O T T A W A September 21st, 1940.

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of the

ORE DRESSING AND METALLURGICAL LABORATORIES.

Investigation No. 897.

Spectrographic Analysis of Five Samples
of Manitoba Rock submitted by John Dryborough,
Winnipeg, Manitoba.

BUREAU OF MINES
DIVISION OF METALLIC MINERALS
—
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CANADA
DEPARTMENT
OF
MINES AND RESOURCES
MINES AND GEOLOGY BRANCH

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Samples:

Five samples of rock from Manitoba were received by the Division of Metallic Minerals, Bureau of Mines, Ottawa, Ontario, on September 18th, 1940, from John Dryborough, Mining Engineer, 356 Main Street, Winnipeg, Manitoba. They were designated as Nos. 2303, 2304, 2305, 2306, and 2307.

Purpose of Analysis:

The analyses were requested for the purpose of rapidly determining the presence or absence of tin, tantalum and columbium in the samples.

Method of Analysis:

The samples were pulverized and representative samples were carefully cut out. The spectra were photographed first to obtain a trial plate, and a check plate was photographed against quantitative standards for tin. The grating spectrograph was used, excitation being by direct current arc at 250 volts and 12 amperes.

Analyses:

The following results represent the result of examination of both plates and checking against the tin standards. Under the conditions of exposure the tin showed distinct lines at a concentration of 0.01 per cent and was practically undetectable at 0.001 per cent; therefore the report of "Nil" indicates that the concentration of tin in the samples was at most less than 0.01 per cent. Quantitative figures for tantalum and columbium are lacking, but the quantities must be very small to fail to show any lines.

Sample.	Tin	Tantalum	Columbium
No. 2303	Nil*	Nil	Nil
No. 2304	Nil*	Nil	Nil
No. 2305	Nil*	Nil	Nil
No. 2306	Nil*	Nil	Nil
No. 2307	Nil*	Nil	Nil

* - Less than 0.01 per cent.

MHH:PES.