their new COD West zone. In total, 24 DD holes (2700 m) were drilled. Mapping and chip sampling were also done at the Gold Drop, North Star, Silent Friend, Ken, and Highland Valley veins to determine the next phases of drilling.

PJX Resources Inc. continued work at the **Gold Shear** property in 2020. VLF ground geophysics identified a large conductive target area down-dip of the David zone, below the depth of historical drilling. Results from drilling that tested the down dip extension of the David zone vein to 100 m below surface were 1.2 to 4.5 m wide, with 2.5 m grading 25.07 g/t Au, 2.1 m grading 14.06 g/t Au, and 1.2 m grading 19.85 g/t Au. Mapping and prospecting in 2020 identified four separate mineralized parallel shear zones along strike with the David zone. Grab samples from two of the veins returned values of up to 250 g/t Au.

At their **Ket 28** property, Grizzly Discoveries Inc. mapped, sampled, and drilled 15 holes (1975 m) to follow up on historic results of 11 m grading 2.77 g/t Au and 3 m grading 8.75 g/t Au, with a higher-grade zone of 2 m grading 11.90 g/t Au. They drill tested the main gold zone and southern faulted extension, encountering variable sericite-pyrite alteration, quartz veins, and silicification. Preliminary results for the first six holes included 3.08 m grading 7.37 g/t Au.

Ximen Mining Corp. acquired the **Providence** property in 2019, and continued work in 2020. The company drilled 6 holes (1172 m), mapped, sampled, and conducted soil geochemistry to locate extensions of the vein system. Two grab samples tested 884 g/t Ag and 1.36 g/t Au, and 436 g/t Ag and 4.4 g/t Au.

8.1.5. Southwest Region

Privateer Gold Ltd. drilled at **New Privateer** (previously called Surespan) in the Zeballos gold camp, completing about 3000 m in 16 holes and an 800-sample soil survey. The target is vein mineralization like that mined historically.

Homegold Resources Ltd., on behalf of the owners (Johan Shearer 15%, Michael Nugent 85%), began sampling and drilling at **Silver Peak**, site of the Eureka-Victoria, a past silver producer dating back to 1868. Current operators report silver assays up to 15,000 g/t, consistent with historical high-grade results along intervals of less than 1 m.

Bayhorse Silver Inc. entered into an agreement with Bear Mountain Gold Mines Ltd. to earn a 50% interest in the

Harrison Gold property. They collected samples for assay and metallurgical testing. Nine chip samples from the Jenner adit ranged from 2.86 to 414.20 g/t Au. Metallurgical testing achieved gravity recovery of 77.6% and gravity tails flotation recovered 17.1% for a total of 94.7% on a sample grading 11.89 g/t Au. Underground development and a bulk sample are permitted. The company mobilized a drill rig in December. An historical (1989) resource estimate has 1.845 Mt 2.79 g/t Au in the indicated category and 0.6 Mt 2.8 g/t Au in the inferred category.

Gold Basin carried out a mapping, prospecting, and rock and soil sampling at the **Consortium** project. Ten grab samples averaged 4.5 g/t Au and 14 g/t Ag with a high value of 30.4 g/t Au. The area is underlain by Karmutsen Formation tholeiitic basalts. Mineralization is in quartz veins with ankerite alteration.

8.2. Selected porphyry (Cu-Au, Cu-Mo, Mo) projects

8.2.1. Northwest Region

Libero Copper & Gold Corp. focussed on three main zones: Ridge, ME-18, and Terry at their **Big Red** project. The Ridge zone is 1 km long and has anomalous gold, silver, and copper that coincides with a ZTEM conductivity high. At ME-18, altered Stuhini Group volcanic rocks have been intruded by a diorite plug containing crosscutting gold-bearing quartz veins. The Terry zone is a previously identified porphyry Cu-Au target. Detailed mapping and geochemical sampling were continued from the previous year and surface sampling returned assays of 104.0 g/t Au at Ridge and 19.10 g/t Au at ME-18. A 3500 m reverse circulation drill program tested these targets. Results available for first hole, 24.38 m grading 0.38% Cu, 0.06 g/t Au and 2.2 g/t Ag.

Huckleberry was an open-pit mine until shutting down in 2016 and has since been on care and maintenance status. This year, Imperial Metals Corporation carried out 2491 m of exploratory drilling to test the extent of copper mineralization below the East zone pit. Initial results include 361 m grading 0.35% Cu from 368-729 m below surface.

Seabridge Gold Inc.'s **Iskut** project contains the former Johnny Mountain mine and the Bronson Slope copper-gold deposit. Previous drilling below the Quartz Rise lithocap discovered a mineralized diatreme containing clasts of veined diorite porphyry with copper-gold mineralization. This year, anomalous surface gold and copper concentrations and a large IP anomaly coincident with magnetic anomalies have guided the drilling of 8961 m in 11 holes to test 750 m of strike and greater than 800 m of vertical extent below and west of the lithocap. Initial results include intervals up to 158 m grading 0.16 g/t Au and 0.16% Cu. Higher grade (31.8 m grading 0.62% Cu) intersections were also recovered.

At their **Kirkham** project Metallis Resources Inc. work included field mapping, drill core re-logging, an IP survey, and short-wave infrared analysis. Late-season drilling (3820 m) tested the depth potential along the 4 km strike-length Cliff porphyry system, which was first highlighted by resistivity

highs outlined in recent IP surveys. Early results from this drilling indicate continuous Cu-Au mineralization from surface to 850 m depth.

Surge Copper Corp.'s **Ootsa** project consists of three separate deposits: Ox, East Seel, and West Seel. A 3D deep-penetrating IP geophysical survey was conducted over the Seel trend producing a new chargeability anomaly, which in part was drilled with 10,000 m of core. The upper portion of hole S20-218 intersected the East Seel deposit as it progressed towards the deeper chargeability target. Assays for the portion of the hole in the East Seel deposit included 176.1 m grading 0.35% Cu, 0.40 g/t Au and 1.7 g/t Ag including 126.0 m grading 0.43% Cu, 0.50 g/t Au, and 2.0 g/t Ag and 700 m grading 0.23% Cu, 0.16 g/t Au 0.031% Mo and 3.1 g/t Ag. Drilling was also completed to test expanding the East and West Seel deposits.

GT Gold Corp. completed work on their **Tatogga** project at the Saddle North deposit and the Quash Pass zone. A maiden resource was completed for Saddle North and fieldwork was done at Quash Pass. Saddle North includes an Indicated resource containing 1.81 Blbs Cu and 3.47 Moz Au and an Inferred resource containing 2.98 Blbs Cu and 5.46 Moz Au (combined open-pit and underground mining methods). A Preliminary Economic Assessment is currently being completed for Saddle North and is targeted for release in the first quarter of 2021. Quash Pass is 7 km south of known mineralization at the Saddle North and South deposits. This year 4841 m of drilling was completed in nine diamond-drill holes that tested two anomalous geochemical trends spanning 6 km. District-scale west-northwest trending faults and coincident IP chargeability anomalies also guided exploration.

Brixton Metals Corporation completed approximately 5291 m of drilling in 19 holes at their **Thorn** project. Drilling focussed on the West and Central Outlaw gold targets and several deep holes were drilled at the Camp Creek porphyry copper-gold target. More than 5000 soil and 1200 rock samples were collected for geochemical analysis and early results from rock samples yielded highlights of 68.8 g/t Au from West Outlaw and 7.21% Cu from Camp Creek. Additionally, the company increased the overall land package of Thorn by optioning adjacent properties from Stuhini Exploration Ltd. (Metla) and Kodiak Copper Corp. (Trapper). Prospecting this year at Trapper yielded five rock samples assaying greater than 20 g/t Au.

The **Treaty Creek** project ownership is Tudor Gold Corp. 60%, Teuton Resources Corp. 20%, American Creek Resources Ltd. 20%. The project is considered prospective for large-scale porphyry-style gold mineralization. Highlights from drilling include near-surface intersections of 348 m grading 2.04 g/t Au and 4.13 g/t Ag within 930 m of 1.07 g/t Au and 2.80 g/t Ag (drill hole GS-20-65) and 229.5 m grading 1.34 g/t Au and 11.94 g/t Ag within 775.5 m of 0.84 g/t Au and 5.47 g/t Ag (drill hole GS-20-73). It is anticipated that more than 40,000 m of core will be drilled by the end of 2020, focussing on the Goldstorm zone and the newly discovered Perfect Storm zone.

8.2.2. North Central Region

Orestone Mining Corp's **Captain** project is 30 km south of the Mt. Milligan mine. Mineralization is hosted in an altered alkalic monzonite porphyry. Target areas are outlined by strong magnetic anomalies with spatially associated moderate IP chargeability anomalies that are potentially related to mineralized monzonite porphyries and breccias. In late 2020, a total of 942 m of diamond drilling was completed in three holes.

Serengeti Resources Inc. carried out mapping, sampling, and IP geophysical surveys at their **East Niv** project. New data identified a 3.5 km² target area for porphyry Cu-Au mineralization and drilling is planned for 2021.

Pacific Empire Minerals Corp. carried out rock sampling, ground geophysics, airborne geophysics and reverse circulation drilling at their **Jean Marie** project. Rock sample results included 8.79 g/t Au, 86.6 g/t Ag, and 1.75% Cu from the newly identified Leap target area. At the C zone south target area, continuous chip sampling results returned 4 m grading 1.37% Cu, 0.08 g/t Au, and 67.4 g/t Ag. A ground magnetic survey was carried out over C zone south. A total of 1692 m of reverse circulation drilling in 15 holes was carried out at the A zone. A high-resolution airborne magnetic survey along 100 m spaced lines was flown over most of the property.

Centerra Gold Inc. drilled at the Kemess East (4257 m) and Nugget (3302 m) targets that are part of their **Kemess Brownfield** project.

At their **Kliyul** project Pacific Ridge Exploration Ltd. carried out 9.1 line-km of IP and ground magnetometer surveys, surface and drill core sampling to identify alteration and geochemical trends, and historical core re-logging to identify porphyry-style veining. Geophysics outlined potential to expand the Kliyul Main zone and defined two new targets, Kliyul East and Kliyul West. Targets are defined by moderate to high chargeability and resistivity and variable magnetic signatures along a strike length of 1.5 km.

Kwanika Copper Corporation (67% Serengeti Resources Inc., 33% Posco International Corporation) was formed in 2017 to continue exploration on the **Kwanika** property. Since 2006, about 82,650 m of drilling has been done on Kwanika (Central and South zones). In 2020, Serengeti completed a nine-hole 4350 m diamond drilling program to test exploration targets and expand the known resource. Posco elected not to participate in the 2020 program and their ownership diluted from 35% to 33%. Highlight results included an infill hole that intersected 698 m grading 0.40% Cu, 0.65 g/t Au, and 1.9 g/t Ag, and new deep mineralization that graded 0.15% Cu, 0.2 g/t Au, and 0.6 g/t Ag along 150 m.

Centerra Gold Inc. drilled 5441 m in 11 holes at their **Max** property. The Max project consists of 12 mineral claims (4869 ha) under option from Jama Holdings Inc., 21 km south of the Mount Milligan mine.

GGL Resources Corp. carried out 20 line-km of IP and ground magnetic surveys over a known porphyry Cu-Au zone at their **McConnell Copper-Gold** project. The IP survey follows up

on an older reconnaissance IP survey. New work was designed to better define the known chargeability target, and to expand geophysical coverage to evaluate the potential for other nearby targets buried by overburden.

Centerra Gold Inc. carried out a 69-hole 32,671 m diamond drilling program on their **Mt. Milligan Brownfield** project.

At their **Pil** project, Finlay Minerals Ltd. carried out detailed geological, alteration, and structural mapping, and soil and rock sampling. Targets included the PIL South, Copper Ridge, WG, Gold and Spruce zones.

IMC International Mining Corp. carried out ground geophysics, alteration mapping, and rock, soil, and silt sampling at their **Thane** property to guide future diamond drilling.

Mapping and sampling were carried out at the Nova zone by at Serengeti Resources Inc. at their **Top Cat** project. In addition, IP surveying was carried out over the Nova and Cat Mountain zones. Cat Mountain is an advanced gold-copper prospect that has seen more than 10,000 m of historical drilling, with results including grades of 1.15 g/t Au and 0.15% Cu along 95.4 m. Serengeti completed data compilation and 3D modelling for Cat Mountain and interpreted that mineralization potential remains open to the northwest and that there is a potential offset to the southeast.

8.2.3. South Central Region

GSP Resource Corp. reviewed historical data and commissioned a 3-D model for its **Alwin Mine** Cu-Ag-Au property in advance of drilling in the second half of the year. The first eight holes tested for replacement Cu sulphide mineralization, and subsequent drilling tested for porphyry alteration and mineralization to the north and south. The company drilled about 2000 m in 10 holes. Initial results included 12.1 m grading 2.27% Cu and 39.8 m grading 0.40% Cu near surface. Alwin produced copper, silver, and gold sporadically between 1916 and 1982.

Amarc Resources Ltd. prepared a technical report on the **IKE** property and reported surface work (geological, geophysical and geochemical) in 2020.

Sego Resources Inc.'s **Miner Mountain** project has several alkalic porphyry Cu-Au and Au targets in a roughly 2 by 3 km area, much of which is under cover. Sego reported trenching at its Southern gold zone, with a highlight result of 30 m of 1.02 g/t Au. Drilling tested other targets in the Granby-Cuba area with four holes totalling 3970 m. A step out extended Granby mineralization by 80 m.

Happy Creek Minerals Ltd. followed up an IP survey and mapping in 2019 with approximately 2400 m of drilling in five holes on their **Highland Valley (West Valley-Rateria)** project. The targets include the PIM, identified in 2019 in a recently logged area as a soil geochemical and IP anomaly with 0.4% Cu sampled in bedrock. Step outs at Zone 1 and Zone 2 were also priority targets. The property is in the Guichon batholith south of the Highland Valley Copper mine and north of the past producing Craigmont mine. It has about 25 known copper occurrences.

Following up on discoveries from work done in 2019, Kodiak Copper Corp. (previously Dunnedin Ventures Inc.), drilled on the **MDP** project, intersecting 282 m grading 0.70% Cu and 0.49 g/t Au at the Gate zone. Complete results for the hole included 535.1 m of 0.49% Cu and 0.29 g/t Au. Another hole from the setup near the north end of an approximately 1 km long copper-in-soil anomaly had similar results at a depth of 308 to 500 m down the -71° hole. Kodiak is now funded for about 30,000 m of drilling, which will include step outs and other zones on the property. Approximately 7000 m in 10 holes were drilled in fall 2020. The company flew an airborne magnetic and ZTEM survey earlier in the year. MPD is a consolidation of the Man, Prime, and Dillard alkalic porphyry Cu-Au targets, which had historically been explored to about 200 m depth.

Consolidated Woodjam Copper Corp. carried out drilling at the Deerhorn zone of the **Woodjam** project to test grade continuity and mineralization below previous drilling in a steeply dipping system. They also tested a parallel zone to the southwest and infilled and extended an IP survey on the Megaton target. A highlight result included 110 m of 2.57 g/t Au and 0.44% Cu including 26 m of 5.89 g/t Au and 0.92% Cu. Mineralization starts at 96 m down a -75° hole. Weather forced suspension of the program, which was to be extended based on initial results. The Woodjam project has a resource, including 32.8 Mt at 0.49 g/t Au and 0.22% Cu in the Inferred category at the Deerhorn zone. Woodjam comprises six zones in a cluster approximately 5 km in diameter.

8.3. Selected polymetallic base and precious metal projects

8.3.1. Northwest Region

In 2020, more than 25,000 m of core was drilled by Pretium Resources Inc. on the **Bowser** claims, which are prospective for epithermal Au-Ag, porphyry Cu-Au, and volcanogenic massive sulphides. At Hanging Glacier (4.5 km NW of the Brucejack mine), 9800 m of drilling tested anomalous surface samples. A highlight includes 13 m with 9.5 g/t Au in an interval of 102 m with 2.1 g/t Au. Work continued at A6 (14 km NE of the mine) with 11,900 m of drilling in search of volcanogenic massive sulphides. The remaining 3980 m of drilling followed up epithermal Au and porphyry Cu- Au mineralization at Koopa, Snowfield East, and Haimila.

The **Corey** project is owned by Eskay Mining Corp. (80%) and Kirkland Lake Gold Ltd. (20%). Eskay is the operator. This year, approximately 4000 m of core was drilled at the TV and Jeff prospects and almost all of the 20 holes intersected VMS mineralization. A review of historic diamond drill core from various prospects across the greater land tenure also revealed VMS mineralization: stratiform sulphide mineralization (TV and Jeff prospects), feeder-style mineralization (Cumberland, Red Lightning, SIB, and Lulu prospects), and sulphate mineralization (indicative of white smoker origin; C10 prospect). The TV and Jeff targets are approximately 1.5 km apart and historically have been interpreted to be isolated VMS targets. However, recent geophysical data (SkyTEM,

magnetotelluric, and IP) suggest these prospects form a single, larger VMS system. Airborne and ground-based geophysics completed this year suggest several other VMS targets. Highlight drill results at TV include 4.1 m grading 11.09 g/t Au, 44.2 g/t Ag, highlights at Jeff include 5.1 m grading 31.23 g/t Au, 138.1 g/t Ag.

The **Del Norte** property was optioned to Decade Resources Ltd. early in the year. In the 1930s, a creek that transects the property was mined for placer gold. Recent exploration has led to the discovery of several prospects along a minimum strike length of 4 km. Exploration this year focussed on drill testing the Argo and Eagle Nest zones with 5975 m in 32 holes; intervals of pyrite, sphalerite, galena, and tetrahedrite were recorded.

This year Dolly Varden Silver Corp. carried out more than 10,000 m drilling at their **Dolly Varden** project. Drilling focused on resource expansion and step-out targets. Step-out drilling intersected highlights that included 2.70 m of 1083 g/t Ag within 12.75 m of 351 g/t Ag.

Skeena Resources Ltd. exercised its option to acquire 100% of the **Eskay Creek** property. Barrick is expected to retain 12.4% of the project and has waived its back-in right. This year, six to twelve ground-based and helicopter-supported drills focussed on infill drilling (approximately 88,000 m) at the 21A, 21B, and 21C zones and will be used for the Preliminary Feasibility Study resource category conversions. Highlights from infill drilling include 42.59 m grading 7.19 g/t Au and 665 g/t Ag in 21C zone, 35.42 m grading 21.90 g/t Au and 235 g/t Ag in 21A zone, and 56.34 m grading 2.17 g/t Au and 234 g/t Ag in 22 zone. Exploration drilling was also completed to test the Water Tower and Lower Mudstone zones. The company raised \$46 million late in 2020 enabling financing for a Prefeasibility and Feasibility Study. The company is also permitting 137,000 m of exploratory drilling to test both brownfield and greenfield targets.

Etruscus Resources Corp. explored on their **Rock and Roll** property. Early season exploration consisted of sampling, prospecting, mapping, and a VTEM survey, which guided generating targets and drill planning. The company drilled approximately 2000 m to test new areas, the depth potential of the Black Dog deposit, and mineralization surrounding Black Dog. Three separate intervals of massive and semi-massive sulphide were intersected.

The **Todd Creek** project is owned by P2 Gold Inc. 70% and ArcWest Exploration Inc. 30%. This year, 1027 m of drilling tested a prominent gossan at Yellow Bowl, which hosts several structurally controlled copper-gold showings. Near-surface drill intersection highlights include 1.8 m grading 4.19% Cu, 0.19 g/t Au, and 4.90 g/t Ag within 3.3 m grading 3.03% Cu, 0.20 g/t Au, and 7.15 g/t Ag (TC-002). An additional drill hole tested closely spaced copper-gold showings 5 km south of Yellow Bowl. Airborne magnetic and radiometric surveys were also flown over the property and a satellite hyperspectral survey was completed.

8.3.2. North Central Region

High Range Exploration Ltd. announced plans to extract a 10,000 t bulk sample from its **Dominion Creek** property. The sample would be shipped to Nicola Mining Inc.'s mill and Nicola would be responsible for negotiating the sale of concentrate to a smelter or third-party purchaser. Nicola entered into a mining and milling profit share agreement with High Range and signed a letter of intent to acquire 50% of the property and a 75% economic interest. As part of their due diligence, Nicola collected a 9.7 kg grab sample and chip sampled at the Number 16 vein. The grab sample graded 62.1 g/t Au, 320 g/t Ag, 23.4% Pb, and 12.4% Zn. Chip sample results included 0.5 m grading 34.9 g/t Au, 176 g/t Ag, 12.7% Pb, and 8.6% Zn and 0.75 m grading 13.2 g/t Au, 46 g/t Ag, 2.7% Pb, and 2.7% Zn.

The **Stardust** property was acquired by Sun Metals Corp. in 2017. Historically regarded as a skarn deposit, it was explored intermittently for many years. Historic work included more than 80,000 m of drilling, 5800 soil samples, airborne magnetic surveys, mapping, and prospecting. Mineralization is hosted by the Sowchea, Pope and Copely successions west of the Pinchi fault, in the Cache Creek terrane. In 2018, Sun Metals reported discovering a new zone (421 zone) and drilling results included a 100 m intersection grading 2.51% Cu, 3.03 g/t Au, and 52.5 g/t Ag. In 2020, Sun Metals continued drilling, completing 11,988 m in 17 holes. Work also included geophysical surveys, geotechnical work, and core logging and sampling. Drilling results established continuity between the 421 and Canyon Creek zones along a 900 m corridor of continuous high-grade copper-gold mineralization. Results included 1.57% Cu, 1.08 g/t Au, and 28.2 g/t Ag along 44 m. The 421 zone was also expanded to the south with drilling intersecting 4.45 m grading 5.58% Cu, 5.99 g/t Au, and 190.5 g/t Ag.

8.3.3. South Central Region

Engold Mines Ltd. reported results of drilling at the G1 and Ann North at the **Lac La Hache** project. Notable intersections include 22.4 m grading 1.29% Cu, 0.11 g/t Au, 4.36 g/t Ag, and 26.91% Fe and another longer intersection of 215 m grading 0.25% Cu, 0.04 g/t Au, 1.47 g/t Ag, and 7.51% Fe at G1. Drilling at G1 included 20 m and 50 m step out holes. They also report grab sampling up to 9.65 g/t Au at Aurizon South. Drilling at Ann North returned anomalous copper, gold, and molybdenum values. Late in the year they drilled a recent gold discovery called the Road Gold zone. **Lac La Hache** has several different target types related to alkalic intrusions. Copper skarns have had much of the recent exploration attention, but there are also porphyry targets and the Aurizon Au-Ag-Cu vein and breccia zone.

Nicola Mining Inc. announced final 2019 drill results and results of flotation tests on Craigmont waste rock for their **New Craigmont** project. After processing with an X-ray transmission sorter, material with a feed grade of 0.32% Cu and 6.4% Fe produced a Cu concentrate grading about 30% Cu. Testing using magnetic separation on magnetite concentrate produced a 65% Fe concentrate. The company also began

developing a resource estimate for the historic Craigmont mine waste terraces. Inferred resources for the Southern and 3060 Portal dumps total 18,669,000 t grading 0.13% Cu.

The British Columbia Environmental Assessment Office terminated Yellowhead Mining Inc.'s Harper Creek copper project assessment in 2018. However, in early 2019, Taseko Mines Limited acquired Yellowhead Mining, renamed the project **Yellowhead**, and is advancing the project. They indicate an intention to re-enter environmental assessment. Taseko announced results of an updated Feasibility Study in January, including a new development plan and resource estimate (Table 5). Proven and Probable reserves now stand at 817 Mt grading 0.28% Cu at a 0.17% cut-off. In May, Taseko announced an agreement with an unnamed local First Nation regarding the company's intention to restart the project regulatory approval process. Although porphyry-like in tonnage and grade, Yellowhead is generally considered a marine volcanogenic and syngenetic deposit.

8.3.4. Southeast Region

At their **Aldridge 1** and **Aldridge 2** properties DLP Resources Inc. drilled two DD holes (2477 m) on the **Aldridge 1** and encountered 200 m of moderate to intense hydrothermally altered (quartz-albite) sedimentary rocks with albite, garnet, silicification and trace tourmaline, along with disseminated and veinlets of sphalerite and abundant pyrrhotite. At the **Aldridge 2** they drilled one DD hole (482 m) on another target from a magnetotelluric survey completed in 2019.

In 2019, Braveheart Resources Inc. purchased the former **Bull River** mine, which had been on care and maintenance since 2009. In 2020, the company drilled 831 m (5 DD holes) of a planned 3000 m underground drill program but ceased activities in March because of Covid-19. The holes were all drilled from the lowest mine level and tested mineralization down dip of the south vein. Results include 4.24 m (true width) grading 1.39% Cu, 1.33 g/t Au, and 9.51 g/t Ag. The company began design work to upgrade the tailings storage facility and obtain permits to process the stockpiled ore and move towards a mine restart.

In 2020, MGX Minerals Inc. entered into an option agreement for the **Heino Gold** property, which includes the Tillicum, Heino-Money, and East Ridge showings. MGX compiled historical data and completed a lidar survey. Extensions of the ore zones surrounding historic workings were sampled, with grab sample results of up to 207 g/t Au. Metallurgical test work of composite samples taken from historic drill core and from outcrop indicated recoveries of 94.1% Au in gravity-flotation. The company has applied for drill permits for 2021.

In 2020, Eagle Plains Resources Ltd. optioned the **Iron Range** property to a private company who could earn up to 80% in the property. The company has identified three main target zones: Talon/Canyon, O-Ray, and Car. The private company began drilling (10 DD holes, 1000 m) at the O-Ray zone late in the year to further test a zone that returned 7.0 m grading 51.52 g/t Au in 2008 drilling.

At their **Ore Hill** project, Apex Resources Inc. followed up on 2019 drilling that intersected zones including 0.30 m grading 289.97 g/t Au. They drilled 12 holes (1600 m) along a 500 m zone of the soil anomaly, and encountered 0.3 m grading 32.9 g/t, with assays pending from eight more holes.

At their **Radpath** project, KG Exploration (Canada) Inc. drilled 1200 m (4 DD holes) to follow up on 2019 drilling and targets identified on airborne geophysics, ground magnetics, geological mapping, and sampling. Rock samples assayed up to 11.9 g/t Au, with the highest values in rocks along the margins of intrusive rocks that appear as magnetic highs on ground geophysics.

In 2020, Affinity Metals Corp. continued drilling at their **Regal** project (previously known as Allco). Efforts were focussed to follow up on drilling in 2019, which intersected 11.1 m grading 143.29 g/t Ag, including 0.55 m grading 2612.0 g/t Ag. Drilling was completed late in the year (19 DD holes, 3443 m). Mineralized intersections from the drill program consisted mostly of argentiferous galena, sphalerite, and tetrahedrite in quartz veins and breccias. Further mapping and sampling were also done for several km along a northwest-southeast fault contact. Several gold and silver bearing outcrops were mapped along a mineralized trend that coincides with a northwest-trending geophysical anomaly.

Rokmaster Resources Corp. entered an option agreement to acquire 100% of the **Revel Ridge** project, which includes the historic J&L mine site, facilities and claims, including more than 3 km of underground workings. The company compiled the historical data and updated the NI 43-101 resource estimate. They began mapping and sampling early in the season and rehabilitated portals and underground workings at the Main zone. They began underground drilling late in the year and completed more than 6000 m (20 DD holes) to test extensions of the Au-Ag zones. Additional metallurgical test work was completed on several samples to improve procedures and grades of gold, silver, zinc and lead in the concentrates. The company began work on a Preliminary Economic Assessment and environmental baseline and monitoring work for permitting. Initial results from surface mapping include grab samples with up to 6.57 g/t Au, 311 g/t Ag, 9.53% Zn, and 7.02% Pb, and results from a 0.3 m chip sample grading 5.6 g/t Au, 173 g/t Ag, 0.72% Zn, and 6.65% Pb.

Klondike Silver Corp.'s **Silvana** project consists of 25,000 ha in the silver-rich historic Slocan mining camp, with production that dates back to 1891. In 2020, they continued drilling and drifted an additional 29 m (of a planned 80 m) before the program was suspended because of Covid-19. They encountered sphalerite and galena in every hole, with results including 0.8 m grading 71.73 g/t Ag, 1.09% Pb and 0.21% Zn. Environmental baseline work, monitoring, and engineering upgrades to the tailings facility and mill are ongoing as the company updates their mine plan and permit. The company's mill at Sandon is a 100 tpd flotation mill that operated at an average rate of 40 tpd and has been on care and maintenance since 2003.

Taranis Resources Inc. continued work at the **Thor** property, which has several targets and showings, including the True Fissure, Great Northern, Broadview, and Blue Bell (Fig. 3) past-producing mines. In 2020, the company drilled eight DD holes (1200 m) at the True Fissure target, and intersected semi-massive to massive sphalerite, tetrahedrite, and pyrite. Initial results from the first hole encountered an upper gold zone (0.76 m grading 3.96 g/t Au), and two zones with lower grades of gold but higher silver, lead and zinc (2.9 m grading 0.5 g/t Au, 252.5 g/t Ag, 0.14% Cu, 1.64% Pb, and 5.3% Zn). The company also completed additional mapping, sampling, and geophysics at the Ridge target for drilling in 2021. Mapping and channel sampling was done at the Scab zone, with results of 3.05 m grading 3.72 g/t Au, 345 g/t Ag, 0.07% Cu, 2.24% Pb, and 0.38% Zn; and 2.52 m grading 1.29 g/t Au, 72 g/t Ag, 0.02% Cu, 1.40% Pb, and 0.71% Zn. Taranis also continued environmental baseline work, tailings storage design work, and other requirements for a 10,000 t bulk sample permit.

8.3.5. Southwest Region

GoldHaven Resources Corp. (Formerly Altum Resources Corp.) reported results of rock sampling at **Adam West**. Of 147 grab samples, 102 returned >0.25% Cu. Highlights include 46.4% Cu and 144 g/t Ag and 16.55 g/t Au at the Lucky Jim occurrence. Targets include vein, fracture, and amygdale fillings of bornite, chalcocite and chalcopyrite in Karmutsen Formation basalt, overlain by limestone. The Lucky Jim is described as skarn or metasomatic mineralization.

Bayhorse Silver Inc. expanded the **Brandywine** property in 2020. The company released results from 2019 resampling of core drilled in 2010, verifying earlier work. Metallic screen assays returned up to 20.2 g/t Au along 1.5 m. The company planned a 1500 m 10-hole drill program and applied for a permit. Brandywine has vein targets and massive sulphide targets.

8.4. Selected Ni-Cu-Co-precious metal projects

8.4.1. Northwest Region

The **E&L** property is one of only two known high-grade magmatic Ni-Cu-(PGE) massive sulphide projects in the Canadian Cordillera. The deposit contains pyrrhotite, pentlandite, and chalcopyrite in an olivine gabbro stock that intrudes Lower Jurassic sedimentary and volcanic rocks. Drilling in 2020 by Garibaldi Resources Corp. extended the strike length of the E&L intrusion from 200 to 650 m to a depth of 578 m. Highlights from this drilling included 151.6 m grading 0.56% Ni and 0.61% Cu (EL-20-89).

In October, Giga Metals Corp. completed a Preliminary Economic Assessment for their **Turnagain** project. The zoned deposit has maximum dimensions of 3 by 8.2 km and displays a dunite core surrounded by peripheral peridotites, pyroxene rich peridotite, wehrlite, and olivine pyroxene (MINFILE 104I 119). The project is expected to produce 37,149 t of Ni per year (years 6-20) and, during its 37-year mine life, produce 1.2 Mt Ni concentrate. A resource estimate was completed

in 2019 with Measured plus Indicated resources of 1.073 Bt grading 0.22% Ni and 0.013% Co, and an Inferred resource of 1.142 Bt grading 0.22% Ni and 0.013% Co.

8.4.2. North Central Region

FPX Nickel Corp.'s **Baptiste** project contains ultramafic rocks mineralized with a naturally occurring nickel-iron alloy called awaruite. In 2020, FPX Nickel released a new Preliminary Economic Assessment. The project has the potential to be an operation with an average annual production of 99 Mlbs of contained nickel. Baptiste's large scale, combined with operating costs of US\$2.74/lb, has the potential to generate average earnings (before royalties, taxes and depreciation) of US\$481 million per year and an after-tax Net Present Value of US\$1.7 billion. Tailings produced by the proposed mining and milling process have potential to sequester significant quantities of CO₂.

8.5. Selected tungsten projects

8.5.1. South Central Region

Happy Creek Minerals Ltd. drilled seven holes (1119 m) at its **Fox Tungsten** project, six of which tested the Nightcrawler zone. Nightcrawler is about 6 km south of the existing resource area at Ridley Creek. Happy Creek also reports prospecting discoveries of scheelite approximately 5 km west of Ridley Creek.

8.6. Selected specialty metal projects

8.6.1. North Central Region

Defense Metals Corp. filed an updated 43-101 technical report, began baseline environmental studies, and carried out flotation pilot plant studies for its **Wicheeda** rare earth element project. The updated report includes an Indicated mineral resource of 4.89 Mt averaging 3.02% Light Rare Earth Oxide (LREO) and an additional Inferred mineral resource of 12.1 Mt averaging 2.90% LREO. LREO % equals sum of light rare earth elements expressed as oxides Ce₂O₃ + La₂O₃ + Nd₂O₃ + Nd₂O₃ + Pr₂O₃ + Sm₂O₃. Resources reported at a cut-off grade of 1.5% total metal. Total metal % equals the sum of Ce+La+Nd+Pr+Sm+Nb percentages.

8.7. Selected coal projects

8.7.1. Northeast Region

Colonial Coal International Corp.'s **Flatbed** project is adjacent to the former Trend mine; the **Huguenot** project is south of Trend. In 2020, work on these projects consisted primarily of permitting, First Nations consulting, environmental monitoring, and data review. For **Huguenot**, Measured and Indicated surface mineable coal resources total 132.0 Mt, with an additional Inferred resource of 0.5 Mt. A conceptual open pit would yield 72 Mt of product coal during a mine life of 27 years.

At their **Rocky Creek** project, CTI Plus Resources Ltd. drilled 50 diamond-drill holes totalling 818 m and 19 reverse circulation holes totalling 3154 m. Diamond drilling included

both HQ and PQ core. Coal seams were sampled and sent for testing. Also, ten trenches were geologically mapped and sampled. Data will be used for a feasibility study.

Peace River Coal Inc. (a subsidiary of Anglo American plc) carried out a six hole diamond drilling program totalling 3204 m near the **Trend-Roman** mine, which closed in 2014. The program was designed to test underground potential near the former mine.

8.8. Selected industrial mineral projects

8.8.1. South Central Region

Most of Garnet Peak Resources Inc.'s effort went toward permitting and First Nation engagement efforts for their **Mt. Riordan** project. They are permitted for exploration drilling and a bulk sample of up to 10,000 t. Depending on results of test marketing, a 25,000 tpy quarry with a 10-year life is contemplated. The product would be industrial garnet, used in water jet cutting and sand blasting.

9. Summary of assessment work, 2019

Results of mineral exploration programs are submitted by industry in assessment reports to the government in compliance with the Mineral Tenure Act. After a one-year confidentiality period, the reports become an open resource for mineral exploration, investment, research, land use, and resource management. The British Columbia Geological Survey maintains these reports in the Assessment Report Indexing System (ARIS) database. This database provides information about the location, mineral occurrences, commodities, claims, work types, and expenditures as presented in the assessment reports. ARIS contains more than 38,000 reports dating from 1947; all are available online as PDF documents through the British Columbia Geological Survey website.

The present summary includes assessment work registered with a Statement of Work affidavit dated to the end of 2019 and does not include work that may have been conducted in 2019 but registered in 2020. The expenditures recorded in assessment reports are registered to maintain claims beyond their expiry date and thus reported costs may represent only part of the total amount spent.

The number of approved assessment reports with an affidavit date of 2019 totalled 815 (Fig.12), with declared costs of \$181,186,301 (Fig. 13), a 61% increase in expenditures from 2018 (Table 8). The Northwest Region accounted for 65% of the province-wide exploration costs in 2019 (Fig. 14). The region registered \$118 million in exploration expenditure in 2019, doubling levels from 2018 (\$59 million). Drilling accounted for 76% of the expenditures (Fig. 15); the remainder was spent on geochemical sampling (9%), geophysical surveys (8%), geological mapping (3%), physical work (3%), and prospecting (1%). Physical work expenditures only include work submitted as part of a technical work report, not expenditures reported in a physical work report. Average exploration costs by work type (Table 9) are from report statements for labour, consulting, food, accommodation, transport, camp equipment rentals

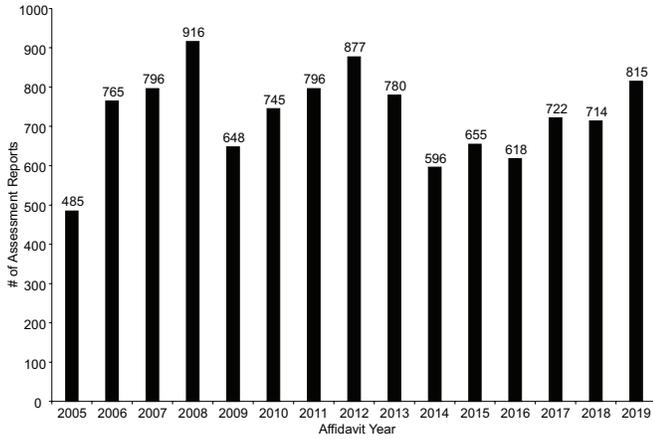


Fig. 12. Assessment reports approved between 2005 and 2019 by work affidavit year.

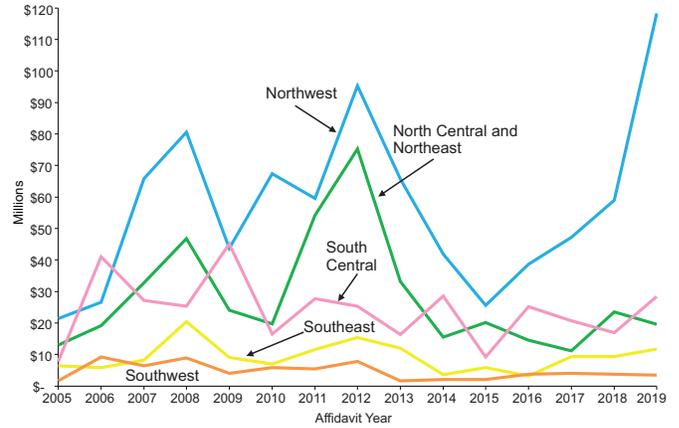


Fig. 14. Expenditures approved for assessment credit between 2005 and 2019 by work affidavit year and region.

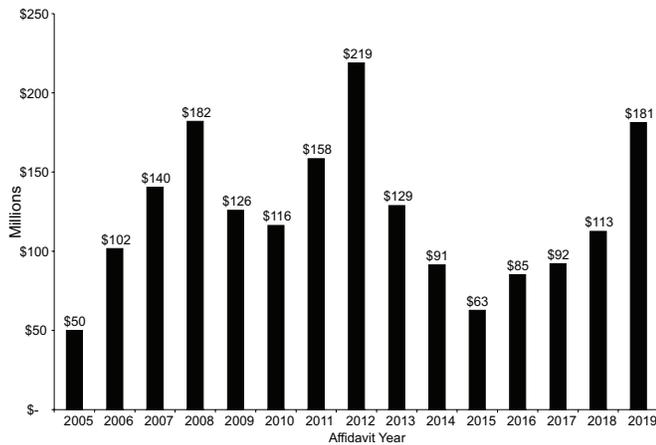


Fig. 13. Expenditures approved for assessment credit between 2005 and 2019 by work affidavit year.

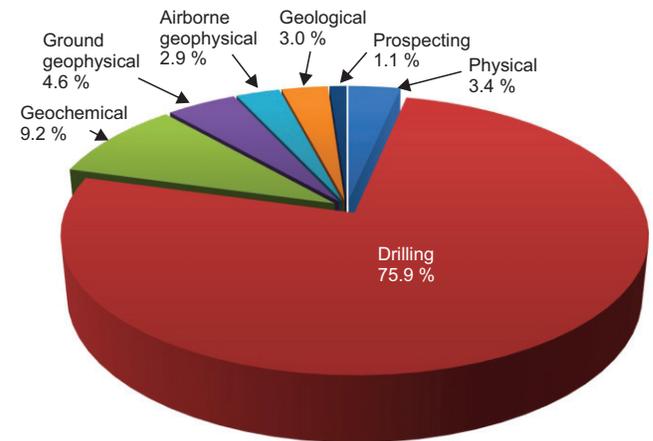


Fig. 15. Proportion of value of exploration work type in the work affidavit year 2019.

Table 8. Summary of assessment work, 2019.

		Reports	Value	Core drilling		Non-core drilling		Soil	Stream sediment	Rock
				Holes	m	Holes	m			
Northwest	2019	229	\$118,321,177	819	211,075	167	3874	18,813	607	10,090
North Central and Northeast	2019	104	\$19,494,461	100	26,243	93	2071	6469	544	2030
South Central	2019	254	\$28,333,514	230	57,241	129	3709	11,047	2172	4969
Southeast	2019	126	\$11,641,239	186	19,871	-	-	5456	54	3510
Southwest	2019	102	\$3,395,910	44	533	-	-	3141	112	1667
Provincial total	2016	618	\$85,141,604	465	165,212	14	250	34,715	777	9698
Provincial total	2017	722	\$92,215,514	1199	205,434	173	3458	30,188	1450	14,648
Provincial total	2018	714	\$112,528,518	869	246,484	112	3665	49,736	1993	19,762
Provincial total	2019	815	\$181,186,301	1379	314,962	389	9654	44,926	3489	22,266

Table 9. Average exploration project costs, 2016-2019.

	Cost	2016	2017	2018	2019
Core drilling	\$ per m	310	252	297	387
Non-core drilling	\$ per m	611	284	361	425
Stream sediments	\$ per sample	332	355	348	502
Soil samples	\$ per sample	139	152	152	139
Rock samples	\$ per sample	269	371	371	332
Trenching	\$ per m	92	163	78	168
Ground EM	\$ per km	1419	3700	2187	4101
Ground magnetics	\$ per km	1182	906	807	858
Induced polarization	\$ per km	7882	4879	8362	8233
Airborne magnetics	\$ per km	48	40	91	72
Airborne EM	\$ per km	177	126	83	191
Geological mapping	\$ per ha	70	59	16	21
Prospecting	\$ per ha	51	19	9	39

and supplies, laboratory analyses, report preparation, direct administration, and project management.

Traditionally, data in assessment reports have been embedded in paper or non-digital electronic files, such as .PDF, making them difficult to extract and use. To resolve this problem, the British Columbia Geological Survey has embarked on a program to encourage submission of digital data files such as spreadsheets, databases, maps, and grids, which can be easily retrieved, integrated, recalculated, and recast for specific needs. These files can be uploaded through the ARIS Data Submission page <<http://ardata.bcgeologicalsurvey.ca>>, submitted by CD/DVD/USB when an assessment report is filed, or e-mailed to ARIS.digital@gov.bc.ca.

10. Public geoscience

10.1. British Columbia Geological Survey

The British Columbia Geological Survey (BCGS) creates and disseminates public geoscience to guide societal decisions, connecting government with the minerals industry and local communities. Applied research is undertaken by a range of geoscientists using established and emerging technologies to assess the geological evolution and mineral resources of the province. Value is added to BCGS programs through extensive collaboration with federal, provincial, and territorial geoscience agencies, and with other national and international organizations. BCGS provides freely accessible reports, maps, and databases via MapPlace, the BCGS geospatial web service. The wide array of information, services, and products provided by BCGS supports effective mineral exploration, sound land use management, and responsible governance thus informing decisions that balance the economy, the environment and community interests. The survey is the oldest scientific organization in British Columbia, having celebrated 125 years of public service in 2020. The Mineral Development Office (MDO) is the Vancouver base of the BCGS. It links the more than 800 exploration and mining companies headquartered

in Vancouver to provincial mineral and coal information. The MDO distributes Survey data and provides technical information and expertise about mineral opportunities to the domestic and international investment community.

Plans for the 2020 field season were drastically changed by the Covid-19 pandemic. Following an initial decision to suspend multi-year mapping programs in the northwestern part of the province and near Hogen batholith, fieldwork across the more southern parts of the province were also cancelled in recognition of widely publicized, pandemic-related concerns of First Nations and other local communities. Limited fieldwork was undertaken in August on Vancouver Island in accordance with WorkSafe BC guidance. One project assessed the northerly extent and geochemical characteristics of prospective Neogene plutons on northern Vancouver Island. Supporting an ongoing commitment to innovation and technology development, another project tested the effectiveness of a device that measures atmospheric mercury to identify buried mineralized zones and faults, and work progresses on developing technology to rapidly capture geophysical information using drones.

Despite the absence of major field programs, BCGS staff have remained busy throughout 2020 with desk-based and analytical work to support the mineral exploration community and land use planning initiatives in the provincial government. In the office, ongoing map compilations continue to consolidate knowledge from recent field mapping and older published maps for the digital provincial database and selected map publications. Compilation efforts include significant swathes of northwestern British Columbia, focussing on areas near Dease Lake, Decar, Polaris, the southern Nicola Arc, southern Quesnellia and Johanson Lake. An extensive program of laboratory analysis, using recently collected and archived samples, continues to build geoscience knowledge across a range of projects and initiatives. Early October saw the successful delivery of an online workshop 'Cordilleran Geoscience: a 2020 Perspective'. Planned in collaboration

with the Geological Survey of Canada, the Yukon Geological Survey, and the Pacific Section of the Geological Association of Canada and comprising 10 presentations, the meeting connected with more than 250 delegates. Results of work in 2020 are released in the annual BCGS Geological Fieldwork volume (Fig. 16), other types of BCGS publications, peer-reviewed journals, and partner publications.

Mineral potential assessment is now a renewed focus for the Survey, with an emphasis on supporting government and stakeholders in land use planning and policy. BCGS pioneered mineral potential assessment in Canada during the early 1990s, but recent analytical techniques and machine learning technology offer the opportunity to update methods and greatly improve results. The development of digital data sources and applications, such as MapPlace, have been a focus of recent activity and place the Survey in a strong position to apply these new techniques.

As the steward of mineral and coal resources in the province, the Survey has an important role in stimulating activity, attracting investment, and providing continuous research based on a corporate memory that extends back more than 125 years. Custodian of all provincial public geoscience data, the BCGS preserves, archives, and provides free web-based access to information. The BCGS houses, maintains and

regularly updates numerous databases, including MINFILE, COALFILE, Property File, the Assessment Reports Indexing System (ARIS), digital bedrock geology, regional geochemical surveys, geochronologic data, and a publications catalogue. MapPlace, the BCGS geospatial web service, provides open geoscience data and custom map-making tools to help decision-makers from diverse disciplines reduce the costs of accessing and analyzing information.

10.2. The Geological Survey of Canada

The BCGS and the Geological Survey of Canada (GSC) continued to deliver projects through the second iteration of the Geo-mapping for Energy and Minerals (GEM 2) program, and the Targeted Geoscience Initiative 5 (TGI-5) program, both of which were completed in 2020. The GSC is currently launching new multi-year phases of these programs (TGI-6 and GEM-GeoNorth) and is seeking active collaboration with provincial and territorial surveys across Canada.

10.3. Geoscience BC

Geoscience BC (GBC) is a not-for-profit, non-government organization funded by provincial government grants. GBC supports mineral and oil and gas investment in British Columbia through the funding and delivery of geoscience projects contracted to third parties. Major projects include significant geophysical and geochemical surveys, and grants to universities and consultants for targeted geoscience projects submitted in response to requests for proposals. GBC is governed by a volunteer board of directors and receives technical direction from volunteer technical advisory committees (mineral exploration, oil and gas, and geothermal) whose membership is largely drawn from industry.

11. Foreign investment initiatives

Opportunities exist for companies to attract foreign investment using government services and staff. The province participates in international investment missions showcasing mineral and coal opportunities. If you are interested in profiling your projects or investment opportunities in upcoming events, connect with the Mineral Development Office in Vancouver for more information.

12. Concluding remarks

The year 2020 will be remembered for the Covid-19 pandemic. Despite the pandemic, exploration activity in British Columbia rebounded following initial disruptions and mining production remained strong. Likely stimulated by the pandemic, a significant increase in the price of gold and copper spurred financing and exploration for precious metal and Cu-Au projects in the province.

Noteworthy acquisitions and proposed mergers were announced in 2020. Artemis Gold Inc. acquired the Blackwater Gold project from New Gold Inc. for approximately \$210 million. The project has both provincial and federal environmental assessment approval. In November, Serengeti

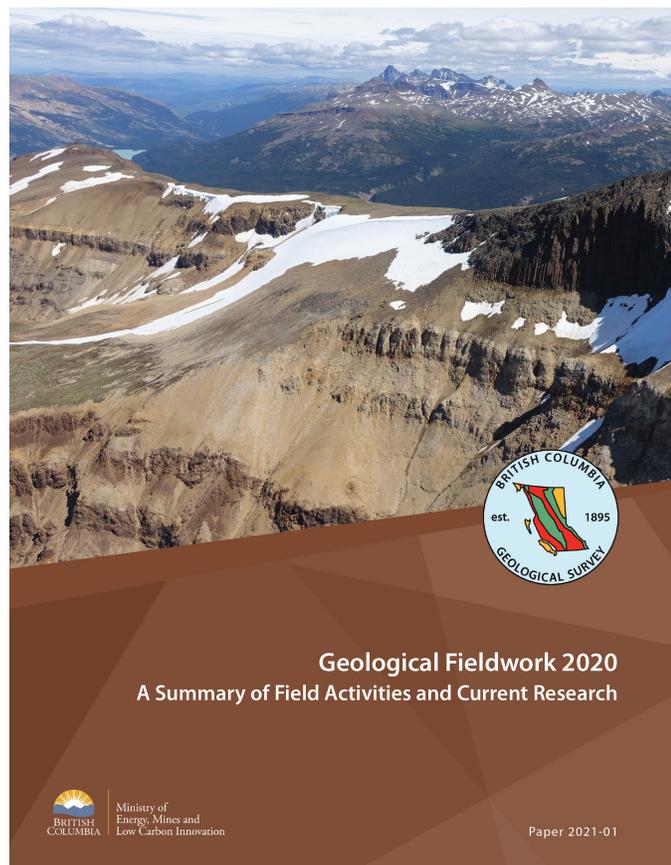


Fig. 16. Geological Fieldwork contains peer-reviewed papers that summarize field activities and current research by the British Columbia Geological Survey.

Resources Inc. and Sun Metals Corp. entered into an agreement whereby Serengeti would acquire all issued shares of Sun Metals. The transaction would consolidate the contiguous copper-gold exploration and development assets of the Kwanika and Stardust projects. In December, Seabridge Gold Inc. purchased the Snowfield deposit from Pretium Resources Inc. for \$100 million US.

British Columbia may have avoided a decrease in exploration expenditures and activity due to the resourcefulness of British Columbia mineral explorers and the innate mineral endowment of the province coupled with the provincial government declaring exploration and mining as essential services. Reports of new discoveries and significant results continue to date, supporting British Columbia's reputation as a premier jurisdiction for mineral exploration and mine development opportunities.

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