

## 18 THE ZINC AND LEAD DEPOSITS

projected township of Lemieux occurs in the shape of grains of all dimensions from small flakes very thinly disseminated among the zinc-blende and the gangue to cubes measuring two inches. Sometimes it forms with the blende solid masses weighing over one thousand pounds. The gangue of the metal-liferous veins, formed of quartz and dolomite makes the ore very easy to concentrate by the ordinary mechanical processes.

"The blende of the deposits in Lemieux County is very pure and almost free from iron; its color varies between waxy yellow and reddish brown.

"As the deposits are fillings of great fractures of the earth's crusts, it would seem that they must go down to the base of the slaty sedimentary rocks.

"There are outcroppings of ore not distant from each other between which are differences of level of several hundred feet and it is almost certain that the highest deposits go down in depth to the level of the lowest ones.

"Some veins. . . have been followed for distances of about 3,000 feet, and it is probable that they extend still further under the cover of superficial deposits.

"Then the natural inference is that these veins must go down to a considerable depth, for it is generally admitted that the length of a fissure is proportionate to a certain extent to its depth."

The only chemical by product that