

mixture of country rock, pyrrhotite, chalcopyrite and a white quartzose matter, which possibly includes feldspar; that the chalcopyrite is accompanied by tarnishes which indicate local decomposition.

Q. What do you say about Exhibit No. 103, taken at a depth of 142 and 147 feet? A. A similar mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say about 104, taken at a depth of 152 and 157 feet? A. Similar mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say as to Exhibit No. 105, taken at a depth of 162 and 167 feet below? A. A similar mixture of country rock, pyrrhotite and chalcopyrite in which the metallic minerals are in larger proportion than in most of the preceding samples.

Q. Did you break one of those and see the chalcopyrite and pyrrhotite when it was fresh? A. (Witness breaks the rock.) This shows it pretty well, the bright, brassy yellow is chalcopyrite, and this dull metal coloured bronze is the pyrrhotite.

The Court: There are no sulphurets? A. No, they are copper-bearing sulphurets.

Q. What do you say as to Exhibit 106, taken at a depth of 172 and 177 feet? A. I should say that it was a similar mixture of country rock, pyrrhotite and chalcopyrite. To save multiplicity, of that sample, I have got both.

Q. What do you say as to Exhibit 107, taken at a depth of 182 and 187 feet? A. It is a similar mixture of country rock, with pyrrhotite and chalcopyrite.

Q. What do you say as to Exhibit 108, taken at a depth of 192 and 197 feet? A. The same mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say as to Exhibit 109, taken at a depth of 202 and 207 feet? A. A similar mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say as to Exhibit 110, taken at a depth of 212 and 217 feet? A. A similar mixture of country rock, pyrrhotite and chalcopyrite.

Q. Now, Mr. King, looking at 109 and 110, which from appearance would seem to be the richer sample; which seems to show more mineral? A. (After examining.) This one (Exhibit 109).

Mr. Davis: The assayer's return show that 110 is the richer by one-half.

The Witness: It is a question of the interior of the rock, as well as the exterior.

Mr. Davis: That is what I wanted to bring out, that you can't tell by looking at the outside their values.

The Witness: What I judged by was the visible breaks, there seemed to be more chalcopyrite.

Q. What do you say as to 111? A. Mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say as to 112, taken at a depth of 232 and 237 feet? A. This consists of a mixture of country rock, pyrrhotite, and what I take to be a mixture of pyrite with a little chalcopyrite, but that could only be determined by closer examination.

Q. What do you say as to Exhibit 113, taken at a depth of 242 and 247 feet? A. It contains country rock, pyrrhotite and pyrite, the latter apparently cuperiferous.

Q. That is, copper-bearing, is it not, Mr. King? A. Yes, copper-bearing; perhaps I had better put it in "copper-bearing."

Q. What do you say as to Exhibit 114, taken at a depth of 252 and 257 feet? A. Mixture of country rock, pyrrhotite, some pyrite and chalcopyrite.

Q. How would you say that particular sample compares in value with the ordinary run of them, the last few you have been having, for instance? A. I don't like to answer that.

Q. I suppose what you mean is, that on a cursory examination such as this, you could not tell very much about the difference? A. I could not tell without a very close examination; I should say it was low in value.

Mr. Davis: That is the assay which runs the highest in value. The assayer's return is \$45.60.

The Court: Very few of them ran over \$20.

Mr. Davis: Very few indeed.

The Witness: I had previously stated it could not be done by the eye.

Mr. Davis: I just wished to accentuate that. That is the very object of it.

Q. Exhibit No. 15, taken at a depth of 262 and 267 feet? A. Country rock, pyrrhotite and chalcopyrite and pyrites.

Q. What would you say as to Exhibit 116, depth 272 and 277 feet? A. Similar mixture of country rock, pyrrhotite and chalcopyrite.

Q. What do you say as to Exhibit 117, depth 282 and 287 feet? A. Mixture of country rock, pyrrhotite, chalcopyrite and a little pyrite.

Q. What do you say as to 118, taken at a depth of 292 and 297 feet? A. Country rock, pyrite and pyrrhotite.

Q. Now, the point where you stopped in the shaft, Mr. King, that is at the bottom of this sump, is coincident, I think, with the place where the so-called flat fault goes through, is it not? A. It is.

Q. Now, Mr. King, is there anything you want to add to what you have said individually as to these specimens? Because we have finished all the specimens in the No. 3 shaft down to the mud-seam? A. I should like to make a qualification, yes. In regard to these determinations, they were intended to cover essentially the obvious facts of the samples. They do not propose to determine obscure or difficultly visible accessory minerals. I have not always mentioned that calcite was present when it was present in some of the samples. I may say generally that there is a little calcite through the whole suite, not in every piece, but in a great number of them. That the mention of pyrite has been chiefly confined to specimens in which the mineral appears with sufficiently crystalline facets to offer easy determination. The pyrite is probably present in a very large number of cases where I have not mentioned it, and where it could not be easily differentiated from chalcopyrite.

Q. Mr. King, looking at these samples which you have examined, which came, as the evidence shows, from trenches cut across the full width of the ore every five feet down in No. 3 shaft, is it a physical possibility that there should be no vein in that shaft, in your opinion? A. In my opinion it is not. I will qualify that. From what I know of veins in general, and of the Rosslund district in particular, it would be impossible to trace continuous ore upon any plane or line unless you were following a vein.

Q. You have examined, I believe, the Centre Star east drift, that is, the green drift which runs from the No. 3 shaft? A. I have.

Q. Have you made a careful examination of that? A. I have.

Q. Do you find any vein there? A. I find precisely the same vein, which I followed from the collar