

North of Lake Athabaska, for a certain distance, there are Huronian and Keewatin rocks again which certainly contain iron and small quantities of gold and silver, but larger quantities have not yet been outlined. Ore being a mass of mineral that can be worked at a profit, no ore has yet been found there, but there are precious minerals. The country north of Lake Athabaska is one of the most likely looking mineral countries that Mr. Tyrrell had ever been in. There are outcrops of tar sands along the Athabaska river near Fort McMurray. There is an enormous amount of sandstone there impregnated with hard thick petroleum or tar. The probability is that when one gets back from the outcrop in some places that will be found as a liquid oil instead of a hard tar that is found there on the Athabaska. Mr. Tyrrell said he thinks it is quite a fair and reasonable supposition that one would find good fluid oil in the beds of the same geological age as the tar sand of the Athabaska river. This tar sand is very strongly in evidence along the river, and an enormous amount of tar has actually gone to waste, as it were—flowed out and hardened there.

The tar sand area extends along for quite a number of miles along the river. As you descend the river you get to those tar-bearing beds, and then they are in evidence along for a number of miles down the river. Then you leave them altogether, and they do not occur again. Mr. Tyrrell considered it highly probable that the petroleum or liquid would be found in close proximity.

Of course the sandstone or tar would not have a marketable value at the present rates of transportation. But outside of that, probably it would be used as paving material if it is needed in that vicinity. He thought it could be used for making pavement.

After leaving the Huronian rocks north of Lake Athabaska, one then strikes through a grand country for seven hundred miles on the routes that the witness travelled which does not show much evidence of minerals.

Then as you get from the Dubawnt lake you get on copper-bearing rocks similar to the copper-bearing rocks of Lake Superior, and those are undoubtedly the same copper-bearing rocks which extend across the Coppermine river, and which have there been known to produce native copper—at least the workmen bring in the copper from the Copper mine river to make implements.

Mr. Tyrrell said he would not expect to find silver in connection with the copper. They do not find silver in any quantity with the copper of Lake Superior. They do find silver in place, but not on the Calumet peninsula. The silver appears in a slightly different formation. While it occurs in rocks of somewhat similar age, still it is not immediately associated with the copper, and the rocks that one finds from Dubawnt lake northward, covering quite a large area, are very similar to the copper-bearing rocks on Lake Superior.

Taking a set of specimens from the copper-bearing rocks of Lake Superior, the witness declared he could duplicate them almost exactly from a set of specimens from these northern rocks in all the peculiar minerals—and there are a great many of them. He saw a small amount of copper in many places in these rocks, and we know that it occurs in the rock, because the Esquimaux pick up native copper and make their implements from it. So that he looks for a large development at some time of a copper industry in that country between Chesterfield Inlet and the Coppermine river. He has never been at the Coppermine river himself.

Really the principal exploration of the Coppermine river was done nearly 100 years ago, and there has been very little exploration of it since. It was visited by Dr. J. M. Bell some three or four years ago, but he just barely touched it, and Sir John Richardson in the early part of last century really gave us all the information that we know about the Coppermine river. It is a district that should certainly be investigated within a reasonably short time again.

In that northern region there is a large area of mineral-bearing country. As you come out to the mouth of the Chesterfield Inlet there is an area of Keewatin and Huronian rocks, such as witness had mentioned—the conglomerates of northern