

NAME OF PROPERTY	CARLICK (BILL), ATAN			HISTORY OF EXPLORATION AND DEVELOPMENT	
LOCATION	Anomaly No. 3	Lat. 59°12'	Long. 129°12'	This property is located at Atan Lake, on the north side of the Dease River, about 25 miles east-southeast of Cassiar.	
Mining Division	Liard	District	Cassiar	The first recorded observation of the Atan Lake occurrence was by G.M. Dawson in 1887. He reported an "argentiferous lead occurrence, situated a mile down river from McDame Post."	
County	Township or Parish			The Carlick group, located just over 1/2 mile northwest of Atan Lake, was staked by Beal Carlick, of Lower Post, in the summer of 1949. Moccasin Mines, Ltd., which held considerable nearby placer ground, optioned the property later in the year and staked additional claims on strike with the initial discovery. Exploration work by the company was limited to bulldozer stripping and trenching. The company charter was surrendered in 1950. A few claims were reported staked on the showings by local prospectors in the 1960's. The Carlick group was restaked as the Bill group. The Bill claims were owned in 1970 by Dresser Industries, Inc. A geochemical soil survey was carried out during the year.	
Lot	Concession or Range			The Atan, Adair, Ski, Wolf, and August groups, adjoining the Bill group and surrounding Atan Lake, were staked in 1967 for Tournigan Mining Explorations Ltd. Additional staking was done to a total of 43 full and 3 fractional claims. In 1968 geological mapping, induced polarization, gravity test, and geochemical soil surveys were carried out. The induced polarization survey outlined 3 strong chargeability anomalies. During 1969 the No. 1 anomaly, located south of Atan Lake, was tested by 3 diamond drill holes; minor barite, pyrite, and magnesite was encountered. The No. 3 anomaly, located between Atan Lake and the Bill group, was trenched by bulldozer. Lenses and pods of massive barite, knots of galena, scattered chalcopyrite and fine grained tetrahedrite were exposed by this work. Trenching on No. 2 anomaly, north of Atan Lake, failed to reach bedrock. Diamond drilling for the year totalled 1,375 feet in 4 holes.	
Sec.	Tp.	R.		New Jersey Zinc Exploration Company (Canada) Ltd. in 1970 optioned the Tournigan property and carried out a gravity survey over part of the claims. The results showed a residual gravity peak of 2.17 milligals coinciding with No. 3 anomaly. The option was subsequently dropped. Work by Tournigan Mining during 1971-72 included geological mapping and trenching, mainly on the No. 3 anomaly. British Newfoundland Exploration Limited optioned the property in 1973. Work during the year included 22 line-miles of	
OWNER OR OPERATOR AND ADDRESS				p.t.o.	
Tournigan Mining Explorations Ltd.				Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa. p.t.o.	
DESCRIPTION OF DEPOSIT					
The area of the claims though largely covered with overburden is considered to be underlain by Lower Cambrian rocks of the Atan Group. Locally these have been divided into a Younger Atan Group composed chiefly of limestone and dolomite with minor interbedded argillite, sandstone and quartzite, and an Older Atan Group composed of quartzite and shale. The mineralization is associated with a limestone-dolomite horizon about 400 feet wide that trends northwesterly through the claims for 1 1/2 miles. The strike of the bedding varies from 300 to 315 degrees (azimuth) and dips vary between 45 and 60 degrees southwest. Faulting is common and predominantly southwesterly directed. It dissects the sedimentary sequence into a number of blocks, in some cases with considerable strike separation. Mineralization is exposed in 4 main areas along the limestone-dolomite horizon; three of these are on the Atan group and the other on the Bill group, which covers the westerly end of the horizon. Several lenses within the horizon contain abundant barite, and knots and clusters of medium to coarse-grained					
Associated minerals or products of value - Barite, copper, silver, zinc.					

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HISTORY OF PRODUCTION

REFERENCES

Gabrielso, H.; McDame Map-Area, Cassiar District; British Columbia; Memoir 319, pp. 113, 114, Geol. Surv. of Canada, 1963.

Reports of Minister of Mines, British Columbia; 1949, p. 71; 1967, p. 26; 1968, p. 35.

Geology, Exploration and Mining; British Columbia Dept. of Mines: 1969, p. 43; 1970, p. 37; 1971, p. 56; 1972, p. 561; 1973, p. 540.
Mineral Development Sector; Corporation Files: "Tournaigan Mining Explorations Ltd.".

MAP REFERENCES

Map 1110 A, McDame, (Geol.), Sc. 1"=4 miles - accomp. Memoir 319.

*Map 104 P/3, McDame, (Topo.), Sc. 1:50,000.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

gravity survey covering all claims, and about 2,000 feet of surface diamond drilling in 8 holes. Three of the drill holes cut several bands of 0.3% to 17.0% stratiform sedimentary sphalerite. The option was subsequently given up.

DESCRIPTION OF DEPOSIT (continued)

galena. Trace amounts of chalcopyrite, tetrahedrite, and chalcocite occur in shears and brecciated zones, and is sometimes associated with the barite and galena.