

FRED H. BECOLE,
COPPER PROPERTIES,
TIMBER AND MINING LANDS.

Copper Range Historical Society

MARQUETTE, MICH., July 24th, 1899.

Dr. L. L. Hubbard,
Houghton, Mich.

My Dear Doctor:-

I enclose you a copy of Mr. Pryor's report to W. A. Paine of Boston under date of December 20th, 1898, on the Kearsarge Conglomerate and Amygdaloid as it crosses the Eagle Harbor property. You will notice that he gives the distance between the Kearsarge Amygdaloid and the Kearsarge Conglomerate of 1800 feet but has made his deductions from explorations made at the Cliff by Mr. Keptco in 1881. I have seen this map of the Cliff Mining Company and I doubt very much whether the Amygdaloid as marked by Mr. Keptco was in truth the Kearsarge. It certainly is more than 1800 feet from the Conglomerate assuming a dip of 26 degrees at that point.

Yours truly,

F. H. Becole,

Houghton, Mich., Dec. 20, 1898.

Mr. Wm. A. Paine,
Boston.

Dear Sir:-

In regard to the location of the Kearsarge lode on the Eagle Harbor property, I will outline for the benefit of yourself and Mr. Stanton the method which I followed in determining the location of the Kearsarge lode:

First, you both know that this region is traversed by belts of conglomerate, some of which run from the extreme end of Keweenaw Point to Ontonagon and probably beyond -- a number run as far south as Portage Lake.

Second, any belt that had any relative position between two conglomerates, say at the Kearsarge or Wolverine Mine, would have the same relative position to the two conglomerates at the Eagle Harbor Mine, practically. Of course the actual horizontal distance would be increased owing to the flattening of the dip at the latter mine.

Now the Allouez Conglomerate is found at the Central Mine, and is easily traced to the Delaware Mine and beyond. I located the Allouez Conglomerate on the Eagle Harbor property.

In the vertical shaft of the Central Mine both the Calumet & Hecla and the Kearsarge Conglomerates were crossed. I obtained the distance at which both of these were crossed -- also the location of the Allouez Conglomerate in regard to the collar of this shaft. From the mine map I obtained the dip of the formation at that point. With this data, I was enabled to form a geological cross sec. at the Central Mine from the Allouez Conglom. to the Kearsarge Conglom.

At the Delaware Mine I was enabled to get the dip of the formation at that point from the old mine maps and other data.

The dip at the Central was 24 degrees according to their maps and 22 degrees at the Delaware; the Eagle Harbor where I

crossed it being about midway between the two, I assumed the dip as 23 degrees.

Starting at the Allouez Cong. where located on the Eagle Harbor property, I ran a line at R L's to the formation allowing for the difference of elevation and located a point where the Kearsarge Conglom. would come to the surface, according to the data above. This distance was practically 6650 ft. on a level from the Allouez Conglom.

From exploration made at the Cliff, whose dip is marked on map as $25^{\circ} 50'$ (made by Kleptco) and distance from Allouez Cong. to Kearsarge Cong. given, and which distance I reduced to dip of 23 degrees, the distance calculated would be practically 6700 feet. These two measurements one taken from a vertical cross section of the country, and the other from a horizontal cross section, agree very closely as regards the location of the Kearsarge Conglomerate.

The distance from the Kearsarge Cong. to the Kearsarge Amygdaloid or Wolverine lode, where uncovered at the Cliff, was 1600 ft. This would give 1800 ft. at the Eagle Harbor owing to the flattening of the dip.

My idea was to locate the Kear.Cong. with a diamond drill. This being a cong. and therefore different in character from the traps and amygdaloids, could be identified with certainty when found. Then by going the required distance and putting down a drill hole you would be very likely to locate the amygdaloid.

In this manner, although by sinking shaft instead of using diamond drill, I located the Kear.Amy. at the Tecumseh and Franklin Jr. properties. Although for the purpose at the Eagle Harbor properties I believe the diamond drill the cheaper and better means to locate the lode.

Yours truly,

(Signed) R.C.Pryor.