

NAME OF PROPERTY NOM DE LA PROPRIÉTÉ	ZYM (ZYMOETZ) KELLY CREEK
---	---------------------------

OBJECT LOCATED - Upper Showing. OBJET LOCALISÉ
---

UNCERTAINTY FACTEUR D'INCERTITUDE	Lat. 54°27'10"	Long. 128°08'15"
Mining Division Division minière	Omineca	District District
County Comté		Township or Parish Canton ou paroisse
Lot Lot		Concession or Range Concession ou rang
Sec. Sect.	Tp. Ct.	R. R.

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT
--

**DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT**

The property is underlain by Jurassic Hazelton Group volcanic rocks, including red and green basalts, andesites, and rhyolite-dacites and their fragmental equivalents. These rocks are intruded, on the west limb of an antiform, by an elliptical stock of quartz diorite and granodiorite, oriented in an east-west direction and measuring 8,000 by 5,000 feet. Sill-like bodies of andesitic feldspar porphyry cut the Hazelton rocks in the vicinity of the showings. The age relationships between these and the granitic rocks is not conclusive; evidence exists for both an older and younger time of intrusion of the porphyries.

The Upper showing, on which most of the work has been done, is exposed on surface in a number of trenches at an elevation of 1,800 feet. Intensely fractured rhyolite tuffs and breccias contain blebs and stringers of bornite and chalcopyrite, and bornite also occurs as disseminations in narrow dykes of light-grey rhyolite which cut both the volcanic rocks and the andesitic feldspar porphyry. The mineralized zone strikes in an easterly direction and is limited on both the east and west by

Associated minerals or products - Silver.  
Minéraux ou produits associés

**HISTORY OF EXPLORATION AND DEVELOPMENT  
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR**

The property is located between elevations of 1,000 and 4,000' on the south side of the Zymoetz River, on what is locally known as Kelly Creek, some 17 miles east of Terrace.

No record has been found of early work on the showings although reports mention an old adit at the 1,600' elevation. The showings were apparently re-staked in about 1964.

Native Mines Limited optioned the Zymoetz group in 1965 and carried out geological mapping, trenching and sampling. Work during 1966-1967 included an induced potential survey over 7.3 line-miles, a geochemical survey over 20.5 miles, trenching, and diamond drilling in 16 holes on the upper showing; this work indicated 1,300,000 tons averaging 1.0% copper and 0.75 ounce silver per ton (D.D. Campbell, October 1, 1967 as quoted in report by Elwell 1979).

Pechiney Development Limited optioned the property in March 1968. Exploration work over the next 4 years included silt and soil geochemical surveys, trenching, and an induced potential survey over 18 line-miles. In late 1969 a 1,000 foot long exploration adit was completed in the upper showing. Diamond drilling underground totalled 2,499 feet in 6 holes, and on surface 2,688 feet in 7 holes. Pechiney dropped the option in March 1972 and the claims subsequently lapsed.

Cathedral Minerals Ltd. in October 1979 purchased the Tara and Rick claims, covering the main showings, from L.B. Warren and T. Garner, of Smithers. Staking by the company apparently included the Tim, Ann and Kelly claims to the northwest, and the Kelly 1-6 which were staked in part overlying the purchased claims. Other showings to the southeast known as the Goat Bluff and Native were staked as the Goblin 1-8 and John 1 & 2 claims. By an agreement dated November 30, 1979 Cathedral assigned a one half interest to Invex Resources Ltd. Drilling in 1980 under the joint venture blocked out 400,000 tons at 3.18% Cu and 2.1 oz/ton Ag (Northern Miner 22/01/81), or 2,500,000 tons at 1.03% Cu and 0.54 oz/t Ag (Northern Miner 27/11/80).

On December 30, 1980 Cathedral and Invex entered into an agreement with Procan Exploration Company to finance further exploration; Procan could earn a 70% royalty interest by investing \$1.5 million in the Cathedral-Invex joint venture by June 1985. Some \$84,000 was spent in 1981, apparently

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)  
relatively massive feldspar porphyry which is only weakly mineralized. Drilling from the 1,700 level indicated that the zone was also limited to the north and south and also below the level, with the exception of the area around drill hole US-6, where fair-grade mineralization extends 100 feet vertically below the level. Best grades of mineralization encountered in the adit are contained in brecciated and silicified zones in the more brittle rhyolitic units, where bornite and chalcopryrite occur as fracture-fillings and as disseminations in brecciated zones.

The Lower showings, at an elevation of 1,600 feet, consists of chalcopryrite, bornite, and minor chalcocite occurring as fracture-fillings in a pink granodiorite.  
One thousand feet east of the Upper showings, chalcopryrite and bornite occur in red and grey-green andesites near their contact with a small granodiorite stock. One drill hole put down to test this zone intersected mainly feldspar porphyry cut by narrow lamprophyre dykes.

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES  
Map 1136 A, Terrace, (Geol.), Sc .1":4 miles - accomp.  
Memoir 329, Geol. Surv. of Canada.  
#Generalized Geology of part of the Zymoetz claims, Sc. 1":2,000', Fig. 20, Geology, Exploration and Mining, 1970, p. 190.  
\*Map 103 I/8, Chist Creek, (Topo.), Sc. 1:50,000.  
Claim Location Map, Sc. 1:50,000 - accomp. Report by Elwell.

REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR	DMacR	DMacR				
Date Date	08-81	05-83	08-86				

REFERENCES/BIBLIOGRAPHIE  
Report of Minister of Mines, British Columbia:  
1966, p. 79.  
Geology, Exploration and Mining; British Columbia Dept. of Mines: 1969, p. 78; 1970, pp. 189-193<sup>+</sup>; 1971, p. 113.  
Mineral Policy Sector; Corporation Files: "Native Mines Limited"; "Native Explorations Limited"; "Pechiney Development Limited"; "Cathedral Minerals Ltd."; "Invex Resources Ltd."; "Imperial Metals Corporation".  
Elwell, J.P.; Report on the Kelly Project, 28/11/80 - in Cathedral Minerals Ltd. Statement of Material Facts 14/04/80.  
Exploration in British Columbia; BCDM: 1980, p. 392.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)  
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR  
for drilling. In December 1981 Invex Resources amalgamated with Imperial Metals and Power Ltd. and Risby Tungsten Mines Ltd. under the name Imperial Metals Corporation. Adit extension, bulk sampling and diamond drilling were carried out in 1982. Drill-indicated ore-grade reserves were estimated at 300,000 tons averaging 2.23% Cu and 1.34 oz/t Ag with an equivalent amount geologically inferred (Imperial Metals Corp., 1982 AR).  
Cathedral Minerals in January 1983 amalgamated with Dayton Creek Silver Mines Ltd. under the name Mintek Resources Ltd.; the latter company was controlled by Imperial Metals Corporation. At that point Imperial held a 50% interest in the property. Work in the period 1980-83 included 1 368 m of surface drilling in 9 holes and 519 m underground in 12 holes. Reserves at the Upper Showing were reported as 601,000 tons at 2.23% Cu, 1.34 oz/t Ag at a cut-off grade of 1.5% Cu (Imperial Metals Listing Statement, August 1985).  
BCI 103 I-J - 92