MINING METALLURGY CHEMISTRY 4250 0039

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ORE TESTING
PLANT DESIGN
METALLURGICAL RESEARCH

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ITEM

Searchlight Homestake Mining Co. Searchlight, Mevada.

Gentlemens

Oroup of mining claims, consisting of the Acme Nos. 1 and 2 and the Philtel Lode mining claims. These claims are located in the Searchlight Hining District, Clark County, Nevada and are situated about one half mile north from the town of Searchlight. The worksings on your property are only about 500 feet east from the main paved highway linking Heedles, California and Las Yegas, Hevada.

The property is easily accessible. Las Vegas, one of the principal towns in the State is but 59 miles to the north. Supplies of all kinds are obtainable there.

Tour mining claims are equipped with the essentials necessary for development purposes. They include a 315 Cu. Ft. Ingersoll-Rand Air Compressor together with a hoist, air drills and other accessories.

pei, Blossom, M & M, and Southern Nevada on the north and the Quartette, Duplex, Walley and Good Hope mines on the south, all of which have been successful producers. They have an aggregate production estimated in excess of \$5,000,000.00. These properties

have been worked to depth and the Quartette has one shaft down to the 1300 foot level and was reported to be still in ore when shut down. I understand that no shaft in the Searchlight district has ever been bottomed for the want of ore.

The Hellis shaft, a present development on the Acme fl claim has attained a depth of 40 feet. It started on a 15 inch vein of quarts ore which showed frequent occurrences of free gold. One piece of vein material observed had a narrow seam of free gold approximating three quarters of an inch in length. started at an inclination of 72 degrees from the horizontal while the dip of the vein approximates only 45 degrees. Therefore, at a depth of only 16 feet the ore was left in the hanging wall of the shaft which continued down another 25 feet in the country rock of the footmall. The shaft is not advantageously placed as it is sunk in a wash and therefore subject to imundation from freshets. However, it will serve as a prospecting shaft until such time as sufficient depth has been attained to justify a crossout into the hanging wall of the enclosing country rock to encounter three very strong surface mineralizations showing within a horizontal distance of about 200 foot. When this preliminary development has been completed and the voins referred to encountered and satisfactorily evaluated, a permanent shaft should be sunk at a point which will most advantageously delineate the ore bodies which should be encountered at that horizon. At the bottom of the present shaft a decision was made to change its declination to

conform with the dip of the vein. Accordingly it was flattened to inaugurate the change. In so doing it encountered a seam of tale with fragmented quarts which indicates its proximity to the ore. In other properties in the immediate area, notably the Blossom, these tale seams have yielded exceedingly high values.

There is no other development work of consequence on any of the numerous prominent outcrops embraced within the three claims comprising your Acme Group. A few surface cuts and pits have been made at various places on the outcroppings and have given evidence of sufficient merit to warrant a continuation of exploration. However, for the present, I suggest that your immediate development be confined to a despening of the Hellis shaft to a point which will permit economic stopeing and a crosscut to each of the three veins indicated on the surface and drifting on them if they show values. They could all be most advantageously explored from the present shaft.

property with the other producing veins of the immediate area and the seemingly identical characteristics of the other veins in the Western part of this highly mineralized district, it is my opinion that your property merits the limited development program suggested. I believe that it should embody a continuation of the present shaft to a depth of approximately 100 feet and the driving of the cross-cut at that horizon to encounter the three prominent cutcroppings showing within a horizontal distance of approximately 200 feet.

I further suggest drifting on them if esonomic ore is encountered.

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At that time a further appraisal should be made of your property to outline the position of a permanent shaft and the unfolding of a definite mining program for the extraction and refinement of the ore found in the development period.

The following assays are the results obtained from the samples taken on the Aome Group.

A S S A Y S

Description	Cold		Silver		%	
	Ounces	Value	Ounces	Value	Lead	
Open out by cabin H W side sugar quarts vein	0,20	\$7.00	0.24	\$0.22	0,65	
Quarts eropping 10° pis Acme #1 Claim	0,19	6.65	. 0.68	0,62	0.80	
Muck bottom 40° shaft Waste	0.01	0.35	1,00	0.90	1.25	
Open cut 350' West from Nellis shaft	0,11	3.85	0.45	0.41	1.00	
Picked sample copper vein 1000: N from Hellis shaft	0.05	1.75	3.48	3.15	2.05	
				Jepper :	5.25X	

Gold @ \$ 35,00 per cunce Silver @ 90.54 * *

It must be remembered that these are entirely surface samples with the exception of the waste muck sample taken from the bottom of the 40 foot shaft. In my opinion they are encouraging. The first two samples show approximately \$ 7.00 each in gold and are taken from the two veins mentioned in my report as being worthy of being crosscut from the bottom of the Hellis shaft when it will have reached a depth of approximately 100 feet.

In Re: Gordon Sub Lease on Quartette.

I understand that negotiations are pending between your company and Mr. Gordon and associates for a one half interest in and to the above lease. On June 11, 1947 I made a report on this portion of the property and then states that " In the eastern half of the property I found a very good showing in the copperplead belt. About 550 feet east from the Air Shaft and extending east from the Emerick shaft, I found a tunnel, approximately 200 feet in length extending still further east, in which the voin averaged about four feet in width. I have recently assayed some of these over which came from the 60 foot level and obtained the following assays."

Gold \$1.40, silver \$38.66, copper 6.0% and lead 6.07% making a total accept value of about \$80.00 per ton colculating the values at their quoted prices on the day of assaying.."

I have examined the Rambler shaft and raise located on the voin approximately 750 feet each of the Emerick shaft. I have been shown the underground sape of the Quartette on which is indicated a drift from the Gid Bain shaft, under the Air Shaft passing beneath the Emerick shaft over to the Rambler shaft on the 600 foot level, a total distance of 1665 feet. As far as I was able to ascertain very little ore has been taken under this portion of the vein. I was able to examine the vein through many open cuts, shafts tunnels and outcroppings having in mind evidence that the Quartette property has been opened to a depth of 1300 feet on the incline in another segment of the vein, there is some basis for the belief that the ore in the copper-lead portion of the vein has the probability of reaching at least an equal depth. Further development will show the accuracy of this premise.

With the amount of development work already some on this portion of the property I would suggest the re-habilitation of the Rambler shaft and the drift on its 600 foot level. By so doing you would have a block of more or less virgin area approximately 600 feet in depth, 4 feet in width as indicated in the superficial area examined, by 1665 feet in length.

and assays made from this area there is reason to believe that there is the probability of a large ore reserve in this sector of the vein. By rehabilitating the Rambler shaft, this block of ground would be delineated by the drift on the 600 foot level, its continuity both on the surface and at that horizon and the width at the surface and 600 feet in depth. This block could be sampled and measured and its mineral content quite accurately calculated. The appearance of the vein in the superficial some and its acceptable so far determined are very encouraging and I recommend further systematic development of this very considerable possible tonnage."

It is my understanding that this is the ground covered in the Gordon lease. Having learned of your negotiations for an interest in this lease I have taken two samples from other workings on this lease, one being from about 65 feet underground, and one from the ere dump which have assayed as follows:

Description	Cold	Ounces	Bilver	Onloss	\$ Load			
65* underground	0.17	\$ 5.95	3.51	3.18	8.1			
Ore dump	0.06	2.10	1,20	1.09	4.9			

In my judgment, if you are successful in acquiring a one half interest in the above lease under reasonable terms and conditions, it would be a justifiable undertaking, and should result in the development of a substantial commercial ore body. If sufficient capital is provided to carry on the necessary exploration and development work on these two proporties it is my epinion that they can be made into substantial producers and should yield good returns on a reasonable capital investment.

Consulting Engineer