

Kingfisher - Colby Mines

Zn-Pb-Ag and White Marble Deposit

The Kingfisher Colby Mines property is located on the east side of Kingfisher Creek, 5 miles west of the north end of Mabel Lake and some 36 miles northeast of Vernon BC. The Kingfisher Colby Mines Zn occurrences are located on a ridge separating Kingfisher and Danforth creeks, approximately 4 kilometres north of their junction.

The property includes a stratabound zinc deposit contained in marble, quartzite, and calc-silicate gneiss units of the Monashee Group. These units have been traced 6 kilometres over the length of the property with known mineralization exposed in six zones: **(1) the Mile 8 zone, (2) the Dakota zone, (3) the Central zone, (4) the Cominco showings, and (5) the Ben zone (6) the Mile 12 showings.**

1.67 million tonnes grading 0.58 per cent lead and 2.6 per cent zinc has been indicated in the **central zone.**

Mineralization in marbles consists of dark, medium-grained massive sphalerite, with varying amounts of pyrrhotite and minor pyrite disseminated through a medium to coarse-grained white calcite matrix. Galena is also common, though much finer grained and more widely scattered. The sulphide concentration varies considerably across a mineralized zone, commonly producing a crude layering.



The most significant mineralization in the Central zone is contained within unit 3. Unit 2 consists of rusty weathering garnet-biotite- sillimanite gneiss with minor amounts of associated calc-silicate gneiss. Granite-pegmatite bodies, up to several hundred metres in diameter, commonly intrude unit 2. Unit 1 consists of hornblende gneiss, garnet biotite gneiss and some calc-silicate gneiss.

Five or six separate areas of mineralization have been identified in the **Central zone**, hosted in marble of unit 3 and calc-silicate and quartzite of units 4 and 5 over approximately 720 metres.

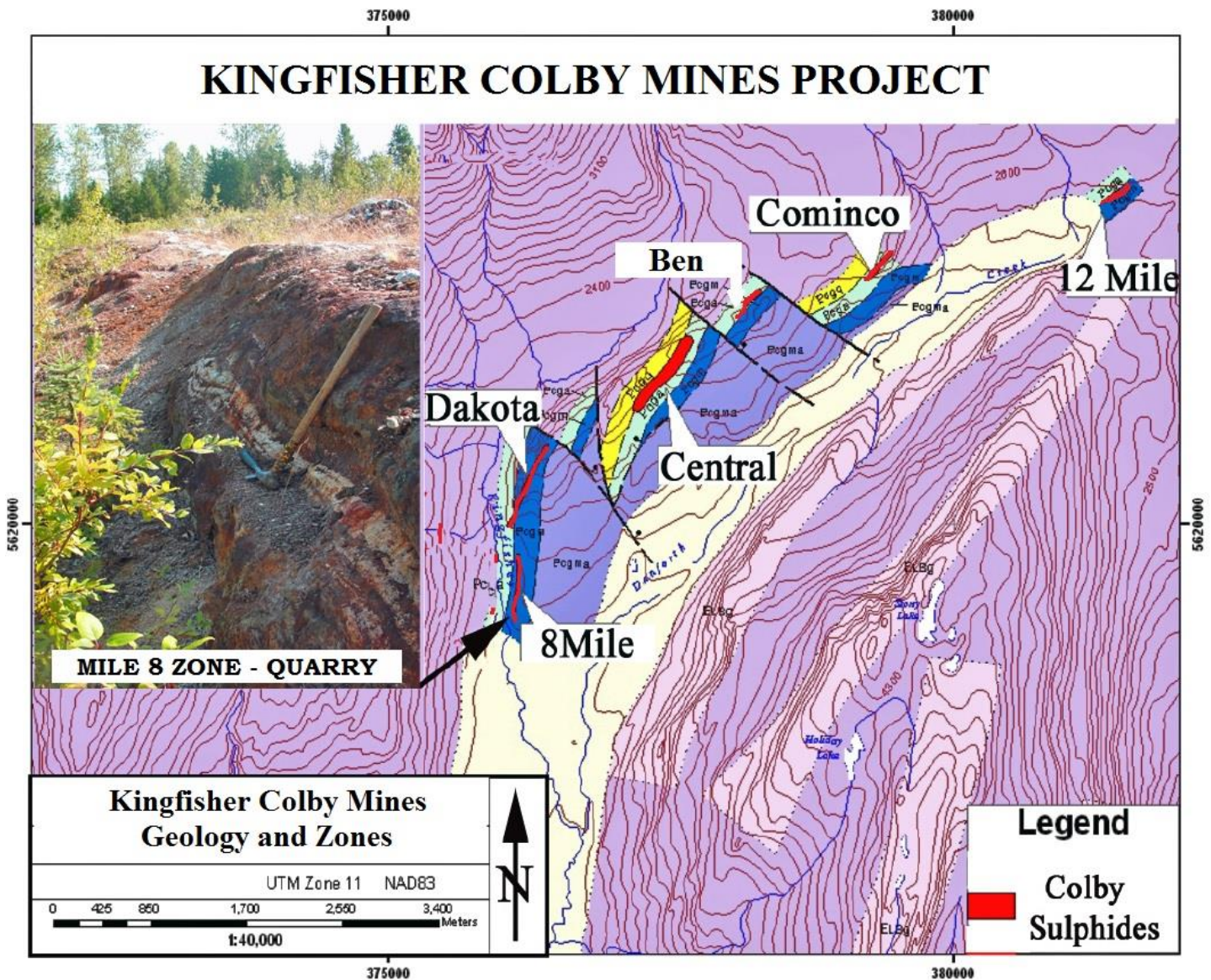


Large area of trenched and blasted high-grade zinc mineralisation (Central Showings)

The area lies within the Precambrian- Paleozoic(?) Shuswap Metamorphic Complex, a belt of high- grade metamorphic rocks. Rocks on the property comprise a heterogeneous package of granitoid gneiss, augen gneiss, sillimanite-bearing schist and prominent marble and quartzite layers.

The rocks on the Kingfisher property have been divided into six metamorphic units and two intrusive units. The sequence of metamorphic units probably represents an originally conformable package of sedimentary rocks (Geology in British Columbia 1975).

Unit 6 is the structurally lowest unit and consists dominantly of medium to coarse- grained garnet biotite gneiss that is intruded by many granite-pegmatite sills and dikes. Some white quartzite, marble and rare calc-silicate gneiss layers occur in unit 6. Unit 5 consists of fairly pure marble interlayered with quartzite. Included in the quartzite are some garnet biotite gneiss layers, and along the quartzite-marble contacts, coarse- grained calc-silicate gneiss.



The rocks of unit 4 host sulphide mineralization in the Central zone, which forms one of the zones in Kingfisher Colby Mines deposit. Unit 3 is a massive white marble up to several hundred metres thick. Included in the marble are several discontinuous layers of garnet biotite gneiss and hornblende gneiss.

Mineralized quartzites almost invariably contain calcareous minerals in accessory amounts. Dark sphalerite with pyrrhotite is concentrated generally in thin layers. Galena is more common in quartzites than in the marbles, although it is always subsidiary to sphalerite. The sulphide concentration varies from widely scattered individual grains to almost massive intergrowths.

Mineralization in calc-silicate gneisses shows gradational features between that in marble and that in quartzite. Sphalerite, pyrrhotite, pyrite ± galena may be evenly distributed through a coarse-grained calcite-diopside rock or may tend to concentrate in layers in a more quartz-rich rock. In general, mineralized sections in quartzites are of lower grade but are more continuous along strike with the layering than those in marble. Discontinuous high-grade pods are common in the marbles.

The more impure quartzite of unit 5 (that containing diopside and/or feldspar) may be mineralized with sulphides. Unit 4 is a heterogeneous unit comprised predominantly of calc-silicate gneiss but includes rusty weathering to **clean white marble (Kingfisher Quarry)**, garnet biotite gneiss, minor quartzite and minor amphibolite.



Kingfisher Marble Quarry with exposed sulphide zone (Mile 8 Zone).

In 1973, diamond drilling (hole 73-3) yielded intercepts up to 1.36 per cent lead and **3.47 per cent zinc** over 24.3 metres, with a **true width of 9.9 metres**, while the following year, drill hole 74-8 intercepted 1.95 per cent lead and 3.70 per cent zinc over 6 metres, with a true width of 4.5 metres (Assessment Report 4933).

In 2001, six rock samples (KF 01 to 06) from approximately 3.5 tonnes of stockpiled crushed rock yielded an average of 5.44 per cent lead, 9.16 per cent lead and 3.6 grams per tonne silver, while four dump samples (KF 07 to 10) yielded an average of 0.277 per cent lead and **7.61 per cent zinc** (Assessment Report 26730). A composite chip sample (CM7-1) assayed 9.43 per cent lead, **11.60 per cent zinc** and 6.12 grams per tonne silver over 1.5 metres (Assessment Report 33197).

In 1974, indicated reserves on the Kingfisher Colby Mines **Central Zone** were reported as **1.67 million tonnes grading 0.58 per cent lead and 2.6 per cent zinc**

(Statement of Material Facts 25/10/74, Colby Mines Limited).

This does not include the **Mile 8 zone**, the **Dakota zone**, the **Ben Zone**, the **Cominco showings**, or the **Mile 12 zone**.

Typical massive Sphalerite Mineralisation Kingfisher Colby Mines



In 1966, 4 tonnes of ore yielded 5.008 kilograms of silver, 450 kilograms of lead and 166 kilograms of zinc (Assessment Report 33197). In 1976, 12 tonnes of ore was shipped from the Central zone and yielded 187 grams of silver, 1157 kilograms of lead and 830 kilograms of zinc (Assessment Report 33197).

In 1964, Sheep Creek Mines completed a program of trenching, geological mapping and six diamond drill holes, 192.6 totalling metres. Later, in 1964, Cominco completed a program of geological mapping and a 50.3 line-kilometre ground magnetic survey on the area as the Bright Star and Kingfisher claims. In 1969, Bright Star Trio Mining completed a program of geological mapping and a 25.7 line-kilometre ground magnetic survey on the area.

During 1973 through 1977, Colby Mines completed programs of geological mapping, a ground magnetometer survey, rock sampling and 36 diamond drill holes, totalling 2278.0 metres, on the area as the Black Jack property. Later in 1977, Union Oil Company of Canada drilled one hole, totalling 104.0 metres. Discovery Consultants rock sampled the area. In 2012, Inexco Mining completed a program of prospecting, rock sampling and a 205.3 line-kilometre airborne electromagnetic survey on the area.

The property also hosts the Kingfisher White Marble Deposit



The **(Kingfisher) Marble Deposit** is located between Kingfisher and Danforth creeks, approximately 1.7 kilometres north- north west of their junction.

The white marble zone is more massive and resistant to weathering and forms a gently rising ridge, gaining some 55 metres in elevation from the quarry site to the north marble zone.

Allowing for a nominal width of 40 metres, a strike length at 900 metres, and a rise in ground level of 55 metres, the ridge alone has the potential for at least **2.5 million tonnes** of clean white marble above road access grade.

The geometry of the ridge is very attractive for quarrying operations and, by working uphill, a series of faces could be developed to allow for diversification and production of various types of materials for select landscape, or industrial and construction applications.



Marble Quarry with Mile 8 sulphide zone exposed

The area lies within the Precambrian-Paleozoic(?) Shuswap Metamorphic Complex, a belt of high- grade metamorphic rocks. Rocks on the property comprise a heterogeneous package of granitoid gneiss, augen gneiss, sillimanite-bearing schist and prominent marble and quartzite layers. See Kingfisher (**MINFILE 082LNE007**) for a detailed regional geology description.

Locally, thick beds (averaging 61 metres) of marble, calc-silicate gneiss and quartzite are complexly folded and faulted, striking generally north-northeast and dipping southeast. Foliation is sub-parallel to the layering. The marble unit varies from 30 to 50 metres in width and has been traced for 800 metres along strike.

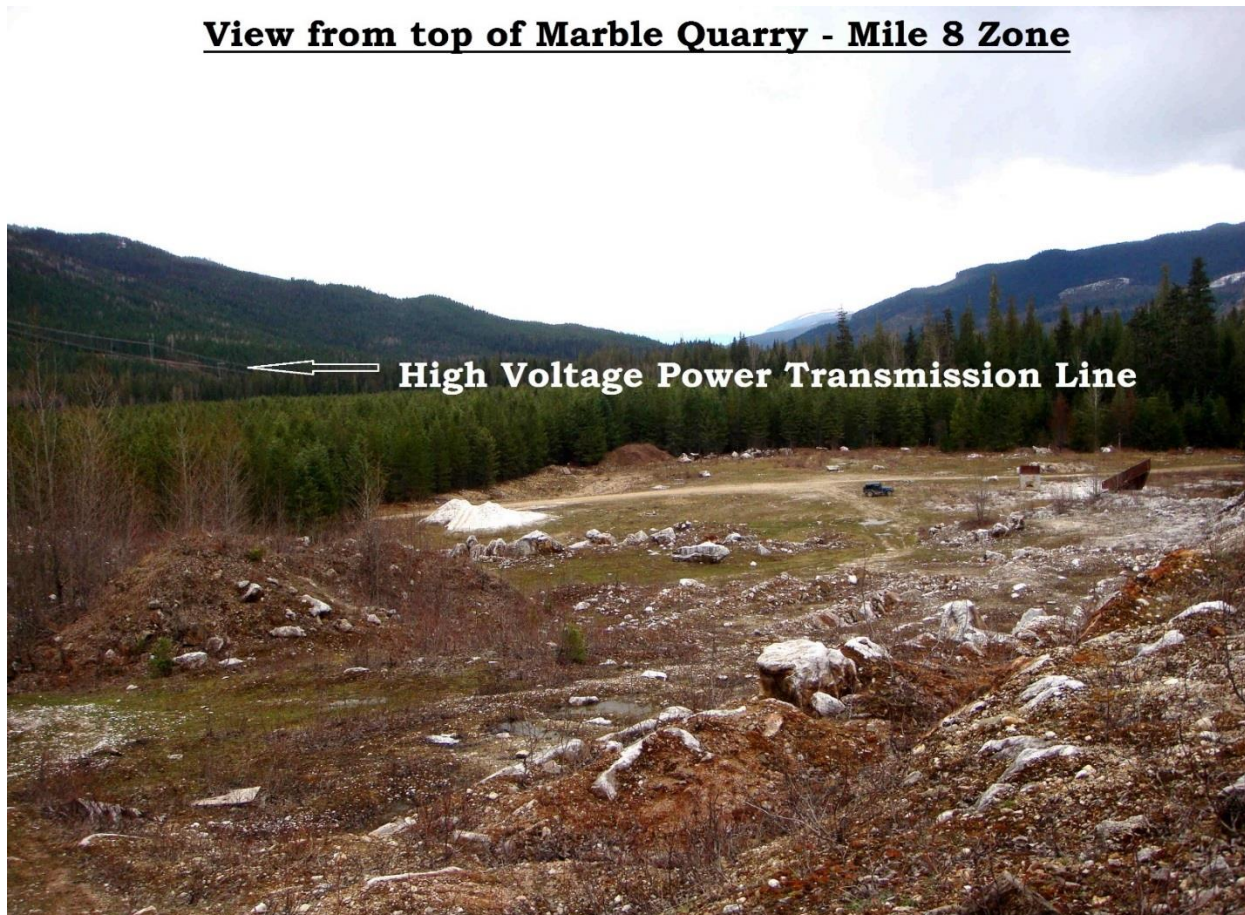
In 1988, relatively pure marble containing few sulphides and impurities were sampled and yielded 51.98 per cent calcium oxide, 0.14 per cent iron (III) oxide, 2.33 per cent silicon dioxide, and 41.81 per cent loss on ignition (Assessment Report 14740).

In 1994, a bulk sample of 24,000 tonnes of white marble was quarried and 4000 tonnes was processed into landscape rock (Assessment Report 24607).

Stripped area above Quarry face with Mile 8 Zone massive sulphide

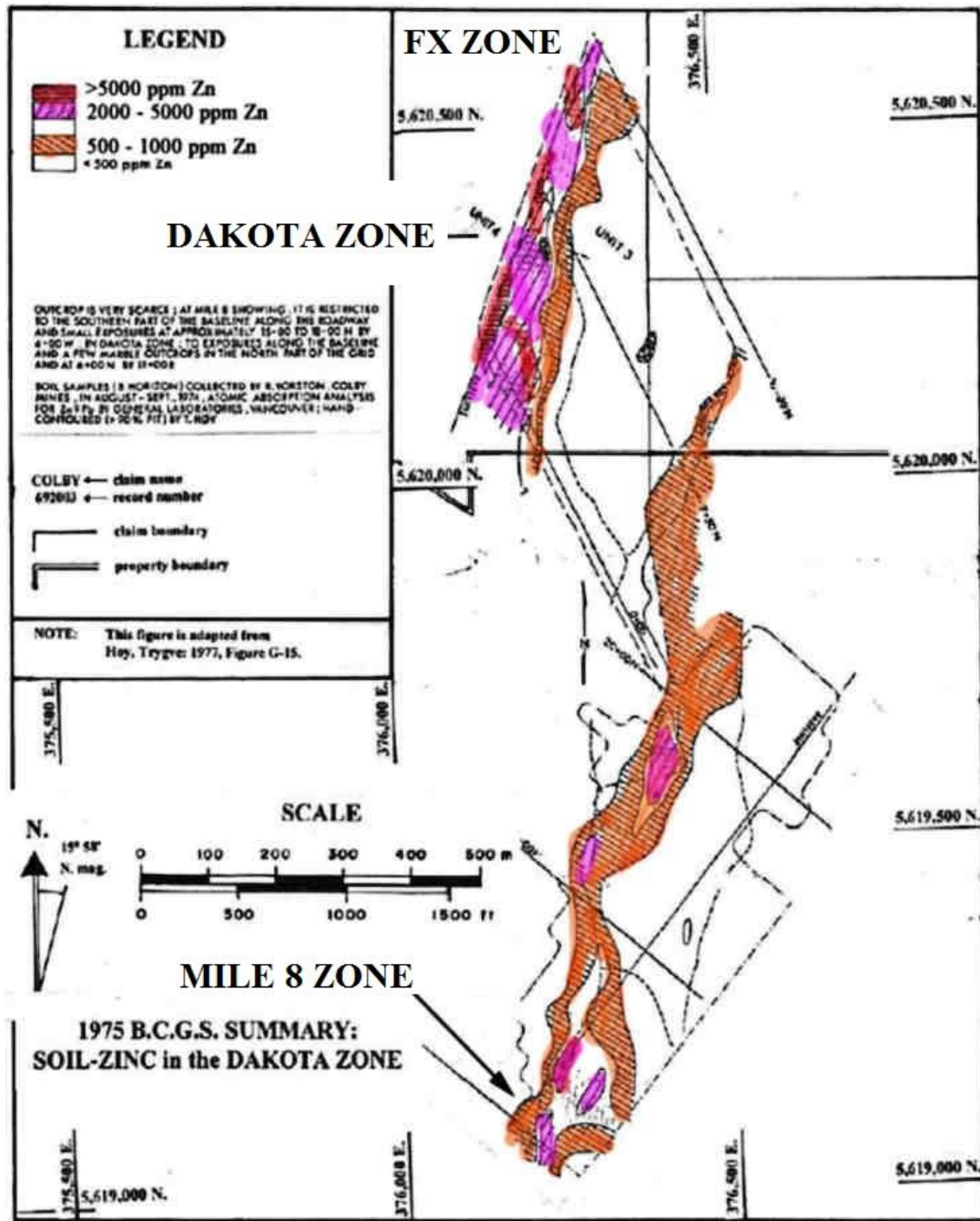


View from top of Marble Quarry - Mile 8 Zone



Strong, coincident lead-zinc geochemical anomalies have been outlined on the Mile 8 Colby mineral claims by previous operators. The anomalies should be tested with one or more excavator trenches. The more northern and inaccessible anomalies have little outcrop and should be tested by two or three hand trenches located just upslope of the highest lead zinc values. Pending results of trenching, drilling would be recommended.

Outcrop underlying the property and the soil anomalies consists of graphitic Quartzite interbedded with marble. These units are known to host significant Pb-Zn-Ag Mineralisation such as the kingfisher Colby Mines Central Zone located about 2.6 km to the north-east along strike.



Two grids that extended from the Mile 8 zone to the Dakota zone are presumed to have been constructed by Colby Mines in 1974.

Those grids covered a combined area of 48 ha (118.56A).

Soil-zinc results indicate that a north-south trending zone of high zinc-enriched soils extends northward from the Mile 8 zone to about 330 m (1,082 ft) east of the south end of the Dakota zone.

These two zones have a combined strike of over 1500 m and join with the Camp Zone and Central zone.

Sampling and prospecting have shown the sulphide zones persists at least 6 km to the north. The property remains largely underexplored, with large areas in the north eastern portions having seen very little modern exploration work. The next phase of exploration on the property should include property scale and detailed mapping and prospecting with emphasis on locating a Sed-Ex type of mineral deposit in areas of delineated high zinc anomalies.

RECOMMENDATIONS

Further geochemical sampling is warranted. East-west cross lines should be established at 50 m intervals with samples taken every 25m. All lines should be extended to cover the anomalous zinc zones located by previous operators. Detailed mapping and prospecting of the property should be undertaken, particularly on and up-slope of the soil anomalies and showings. Additional prospecting along strike is warranted to search for additional mineral occurrences in the same stratigraphic interval.

The property has a Current Mines Act Trenching permit in place

This property is offered for sale by way of working option to purchase.

For further information please contact Craig Lynes:

Rich River Exploration Ltd.



Cell: 250-804-6189

Email: prospect@richriver.bc.ca

Web: www.richriver.bc.ca