

Exploration and mining in the North Central and Northeast regions, British Columbia



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1. Introduction

A northeast to southwest transect through the Northeast and the North Central regions provides a cross section from undeformed rocks deposited on Precambrian basement to allochthonous terranes accreted to Ancestral North America (Fig. 1). In the Northeast Region, platformal sedimentary rocks transition westward to deep-water basin strata at the eastern limit of Cordilleran deformation, close to the border of the North Central Region. The North Central Region displays a history of ocean opening and closing, island arc volcanism, and terrane accretion onto the western margin of Ancestral North America. Terrane emplacement was followed by continued orogeny, magmatism, and sedimentation. Both regions were extensively glaciated.

The Northeast Region is prospective for coal and industrial minerals and four mines produced coal in 2024: Conuma Resources Limited's **Willow Creek**, **Quintette**, **Brule**, and **Wolverine** operations. After 24 years, the company resumed mining operations at the Quintette mine in September. The Wolverine mine was shut down in April; the Brule mine may go on care and maintenance in 2025. Anglo American has proposed to sell its Peace River Coal operation **Trend-Roman** mine, which has been on care and maintenance since January 2015, to Conuma Resources Limited. In the far north of the region, Fireside Minerals Ltd. produces barite from its **Fireside** mine to supply the oil and gas drilling industry. The North Central Region is prospective for copper, gold, silver, zinc, lead, niobium, and rare earth elements. These elements occur mainly in porphyry, epithermal or vein and stockwork, SEDEX, and carbonatite settings. The North Central Region has one producing mine, the **Mount Milligan** copper-gold operation (Centerra Gold Inc.) and a mine development project, Artemis Gold Inc.'s, Blackwater Gold project. Significant work and results included those reported for Centerra Gold Inc.'s **Mount Milligan Brownfield**, **Mount Milligan Greenfield**, and **Kemess North** projects, FPX Nickel Corp.'s **Baptise Nickel** project, Amarc Resources Ltd.'s **JOY** project, Thesis Gold Inc.'s **Lawyers-Ranch** project, Independence Gold Corp.'s **3Ts** project, Golden Cariboo Resources Ltd.'s **Quesnelle Gold Quartz** project, Pacific Ridge Exploration Ltd.'s **Kliyul**,

Chuchi and **Redton** projects, Sun Summit Minerals Corp.'s **JD** project, and Quartz Mountain Resources Ltd.'s **Jake** project.

Estimates for exploration expenditures, drilling programs, and other metrics were captured in the British Columbia Mineral and Coal Exploration Survey, a joint initiative of the Province of British Columbia Ministry of Mining and Critical Minerals, the Association for Mineral Exploration (AME), and EY LLP. For the North Central Region, exploration expenditures were estimated at \$77.0 million and exploration drilling was estimated at approximately 89,000 m. For the Northeast Region, exploration expenditures were estimated at \$3.3 million and exploration drilling was estimated at approximately 3600 m (Clarke et al., 2025; EY LLP, 2025).

2. Geological overview

The Canadian Cordillera records a history of supercontinent rifting followed by collisions between the westward-driven North American continental plate and a succession of island arc volcanosedimentary and intrusive assemblages (terranes) developed outboard of Ancestral North America and accreted to each other and to the continental margin (e.g., Nelson et al., 2013). Terrane evolution continues today as the Juan de Fuca plate slides beneath Vancouver Island. In the Northeast and Central regions, the most easterly rocks are platformal sedimentary units that thicken westward and transition to deep-water basin strata. These rocks are deformed mainly by eastward-vergent thrust faults and folds along northwest-southeast trends. The Rocky Mountain trench marks the site of about 800 km of post-accretion dextral strike slip along the Tintina fault system. Deformed deep-water basin sedimentary rocks immediately west of the Rocky Mountain trench are referred to as the Cassiar terrane (Fig. 1). Outboard of the Cassiar terrane is a group of volcanic assemblages referred to (roughly from east to west) as the Slide Mountain terrane, the Quesnel and Stikine terranes (Quesnellia and Stikinia), and the Cache Creek terrane. The Cache Creek terrane is separated from Quesnellia by the Pinchi fault, another major crustal break, which locally exposes areas of ultramafic rocks. These terranes are intruded by intermediate to felsic plutonic and volcanic rocks that are overlain by younger sedimentary

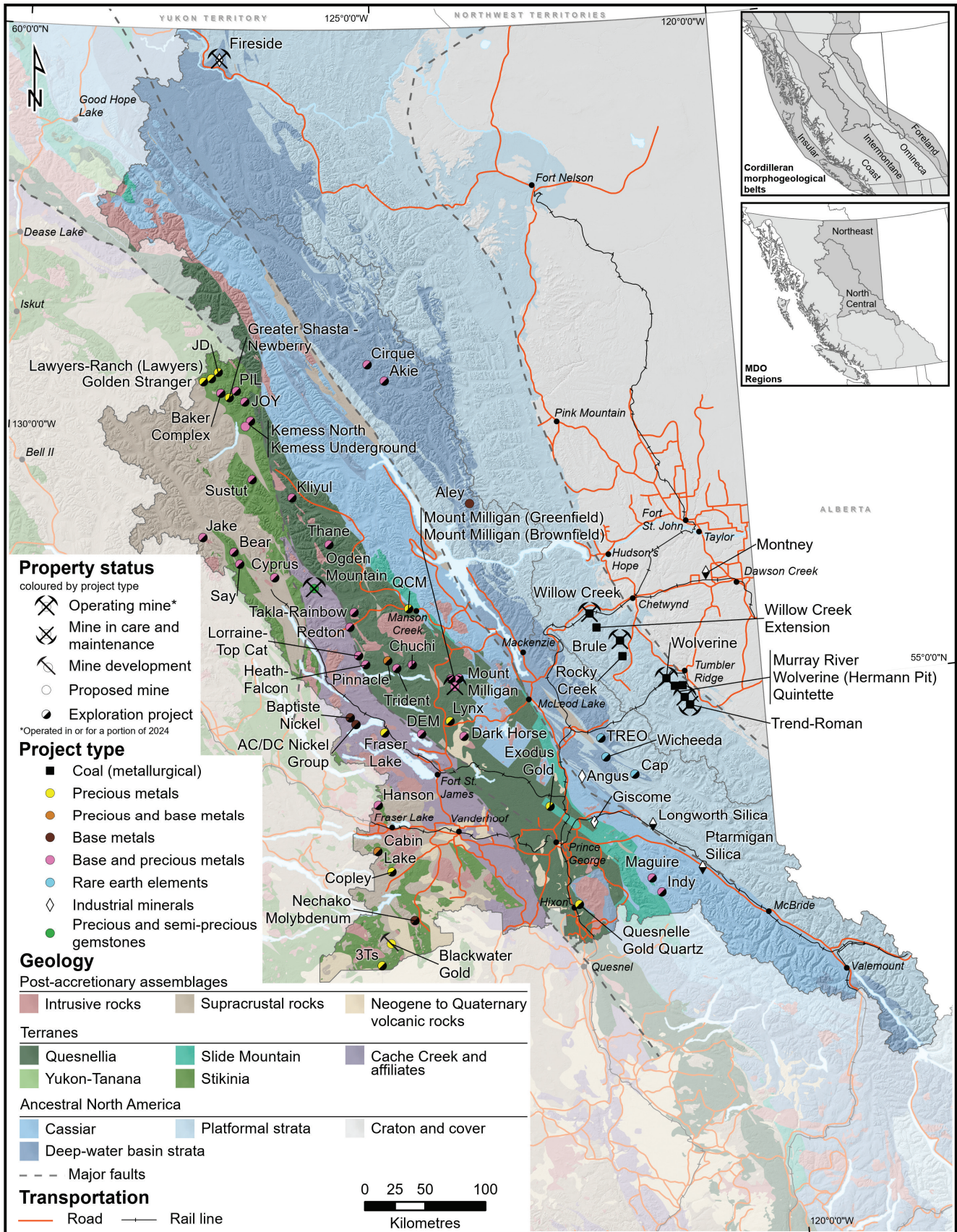


Fig. 1. Mines that operated for at least part of the year and selected projects, North Central and Northeast regions, 2024. Terranes after Nelson et al. (2013).

and volcanic rocks. Mineral deposit types and distributions are intimately related to the geologic evolution of the terranes (e.g., Nelson et al., 2013). Thus, platformal rocks deposited above Ancestral North America host coal and potash deposits, and post-accretionary sedimentary rocks overlying the Stikine terrane host coal deposits. Deep-water basin strata host SEDEX and Mississippi Valley-type lead-zinc deposits and are intruded by carbonatite bodies hosting niobium and rare earth elements (REE). The island arc assemblages of Quesnellia and Stikinia host large polymetallic porphyry, epithermal, and orogenic precious metal deposits.

3. Mines and quarries

In 2024, one metal mine and one industrial mineral mine operated in the North Central Region; four coal mines, and one industrial mineral mine operated in the Northeast Region (Fig. 1; Tables 1-3).

3.1. Metal mines

Centerra Gold Inc.’s **Mount Milligan** (Cu-Au) mine is the only metal mine in the North Central Region, (Fig. 1; Table 1).

3.1.1. Mount Milligan (Centerra Gold Inc.)

The **Mount Milligan** mine is hosted by mafic to intermediate volcanic and pyroclastic rocks of the Takla Group (Triassic to Lower Jurassic) that are intruded by Lower Jurassic monzonite porphyry stocks. The ore body is a silica-saturated alkalic porphyry deposit in which copper and gold (with accessory silver) mineralization is in sulphides across an area of 2500 by 1500 m. The deposit has two principal zones. At the Main zone, mineralization is mostly in volcanic rocks; at the Southern Star zone, mineralization is in a monzonite stock and in volcanic rocks. As of December 31, 2023, the mine has Proven and Probable reserves of 250 Mt grading 0.35 g/t Au and 0.17% Cu, with a combined Measured and Indicated resource of 260 Mt at 0.15% Cu and 0.27 g/t Au containing 851 million pounds (lbs) of copper and 2.3 million ounces (oz) of gold, and an Inferred Mineral resource of 7.8 Mt at 0.14% Cu and 0.34 g/t Au. Royal Gold Inc. has signed an agreement with Centerra Gold to extend the life of the Mount Milligan mine until 2035. Mount Milligan produced 129,919 ounces of gold and 41.6 million pounds of

copper in the first three quarters of 2024. Within the mine lease, 7005 m of drilling was completed.

3.2. Coal mines

Conuma Resources Limited produced from the **Brule, Quintette, Willow Creek, and Wolverine** mines (Fig. 2; Table 2). All coal was shipped by rail to the Trigon Terminal, Prince Rupert. Coal can be blended at port to create different quality mixtures for customer needs.

3.2.1. Brule (Conuma Resources Limited)

Forecast production for the **Brule** mine was 1.3 Mt of pulverized coal injection (PCI) coal. The coal is in folded and thrust-faulted rocks of the Gething Formation. The direct-ship coal product is transported by truck to the **Willow Creek** mine site then sent by rail to the Trigon Terminal. Exploration in the mine site area included 10 diamond drill holes totalling 1647 m. The mine may go on care and maintenance in 2025.

3.2.2. Quintette (Conuma Resources Limited)

For their **Quintette** mine, Conuma Resources Limited built a 6-km overland conveyor to bring coal from the mine to a processing plant northeast of the Windy pit. At the processing plant a new jig plant was installed, and the original thermal dryer was replaced with a zero-emission, energy-efficient belt filter press. Water management infrastructure upgrades included building a low-selenium underdrain to minimize surface and groundwater exposure to waste rock with higher concentrations of selenium. The company completed 16 diamond drill holes totalling 537 m and resumed mining at the Little Windy pit in September. The first shipment of bituminous coal in more than 20 years left the mine on September 18. At the Little Windy pit (Fig. 3) coal seams of the Gates Formation (Lower Cretaceous, Fort St. John Group) generally have shallow (<15°) dips. Forecast production for the mine was 0.2 Mt of hard coking coal (HCC).

3.2.3. Willow Creek (Conuma Resources Limited)

The **Willow Creek** mine (Fig. 4) forecasted production was 1.3 Mt of hard coking coal (HCC) and pulverized coal injection (PCI) product. Drilling included 28 holes totalling 3598 m.

Table 1. Metal mines, North Central Region.

Mine	Operator (partner)	Commodity; Deposit type; MINFILE	Forecast 2024 Production (based on Q1-Q3)	Reserves	Resources	Comments
Mount Milligan	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 194, 191	55.4 Mlbs Cu, 173,200 oz Au	P+Pr: 250 Mt 0.17% Cu, 0.35 g/t Au	M+I: 260 Mt 0.15% Cu, 0.27 g/t Au (additional to reserves)	More than 400 employees. Drilling, 7005 m.

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

Table 2. Coal mines, Northeast Region.

Mine	Operator (partner)	Commodity; Deposit type; MINFILE	Forecast 2024 Production (based on Q1-Q3)	Reserves	Resources	Comments
Brule	Conuma Resources Limited	PCI; Bituminous coal; 093P 007	1.3 Mt	P+Pr: 0.3 Mt	na	Drilling, 10 DDH (1647 m). About 100 employees. The mine may go on care and maintenance in 2025.
Quintette	Conuma Resources Limited	HCC, PCI; Bituminous coal; 093P 020	0.2 Mt	P+Pr: 35.9 Mt	na	First shipment of coal in more than 20 years left the mine on September 18. Drilling, 16 DDH (537 m). About 400 employees.
Willow Creek	Conuma Resources Limited	HCC, PCI; Bituminous coal; 093O 008	1.3 Mt	P+Pr: 6.6 Mt	na	Drilling, 28 DDH (3598 m). About 350 employees, mine and plant.
Wolverine	Conuma Resources Limited	HCC; Bituminous coal; 093P 025	0.7 Mt	na	na	Mine shut down in April 2024. On care and maintenance.

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

Table 3. Selected industrial mineral mines and quarries, North Central and Northeast regions.

Mine	Operator (partner)	Commodity; Deposit type; MINFILE	Forecast 2024 Production (based on Q1-Q3)	Reserves	Resources	Comments
Fireside (Northeast Region)	Fireside Minerals Ltd.	Barite; Vein barite; 094M 003, 19	na	na	na	Fireside Minerals produces 4.1 API spec barite for sale to western Canadian oil and gas markets.
Ogden Mountain (North Central Region)	Green Mountain Jade Inc.	Nephrite jade; Jade; 093N 156, 157, 165	na	na	na	Exploration for and excavation of in situ jade.

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

Coal is mined from several seams in the Gething Formation. The coal is processed on site then transported by rail to the Trigon Terminal.

3.2.4. Wolverine (Conuma Resources Limited)

The **Wolverine** mine was shut down in April 2024 at which

time production was 0.7 Mt of hard coking coal (HCC). Coal was mined from the Gates Formation at the Perry Creek pit, processed on site, and loaded for rail transport to the Trigon Terminal. Conuma has an environmental assessment in progress for an amendment that would allow mining from the Hermann pit and use the existing Wolverine processing plant and loadout

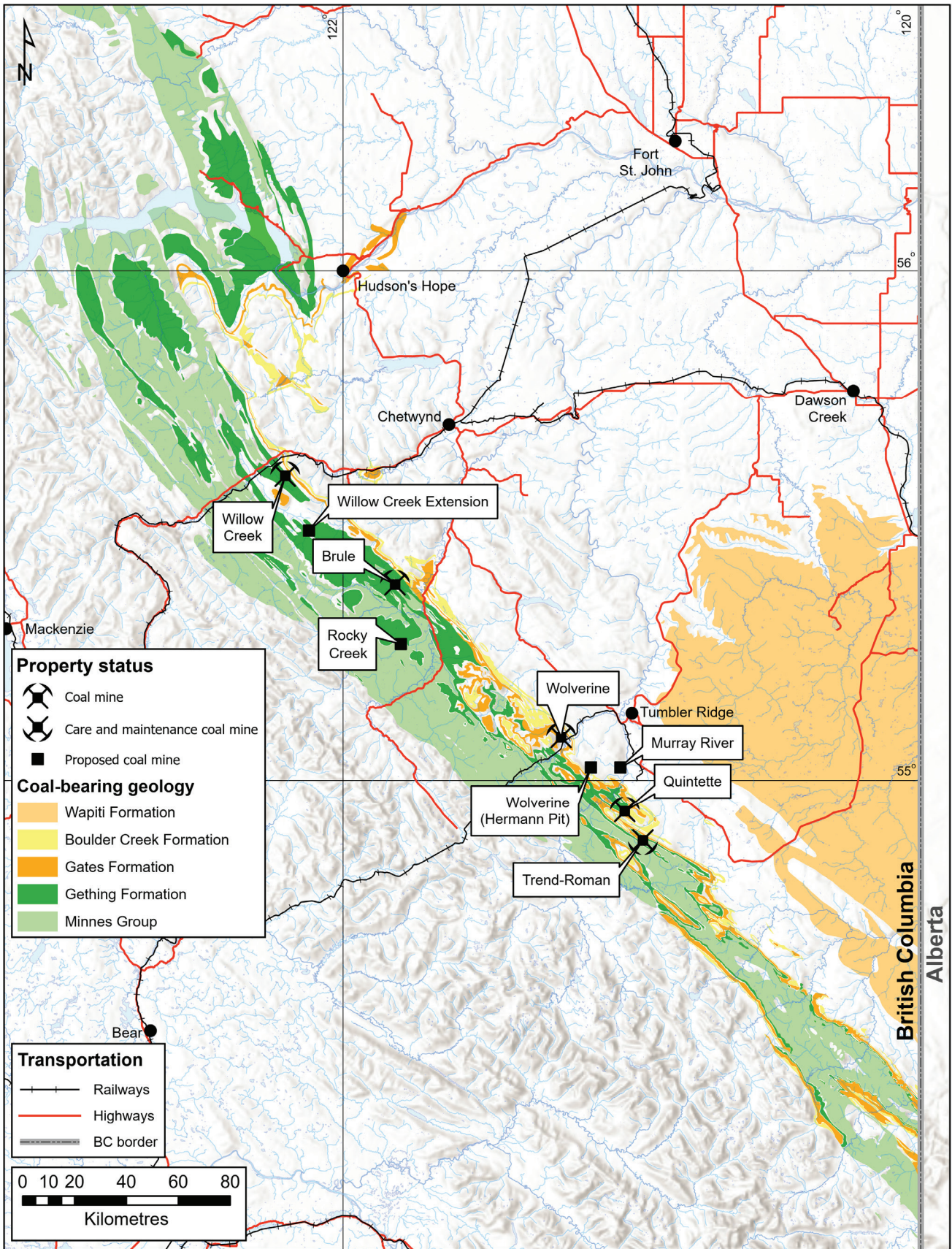


Fig. 2. Coal mines that operated for at least part of 2024, proposed coal mines, and coal mines on care and maintenance, northeastern British Columbia.

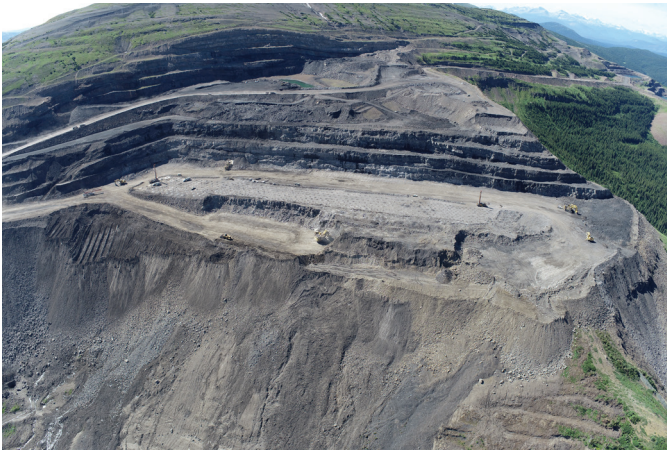


Fig. 3. Little Windy pit June 2024, Quintette mine (Conuma Resources Ltd.).



Fig. 4. Willow Creek mine, June 2024 (Conuma Resources Ltd.).

facilities. The proposed Hermann pit is approximately 16 km from the Wolverine mine Perry Creek pit and coal processing plant.

3.3. Industrial mineral mines and quarries

In 2024, one industrial mineral mine operated in the Northeast Region, the **Fireside** barite mine of Fireside Minerals Ltd., and one in the North Central Region, the **Ogden Mountain** nephrite jade mine of Green Mountain Jade Inc. (Fig. 1; Table 3).

3.3.1. Fireside (Fireside Minerals Ltd.)

At the **Fireside** mine, Fireside Minerals Ltd. quarries massive white barite from veins cutting Paleozoic sedimentary rocks of the Kechika Group. The barite veins are steeply dipping, trend north to northeast, and have a combined true thickness of 6.5 m. Barite concentrations in the veins range from 96.0 to 99.4% BaSO₄.

3.3.2. Ogden Mountain (Green Mountain Jade Inc.)

Green Mountain Jade Inc. produced from their **Ogden Mountain** mine and explored for additional resources. Jade is a commercial term for jadeite and nephrite. In British Columbia, jade occurs as nephrite (Fig. 5).



Fig. 5. Ogden Mountain jade (nephrite) cut slab (Green Mountain Jade Inc.).

4. Placer operations

In the North Central Region, placer operations are primarily in the Manson Creek, Fort St. James to Mackenzie, and Hixon areas. Larger scale operations are generally sited on abandoned stream channels and benches, and use backhoes and hydraulic excavators to extract gravel, which is then processed through a wash plant, either on site or at a remote location. Due to the number of operations and because production is not reported, these operations are not tracked. In the Northeast Region, current placer interest is minimal.

5. Mine or quarry development

Artemis Gold Inc.'s **Blackwater Gold** gold-silver project in the North Central Region is at the mine development stage (Table 4).

5.1.1. Blackwater Gold (Artemis Gold Inc.)

Construction was more 95% completed by the end of September at the **Blackwater Gold** project in the North Central Region (Fig. 6). By the end of October, the 135-km long 225kV transmission line between the mine and BC Hydro's Glenannan substation, construction of the tailings storage facility and haul roads, and pre-stripping were completed, the mine fleet was commissioned, and the operations camp was occupied. In November, commissioning began with the first ore fed to crushing circuits. As of August 2020, reserves were reported at 8 Moz Au and 62.3 Moz Ag, with a life-of-mine average annual gold production of 339,000 oz.

Table 4. Mine development project, North Central Region.

Project	Operator (partner)	Commodity; Deposit type; MINFILE	Reserves	Resources	Comments
Blackwater	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/tAg at a 0.20 g/t AuEq cut off containing 8.0 Moz Au, 62.3 Moz Ag (August 2020)	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	By the end of September construction was more than 95% completed. In November, commissioning began with the first ore fed to crushing circuits. Life-of-mine average annual gold production of 339,000 oz.

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



Fig. 6. Blackwater's gold mine crusher (Artemis Gold Inc.).

6. Selected proposed mines or quarries

Proposed mines are feasibility-stage projects for which proponents have begun the environmental certification process (in the case of large projects) or have submitted applications for Mines Act permits (in the case of projects below British Columbia Environmental Assessment Act thresholds) or are waiting on existing 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. The two proposed metal mines in the North Central Region are Taseko Mines Limited's **Aley** project, and Centerra Gold Inc.'s **Kemess Underground (KUG)** project. There are also two proposed industrial mineral mines in the region: Greymont Western Canada Inc.'s **Giscome** project and Vitreo Minerals Ltd.'s **Angus** project (Table 5). There are four proposed coal mines in the Northeast Region (Fig. 2; Table 5): Conuma Resources Limited's **Wolverine (Herman pit)**, **Willow Creek Extension**, CTI Plus's **Rocky Creek** project, and HD Mining International Ltd.'s **Murray River** project.

6.1. Proposed metal mines

The two proposed metal mines in the North Central Region are Taseko Mines Limited's **Aley** project, and Centerra Gold Inc.'s **Kemess Underground (KUG)** project.

6.1.1. Aley (Taseko Mines Limited)

Taseko Mines Limited's **Aley** niobium bearing carbonatite project is near the western extremity of platform strata that were deposited on the flank of Ancestral North America. The carbonatite intrusion is oval in map view, measuring about 2.0 by 2.8 km. Reserves are calculated at 84 Mt grading 0.5% Nb₂O₅. Resources are calculated at Measured plus Indicated 285.8 Mt grading 0.37% Nb₂O₅. The proposed processing plant would have a nominal capacity of 10,000 tpd. Single-stage crushing followed by three stages of grinding and a multi-stage flotation process would produce a Nb₂O₅ concentrate. The concentrate would then be processed in an on-site converter to produce FeNb as a saleable product. Expected process recovery is 63% with annual production averaging 9 million kg of niobium over the mine life. Environmental monitoring and product marketing initiatives continue.

6.1.2. Kemess Underground (Centerra Gold Inc.)

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. Although the former Kemess South mine closed in 2011, infrastructure remains in place and both the camp and ore processing plant will be used to service KUG. 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 an average production of 106,000 oz gold and 47 Mlbs copper during 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. 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

Table 5. Selected proposed mines and quarries, North Central and Northeast regions.

Project	Operator (partner)	Commodity; Deposit type; MINFILE	Reserves	Resources	Comments
Aley (North Central Region)	Taseko Mines Limited	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. Environmental monitoring and product marketing.
Angus (North Central Region)	Vitreo Minerals Ltd.	Silica, Sand, Quartzite; 093J 042	na	na	Proposed mine production is 2.9 Mt per year over a 20-year mine life. Geotechnical drilling (12 sonic holes totalling 186.8 m) and diamond drilling (8 holes, 745.2 m).
Giscome (North Central Region)	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 during a 50+ year mine life. Graymont has not yet decided to initiate construction.
Kemess Underground (KUG) (North Central Region)	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 life of mine.
Murray River (Northeast Region)	HD Mining International Ltd.	Coal; Bituminous coal; 093I 035	na	145.0 Mt (in situ)	Dewatered previous workings. A 5-year construction phase is currently planned.
Rocky Creek (Northeast Region)	CTI Plus Resources Ltd.	Coal; Bituminous coal; 093P 004	na	na	Early engagement phase of the environmental assessment process. Fieldwork included 11 geotechnical test pits, 9 overburden sampling pits and environmental baseline studies.
Willow Creek Extension (Northeast Region)	Conuma Resources Limited	Coal; Bituminous coal; 093O 060	P+Pr: 15.6 Mt	na	Prefeasibility study completed in September 2022. Continued baseline monitoring.
Wolverine (Hermann pit) (Northeast Region)	Conuma Resources Limited	Coal; Bituminous coal; 093I 031	P+Pr: 13.9 Mt	na	Continued baseline monitoring.

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

6.2. Proposed coal mines

Conuma Resources Limited is continuing baseline environmental monitoring for their **Wolverine (Hermann Pit)** and **Willow Creek Extension** projects and CTI Plus Resources Ltd. continued feasibility study and environmental assessment

work for their **Rocky Creek** project. HD Mining International Ltd. dewatered previous workings and has indicated plans for a five-year construction phase for their **Murray River** project.

6.2.1. Murray River (HD Mining International Ltd.)

Murray River is a proposed underground mine that would extract metallurgical coal from the Gates Formation. In 2024, HD Mining International Ltd. dewatered previous works. A five-year construction phase is currently planned to begin in 2025. The project has been in care and maintenance for the last five years.

6.2.2. Rocky Creek (CTI Plus Resources Ltd.)

CTI Plus Resources Ltd.'s **Rocky Creek** project has an estimated total mine production of 20 Mt of metallurgical coal. In September, CTI Plus submitted an initial project description and engagement plan to the BC environmental assessment office, initiating the environmental assessment process. Fieldwork in 2024 included eleven geotechnical test pits, nine overburden sampling pits, and environmental baseline studies.

6.2.3. Willow Creek Extension (Conuma Resources Limited)

Conuma Resources Limited completed a Prefeasibility study in September 2022, and continued baseline monitoring for their **Willow Creek Extension** project. The project contains 15.6 Mt Proven and Probable reserves.

6.2.4. Wolverine (Hermann Pit) (Conuma Resources Limited)

Conuma Resources Limited continued baseline environmental monitoring for its **Wolverine (Hermann Pit) project**, which contains 13.9 Mt Proven and Probable reserves of coal in the Gates Formation. Coal seams are mostly in moderately to steeply (40-70°) dipping folded rocks of the Gates Formation (Fort St. John Group; Lower Cretaceous).

6.3. Selected proposed industrial mineral mines or quarries

Proposed industrial mineral mines or quarries in the North Central Region include Vitreo Minerals Ltd.'s **Angus** project and Graymont Western Canada Inc.'s **Giscome** project.

6.3.1. Angus (Vitreo Minerals Ltd.)

Vitreo Minerals Ltd.'s wholly owned **Angus** frac sand project would mine quartz arenite from the Monkman East pit and transport it via a newly constructed haul road to a sand plant 2 km northwest of the pit, where it will be processed into silica sand. Proposed mine production is 2.9 Mt of silica sand per year over a 20-year mine life. The mining rate is required to meet an annual sales target of 2 Mt of processed silica sand. The company's most recent exploration activities were conducted on the Monkman deposit. The company did 932 m of geotechnical drilling that included 186.8 m of sonic drilling in twelve drill holes and 745.2 m of diamond drilling in eight holes.

6.3.2. Giscome (Graymont Western Canada Inc.)

At the **Giscome** project, Graymont Western Canada proposes to mine high-purity limestone rocks of the Antler Formation (Triassic; Slide Mountain Group). Crushed stone would be transported about 5 km by truck 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. Due to weak markets for lime in the region, Graymont has not yet decided to initiate construction.

7. Selected exploration activities and highlights

Significant exploration continued in the North Central Region, including large programs at the **Mount Milligan Brownfield** and **Mount Milligan Greenfield** programs (Centerra Gold Inc.), **Lawyers** (Thesis Gold), **JOY** (Amarc Resources Ltd.), **3Ts** (Independence Gold Corp.), **Quesnelle Gold Quartz** (Golden Cariboo Resources Ltd.), and **JD** (Sun Summit Minerals Corp.) projects (Table 6). Exploration was limited in the Northeast Region (Table 7).

7.1. Selected precious metal projects

This section includes projects for which precious metals are the main commodities sought. In 2024, exploration activities were carried out at several precious metal projects in the North Central Region (Fig. 1; Table 6.)

7.1.1. 3Ts (Independence Gold Corp.)

Independence Gold Corp. completed a spring drill program of 22 diamond drill holes totalling 5130 m at their **3Ts** project. Drilling was focused on the Ted-Mint and Tommy vein systems, the Johnny vein, and the Ian vein. Highlight results included 26.00 m grading 9.62 g/t Au and 65.42 g/t Ag, and 23.00 m grading 5.85 g/t Au and 152.70 g/t Ag. Independence Gold reported that 2024 field work discovered new target areas and veins including the Ootsa Target, Cardiff Vein, Dixie vein systems and the Daisy vein. In November, a 10,000 m drill program began. By year end, 3222 m in 12 holes had been completed. This drilling targets underexplored areas of the Ted-Mint and Tommy vein systems where there is potential for high-grade intersections that could help expand the current mineral resource.

7.1.2. Exodus Gold (Exodus Mineral Exploration Ltd.)

At the **Exodus Gold** project, Exodus Mineral Exploration Ltd. completed a total of 1060 m of diamond drilling in five holes.

7.1.3. Fraser Lake (Valleyview Resources Ltd.)

At the **Fraser Lake** project Tripoint Geological Services Ltd. collected 19 rock samples and 277 soil samples and conducted a 103.9 km² lidar survey. Highlight results from prospecting included 13.85 g/t Au and 212 g/t Ag in rock samples, with 3 of 19 samples returning gold values more than 1 g/t. The maximum soil value was 106 ppb Au and 1.81 ppm silver with 20 samples returning values more than 0.5 ppm Ag.

Table 6. Selected exploration projects, North Central Region.

Project/Property	Operator (partner)	Commodity; Deposit type; MINFILE	Resources (NI 43-101 operator compliant unless indicated otherwise)	Comments
3Ts	Independence Gold Corp.	Au, Ag; Epithermal Au-Ag (low sulphidation); 093F 055	Tommy and Ted-Mint veins. Inf: 4.47 Mt 3.64 g/t Au, 96.26 g/t Ag (at a cut off grade of 0.4 g/t AuEq in-pit, 2.01 g/t AuEq underground)	Drilling, 22 DDH (5130 m). Highlight results for spring drilling included 26.00 m grading 9.62 g/t Au and 65.42 g/t Ag, and 23.00 m grading 5.85 g/t Au and 152.70 g/t Ag. By year end, 3222 m in 12 holes had been completed. In November, a 10,000 m drill program began.
AC/DC Nickel Group	AC/DC Battery Metals Inc.	Ni, Fe; Podiform chromite	na	Completed rock sampling and mapping.
Akie	ZincX Resources Corp.	Zn, Pb, Ag; Sedimentary exhalative Zn-Pb-Ag; 094F 031	I: 22.7 Mt 8.32% Zn, 1.81% Pb, 14.1 g/t Ag Inf: 7.5 Mt 7.04% Zn, 1.24% Pb, 12.0 g/t Ag (at 5% Zn cut off)	Agreement with Teck Resources Limited to conduct metallurgical test work on selected drill core.
Baker Complex	TDG Gold Corp.	Au, Ag; Epithermal Au-Ag (low sulphidation); 094E 050, 26	na	Reported results of a 2023 drainage survey across 42 km ² . Drilling, 15 auger (53.4 m) samples of historic tailings. Average grade for all material sampled was 1.00 g/t Au and 46 g/t Ag.
Baptiste Nickel	FPX NickelCorp.	Ni, Fe; Podiform chromite; 093K 116	Baptiste deposit I: 1815 Mt 0.129% DTR Ni, 0.211% Total Ni, 0.0035 % DTR Co, 2.40% DTR Fe Inf: 339 Mt 0.131% DTR Ni, 0.212% Total Ni, 0.0037% DTR Co, 2.55% DTR Fe	The company closed a \$14.4 million strategic equity investment from Sumitomo Metal Mining Co. Ltd. (SMCL). SMCL now owns 9.9% of FPX's issued and outstanding common shares on a non-diluted basis. The company completed large-scale mineral processing pilot test work.
Bear	Imperial Metals Corporation	Cu, Au; Porphyry Cu-Au; 094D 068	na	Lidar survey; rock sampling (140).
Cabin Lake	Miata Metals Corp	Au, Ag, Cu, Pb, Zn; Epithermal Au-Ag, Cu, Pb, Zn (low sulphidation); 093F 093	na	Rock sampling.

Table 6. Continued.

Cap	Apex Critical Metals Corp.	Nb, REE; Carbonatite-hosted deposits	na	Prospecting, geological mapping, rock and soil sampling. Highlight result of 3.33% Nb ₂ O ₅ from outcrop. Soil sampling outlined an anomalous niobium trend extending nearly 1.8 km northwest of known mineralization. Soil sampling results also included anomalous values for rare earth oxides including one sample returning 1.21% REO.
Chuchi	Pacific Ridge Exploration Ltd.	Cu, Au; Alkalic porphyry Cu-Au; 093N 159	na	Diamond drilling, 5 holes, 2716 m total. Highlight results included 382 m grading 0.19% Cu, 0.12 g/t Au, and 0.47 g/t Ag, and 51.0 m grading 0.22% Cu, 0.15 g/t Au, and 0.49 g/t Ag.
Cirque	Cirque Operating Corporation	Zn, Pb, Ag; Sedimentary exhalative Zn-Pb-Ag; 094F 008	na	Diamond drilling, 21 holes, 3022 m total.
Copley	Centerra Gold Inc.	Au, Cu, Zn; Epithermal Au-Ag (low sulphidation); 093F 070	na	Drilling (1474 m), IP survey.
Cyprus	Prosper Gold Corp.	Cu, Au; Porphyry Cu-Au	na	Helicopter ZTEM survey, 3760 line-km across 683 km ² .
Dark Horse	IAMGOLD Corporation	Au, Cu; Cu skarn; 093K 083	na	Diamond drilling, 5 holes, 1032 m total.
DEM	Evergold Corp.	As, Au, Ag, Cu; Au skarn; 093K 077	na	Reported results for 2023 drilling. Highlights included 48.2 m grading 0.58 g/t Au and 11 g/t Ag, and 135 m grading 0.12 g/t Au and narrow intersections with values up to Mo (0.82%), Cu (0.19%), Co (0.12%), W (0.32%), Rh (3.7 g/t), and Te (41 g/t). Magnetotelluric survey (5 line-km) and high-resolution helicopter magnetic survey. 2024 drilling, 4 DDH (1410 m). Highlights included 40 m grading 0.10 g/t Au, 2 g/t Ag, and 0.42% Sb.
Exodus Gold	Exodus Mineral Exploration Ltd.	Au-quartz veins, Epithermal Au, Ag, Cu, Pb, Zn; 093J 043	na	Drilling, 5 DDH (1060 m).
Fraser Lake	Valleyview Resources Ltd.	Au, Ag, Cu; Au-quartz veins, Epithermal	na	103.9 km ² lidar survey. Soil (277) and rock (19) sampling. Highlight rock sample result of 13.85 g/t Au and 212 g/t Ag.
Golden Stranger	Hi-View Resources Inc.	Au, Ag; Epithermal Au-Ag (low sulphidation)	na	Soil sampling. Highlights: five samples 0.2 g/t Au; six samples >5 g/t Ag; one soil sample 111.5 g/t Au and 2740 g/t Ag. A quartz vein sample assayed 2.68 g/t Au and 13.2 g/t Ag.

Table 6. Continued.

Greater Shasta-Newberry	TDG Gold Corp.	Au, Ag; Epithermal Au-Ag (low sulphidation); 094E 050, 26	I: 12.6 Mt 0.99 g/t Au, 35.0 g/t Ag (at a cut off grade of 0.4 g/t AuEq) Inf: 15.43 Mt 0.77 g/t Au, 28.7 g/t Ag (at a cut off grade of 0.4 g/t AuEq)	Reported results for drainage sampling and sampling of historical drill sampling, carried out in 2023. Highlights for core sampling included: 43.1 m grading 1.27 g/t Au and 67 g/t Ag, and 25.7 m grading 1.52 g/t Au and 40 g/t Ag.
Hanson	Tundra Exploration	Au, Ag, Cu; Porphyry Cu-Au	na	Rock (50) sampling. Highlights included 0.484 g/t Au and 59 g/t Ag, and 548 g/t Ag, >1% Mo and 0.47% Cu.
Heath-Falcon	Redton Resources Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 072	na	Reported 2023 geochronology and metallogeny study results on historical drill core. A sample of the main intrusive phase for the Majazz copper target returned an age of 199.8 Ma. The company also did reclamation work.
Indy	InZinc Mining Ltd.	Zn, Pb, Ag; Sedimentary exhalative Zn-Pb-Ag; 093H 072	na	Completed geological mapping, soil geochemistry and rock sampling. Notice of work permit renewed for 5 years allowing up to 60 drill holes, and access trail construction.
Jake	Quartz Mountain Resources Ltd.	Cu, Au, Ag; Cu+Au porphyry Au-Ag (low sulphidation), Ag- rich polymetallic vein	na	Drilling, 7 DDH (3418 m).
JD	Sun Summit Minerals Corp.	Au, Ag; Epithermal Au-Ag (low sulphidation)	na	Drilling, 12 DDH (2537 m). Highlight results included: 122.53 m grading 2.11 g/t Au including 20.0 m of 10.01 g/t Au, 4.04 m of 46.78 g/t Au, and 1.52 m of 121.0 g/t Au. Collected 1220 soil and 51 rock samples. 20 line-km ground IP survey; lidar survey across project area.
JOY	Amarc Resources Ltd.	Cu, Au; Porphyry Cu±Mo±Au; 094E 016, 57	Pine deposit I: historic non NI 43-101 compliant: 40 Mt 0.15% Cu, 0.57 g/t Au (1997)	Drilling, 40 DDH (16,883 m), at the Pine deposit and additional targets. New AuRORA discovery. Results included 81 m grading 3.69 g/t Au, 0.92% Cu, 9.72 g/t Ag within 162 m grading 2.19 g/t Au, 0.63% Cu, 6.95 g/t Ag. Completed a 19 line-km IP ground geophysical survey.
Kemess North	Centerra Gold Inc.	Cu, Au, Ag; Porphyry Cu±Mo±Au; 094E 021	na	Drilling, DDH (11,423 m). IP geophysical survey.

Table 6. Continued.

Kliyul	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	Completed 523.5 line-km of airborne ZTEM survey over the Kliyul property at combined 200 m and 300 m line-spacing. Reported 2023 drilling results, which included 110.0 m grading 1.03 g/t Au, 0.27% Cu, and 1.55 g/t Ag, and 57.4 m grading 0.26 g/t Au, 0.22% Cu, and 1.22 g/t Ag.
Lawyers-Ranch (Lawyers)	Thesis Gold Inc.	Au, Ag; Epithermal Au-Ag (low sulphidation); 094E 066	Open pit M: 20.3 Mt 2.21 g/t Au, 30.5 g/t Ag I: 45.5 Mt 1.09 g/t Au, 18.2 g/t Ag Inf: 2.3 Mt 0.91 g/t Au, 12.8 g/t Ag Out of Pit I: 1.6 Mt 2.74 g/t Au, 60.6 g/t Ag Inf: 2.6 Mt 3.32 g/t Au, 56.3 g/t Ag	Diamond drilling, 4100 m. Highlight results: 8.00 m grading 7.29 g/t Au and 327.75 g/t Ag, 45.00 m grading 1.03 g/t Au and 51.53 g/t Ag, 53.00 m grading 2.12 g/t Au and 104.95 g/t Ag, and 45.00 m grading 2.29 g/t Au and 132.10 g/t Ag. PEA and updated mineral resource assessment stating a 35.2% after-tax IRR and an after-tax NPV5% of \$1.28 billion. Metallurgical and baseline environmental studies. Financing (\$31 million).
Longworth Silica	Mt. Wilson Silica Ventures Ltd.	Silica; Sand	na	Drilling, 7 DDH (769 m).
Lorraine-Top Cat	NorthWest Copper Corp.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 002, 094C 069, 174	I: 12.95 Mt 0.55% Cu, 0.16 g/t Au Inf: 45.45 Mt 0.43% Cu, 0.1 g/t Au	Drilling, 3 DDH (800 m). Highlight results included 104.7 m grading 0.13% Cu, and 60 m grading 0.06% Cu.
Lynx	IAMGOLD Corporation	Au, Cu; Au skarn		Drilling, 6 DDH (1109 m).
Maguire	South32 Limited	Zn, Pb; SEDEX Zn-Pb	na	617 line-km of airborne VTEM and EM. Soil (282), rock (25), and stream sediment (48) sampling.
Mount Milligan (Brownfield)	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 194	na	Drilling (12,407 m).
Mount Milligan (Greenfield)	Centerra Gold Inc.	Cu, Au, Ag; Alkalic porphyry Cu-Au, Epithermal Au-Ag (low sulphidation); 093N 194	na	Drilling (3495 m, 16 holes). Soil sampling (203).

Table 6. Continued.

Nechako Molybdenum	Nechako Molybdenum Inc.	Mo, Cu; Porphyry Mo (Low F-type); 093F 001	M+I: 370.6 Mt 0.059% Mo, 0.035% Cu Inf: 256.6 Mt 0.052% Mo, 0.036% Cu	High resolution drone magnetic survey, MMI soil sampling.
PIL	Cascadia Minerals Ltd.	Cu, Au, Ag; Porphyry Cu±Mo±Au, Alkalic porphyry Cu-Au; 094E 310, 377	na	Diamond drilling (1759 m, 2 holes). Highlight results: 162.0 m grading 0.10% Cu, 0.05 g/t Au, and 7.1 g/t Ag. Rock (408) sampling results included: 12.25% Cu, with 0.26 g/t Au and 329 g/t Ag, and 7.13% Cu, with 0.29 g/t Au and 247 g/t Ag (Zeus target); 10.90% Cu, with 39.5 g/t Au and 2680 g/t Ag (Ben target); and 5.64% Cu, with 0.11 g/t Au and 337 g/t Ag (Atlas target).
Pinnacle	Pacific Empire Minerals Corp.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 169	na	Completed an airborne magnetotelluric and VLF survey.
Ptarmigan Silica	Silicon Metals Corp., formerly West Oak Corp.	Silica; Sand	na	Conducted mapping, drone imagery surveys and collected bulk material for metallurgy. Rock sampling (205), chip sampling (7), and channel (11) sampling.
QCM	Centerra Gold Inc.	Au, Cu; Au-quartz veins; 093N 200	na	Drilling, RC (1098 m). Soil (1245) and rock (109) sampling, IP survey. Kestrel Gold Inc. granted Centerra Gold Inc. the option to earn a 75% interest in the QCM gold project.
Quesnelle Gold Quartz	Golden Cariboo Resources Ltd.	Au, Ag, Quartz ±carbonate veins in greenstone and sedimentary rocks; 093G 015	na	Drilling, 15 DDH (4836 m). Highlight results included 85.83 m grading 0.55% g/t Au, 136.51 m grading 1.77 g/t Au, 204.85 m grading 0.80 g/t Au, and 136.51 m grading 1.46 g/t Au. Soil (606), rock (60), and stream (3) sampling,
Redton	Pacific Ridge Exploration Ltd.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 093N 167	na	7.5 line-km IP survey.
Say	Finlay Minerals Ltd.	Cu, Ag; Porphyry Cu±Mo±Ag	na	Prospecting and rock (46) sampling at Spur and Shel zones. At the Spur trend's AG Zone, a 9.5 m chip sample graded 0.85% Cu and 35.3 g/t Ag. A 21.7 m chip sample at the Spur trend's East Breccia zone graded 1.17% Cu and 103.5 g/t Ag.
Sustut	Imperial Metals Corporation	Cu, Au, Ag; Alkalic porphyry Cu-Au	na	Lidar survey, soil (310), and rock (9) samples.
Takla-Rainbow	Quarterback Resources Inc.	Cu, Au, Mo; Porphyry Cu±Mo±Au	na	Mapping, prospecting, soil, rock, and historic drill core sampling.

Table 6. Continued.

Thane	Interra Copper Corp.	Cu, Au, Ag; Alkalic porphyry Cu-Au; 094C 187	na	A field review of 19 targets.
TREO	Neotech Metals Corp.	Nb, REE; Carbonatite-hosted deposits	na	Filed a NI 43-101 technical report. A surface sample assayed 3.26% TREO. Rock samples (113). Highlight results included a peak value of 28.87% total rare earth oxides (TREO) and 17 samples with more than 1% TREO. As well, anomalous niobium results included a peak value of 2.91% Nb ₂ O ₅ ; 20 samples exceeded 0.15% Nb ₂ O ₅ .
Trident	Pacific Empire Minerals Corp.	Cu, Au; Alkalic porphyry Cu-Au	na	164 line-km airborne Mobile Magneto Telluric Survey. Sampling of historical drill core. Highlight results included 10.6 m grading 0.98% Cu and 0.38 g/t Au, and 11.6 m grading 0.67% Cu and 0.57 g/t Au. Rock sampling from outcrops in the Campbell Trench area returned anomalous values, including 0.65% Cu and 2.95 g/t Au.
Wicheeda	Defense Metals Corp.	Nb, REE; Carbonatite-hosted deposits; 093J 014	M: 6.37 Mt 2.086% TREO I: 27.80 Mt 1.84% TREO Inf: 11.05 Mt 1.02% TREO (at a cut off grade 0.5% TREO) Total metal % = sum of Ce+La+Nd+Pr+Sm+Nb percentages	Strategic equity partnership and co-design agreement with McLeod Lake Indian Band. Environmental and metallurgical studies, processing test work. Prefeasibility study release planned for February 2025.

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

Table 7. Selected exploration project, Northeast Region.

Project/Property	Operator (partner)	Commodity; Deposit type; MINFILE	Resources (NI 43-101 operator compliant unless indicated otherwise)	Comments
Montney	2132561 Alberta Ltd.	Silica; Sand	na	Prospecting and mapping.

M = Measured; I = Indicated; Inf = Inferred

7.1.4. Golden Stranger (Hi-View Resources Inc.)

At its **Golden Stranger** project, Hi-View completed soil and rock sampling. Highlight soil results included five samples that returned >0.2 g/t Au and six samples that returned >5 g/t Ag, including one sample that returned 111.5 g/t Au and 2740 g/t Ag. A quartz vein sample assayed 2.68 g/t Au and 13.2 g/t Ag.

7.1.5. Greater Shasta-Newberry (TDG Gold Corp.)

TDG Gold Corp. reported the results for a 2023 drainage survey conducted at their **Greater Shasta-Newberry** project. The results indicated anomalous Au and Ag from drainages, particularly where the Shasta mine mineral resource has already been defined. They also reported results for 2023 sampling of historic drill core. Highlights included 43.1 m grading 1.27 g/t Au and 67 g/t Ag, and 25.7 m grading 1.52 g/t Au and 40 g/t Ag.

7.1.6. JD (Sun Summit Minerals Corp.)

Sun Summit Minerals Corp. acquired the **JD** project and completed 12 diamond drill holes totaling 2537 m at the Creek and Finn zones. Highlight results included 122.53 m grading 2.11 g/t Au including 20.0 m of 10.01 g/t Au, 4.04 m of 46.78 g/t Au, and 1.52 m of 121.0 g/t Au. The company collected 1220 soil samples and 51 rock samples across the Creek and Belle zones. A 20 line-km ground IP survey was reported to have delineated drill targets. A high resolution lidar survey was completed across the entire project area.

7.1.7. Lawyers-Ranch (Lawyers) (Thesis Gold Inc.)

In 2023, Thesis Gold Inc. merged with Benchmark Metals Inc. to combine the Lawyers Au-Ag project and the Ranch project as one continuous land package (Lawyers-Ranch) and continuing as Thesis Gold Inc. The project area crosses the border separating the North Central and Northwest regions. The **Lawyers-Ranch (Lawyers)** deposits are in the North Central Region whereas the Ranch deposit is in the Northwest Region. Thesis released a Preliminary Economic Assessment for the combined deposits stating a 35.2% after-tax IRR and an after-tax NPV5% of \$1.28 billion.

Thesis completed 9510 m of diamond drilling at the Lawyers-Ranch project with 4100 m of diamond drilling at Lawyers. Drilling focused on engineering and environmental baseline studies, resource expansion, and exploration. Other exploration included prospecting, rock sampling, and geological mapping. Highlight results at Lawyers included 8.00 m grading 7.29 g/t Au and 327.75 g/t Ag, 45.00 m grading 1.03 g/t Au and 51.53 g/t Ag, 53.00 m grading 2.12 g/t Au and 104.95 g/t Ag, and 45.00 m grading 2.29 g/t Au and 132.10 g/t Ag. Thesis completed metallurgical and baseline environmental studies and completed a \$31 million financing.

7.1.8. Lynx (IAMGOLD Corporation)

At their **Lynx** project, IAMGOLD Corporation drilled 1109 m in six holes.

7.1.9. QCM (Centerra Gold Inc.)

Kestrel Gold Inc. granted Centerra Gold Inc. the option to earn a 75% interest in the **QCM** gold project. Centerra Gold Inc. collected 109 rock and 1245 soil samples focused on the 14 Vein showing and northwest and southeast extensions to the Main zone. Soil sampling in the 14 Vein showing area identified a 1.8 km by up to 0.5 km gold-in-soil anomaly. The company carried out IP survey and did 1098 m of RC drilling.

7.1.10. Quesnelle Gold Quartz (Golden Cariboo Resources Ltd.)

Golden Cariboo Resources Ltd. conducted diamond drilling (15 holes, 4836 m) at their **Quesnelle Gold Quartz** project, reporting visible gold in some core (Fig. 7). Highlight results included 85.83 m grading 0.55 g/t Au, 136.51 m grading 1.77 g/t Au, 204.85 m grading 0.80 g/t Au, and 136.51 m grading 1.46 g/t Au. The company also mapped and sampled (606 soil, 60 rock, and 3 stream).



Fig. 7. Core with visible gold in quartz vein, Quesnelle Gold Quartz project (Golden Cariboo Resources Ltd.).

7.2. Selected precious and base metal projects

This category includes projects for which precious metals represent the primary target commodities, with base metals as significant potential co- or by-products.

7.2.1. DEM (Evergold Corp.)

The company reported 2023 drilling results for the DEM1 porphyry target at their **DEM** project. Highlights included 48.2 m grading 0.58 g/t Au and 11 g/t Ag, and 135 m grading 0.12 g/t Au and narrow intersections with values up to Mo (0.82%), Cu (0.19%), Co (0.12%), W (0.32%), Rh (3.7 g/t), and Te (41 g/t). The company considers that the results represent peripheral porphyry mineralization.

In the winter, a high-resolution helicopter magnetic survey was flown over the entire DEM property. The survey identified a new target, designated DEM2, with similar scale and geophysical character to the DEM1 porphyry target. In the spring, a 5 line-km magnetotelluric survey was completed directly over the DEM1 target and identified a resistivity low anomaly coincident with high IP chargeability. Evergold Corp. completed four diamond drill holes totalling 1410 m at their **DEM** project. Highlight results included 40 m grading 0.10 g/t Au, 2 g/t Ag, and 0.42% Sb.

7.3. Selected base metal projects

Base metal projects in the North Central Region include AC/DC Battery Metals Inc.'s **AC/DC Nickel Group** project, FPX Nickel Corp.'s **Baptiste Nickel** project, and Nechako Molybdenum Inc.'s **Nechako Molybdenum** project. (Fig. 1; Table 6).

7.3.1. AC/DC Nickel Group (AC/DC Battery Metals Inc.)

AC/DC Battery Metals Inc. completed rock sampling and mapping on their **AC/DC Nickel Group** project.

7.3.2. Baptiste Nickel Project (FPX Nickel Corp.)

FPX Nickel Corp. focused on preparations to enter the environmental assessment process for their **Baptiste Nickel** project. The company completed large-scale mineral processing pilot testing with funding from the government of Canada. Sufficient high-grade concentrate (60% nickel) was produced and used for pilot-scale hydrometallurgy refinery test work that produced battery-grade nickel sulphate. Building on this work they commenced a standalone refinery study.

Japan Organization for Metals and Energy Security (JOGMEC) has a generative alliance with FPX looking at potential international and Canadian projects. For 2024 they increased a planned budget from \$650,000 to \$1,500,000. Part of this initiative included almost doubling their provincial mineral holdings. The claims package area is now approximately 451 km². The company also closed a \$14.4 million strategic equity investment with Sumitomo Metal Mining Co., Ltd. (SMCL). SMCL now owns 9.9% of FPX's issued and outstanding common shares on a non-diluted basis. FPX received funding support from BC Hydro towards connecting the project to the provincial electrical grid.

7.3.3. Nechako Molybdenum (Nechako Molybdenum Inc.)

Nechako Molybdenum Inc.'s **Nechako Molybdenum** project includes a 100% interest in the Chu molybdenum deposit

through claim staking and subsequent option agreements. The company completed a high-resolution drone magnetic survey over the property area to refine the geological model. The company did reconnaissance mobile metal ion (MMI) soil sampling. The company has also acquired a historical database including previous drill results and an induced polarization (IP) survey.

7.4. Selected base and precious metal projects

Base and precious metal projects continued to be an important focus of exploration in the Quesnel and Stikine terranes of the North Central Region (Fig. 1; Table 6). Base and precious metals targets can include porphyry, SEDEX, VMS and mafic-ultramafic deposit types.

7.4.1. Akie (ZincX Resources Corp.)

ZincX Resources Corp. had an agreement with Teck Resources Limited whereby Teck began advanced metallurgical test work on selected drill cores from the **Akie** project's Cardiac Creek deposit.

7.4.2. Baker Complex (TDG Gold Corp.)

TDG Gold Corp. reported the results of a 2023 drainage survey conducted across ~42km² of their **Baker Complex** project. Indicating areas with anomalous Cu-Au-Mo and other elements including Pb, Zn, and Te. The company carried out compilation work that identified a porphyry Cu-Au target at in the North Quartz area and completed 15 auger samples totalling 53.4 m that sampled historic tailings from the former Baker and Shasta mines, which operated from 1981 to 2012. Average grade for all material sampled was 1.00 g/t Au and 46 g/t Ag.

7.4.3. Bear (Imperial Metals Corporation)

Imperial Metals Corporation collected 140 rock samples at their **Bear** project and carried out a lidar survey.

7.4.4. Cabin Lake (Miata Metals Corp.)

Miata Metals Corp. collected rock samples at their **Cabin Lake** project.

7.4.5. Chuchi (Pacific Ridge Exploration Ltd.)

Pacific Ridge Exploration Ltd. completed five diamond drill holes totalling 2716 m (Fig. 8) at their **Chuchi** project, along 750 m of strike length at the BP zone. Highlight results included 382 m grading 0.19% Cu, 0.12 g/t Au, and 0.47 g/t Ag, and 51.0 m grading 0.22% Cu, 0.15 g/t Au, and 0.49 g/t Ag. The project area (>160 km²) includes three mineral tenure blocks, Chuchi, under option from Centerra, and Chuchi South and Chuchi West, under option from American Copper Development Corporation and a private individual.

7.4.6. Cirque (Cirque Operating Corporation)

Cirque Operating Corporation completed 21 diamond drill holes totalling 3022 m at their **Cirque** project. Cirque Operating Corporation is a 50/50 joint venture between Teck Resources Limited and Korea Zinc Co. Ltd.



Fig. 8. Drilling at Chuchi project (Pacific Ridge Exploration Ltd.).

7.4.7. Copley (Centerra Gold Inc.)

Centerra Gold Inc. drilled 1474 m and completed an IP survey at its **Copley** project.

7.4.8. Cyprus (Prosper Gold Corp.)

Prosper Gold Corp. completed a helicopter ZTEM survey of 3760 line-km across 683 km² at their **Cyprus** project. The survey collected magnetic and electromagnetic data to help define porphyry copper-gold targets.

7.4.9. Dark Horse (IAMGOLD Corporation)

At their **Dark Horse** project, IAMGOLD Corporation drilled 1032 m in five holes.

7.4.10. Hanson (Tundra Exploration)

At the **Hanson** project, Tundra Exploration conducted rock sampling, mapping and prospecting. Fifty rock grab samples were taken, bringing the total number of rock samples taken on the project to 477. Highlights included 0.484 g/t Au and 59 g/t Ag, and 548 g/t Ag, >1% Mo and 0.47% Cu. Focus was on the Wilson zone, where coincident features (magnetic low centre, magnetic high halo, elevated soil and rock sampling results) point toward potential porphyry mineralization.

7.4.11. Heath-Falcon (Redton Resources Inc.)

Redton Resources Inc. reported the results of a geochronology and metallogeny study on historical drill core at its **Heath-Falcon** project conducted in 2023. A sample of the main intrusive phase for the Majazz copper target returned an age of 199.8 Ma. The company also did reclamation work.

7.4.12. Indy (InZinc Mining Ltd.)

At its **Indy** project, InZinc Mining Ltd. completed geological mapping, soil geochemistry and rock sampling. A notice of work permit was renewed for five years, allowing up to 60 drill holes and access trail construction. The company considers

the geological setting at Indy similar to zinc-lead-silver-barite SEDEX deposits in Selwyn Basin.

7.4.13. Jake (Quartz Mountain Resources Ltd.)

Quartz Mountain Resources Ltd. completed seven diamond drill holes totalling 3418 m at their **Jake** project. The project hosts broad areas of alteration and precious and base metals mineralization characteristic of porphyry Cu-Au systems, as well as Au-Ag low-sulphidation epithermal and Ag-rich polymetallic vein systems.

7.4.14. JOY (Amarc Resources Ltd.)

Amarc Resources Ltd. completed 16,883 m of diamond drilling in 40 holes at their **JOY** project. New AuRORA discovery (see Table 6 for selected results). The company also completed a 19 line-km IP ground geophysical survey. The program was funded by Freeport-McMoRan Mineral Properties Canada Inc.

7.4.15. Kemess North (Centerra Gold Inc.)

Centerra Gold Inc. completed 11,423 m of diamond drilling, and an IP geophysical survey at their **Kemess North** project (Fig. 9). Kemess North is typical of calc-alkaline porphyry copper-gold deposits in the Cordillera. The deposit has a low-grade ore zone at a depth of 150 m on its western flank and a higher grade zone 300-550 m deep. The deposit is hosted by potassic altered Takla Group volcanic rocks and Black Lake plutonic rocks. The deposit is centered on a mineralized porphyritic monzodiorite-diorite pluton and associated west-southwest trending dikes, which extend to the southwest.



Fig. 9. Drilling site at Kemess North deposit (Centerra Gold Inc.).

7.4.16. Kliyul (Pacific Ridge Exploration Ltd.)

Pacific Ridge Exploration Ltd. completed 523.5 line-km of airborne ZTEM survey over the **Kliyul** project at combined 200 m and 300 m line-spacing. The company reported results from 2023 drilling. Highlights included 110.0 m grading 1.03 g/t Au, 0.27% Cu, and 1.55 g/t Ag, and 57.4 m grading 0.26 g/t Au, 0.22% Cu, and 1.22 g/t Ag.

7.4.17. Lorraine-Top Cat (NorthWest Copper Corp.)

Northwest Copper Corp. completed 3 diamond drill holes totalling 800 m at their **Lorraine-Top Cat** project. Three holes were drilled, one at Nova (356 m) and two at Road IP (456 m total). The first-ever drill assays from the project's Road IP target returned 104.7 m of 0.13% Cu and 60 m grading 0.06% Cu.

7.4.18. Maguire (South32 Limited)

South32 sampled at its **Maguire** project (25 rock, 48 stream-sediment), undertook geologic mapping, and conducted a 617 line-km airborne VTEM and EM survey.

7.4.19. Mount Milligan (Brownfield) (Centerra Gold Inc.)

At the **Mount Milligan** mine site, Centerra Gold Inc. conducted 12,407 m of diamond drilling.

7.4.20. Mount Milligan (Greenfield) (Centerra Gold Inc.)

Exploring for new porphyry Cu-Au deposits and low-sulphidation epithermal Au-Ag deposits, Centerra Gold Inc. completed 16 diamond drill holes totalling 3495 m and collected 203 soil samples at their **Mount Milligan Greenfield** project.

7.4.21. PIL (Cascadia Minerals Ltd.)

Cascadia Minerals Ltd. carried out diamond drilling (2 holes, 1759 m) at their **PIL** project. Highlight results included 162.00 m grading 0.10% Cu, 0.05 g/t Au, 7.1 g/t Ag, and 0.18% Zn starting from 749.00 m depth. The company also did property-wide prospecting, collecting 408 rock samples to evaluate the underexplored Zeus, Ben, and Atlas targets. Highlight results included: 12.25% Cu, with 0.26 g/t Au and 329 g/t Ag, and 7.13% Cu, with 0.29 g/t Au and 247 g/t Ag (Zeus target); 10.90% Cu, with 39.5 g/t Au and 2680 g/t Ag (Ben target); and 5.64% Cu, with 0.11 g/t Au and 337 g/t Ag (Atlas target).

7.4.22. Pinnacle (Pacific Empire Minerals Corp.)

Pacific Empire Minerals Corp. completed an airborne mobile magnetotelluric and VLF survey at their **Pinnacle** project to target copper-bearing porphyry systems.

7.4.23. Redton (Pacific Ridge Exploration Ltd.)

The **Redton** project features a 5-km long north-northwest trend of porphyry Cu-Au targets in Hogen batholith. An IP survey comprising three 2.5 km east-west lines at 800 m line-spacing was completed. The northernmost line tested the East Swan and the Redton East targets, the two lines to the south tested the Nex target.

7.4.24. Say (Finlay Minerals Ltd.)

Finlay Minerals Ltd. purchased the **Say** project from Electrum Resource Corporation in July. The Spur and Shel trends are the most advanced target areas. In total, 33 chip samples and six outcrop samples were collected along the Spur trend. At

Shel, a total of seven rock samples were collected. At the Spur trend's AG Zone, a 9.5 m chip sample graded 0.85% Cu and 35.3 g/t Ag. A 21.7 m chip sample at the Spur trend's East Breccia zone graded 1.17% Cu and 103.5 g/t Ag.

7.4.25. Sustut (Imperial Metals Corporation)

Imperial Metals Corporation collected 310 soil and 9 rock samples and carried out a property-wide lidar survey on their **Sustut** project. The deposit is a stratiform body that dips to the southwest, with an increasing dip angle to the south.

7.4.26. Takla-Rainbow (Quarterback Resources Inc.)

Quarterback Resources Inc. mapped, prospected, and sampled soil, rock, historic drill core at their **Takla-Rainbow** project. The company also compiled historical geochemistry and geophysical data to determine future targets.

7.4.27. Thane (Interra Copper Corp.)

Interra Copper Corp. reviewed 19 targets within their 206 km² **Thane** project. Field observations confirmed that the project has alkalic porphyry Cu-Au potential, with mineralized alteration systems in favourable host rocks.

7.4.28. Trident (Pacific Empire Minerals Corp.)

Pacific Empire Minerals Corp. carried out a 164 line-km airborne magnetotelluric survey at their **Trident** project. The company also sampled historic drill core. Highlight results included 10.6 m grading 0.98% Cu and 0.38 g/t Au, and 11.6 m grading 0.67% Cu and 0.57 g/t Au. Rock sampling from outcrops in the Campbell Trench area returned anomalous values, including 0.65% Cu and 2.95 g/t Au.

7.5. Selected rare earth element projects

Rare earth element projects include Apex Critical Metals Corp.'s **Cap** project, Neotech Metals Corp.'s **TREO** project and Defense Metals Corporation's **Wicheeda** project (Fig. 1; Table 6).

7.5.1. Cap (Apex Critical Metals Corp.)

At their **Cap** project, Apex Critical Metals Corp. undertook prospecting, geological mapping, rock and soil sampling to confirm previously identified niobium mineralization in both historical surface samples and drilling. A highlight outcrop sample graded 3.33% Nb₂O₅ and soil sampling outlined an anomalous niobium trend extending nearly 1.8 km northwest of known mineralization. Soil sampling results also included anomalous values for rare earth oxides including one sample returning 1.21% REO.

7.5.2. TREO (Neotech Metals Corp.)

Neotech Metals Corp. filed an updated and amended NI 43-101 technical report for their **TREO** project. A total of 113 rock samples were collected; results included a peak value of 28.97% total rare earth oxides (TREO) and 17 samples with more than 1% TREO. As well anomalous niobium results

included a peak value of 2.91% Nb₂O₅; 20 samples exceeded 0.15% Nb₂O₅.

7.5.3. Wicheeda (Defense Metals Corp.)

Defence Metals Corp. and the McLeod Lake Indian Band entered into a strategic equity partnership and co-design agreement for the **Wicheeda** project. The company continued with environmental studies, metallurgical and processing test work. Twenty-one variability samples representing different REE grades, rock types, and locations in the deposit were used to study development and optimization of milling and hydrometallurgical processes. New data will be used in a prefeasibility study. The company signed a Memorandum of Understanding with the Saskatchewan Research Council, which has proprietary REE processing technology. In 2023, Defense Metals Corp. filed an updated NI 43-101 mineral resource estimate on the project. At a cut off grade of 0.5% Total Rare Earth Oxide (TREO), they reported a Measured resource of 6.4 Mt averaging 2.86% TREO, a 27.8 Mt Indicated resource averaging 1.84% TREO; and an 11.1 Mt Inferred resource averaging 1.02% TREO. The company announced that they expected to release a prefeasibility study in early February 2025.

7.6. Selected coal projects

No coal exploration projects were active in the North Central or Northeast regions.

7.7. Selected industrial mineral projects

Mt. Wilson Silica Ventures Ltd. carried out exploration at their **Longworth Silica** project. Silicon Metals Corp. (formerly West Oak Corp.) was active on their **Ptarmigan Silica** project and 2132561 Alberta Ltd. explored their **Montney** project (Fig. 1; Tables 6, 7).

7.7.1. Longworth Silica (Mt. Wilson Silica Ventures Ltd.)

Mt. Wilson Silica Ventures Ltd. completed 769 m of drilling in seven holes at its **Longworth Silica** project.

7.7.2. Ptarmigan Silica (Silicon Metals Corp., formerly West Oak Corp.)

Silicon Metals Corp. has increased its land position by ~919 total contiguous ha at their Ptarmigan Silica project. The company conducted mapping, drone imagery surveys and collected bulk material for metallurgy. Rock sampling (205), chip sampling (7) over 30 m, and channel (11) sampling over 24 m was also carried out. The primary target of the project was silica-enriched quartzite from the Yanks Peak Formation, which includes quartzite, siltstone, slate, phyllite, and minor calcareous sandstone.

7.7.3. Montney (2132561 Alberta Ltd.)

2132561 Alberta Ltd. carried out prospecting and mapping at their silica sand **Montney** project in the Northeast Region (Table 7).

8. Geological research

Wearmouth et al. (2024) completed mineral potential modelling for large parts of the North Central and Northeast regions focused on Mississippi Valley-type and SEDEX mineral systems. Graham et al. (2025) presented preliminary results of a project examining companion critical elements in SEDEX deposits with samples from the Cirque project in the Kechika trough. Rukhlov et al. (2025a, b) continued a project started by Rukhlov et al. (2024) to guide exploration for niobium, tantalum, rare earth element (REE), and other critical minerals in carbonatites and alkaline silicate rocks of the British Columbia alkaline province. Emphasizing the need for high-precision U-Pb zircon geochronology by chemical abrasion isotope dilution thermal ionization mass spectrometry (CA-TIMS) to resolve temporal uncertainties arising from less precise laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS), Ootes and Wall (2024) presented new data indicating that the Toodoggone Formation post-dates crystallization of the main phases of the Black Lake intrusive suite, and that epithermal mineralization in the Toodoggone Formation cannot be temporally linked to these intrusive rocks. Spence et al. (2024) examined olivine in ultramafic rocks of the Polaris Alaskan-type ultramafic-mafic intrusion (Early Jurassic) to establish that the intrusion is the crystallization product of primitive arc magmas that ascended rapidly and avoided appreciable magmatic differentiation. Steinhorsdottir et al. (2024) considered that ultramafic Cache Creek terrane rocks near Prince George and Fort St. James have high potential for carbon storage but that, for geological and/or logistical reasons, the Polaris intrusion, and ultramafic rocks at the Baptiste deposit and near Hogem batholith have limited potential. Cao et al. (2024) used the Mount Milligan deposit as a case study to test a method for Euler deconvolution of gravity data. Wang et al. (2025) used apatite fission track data to clarify the porphyry mineralization potential of phases in Hogem batholith. Xu et al. (2024) examined rock types and alteration assemblages of three less well-understood zones of the Lorraine alkalic porphyry Cu-Au deposit.

9. Summary

The North Central Region has two proposed metal mine projects and two proposed industrial mineral mine projects. The Northeast Region has four proposed coal mine projects. The North Central Region has several active mineral exploration projects whereas in the Northeast Region the predominant commodity explored for is coal.

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