PROVINCE OR PROVINCE OF TERRITORY TERRITORE

PROVINCE OU British Columbia

N.T.S. AREA 104 P/4 REGION DU S.N.R.C.

REF. MO 1

NAME OF PROPERTY NOM DE LA PROPRIÉTÉ

CASMO (STORIE) (S.Q.E.)

OBJECT LOCATED - Quartz porphyry host rock. OBJET LOCALISÉ

UNCERTAINTY 500 m
FACTEUR D'INCERTITUDE
Mining Division Liard

Lat. 59°14'35" Lat.

District

District

R.

Long. 129°52'20" Long.

Cassiar

Division minière County Comté

Township or Parish Canton ou paroisse

Lot *Lot* Sec

Sect.

Concession or Range Concession ou rang R.

Tp. Ct.

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The deposit is hosted by acidic intrusive phases of a Late Cretaceous stock at the east margin of the older Cassiar batholith. Three intrusive phases are recognized: a coarsegrained porphyritic quartz monzonite (A) containing zones of finer-grained porphyritic quartz monzonite (b) that have gradational contacts. The molybdenum mineralization is associated with small masses of quartz feldspar porphyry and quartz porphyry (C) which occur as a series of northerly to northeasterly trending and gently northwesterly dipping dyke-like sheets within a zone of fine-grained quartz monzonite (B). Molybdenite is concentrated near intrusive phase contacts, in fractures and rare quartz veinlets in the quartz monzonites (B), and disseminated as scattered flakes and rosettes throughout porphyry dyke-like sheets (C).

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

The property is located at the 5,000 foot elevation on the north side of Lang Creek, about 3 miles south-southwest of Cassiar townsite and 1.25 miles east of Limestone Peak.

The showings were discovered in the early 1950's. Fort Reliance Minerals Limited in 1962 acquired an option on 1,200 acres covering the showing, then known as the Mineral Hill prospect. Trenching and sampling was reported.

New Jersey Zinc Exploration Company (Canada) Ltd. in 1964 optioned and subsequently purchased 10 claims from J.W. Storie, of Cassiar. Additional staking was done in the S.Q.E., Kon, and Rex groups for a total of 54 claims. Work during 1964 included a geophysical survey, trenching, and 3,947 feet of diamond drilling. During 1965-66 further geophysical surveys and 9,164 feet of drilling in 21 holes was carried out. New Jersey Zinc carried out a further 9,304 feet of diamond drilling in 18 holes in 1968. Casmo Mining Ltd. was incorporated in 1970 by New Jersey Zinc to acquire the property.

Levana Exploration Company, of Los Angeles, optioned the property in 1971 and carried out 3,163' of diamond drilling in 4 holes.

Reserves have been reported as 30,000,000 tonnes at 0.078% Mo or 45,000,000 tonnes at 0.072% Mo (Porphyry Deposits of the Canadian Cordillera, Canadian Institute of Mining & Metallurgy, Special Volume 15, Table 1, #129, 1976).

Shell Canada Resources optioned the property from New Jersey Zinc in 1979 and by 1981 had earned a majority interest in the property; work included 8,500 metres of diamond drilling. This work outlined 100,500,000 tonnes of mineralization at a grade of 0.130% MoS<sub>2</sub> (CIM Bulletin, September 1981, p. 65); or 100 500 000 tonnes of open pit reserves at 0.129% MoS<sub>2</sub> (Northern Miner, 4/03/82). A preliminary feasibility study was carried out in 1981-82.

Shell earned its 61% interest by spending \$1.6 million. New Jersey Zinc, a wholly owned subsidiary of Gulf and Western Industries Inc., retains its interest through wholly owned Casmo Mining Ltd. Early in 1982 Shell withdrew from mineral exploration and its mineral assets were put up for sale.

## MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map 1110 A, McDame, (Geol.), Sc. 1":4 miles - accomp. Memoir 319, Geol. Surv. of Canada.

\*Geology of the Cassiar map-area, Sc. 1 cm:1.2 km, Fig. 16, Geological Fieldwork 1978, Paper 1979-1, p. 52, British Columbia Dept. of Mines.

\*Map 104 P/4, Needlepoint Mountain, (Topo.), Sc. 1:50,000.

## REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR	DMacR	 	<del></del>	
Date Date	09-81	05-83		-	

## REFERENCES/BIBLIOGRAPHIE

- Reports of Minister of Mines, British Columbia: 1964, p. 10; 1965, p. 12; 1966, p. 18; 1968, p. 35.
- Mineral Policy Sector; Corporation Files: "Fort Reliance Minerals Limited"; "Shell Canada Limited".
- Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1971, p. 56<sup>+</sup>.
- Porphyry Deposits of the Canadian Cordillera; Canadian Institute of Mining & Metallurgy, Special Volume 15, Table 1, #129, 1976.
- Geological Fieldwork, British Columbia Dept. of Mines: 1978, pp. 51-56 (Paper 1979-1)++; 1979, p. 84 (Paper 1980-1).
- +++Bloomer, Christopher; The Casmo (Storie) Molybdenite Deposit; abstract in CIM Bulletin, September 1981, p. 64.
  - A Sacit Saydam; Ground geophysical Investigations over the Casmo molybdenite deposit; CIM Bulletin, April 1983, p. 80.