

The committee will have noted that there were three points upon which the Consolidated Mining and Smelting company were asked to provide information. I might interject here to state that the total cost of this work was approximately \$132,000. After they had carried on the work they made a report which was tabled in the house on April 15, 1943, and was thus made available to hon. members. The Consolidated Mining and Smelting company have been a successful mining organization and they have many high-class technical men in their employ. Naturally their recommendations carried a great deal of weight. I shall not refer to the report at any length, but it contained a number of recommendations as follows:

The continuation of the drilling programme in the Steepbank river area and elsewhere;

Making certain alterations to the plant of Abasand Oils Limited so that more complete operating data can be secured;

The securing of complete data on the kind and quality of products which could be made from Athabaska tar sands;

The preparation of plans and estimates to indicate the capital expenditure, operating costs, transportation and marketing problems which would be involved in the construction of a large scale development.

The oil controller and the technical officers of the Department of Mines and Resources gave careful study to this report. If anything, the need for fuel oil had increased. It was decided after careful consideration to enter into an arrangement with the Abasand company. It had certain works on the ground, although incomplete, which provided a basis upon which a real test could be made. As a result an agreement was entered into with the Abasand company, which was tabled in the house on May 20, 1943. That agreement fully sets out the conditions of the arrangements that were made with the company. I shall outline them briefly.

The government advances all costs necessary to construct a new plant and carry on the operations, on the security of all the assets of the company. Second, the construction and operation remains with the company, but the government has the final word. I may say here that some new directors were placed on the board of the Abasand company, men who had general experience in mining work. The manner in which the Abasand company proceeded from that time on was subject to the approval of the director of the mines and geology branch of the Department of Mines and Resources.

At the expiry of the agreement the government has the first option of taking over the whole enterprise upon fair and equitable terms without any allowance for good will. We took over the assets of the old Abasand company. If the government wishes to retain them and there is disagreement with the original owners as to the value of such assets as may be taken over, there is provision for the matter being adjudicated in the exchequer court. The first step which was taken after this was done was, as I said a moment ago, a reorganization of the company, and the introduction of new management. The first matter which engaged attention after this step was taken was to what extent the existing plant was suitable for carrying on the work required so as to have a complete test made of the commercial possibilities of these sands. It is on this point that a difference of opinion exists, I believe.

All I can say is that the best advice the Abasand company could get was secured. That advice was checked by the technical officers in the mines branch of the Department of Mines and Resources. Every step taken in the alteration of the plant and in the work carried on in connection with it was taken only after careful consideration and after agreement between the technical men of the Abasand company and those of the Department of Mines and Resources. It was found that it was not possible to secure a fair test with the existing plant. In the first place it was not properly designed; in the second place it was out of balance as between its various factors, and, in the third place, it was so constructed that it was practically impossible to make the change over to the kind of plant it was considered necessary to have in order to give a fair test on the whole operation.

There was the problem not only of rebuilding the plant but of getting a water supply to it. First, if there was to be commercial operation throughout the year, then there must be a steady water supply, because the process of separation depends almost entirely on water. That is my understanding of it. These sands are immersed in hot water, agitated over a certain length of time, and in that process of agitation the particles of oil which adhere to the grains of sand are detached, come to the surface, flow off, and form the bitumen, which is the first step in the process of getting oil.

In addition, a water supply had to be secured for fire fighting purposes. I believe there was