

Dr. HARRISON: Yes; there are. It depends a great deal on the kind of ore deposit which is being investigated.

Mr. NIELSEN: In respect of base metals they have scientific formulae and calculations which can be utilized for the purpose of determining—and I am not suggesting with any degree of accuracy—any ore bodies.

Dr. HARRISON: I will take this as a question on iron deposits. I would not like to give a false impression. In certain of these iron deposits—I am not familiar with those in Baffin island and I am thinking primarily of those in northern Ungava—these deposits dip at a gentle angle beneath the surface in an area where there is no glacial coverage of any consequence. These can be followed for a matter of miles, and the minimum width can be established. In terms of tonnage, one can make a guess in terms of scores or hundreds of millions of tons that might be available for open-pit mining or something like that. But whether or not this applies in Baffin island, I cannot say.

Mr. HARDIE: The department has not done enough work up until now to even hazard a guess?

Dr. HARRISON: Some of our people were in that general area last year, but I am not familiar with the results.

Mr. DUMAS: On this point of evaluating an iron deposit, I suppose it is probably easier to evaluate an iron deposit than a base metal deposit, but is it not a fact that in the Ungava district where iron ore is located they had performed some diamond drilling to establish an approximation of the deposits—exploratory drilling in order to evaluate the depth or thickness of the deposit?

Dr. HARRISON: Yes. I think this is a fair assumption that no company would be likely, I think, to indicate ore reserves without having done some drilling or other type of investigation. However, I do think they could in certain circumstances be fully reasonable in saying there were hundreds of millions of tons. How much is available is another question.

Mr. NIELSEN: Did Cassiar go into production without any drilling?

Mr. HARDIE: Open pit.

Mr. ROBICHAUD: I understood you to say when we were speaking about the program for the area that it was the intention of the department to carry on or pursue further chemical research of mineral formations in New Brunswick. Did you have in mind the New Brunswick Mining and Smelting Company?

Dr. HARRISON: No. I was speaking of the whole mineral area.

Mr. ROBICHAUD: Would you inform the committee what progress has been made in this field. I understand this matter has been before the department for a long time.

Dr. HARRISON: We have been conducting geochemical investigations for a matter of seven or eight years. We began at Yellowknife, Keno Hill, and just completed geochemical studies of the whole of the mainland of British Columbia, and did some work in connection with sulphide deposits in New Brunswick last year. This work is very important from two viewpoints; first, for indicating an area which might be favourable for intensive prospecting and also for gaining an understanding of the origin of the deposits themselves, so that perhaps other less obvious clues can be followed back to the source.

Mr. NIELSEN: Getting back to the matter of magnetometer surveys, can you tell me whether in any of the other provinces they undertake any provincial plan involving magnetometer surveys?

Dr. HARRISON: I know it has been done.

Mr. NIELSEN: As a government undertaking?