

A CIM REPORTER FEATURE STORY

History Recalled and Key Personnel Recognized as Western Mines Continues Development Drilling on Tournigan's Big Missouri Gold-Silver Property in B.C.

Background

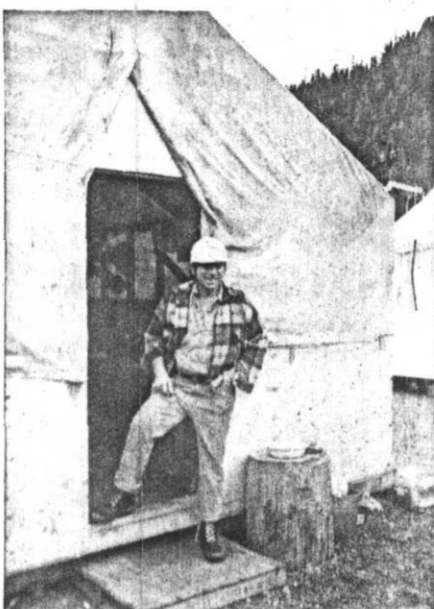
Tournigan Mining Exploration Ltd. is a precious and base metals exploration company managed by geologists and professional engineers. Since its incep-



Tournigan's consulting geologist, **John DeLeen** (on left), examining Big Missouri specimens with **Dr. Harlan Meade** (right), exploration supervisor for Western Mines Limited.

tion in 1966, the company has located, through geological research, a number of high-potential properties in Western Canada.

The president and exploration



Consulting geologist **Don Cochrane** in the doorway of a tent at Big Missouri property.

manager (and founder) of the company, is John N. Hembling. The secretary is Wm. Braidwood, and the other officers and directors include Norman S. Adair, Egil H. Lorntzen and Dr. Wm. V. Smitheringale.

In December 1978, Western Mines Limited entered into an agreement with Tournigan that gives Western the right to earn a 70% ownership in the Big Missouri property, located near Stewart in west-central British Columbia, and to become a shareholder of Tournigan.

The Big Missouri property was discovered and has been explored since 1904. Between 1938 and 1942, the mine produced some 847,000 tons of gold-silver ore. During the early 1940s, however, the Canadian Government ordered the closure of this mine and others in the area because of its requirement for machinery and manpower in the war effort. After the war, it was economically impractical to re-open the mines because of low metal prices and high labour costs.

In 1973, with increased technology allowing the mining of lower-grade ores, Tournigan embarked upon an aggressive program to package a large number of



Aerial view of the Big Missouri exploration camp.

extensive claims to make the site economically attractive for major mining companies to develop a massive open-pit operation.

They were successful. After studying Tournigan's findings in relation to the potential value of the Big Missouri property, and confirming them in a number of geological and engineering studies published since the property was discovered, Western Mines Limited decided to take up an option on the property.

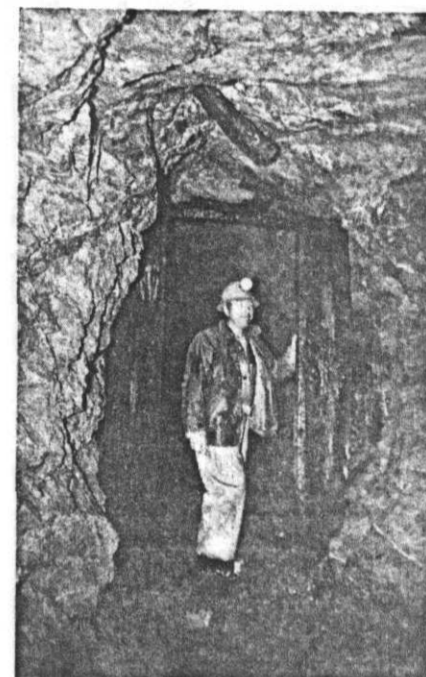
Development Drilling

During the 1980 field season, Western Mines Limited completed 44 diamond drill holes and several long trenches, and sampled a number of mineralized zones prior to drilling. As the property is comprised of 24 previously separate properties, now amalgamated into one large block of claims, there are numerous old adits and shafts that were worked in the early days. Assays are also reported from these zones and drilling will eventually cover them as the development program proceeds.

The assay results received from the Big Missouri diamond drilling program (up to hole 80-19) average 0.099 ounce gold per ton and 2.54 ounces silver per ton. It is believed that the property lends itself to open-pit mining techniques.

Key Personnel Associated With the Big Missouri

J.N. Hembling, president of Tournigan Mining Explorations Limited, gives credit where credit is due, naming **Dr. Wm. Smitheringale** as the man most responsible for seeing the property through the amalgamation and geological evaluation stage preparatory to the joint-venture agreement with Western Mines. "He is the one man who is responsible for the possibility of the Big Missouri coming back into production, hopefully within a couple of years, under Western Mines direction. Dr. Smitheringale had previous knowledge of the 24 separate properties which were put together to form the Big Missouri property as it now exists, dating back to the 1920s, at which time he was a consultant in the Stewart area for R.H. Batten and Consultants. Dr. Smitheringale is singularly accredited by the University of British Columbia for being responsible for a number of mines coming into production as a consequence of his personal work. These include such well-known mines as United Keno Hill in the



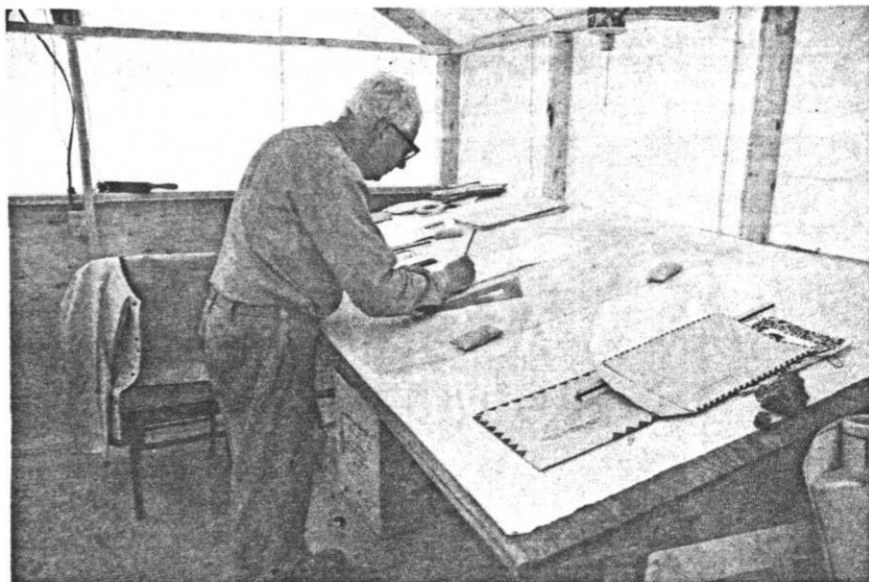
Don Cochrane, consultant to Tournigan, standing in the Dago Zone (Mann Tunnel) near a high-grade stope (summer '78).

Yukon Territory, the Cassiar asbestos mine, the Island Mountain gold mine, the Ashley Creek gold mine and others."

On Friday, January 16, at the 69th Annual General Meeting of the B.C. and Yukon Chamber of Mines, Dr. Smitheringale was presented with the H.H. Heustis Award. This was the fourth time that the award was presented. The first to receive the honour was "Spud" Heustis himself, the second was Carl Springer and the third B. Brynolson. The award is given to a "rare few" who excel in "prospecting and mineral development."

The other key geologist involved in the Big M, who will be jointly credited with its return to production, is **Don R. Cochrane**, of Cochrane Consultants, who worked with Dr. Smitheringale and Mr. Hembling from "day 1" on the Big Missouri with the purchase of the initial claims in 1971 from the Unicorn Mining Company. Mr. Cochrane is retained at the present time as a consultant on the project by Western Mines Limited.

The current project leader at Western Mines on the Big Missouri project is **Dr. Harlan Meade**, who has been involved in the actual work since Western Mines took on the joint venture in 1978.



Tournigan's **Dr. Wm. V. Smitheringale**, working at Big Missouri (summer '78) in the geology tent.



LHD equipment Ltd.

P.O. Box 1437
North Bay, Ontario

our name speaks

CANADIAN MINE SERVICES LTD.
MINING ENGINEERS
INTERPROVINCIAL MINING & DRILLING CONTRACTORS

Mining engineers; mining & drilling crews and equipment available for domestic or foreign contracts on short notice.

- Mine Engineering • Shaft Sinking
- Diamond Drilling, Surface & Underground
- Mine Development • Training Programs
- Custom Equipment Designed & Fabricated
- Construction Excavation

Toronto	CANADIAN MINE SERVICES LTD., 1595 Clark Blvd., Brampton, Ontario L6T 4C1 Tel.: 416-792-2700 — Telex: 06-97762
Vancouver	CANADIAN MINE SERVICES LTD., 745 Clark Drive, Vancouver, B.C. V5L 3J3 Tel.: 604-253-5251 — Telex: CANMS 04-54311
Elliot Lake	CANADIAN MINE ENTERPRISES LTD., Box 220, 29 Perini Road, Elliot Lake, Ontario P5A 2J7 Tel.: 705-848-3635 — Telex: 067-7314
United States Operations: Servicing Alaska	CM INC. — AMERICAN MINE SERVICES INC., 4705 Paris Street, Denver, Colorado 80239 Tel.: 303-371-9380
Field Office: Saskatoon	CANADIAN MINE SERVICES LTD., CAMERON McCUTCHEON DRILLING LTD., 2924 A. - 3rd Ave., Saskatoon, Sask. S7K 1J5 Tel.: 306-664-1044

L. CO. LIMITED

ITORS

L SUPPLIES

Branches:
Sault Ste. Marie
Sudbury
Kapuskasing
Elliot Lake, Ontario
Noranda, Quebec

MINING INDUSTRY WITH PRODUCTS SPECIALIZING IN

E SEGMENTS FOR CUT-AND-FILL MINING
MINING BUCKETS • FRONT-END-LOADER BUCKETS
• CUSTOM MACHINE SHOP WORK (tool and die)
• CUSTOM EQUIPMENT DESIGN AND FABRICATION
ING, ROLLING, FORMING (1" thick plate at 11'-0")
ING (Stainless steel)

ICATING LIMITED
RIO P3E 4N1 — TEL.: (705) 522-0810