

PRODUCT MOLYBDENUM  
PRODUIT

PROVINCE OR PROVINCE OU British Columbia  
TERRITORY TERRITOIRE

N.T.S. AREA 82 E/11  
RÉGION DU S.N.R.C.

REF. MO 1  
RÉF.

NAME OF PROPERTY  
NOM DE LA PROPRIÉTÉ DOE, MARY O, (FAN) (CARMI)

OBJECT LOCATED - "E" Zone.  
OBJET LOCALISÉ

UNCERTAINTY 200 m FACTEUR D'INCERTITUDE	Lat. 49°31'05"	Long. 119°10'00"
Mining Division Greenwood Division minière	District District	Similkameen
County Comté	Township or Parish Canton ou paroisse	
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

Rocks in the Carmi area range in age from Precambrian to Tertiary but only the Jurassic Nelson batholith and the Cretaceous Valhalla intrusion are known in the vicinity of the showings. The Nelson rocks are medium-grained foliated biotite-granodiorites, with smaller bodies of related quartz diorite and quartz monzonite; the latter displays a cross-cutting relationship to the main granodiorite body. The main body of the Valhalla intrusion has not been observed in outcrop. It is a muscovite-biotite-quartz monzonite and has several late-stage derivatives, including feldspar porphyry dykes and the cement of the mineralized breccia zones.

Two mineralized breccia zones have been discovered to date (the "E" and "Lake" zones) and are localized within a thin fault-dissected cover of Nelson granodiorite. In the central part of the E zone breccia the matrix is granodiorite intermixed with pegmatite, quartz and aplite, and containing pyrite, magnetite, fluorite, molybdenite, muscovite, biotite, chalcopryrite, brannerite and ilmenite in approximate order of abundance. Molybdenite occurs as rosettes within fragments,

see Card 2 ....

Associated minerals or products  
Minéraux ou produits associés

Copper, Uranium, Fluorspar

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

The property is located between elevations of 3,500 and 4,500 feet on the south side of Wilkinson Creek, 2½ miles northwest of Carmi.

The Main or "E" zone was discovered in 1960 when Kennco Explorations, (Western) Limited obtained anomalous molybdenum values from stream sediment samples. The Fan group of 24 recorded claims was subsequently staked. Work by the company during 1962 included geological mapping and trenching. Kennco apparently restaked the main showings as the DOE 1-4 claims.

International Minerals & Chemical Corporation (Canada) Limited in 1970 held 138 claims in the Mary O and Capco groups. Work included geological mapping, induced polarization and magnetometer surveys, and diamond drilling; 6 holes were drilled on the breccia zone.

Husky Oil Ltd. and G.V. Lloyd Exploration Ltd. held an option on the property during 1971-72. Work during the period included geological mapping, geochemical and ground magnetometer surveys. Line cutting was reported in 1973 by owner J.V. Hinks, of Kelowna.

Vestor Explorations Ltd., by an option agreement of January 31, 1974 acquired about 300 claims in the Mary O "A", Mary O "B", and other groups, from James V. Hinks and John A. Olinger, of Kelowna, the Mary O "B" group surrounded the DOE 1-4 claims. Vestor optioned the DOE claims, covering what was later to be named the "E" zone, from Kennco by an agreement dated July, 1974; Vestor subsequently acquired a 70% interest in the DOE claims. Vestor used soil geochemistry to locate the "Lake" (Western) zone. Diamond drilling during the year totalled 5,653 feet in 16 holes on the "E" zone and 1 hole on the Lake zone. Percussion drilling was done in 8 holes totalling 2,000 ft.

The Granby Mining Company Limited optioned 176 claims from Vestor in October 1974 and began a percussion drilling program drilling totalled 12,025 ft. in 32 holes on Linda 3, 4, and 5, located to the south of the Lake zone. Further work by Granby in 1975 included an induced potential survey over 2.6 line-kilometres and 900 metres of diamond drilling in 9 holes on the Doe, Huck, and Lang groups. Granby gave up the option in July 1975.

see Card 2 ....

Mineral Policy Sector, Department of Energy, Mines and Resources, O  
Secteur de la politique minérale, ministère de l'Énergie, des Mines et des Ressources, O

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Report of Minister of Mines, British Columbia: 1962, p. 68.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1970, p. 408; 1971, p. 386; 1972, p. 44; 1973, p. 50; 1974, p. 60; 1975, pp. E 25, G 36+; 1976, p. E 31; 1977, p. E 33; 1978, p. E 33.

Mineral Policy Sector; Corporation Files: "Vestor Explorations Ltd."; "The Granby Mining Company Limited"; "Craigmont Mines Limited"; "Dynamic Oil Limited".

++Kenyon, J.M. and Morton, R.D.; The Carmi Mo-(U) Deposit; Vestor Explorations Limited, c 1979.

+++Molybdenum exploration and development in Western Canada; Western Miner, Feb. 1980, p. 59.

Kenyon, J.M.; Mo and U Mineralization with Special Reference to a Mo-(U) Deposit at Carmi, B.C.; M.Sc. Thesis, U. Alberta, 1978. (Abstract in CIM Bull., Nov. 1980, p. 28).

Geological Fieldwork; British Columbia Dept. of Mines: 1975, p. 30.

Exploration in British Columbia; British Columbia Dept. of Mines: 1979, p. 41; 1980, p. 41.

George Cross News Letters: 18/08/82; 26/07/84; 17/10/84.

#### AP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map 15-1961, Kettle River, (Geol.), Sc. 1":4 miles, Geol. Surv. of Canada.

Geology of the Carmi Molybdenum Deposit, Sc. 1 cm:125 m, Fig. G-20, Geology, Exploration, and Mining, 1975.

Carmi Geological Map, Sc. 1":1,000' - accomp. Rept. by Kenyon & Morton.

Map 8510 G, Wilkinson Creek, (Aeromag.), Sc. 1":1 mile.

Map 82 E/11, Wilkinson Creek, (Topo.), Sc. 1:50,000.

#### REMARKS/REMARQUES

Comp./Rev. By Comp./rév. par	DMacR	DMacR					
Date Date	10-80	01-86					

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NAME OF PROPERTY NOM DE LA PROPRIÉTÉ	DOE, MARY O, (FAN) (CARMI)
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## DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

as thin lamellae on fragment/matrix boundaries and as discrete flakes within the matrix. The associated uranium mineralization, represented by brannerite, is sporadic and is restricted to a portion of the "E" zone. Where drill intersected, uranium averages 1.0 lb/ton U<sub>3</sub>O<sub>8</sub>.

In the Lake Zone, the matrix for the breccia consists of quartz monzonite intermixed with pegmatite, abundant quartz, and aplite. Within the porphyry, alteration zones appear to form along incipient fractures. These zones vary in width from one-half inch to twenty feet; the bulk of them are about six inches wide. The alteration is largely quartz-sericite. Disseminated molybdenite occurs within this sericitized rock.

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

Craigmont Mines Limited optioned the property in May 1976 and carried out magnetometer and induced potential surveys over 62 line-kilometres, a geochemical survey (750 samples), and 2,000 metres of drilling on CA 2, 3, 4 claims. Most of the work was focused on the southern sector of the property away from the known zones. The option was terminated in April 1977.

Union Oil Company of Canada Limited optioned the property in August 1978. A deep penetrating induced potential survey was carried out over 18 kilometres. Further work by Union in 1980-81 included geochemical water, silt, soil and rock surveys, induced potential surveys over 52 line km, 6290 m of percussion drilling in 64 holes and 2460 m of diamond drilling in 6 holes; diamond drilling on the Lake-zone expanded its known dimensions to a length of 2,150', up to 500' wide, and to a depth of 1,300'. Union abandoned the option in late 1982.

Dynamic Oil Limited in 1983 acquired an option on a 50% interest in the property. Work in 1985, funded by Dynamic, included 950' of percussion drilling in 4 holes to evaluate the Au-Ag potential of the E-zone. Drill indicated material is in excess of 43,000,000 tons averaging 0.10% molybdenum (J.M. Kenyon, May 1979, in Dynamic Oil Limited Filing Statement 242/84).

Combined open pit potential of the E-zone and Lake-zone is 35-40 million tons. A further 6 million tons of high-grade (0.36 MoS<sub>2</sub>) exists at greater depth on the Lake-zone over an average 30' width (Vestor Explorations Ltd Report to Shareholders, August 1985).