

BARITE-CELESTITE EVALUATION*

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Geochemical Surveys

No new field programs were undertaken during the 1974 field season on this project, however, the Geochemical Reconnaissance Survey of the Codroy-Bay St. George Carboniferous Basin (see McArthur and Davenport, this volume) will include approximately 2500 Ba and Sr analyses to test the barite and celestite potential over the Mississippian Codroy and Anguille groups.

The release of the Ba and Sr results of the 1973 stream sediment survey of the Port au Port Peninsula has been delayed due to analytical problems. The results will be released on open file in 1975.

Buchans Deposits

During 1974, the American Smelting and Refining Company conducted several pilot tests at Buchans on the tailings to recover barite suitable for drilling mud. The results of these tests are currently being evaluated.

Strontium Hexaferrite Permanent Magnets

In a previous report on this project (McArthur, 1974), it was erroneously reported that permanent magnets had been made from celestite from the Ronan deposit on the Port au Port Peninsula and iron ore from

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Wabush. In fact, these first magnets were made from Ronan celestite and a commercially available American iron ore known as "Meramac oxide M-25". More recently, tests using Wabush iron ore were less successful because of high SiO_2 impurities. Further tests are planned using Newfoundland iron ore from deposits at Indian Head and Steel Mountain in Western Newfoundland. These iron ores are reported to contain low SiO_2 . These permanent magnets are being made at the Atlantic Industrial Research Institute (A.I.R.I.) in Halifax. This institute has recently completed a study on the market for and feasibility of production for low cost strontium hexaferrite production. This work should prove very useful in evaluating the barite and celestite deposits on the Port au Port Peninsula.

It is planned to publish a final report in 1975 on the results of the 1972 and 1973 field programs and the metallurgical studies carried on at A.I.R.I.

References

McArthur, J.G.

1974: Barite-Celestite Evaluation; Report of Activities, Nfld. Dept. of Mines and Energy, Mineral Development Division, Report 74-1 p. 20-23.

Atlantic Industrial Research Institute

1974: Low Cost Strontium Hexaferrite, Production Feasibility and Market Evaluation Study; unpub. Report to Dept. of Regional Economic Expansion.