

capital, and they leased a hundred acres of what was known as the Horse River area in Alberta. I might say that this was leased to them from the portion retained by the federal government. This was a new venture. I think it is important to note here that in a development of this kind new ground has to be broken. I know of no other place in the world where as large a similar occurrence is found, and consequently the matter of the commercial exploitation of these sands quite obviously depended on a great many factors that were at that time wholly unknown. All that the Abasand company had to go on was that a process of separation of the bitumen from the sand had been worked out with a fair, or perhaps I might say, good measure of success.

The shipment to Britain did not result in any particular increase of knowledge regarding the manner in which these sands could be treated. As I recall that case, if my memory serves me rightly, the federal government bore the expense of transporting the sand to Edmonton, and from Edmonton thereafter the whole expense was borne by the British company.

In the initial stages of its operations the Abasand company naturally ran into a good many difficulties. As I stated a moment ago, it was practically new ground. In the initial years, and indeed up to the present time, its work had to be very largely of an experimental character. At any rate they got along to the point where the plant was operating fairly steadily in 1941. But the results they reached clearly indicated that a great deal of work still remained to be done before there could be a successful exploitation of those resources. In the latter part of 1941 this plant was destroyed by fire, and for the time being operations ceased completely. In the early summer of 1942 the plant was rebuilt and operated intermittently for several months.

That is the brief story of the development, apart from any government participation up to that period. In 1942, as hon. members are fully aware, the gasoline situation became increasingly more difficult. I need not here recount the reasons for that. Submarine warfare was at its highest peak at that time. A lot of oil tankers were being sunk by submarine action and the oil, of course, was lost. It therefore became a matter of great concern to the government here how best to deal with that situation. One of the proposals considered was the possibility of exploiting commercially the oil sands in northern Alberta. At that time this work was all under the

[Mr. Crerar.]

direction of the oil controller of the Department of Munitions and Supply; and in 1942, through the agency of the oil controller, arrangements were made with the Consolidated Mining and Smelting company to do certain work. This was fully covered in a statement made by my colleague, the Minister of Munitions and Supply, on April 14, 1943.

Under the agreement with the Consolidated Mining and Smelting company three main tasks were assigned to them. It might be useful if I gave them in brief form to the committee. Under the arrangements made with the Consolidated Mining and Smelting company, that company undertook to do the following work:

Test drilling of the bituminous sands areas in the vicinity of Fort McMurray, Alberta, to provide reliable information as to the thickness and richness of the sands and the extent and location of areas which might support large scale developments, including data on depth of overburden and on all other relative factors;

Studies at the plant near Fort McMurray of the Abasand Oils Limited, such as checking costs and efficiency of mining and extractive operations and making test refinery runs;

Inquire into research and development work on the processing of tar sands, to include the utilizing of the facilities of research laboratories and/or commercial refineries in Canada or the United States to discover by actual experiment and trial runs what kinds and quantities of products can be produced from bitumen extracted from the tar sands.

I do not wish to comment adversely upon the work of the Abasand company, but looking in retrospect at the work carried on from the time it first put in a plant about 1935 gives me the impression that they proceeded without full knowledge of the factors involved in making a commercial success. For instance, one of the important things in the successful development of such a project is not only the quality of the sands but the cost of getting them from the beds to the point where they are to be treated. There is an overburden of as much as 150 feet in some cases, although in other cases it is less. These tar sands cannot be mined in the way that coal or mineral ores are mined; you cannot sink a shaft and proceed to take out the sands and bring them to the place of treatment. Apparently the only method by which the sands can be obtained is to remove the overburden and then take the sands to the place where the required treatment is given.