

WHAT BONTA ROAD WILL DO FOR QUARTZBURG

Zoeth Houser, of The Standard, Tells How it Will Develop The Country.

Zoeth Houser, vice president of the Standard company, and also who has had charge of the development work at the mine for the past few months, came in from the property Thursday on his way to Pendleton to visit his family.

Mr. Houser brought in with him a fine line of gold-cobalt samples taken from the face of the Standard drift No. 1. While no assay tests have been made, Mr. Houser thinks the samples will run much higher than those mentioned in Thursday's Miner which went better than \$97 to the ton in gold. He bases his conclusion on the fact that the present samples show a much higher per cent of cobalt than the former, and it is the cobalt which carries the phenomenally high gold values.

Mr. Houser is very enthusiastic over the Bonta railroad, as he naturally would be, since the line will go within 200 yards of the Standard mine. Regarding this he says:

"I do not think that a single doubt can be urged relative to the construction of this road. Quartzburg people and mine owners are naturally much elated over the prospects of the road, since it means so much for their county and interests. It

will be the making of the section, and why it should not receive all the encouragement possible is hard to understand. There are hundreds of ledges in the district which has, ore which it will pay to ship to the smelter, but which must of necessity lay idle on account of the transportation difficulties. If the road is built, and I have not the remotest doubt but that it will be, you will see the Quartzburg district and the John Day country generally, a veritable beehive as far as industry and activity are concerned. It will be the making of Sumpter also. Sumpter will no doubt get a branch in time, and even if it doesn't right away the road will give transportation for Quartzburg ore to the smelter; and start the smelter up and you will not very long hear the cry of quiet times in town."

Mr. Houser says that a good deal of work is being done in the Quartzburg district. The Standard, of course, is making excellent development headway, as previous reports have shown. The Copperopolis is pushing work with satisfactory results, and Walling & Toner, of the Dixie Mountain have an encouraging showing.

RELATIVE PROFIT IN

WIDE AND NARROW VEINS

That large veins of low grade ore are not the only ones that pay to work has often been proven in Colorado, Arizona, California, Idaho and elsewhere. The large mine, generally speaking, however, is more popular with investors, as it represents quantity, and the fact is recognized that, given a large quantity of ore, with moderate values and average conditions, a great and enduring industry can be built up, which, under competent management, will prove a profitable enterprise.

There are, however, many small mines, those having moderate width of vein, but in which the ore is of such grade as to insure profits as large as those derived from operations of greater magnitude. The mines of Grass Valley and Nevada City, California, are all of small or moderate size, yet these mines have proven very profitable for many years.

The Eureka-Idaho shoot, near Grass Valley, which produced over \$25,000,000, was a vein but two or three feet in width. The Soulsby mine, at Soulsby, in Tuolumne county, California, has produced over \$6,000,000, and is a vein rarely three feet wide. The Sheep Ranch mine, in Calaveras county, California, discovered about 1875, has

been worked to a depth of 1,200 feet, and is credited with a production of over \$3,000,000. This vein is never over four feet in width, and is mostly less than two feet.

In Colorado are veins innumerable less than two feet wide, which have produced millions of dollars at large profit. Small veins, when good, are usually very good, but the management of a mine having a small vein requires as much knowledge as that essential to the operation of a large one, for there are many difficult problems in the development and exploitation of small veins, which are almost unknown in large ore deposits.

Among these are the faulting of the vein, the sudden pinching of the ore shoot, the unexpected influx of large

volumes of water, sudden changes in the character of the ore, besides numerous other annoying and sometimes serious problems, requiring an extensive knowledge of engineering, chemistry and metallurgy, besides the faculty of handling men, sometimes under conflicting conditions.—Mining and Scientific Press.

Mints Buying Coining Gold.

The coinage at the mints of the United States in February amounted to half as much as the entire coinage of the fiscal year 1903. The unusual activity was due to the gold coinage

which was neglected last year on account of the demands on the mints for turning out a large amount of special silver coinage for the Philippine islands. The total February coinage was \$37,100,850, of which \$35,603,500 was in gold, \$1,475,000 in silver and \$22,350, in five-cent pieces. For the first time in many months there was no copper coinage in February. Besides the domestic coinage, the mints turned out 9,545,000 silver coins for the Philippines in February.—Exchange.

CRYSTALIZED FORMATIONS

A correspondent of the Daily Mining Record, wires from Georgetown, Colorado:

Several promising streaks of high grade ore have been opened in the last two weeks on lodes Nos. 9 and 10 in the Lebanon tunnel, where operations were resumed a few months ago by Maxton & Owen, of Idaho Springs. The tunnel is near the high bridge of the famous "Loop," just above Georgetown, and in early days was one of the foremost producers of this neighborhood, but on account of litigation, was idle for about fourteen years. It has required a large amount of labor and money to again place the property in working condition, on account of the number of caves and breaks in stopes that occurred while the mine was idle.

An unusual formation of carbonate of lime, containing a small percentage of lead and zinc, has been discovered in the drift on No. 10 lode, west of the main tunnel. From an old raise and stope above this level, where in early days thousands of dollars worth of rich ore was produced, a stream of water runs down, carrying a heavy solution of lime, with some lead and zinc, and probably other minerals that have not been determined.

While the mine has been idle, this water has formed a coating of calcite on the walls of the raise, and thence along the tunnel for more than 100 feet, the deposit averaging about four inches thick, and assuming in places such beautiful crystalized formations as to defy description. On various timbers in the upraise, where the water has dropped onto them and then flowed around to the under side, hang rows of stalactites from ten to eighteen inches in length, formed in less than fourteen years.

In places on the walls of the raise the deposit takes the form of waves and then of protruding columns, much like the famous "organ" in the Grand caverns at Manitou.

In the formation in the bottom of the drift are numerous "pot-holes" a few inches in diameter, made by dripping water, and these holes are filled with numerous calcite pebbles, loose like a handful of beans.

In some of the pockets the beans are smooth and as white as alabaster, having an irregular form, while in a pocket no more than a foot away will be others as round as pearls, and about the size of ordinary peas, but of an amber color. Other nearby pockets contain handfuls of beans, white but with a rough, grating surface, while next to these will be beans of irregular shape, but with smooth surface and amber color.

Directly under the raise and stope the calcite floor is hard as a flag pavement, but a few feet along the

drift it assumes beautiful crystalized shapes, alabaster white, and as delicate and gorgeous as the mightiest efforts of the frost king ever produced on the window panes or on the leafless trees on a cold winter morning. There are numerous "dead water" pockets in the crystalized floor, with wavy tops like overhanging cones of coral at the water level.

The crystals that line the interior of these pockets are somewhat larger than teeth, being almost as sharp and penetrating as broken glass. The water that flows down the drift is as clear as the purest artesian, and where it covers the crystal floor, enhances its beauty and sparkles in the candle light.

LEDGE AT THE LUCY STRUCK

A 'phone message last night from the Lucy group in the Greenhorns to Ed Sullivan, superintendent of the property, stated that the main Lucy ledge had been broken into, and that from the appearance of the ore exceedingly high values may be expected. Mr. Keogh, of Milwaukee, treasurer of the company, was there when the ledge was encountered, and the message stated that he was very enthusiastic over the results. A fine line of samples will be forwarded to the Milwaukee office.

The Lucy ledge was encountered on the main crosscut 270 feet in. It is the purpose of the management, Mr. Sullivan states, to continue the crosscut for the O. K. ledge, a distance of some 250 feet. The Lucy is on an extension of the Morning and it is thought will, with development, disclose the same high character of ore as that found in the former.

The ledge just encountered will be drifted on in both directions and the crosscut continued.

World's Total Gold Production.

The total gold production of the world from the discovery of America by Columbus to the year 1900 is, in round figures, \$9,811,000,000. Pure gold of this value would weigh about 16,272 tons, and would occupy a space equal to 27,039 cubic feet. Graphically, this amount could be represented by a solid circular tower of gold twenty feet in diameter and eighty-six feet high. The total yearly world's production of gold since 1900 would increase the height of such a tower about three feet each year. In other words, the present annual production is some fourteen times that represented by the average of the previous 408 years.

Kunzite Remarkable Gem.

What is promised as the most remarkable gem of modern times is the kunzite stone of Pala, San Diego county, California. It is said to be more beautiful than Emeralds, sapphires or rubies. It has the property of absorbing light and giving it off in a lilac-tinted gleam. After being submitted to the action of the Roentgen rays it will absorb them and give them out again when placed in a dark room, and after being subjected to the action of radium it will shine in the darkness with even more brilliancy. It is found only in a barren mountain ridge of an Indian reservation in a remote corner of San Diego county.