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Cassiar
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Monday PM

The core segments represent three diamond drill holes. The holes were drilled through the Matinenda Formation of the Elliot Lake Syncline. The lengths of the core segments are defined by the petrographic texture of the core (i.e. conglomerates, pebbly quartzites and quartzites). The Matinenda Formation is part of the Huronian Supergroup of Proterozoic clastic sediments and hosts the uranium ore, which is being mined by several mines in the Elliot Lake area of Ontario.

Beyond serving the purpose of ore reserve estimations, the statistical analysis of the relationship between petrology and ore grade of a mineral deposit often yields useful and objective information pertinent to the investigation of the genesis of the deposit.

INDUSTRIAL MINERALS DIVISION/DIVISION DES MINÉRAUX INDUSTRIELS

14:00, ROOM 225/SALON 225 (HOTEL VANCOUVER)

Geology and Mining of Industrial Minerals

Z.D. HORA, British Columbia Ministry of Energy, Mines and Petroleum Resources, Victoria, B.C., Session Chairman

Paper No. 20 — 14:00

Geology and Exploration, McDame Asbestos Deposit, Cassiar, B.C.
A.A. BURGOYNE, Vice-President, Exploration, Brinco Mining Limited, Vancouver, B.C.

The McDame chrysotile asbestos deposit located near Cassiar in northern British Columbia is found at depth and on trend to the southeast of the currently mined open-pit Cassiar asbestos deposit.

The McDame asbestos-bearing ultramafite is considered to represent a separate interleaved fault-bounded slice of rock distinct from the Cassiar asbestos deposit and is located on the west limb of a northerly-trending synclinorium.

The deposit was discovered in 1979 by an exploration adit designed to test open-pit asbestos reserves at depth on the Cassiar deposit. Exploration during 1980 and 1981 focussed on drilling a 150 m strike length of the deposit. In 1983 exploration included geological mapping, airborne and ground magnetic surveys, and in 1984 drilling of a 623 m borehole resulted in a 237 m intersection of McDame ultramafite of which the lower 181 m contain potential economic chrysotile asbestos. The McDame deposit averages 137 m thick, trends north-south, dips easterly and plunges southeasterly. The deposit is estimated to contain geological reserves in the order of 62 million tonnes containing asbestos fibre similar in value to the Cassiar deposit.

The McDame is considered a major world-class asbestos deposit. A decision to develop and mine the deposit will require further substantial underground exploration and evaluation. A 1000 m exploration adit driven to the footwall of the deposit at the 1410 m elevation is proposed for 1985 in anticipation of bulk sampling, diamond drilling and mine planning studies in 1986.