CANADA'S EXPANDING DEVELOPMENT PROGRAMME

MINISTER'S REVIEW: "There are good prospects that within a few years, after engineers have overcome transportation problems, we will be producing sufficient oil to meet all our home demands, and, in fact, may be in a position to become an exporter of crude petroleum," the Minister of Public Works, Mr. Robert H. Winters, said in an address at the Fall Banquet Meeting of the American Society of Mechanical Engineers in Rochester on October 6. He noted that less than 10 years ago Canada was producing barely ten per cent of domestic needs of crude petroleum.

Taking as his subject, "The Engineer and Natural Resources," Mr. Winters paid tribute to the vital role played by engineers in the development of natural resources, and went on to discuss some of the major undertakings in Canada's expanding development programme. He spoke in part, as follows:

WAR-TIME NEEDS

"... The extreme urgency of war-time needs of certain strategic materials was ample justification for venturing outside the bounds of strictly economic exploration and development. New discoveries were made that have since proven to be profitable commercial enterprises. The upsurge of development of one kind of natural resource stimulated, and in many cases made feasible, the development of another. The net result has been an expanding programme with projects established in every part of the country from Newfoundland to British Columbia and from the International Boundary, north to the fringes and even beyond the lines of permanent settlement.

"While all of the developments are significant in terms of their contribution to the labour and industrial payrolls and for the acquisition of new strategic materials, some of them are notably spectacular. The Quebec-Labrador iron ore development which includes a 358-mile railway stretching between two sizeable communities of workers' homes at Seven Islands, on the north shore of the St. Lawrence River, and Knob Lake, on the mine site, is a project comparable to the building of the transcontinental...

"In 1946 Canada produced only about one and a half million tons of iron ore. We have great proven deposits which are already yielding several times that amount and which, as a result of spectacular engineering achievements may be producing some 30,000,000 tons a year before very long.

"Discovery of new oil fields in Alberta in 1947 led to large scale explorations and development there. The search and development has spread to other provinces and to the Northwest Territories and Yukon. Where less than 10 years ago we were producing barely ten per cent of our domestic needs of crude petroleum, Canadian oil wells are now supplying fully one-third of our present, greatly increased requirements. There are good prospects that within a few years after engineers have overcome transportation problems we will be producing sufficient oil to meet all our home demands, and in fact, may be in a position to become an exporter of crude petroleum.

"The huge aluminum undertaking at Kitimat in the north coastal mountains of British Columbia is an engineering feat that defies comparison for the size and daring of the plan to direct a great source of power in Nature for the use and convenience of man. Reversing the direction of flow of a 200-mile circle of large lakes and connecting rivers; tunneling 10 miles through solid rock to carry the water to a great power-generating plant also built entirely within the mountain, and then to string 50 miles of transmission lines over the most hazardous, heart-breaking mountain terrain imaginable to serve the aluminum plant on the deep-sea harbour location at Kitimat is all part of the price for being able eventually to produce at this plant alone 500,000 metric tons of aluminum a year. When completed, the total annual production capacity of Arvida, in the Province of Quebec and Kitimat out west, will be more than the current output of aluminum in the United States.

NICKEL-COPPER

"Nickel-copper production in northern Manitoba will follow the cross-country tractor-train move of the buildings of an entire mining town to provide shelter for workers and their families in new location. A 150-mile railway is being constructed so that concentrates can be brought out to the former railhead point, and from there they will be taken to a new smelting plant at Fort Saskatchewan near Edmonton, Alberta where vast supplies of natural gas makes the cost of processing the ore concentrates economical enough to offset the expense of the long rail haul.

"Lead-zinc-silver in the Mayo district of the Yukon; asbestos in northern British Columbia, prospects of base metals at Pine Point near the west end of Great Slave Lake; nickel prospects at Rankin Inlet on the west coast of Hudson Bay and at other points in Keewatin District; iron ore deposits discovered at Payne Bay on Quebec's far northern coast; lead and zinc prospects near Bathurst, New Brunswick; titanium production at Allard Lake, Quebec, and the discovery of copper deposits in the Gaspé country - these are all Canadian natural resource developments that recently have been commanding the attention of engineers.

"Uranium is being located in many places in Canada. Next to the original source of Canada's radio-active ores at Port Radium, Great Bear