

CREST EXPLORATION LIMITED

The 1963 field program on the Snake River Iron Deposit is now complete. The season's operations were very successful and all of the work planned was completed ahead of schedule.

This summer seventy men were employed on the project. These included Crest's geologists, engineers and labourers, as well as employees of private contractors engaged in diamond drilling, surveying and construction. Three to five helicopters supported the personnel working on the property.

A summary of the work completed during the season follows:

Diamond Drilling

Three drills were employed and 25 holes were completed. Total footage drilled was 10,200 feet.

Channel Sampling

The iron ore outcrop was examined and sampled in detail at 59 locations with 10,400 feet of channel sample being cut.

Bulk Sample

Approximately 100 tons of iron formation to be used primarily for pilot scale beneficiation tests were taken from the main area. This bulk sample was mined from a full section of ore.

Geological Mapping

The program of geological mapping commenced in 1962 was completed. The results of this study will give a clearer understanding of the structure and stratigraphy of the rocks in the area and the detailed stratigraphy of the iron formation.

Water Resources Potential

As a step towards determining the water resource potential of the area, stream-flow measuring equipment has been installed on the Snake River. Several visits will be made to the Snake River during the winter months to service this equipment.

Claim Surveys

One very large project completed this summer was the survey of the mineral claims. This involved the surveying of over 500 individual claims in the Yukon and a 36 mile survey around the outer limits of the block of claims in the Northwest Territories.

Construction

A gravel airstrip has been completed which is capable of handling large freighter aircraft. The strip is 4,300 feet long and 130 feet wide and is in excellent condition. A gravel road from the airport to the main base camp, a distance of 9 miles, was completed.

With the completion of our 1963 field program, we feel that the ore body has been well sampled, particularly in the main area where open pit mining will begin. The operation for the remainder of 1963, and the beginning of 1964, will consist of office, laboratory and beneficiation studies.

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August 30, 1963.

Summary of Information Contained in Press Releases of
February 18, July 12, and July 30, 1963.

The Snake River Iron Deposit is located 325 miles north of Whitehorse at 65° 15' N. Latitude and 133° W. Longitude. The deposit straddles the Yukon - N.W.T. border along the Snake River and the headwaters of the Arctic Red River, 180 air miles west of Norman Wells, N.W.T.

The ore body was staked in the spring of 1962 and Crest Exploration Limited subsequently acquired title to 862 claims covering 150 square miles in the Yukon and Northwest Territories. Crest Exploration Limited is a subsidiary of Standard Oil of California. *Claims now are 527 in Yukon and 190 in NWT.*

The ore body is a thick and remarkably uniform sedimentary deposit of hematite with the main impurity silica distributed as bands or nodules of jasper. The ore is exposed over a distance of 32 miles with an iron bearing section up to 330 feet in thickness. The overall reserves of the deposit are in the tens of billion of tons with the iron content of the ore material averaging 46%. Preliminary estimates indicate that 6-billion tons can be readily mined by open pit methods and that one open pit location containing an estimated one billion tons of reserves lies almost completely exposed.

Preliminary exploration was carried out during the summer of 1962 and office and laboratory studies during the winter. The firm of Canadian Bechtel Limited was engaged as general consultants to make preliminary investigations into the feasibility of the Snake River iron prospect.

Early in 1963, preparation for the current exploration program commenced. The first project was the construction of the airstrip as all supplies must be flown into Snake River. Construction equipment for this job was moved from Mayo over the snow before the spring break-up. The exploration program conducted during this season included geological examinations, channel sampling and diamond drilling. The claims held by Crest are also being surveyed. The field operations for the 1963 season are to be suspended in September but beneficiation, transportation and marketing studies will be continued during the winter months.

There are many problems to be solved before the Snake River iron ore will be sold on world markets. The deposit is located 420 air miles from Skagway, Alaska, and some form of transportation to tidewater will have to be developed. The possibilities of shipping ore by either rail or in a slurry pipeline are being studied. The average iron content of the ore material is 46% and the ore will have to be upgraded by beneficiation to at least a 60% iron product to be acceptable in the world markets. The natural market for the Snake River ore will be in the Pacific area which, at the present time, has an adequate supply of high grade iron ore. Stiff competition for markets can be expected from South America, India and the new found deposits in Australia.

In June, Mr. G. L. Knox, President of Crest Exploration Limited, visited Japan and extended an invitation to representatives of the Japanese Iron and Steel Industry to visit the deposit. Japan, which is now the fourth largest steel producer in the world, imported 22 million tons of iron ore in 1962. The Japanese market for iron ore is expected to grow rapidly and the Japanese Government has predicted that 50 million tons of imported iron ore will be required by 1970. In view of this anticipated growth, the Japanese Steel Industry as a general routine is constantly studying new sources of iron ore.

Early in August a delegation of the Japanese Iron and Steel Industry visited the property of Crest. The delegation was composed of technical representatives from the "BIG 3" Japanese Steel manufactures (Yawata Iron and Steel, Fuji Iron and Steel and Nippon Kōkan) but represented the Japanese Iron and Steel Federation which is the official organization of the industry. The Japanese delegation has not as yet prepared its report.

* 250 feet - the 330 is a section duplicated by faulting

** not pit grade which will be lower because of waste beds which will have to be mined with ore beds