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Surv. - Arnold Coll.

PRELIMINARY SYNOPSIS REPORT
MONTGOMERY MERCURY MINES

268

Item 28

TITLES:

Three full claims and one fraction claim.

MINING DISTRICT:

Pershing County, Nevada.

ELEVATION:

About 4500 feet.

ACCESSIBILITY:

23 miles over good roads from Lovelock, Nevada, on route to Still Port Airport.

DEVELOPMENT:

Over 2000 feet, probably 3000 feet, opened up by a tunnel driven in through the quartzites to the contact with the limestone, with various drifts, cross-cuts, raises and stopes. Orebody opened up is about 700 feet or more, and about 100 feet wide; the main hanging wall not reached.

There has been developed commercial ore with tenor of values of between ten pounds and one hundred pounds per ton.

There is AT LEAST 15,000 tons of this grade blocked out on three sides, and probably as much as 25,000 tons. A map of the workings that must be surveyed will indicate greater quantities, as preliminary calculating indicated greater tonnage available.

THERE IS NO OTHER MINE IN NEVADA KNOWN TO CONTAIN SO MUCH DEVELOPED ORE ON THREE SIDES CARRYING SO GOOD VALUES. It is evident that development with depth increases the tonnage available at the rate of 2500-3000 tons per foot depth. Levels should be established every equivalent of 50 feet depths.

No timbering was found required so far, but as depth is obtained and water is found, timbering will be required.

MINING GEOLOGY:

The orebody is found in limestones, just overlying the sandstones or the altered quartzite beds. The rocks dip between 45 and 60° to the northeast on a northwest and southeast strike. The rocks are sinuous, with faulting and fissuring noted in all directions. There are persistent indicators that always point to sites of good lenses. The limestone is rather soft, and permits easy drilling and grinding with a minimum of sliming.

The hanging wall of the contact on the other side was not reached, so it is not known yet if the values will be carried to the hanging wall.

The preliminary examination of the outside surface rocks first undertaken by the writer at the time of the visit does not indicate at all the rich tenor of the ore found and developed, though there were fragments of cinnabar float found on the surface, it

was observed that other values missed were in black sulphides, white and black oxides, with some chlorides.

The orebodies of the Pershing quicksilver mines just lying to the northwest and adjoining the north lines of the Montgomery Mines are very large, and it was apparent that the entire property was never explored properly. It was observed that there were several recurring parallel separate zones of outcrop carrying values, but the short time of the examination prevented the picking up a parallel zone of either sandstone or schists between the limestones. It is however surmised that there may be such a bed or zone beds, and hence there is the possibility that there may be found another concentrated zone on the hanging wall for the mines under discussion.

The formations of the Montgomery Mine plunge gradually towards the northwest at about 5° or more, while those of the Pershing Mines at their southern end plunge more abruptly towards the Montgomery Mines indicating a cross fissure, and there is no reason why better values should not be expected. As a matter of fact, the values in the Montgomery Mines improve with depth.

There was a map of the workings, but not available then. A copy of the same is being sought; however it has not been brought to date.

Vivid colors of cinnabar were observed everywhere, and there were noted also black sulphides and oxides, also chlorides.

Mr. E. G. Crawford, now leasing temporarily the mine, is getting out a flask every four days, doing all the work himself. He himself opens up the several rich lenses of ore. The present recovery of mercury in a home-made furnace now runs between 2½ and 3% saved.

On the south end of the workings it was reported not very good values were met after leaving the last chute of good ore that was stopped, but it was very apparent to the writer that the workings had gone too deeply into the sandstone beds too far west of the contact zone. It is surmised that a proper crosscut driven to the east at the southern extremity of the workings will easily pick up the ore shoot zone again, as there were found indicators near that mentioned chute that had the drifting been properly oriented, one would have always been in commercial ore.

As it is, the oreshoot has been found continually and without any break along the distance of over 700 feet, subject to proper surveying corrections.

The principal values seem to be confined to the limestone zone on the sandstone contact, and across a width of from 40 to 100 feet, subject to surveying corrections.

THE OTHER MINES AND HISTORY:

The Pershing quicksilver mines lie immediately to the northwest

over the northwest line of the Montgomery Mines, with central plant about a mile away. It seems that the present owners of these mines have an exaggerated delusion about the economic import of this mine, and have been very "mysterious", but as far as ascertained, there was a production of 3700 flasks extracted from 72,000 tons. That would bear at the rate of 4 or 5 lbs. per ton. The writer cannot help surmising that the orebody was improperly exploited for there is the evidence much better on the surface, and the outcrops, than at Montgomery Mines, where much better ore than that at the Pershing Mine was mined.

METALLURGY:

The composition of the limestone carrying the value is such that the ore is easily concentratable. At the present time, the ore can be concentrated at the rate of 150 tons a day, and the contents stepped up to 90-100 lbs. per ton. The writer thinks the economical contact of grinding is ten mesh, while Mr. Crawford states it is 20 mesh with very little sliming. The concentrates can be easily retorted in a Lacy rotary unit.

The best criterion obtainable outside the details expressed in the construction of the mining geology is the persistence of the oreshoot of the Montgomery Mine developed to date, and augmented by the history of the Pershing Mines indicated best by its production of 3700 flasks within two years, and the observation of the spectacular areal geology of the Pershing Mines compared with the very drab surface indications at the Montgomery Mines.

PLACERS:

There is no doubt that there has been caused by erosion from the massive recurring outcrops of pay ore that a very large quantity of placer material that has not migrated very far away, and will be found in place with a little digging, after which it will be necessary to take tests to ascertain values to establish quantities of commercial placers.

POWER AND WATER:

There is a power line at the Pershing plant only a mile away and there is another one on the road only a quarter of a mile away from the main tunnel. It is very obvious that an initial outlay of \$15,000 required for Diesel Electric Power Plants is saved.

Water was found in the mines, and will increase in quantity below the water line. Besides water can be drilled for at the rim of the Humboldt Dry Sink about a mile away, and any quantity developed that can be piped to the mine.

RECOMMENDATIONS:

Equipment concentrating the ore should be at once ordered and installed to assure at the rate of 150 tons a day, while the Lacy Furnace should be ordered and fabricated. Haulage equipment with necessary electrical tuggers should be installed also. Later an incline should be sunk from the tunnel in the sandstone formation below the limestone roof, and stations established every equivalent of 50 feet depths.

The Montgomery tunnel level will be found the lowest site available for operations of the Pershing Mines without the necessity of sinking any number of shafts, and arrangements should be made later to take over the Pershing Mines.

(Signed) Robert R. Pollok,
Mina, Nevada,
June 23, 1940

(COPY)

New York, July 16, 1940

Mr. Robert R. Pollok,
Mina, Nevada.

Dear Mr. Pollok:

Re: Montgomery Mine

After writing you last evening one of my men who alleges his principals are ready to send an engineer to examine a good prospect provided option given for examination and terms of purchase satisfactory, called and asked if I had full data yet as they were awaiting it. I told him I had not but expected it. I did not say that it was a question whether the property was open or not having told him definitely it was open when I first approached them on receipt of your first telegram and subsequent confirming letter. For this reason and in case Arnold does not want the property and you request me to submit it, I want to more fully answer your letter and get all facts in hand before further interview and to save time.

1. As I understand all your various letters, the simple fact is that some work and sampling has to be done before you could advise the installation of a 150-ton a day plant. That will cost money and my people will have to do that work of course.

2. According to your estimate \$100,000 is required to equip and furnish working capital for this property - not a small sum.

3. The owner is demanding a down cash payment of from \$6,000 to \$10,000 according to the sort of proposition is made - Proposition #1, #2 or #3. He also demands in every case a monthly payment of \$1000 on account of ADVANCE ROYALTY or so I understand although you do not so state. In case a company is formed the owner also wants (under Propn. 2 & 3) either 1/4 or a 10% stock interest or 1/4 of a 25% stock interest.

4. The owner also asks for his property \$50,000, \$40,000 or \$35,000 under Propns. 1, 2 & 3 respectively.

MY REMARKS

First: What commission is the owner to pay if he gets all of his above demands? (I do not believe any concern will agree to such stiff terms. Anyone who contracts to furnish \$100,000 cash capital will not likely agree at the same time to pay the owner more than a small down payment on a/c of the royalty of 10%. Certainly they will not invest that amount of money, pay a considerable cash payment to owner and as well pay him \$1000 cash a month whether the property makes any money or not and lose their investment if the \$1000 a month payments were not made. When, for example, would such monthly payments start to be due? If the property is so good as the owner claims, why would he not accept the royalty as the

mercury is produced on a plant of 150 tons a day? Such a demand indicates he is not so sure of his property as he says. In any event, I am certain that no one here would enter into such a deal. And if you can get anyone out there likely to do it, better get him.

Second: I believe that the kind of deal that is much more likely to be favorably considered would be either: (a) Outright purchase on basis of small cash payment, say, \$5000 and a 10% royalty or (b) outright purchase of a controlling interest, say, $66\frac{2}{3}$ (they would probably want more) with an option to buy up the balance of the interest at a price to be fixed within a period to be fixed.

Third: They would sooner pay a higher set price for the property than even \$50,000, but will certainly balk on paying cash to the owner and \$1000 a month on a/c royalty before the property is fully proven especially if they have to furnish \$100,000 to equip and provide working capital.

I assume from your letter that there is a middleman between you and Dr. Piersel who will expect part of the commission. Also at this endm I shall have to split with the party who introduced me to the principals who wish to buy.

In this connection I should tell you that they have a special method of concentrating ore of that character which, as they tell me, is much cheaper, quicker and better than the ordinary concentrating method which you propose. This might result in reducing first cost of plant required.

Let me know just what commission the owner is agreeable to protect us for in case business is done with my people. It is assuredly up to the owner to pay a good commission if he gets even half what he is asking.

Yours very truly,

(Signed) James A. Brook

What about titles?

We could handle 200 or 300 flasks mercury provided the offerer can furnish bank references as to his responsibility and will furnish performance bond as to delivery. That is if price is right. Offers are coming in offering to sell mercury at all the way from 8% to 15% below the N.Y. market. What applies in cases where the mercury is not already in New York and allows for drop in price after purchase while mercury is in transit to New York. JAB.

(COPY)

Mina, Nevada.
July 18, 1940

Mr. J. A. Brook,
8364 Talbot St.,
Kew Gardens, Long Island, N.Y.

Dear Mr. Brook:

Your letter of the 16th on hand. Replying by rotation:

1. There is already between 15,000 and 25,000 tons of good ore already blocked out or developed on three sides. An engineer at the property the other day, say July 16, said there was 50,000 tons of ore blocked out. There is more than 25,000 tons as aforesaid, but I am unable to state definitely the contents. In other words, the 25,000 tons will go over 8 lbs. mercury per ton, and many lenses will be very rich. There was another high grade lens opened since my last visit, part of which ran 5.6% mercury. How much in the lens I don't know.

Candidly I believe there is enough ore of good ore to justify the immediate construction of a 150 ton day plant. But of course the engineers for other outfits must make sure. If they will sample on a large scale, say taking 10 or 20 lbs. per foot, as they must cut grooves say 10" wide and at least 4" deep, crush to 4 mesh and then quarter to 10,000 or 20,000 grams and apply various concentrating methods, weighing the concentrates and apply the specific gravity bottle and checking by various chemical means or tests, they will always find commercial ore.

2. I enclose estimate subject to revision. I have estimated very high. It is always the best practice to install modern and up to date equipment to obtain assuredly consistent production in large volume at low operating costs.

3. Yes, a down cash payment in varying amounts as noted is made. I am of the opinion that lesser payments will be accepted. I think arrangements can be made to waive the minimum monthly payments anticipated out of 10% royalties for 60 days after the first down payments while plant is put up. If the royalties do not aggregate \$1000 the balance must be immediately paid. These details can be arranged easily.

Yes, the owner wants one quarter of what we get according to Prop. 2 and 3.

Yes, the amounts are correctly stated.

Yours Remarks

The commission agreement to Dr. Smith and myself is 10% of all cash payments, when, if and as received. All what

we get above the stated proposition, 1, 2 and 3 is ours except that provision is made for 1/4 of what we get for Prop. 2 and 3.

In view of the actual developed or blocked out ore the situation is altered. The owners and present option owner spent a great deal of money in developing the property and are entitled to get some of their money back. Therefore if there is 15,000 tons blocked out, containing 150,000 lbs. of mercury, or 2000 flasks of mercury ready for taking out and milling, the value is apparent.

If there is 50,000 tons as the engineer estimated, as aforementioned, there is 400,000 lbs. or over 5500 flasks. This has been proved by development, etc. I figure on only between 15,000 and 25,000 tons as definite enough, and rely on between 2000 F. and 3000 F. It can be arranged for monthly payments not to start until plant is placed on production. If enough is paid down for first payment, it may be possible to defer payments additional for 90 days, when plant should be in operation.

The present option owner has been paying cash for the option and he wants to get his money back. I cannot go over his head and deal with the owners. However I had a letter from the present lessee of this mine that if I will do business with him or the owner, I may get better terms. I have written along these lines but stating that I cannot go over the head of the present owner, but if necessary I will deal with them and take care of him, etc. So all is well that ends well. I have some inside information now that I am trying to take advantage of, all ethical and moral considerations involved.

It was not until the approximate time of my visit that it was determined that the property could be operated on the basis of 150 tons a day, and then I found it could be concentrated, etc.

2. Any proposition involved is likable and meritable.

- a. \$5,000 down and 10% royalties will do when provision is made for construction of a large plant. I am sure of this arrangement, etc. We are merely cushioning against any shoe string operations that are tried by most operators.
- b. Yes, the suggestion of 66-2/3 int. may be appealing but a down cash payment is required, etc. We will wish to retain 10% int. permanently to assure ourselves of a steady income through lean and fat years.

3. That is up to you. If you can get more, but I promised Dr. Piersell that we would not load the prices but would ask for interests. It seems that loading is not always understood at any stage, and the deal is most of the time killed. If you can fix this way, we will be pleased, provided we can get away.

Dr. Piersell is the present option owner, and has been for some time. He pays Dr. Smith and 10% of all prices stipulated in Prop. 1, 2 and 3, when, if and as received. We have to divide with you, etc. I sent him commission agreement to sign. The cash payments will only at first bring us small revenue, but if we get our stock interest that will result in a permanent income.

It is fine to hear of the special concentrating method, and to know that the first cost of the plant can be reduced greatly. I am enclosing estimate that can be revised by four parties.

Certainly we wish to apply these processes at our other mines. Mr. Arnold will be certainly interested to hear of the new methods.

Besides, I am practically sanguine that Dr. Fink with slight modifications will O.K. my leaching and precipitating flow sheet. As low as 3 lbs. ore can be treated profitably at a cost of \$1.00 a ton if the vein is very wide, etc. which is the case at Montgomery, Ione and Red Wing, also Inman.

I am on track of the inside information and when verified, if after a,, I shall certainly pass on the results of my investigations.

TITLES: I am either dealing with the present option owner or with the present lessee and the owner, so all is coming out O.K. I will have an abstract of titles made, etc. This property was never in litigation, as was Ione. The Ione property was badly peddled and misrepresented, but just the same it is a good property in spite of the terrible abuse it got. The Montgomery property was never abused, but the Pershing mines seem to have been mishandled.

SUBTLE HINT: We must handle the Montgomery mines carefully because in case of success we may be able to take over the Pershing mines.

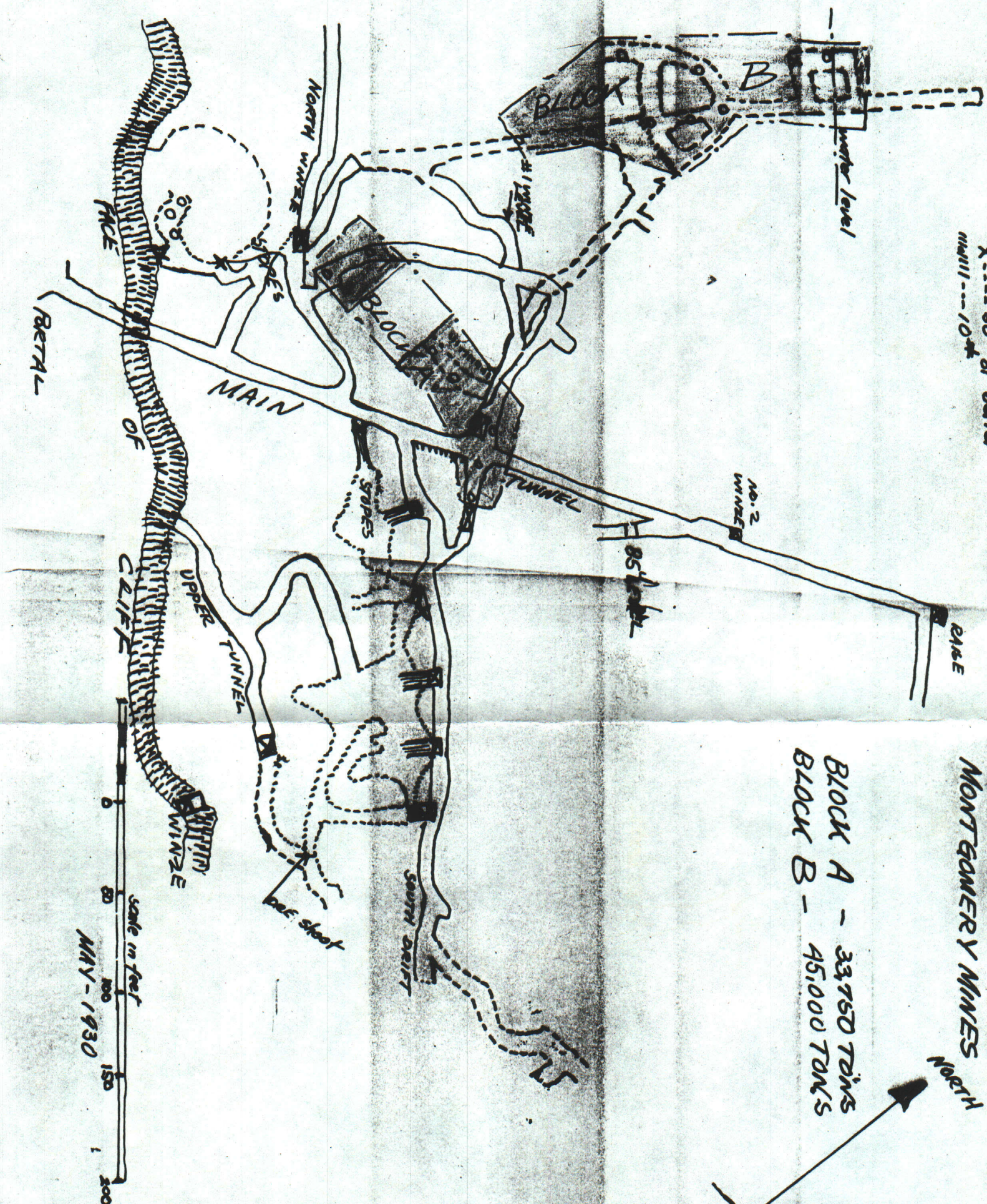
Yours truly,

R.R.P.

I will have to find about the mercury, but it is not a pleasant job to educate the people who have the mercury and want to sell.

P.S. All of this letter is subject to present negotiations.

O..... 18" or better
 X----- 50" or better -
 mull----- 10"



PENCIL WORKS
 OF
 MONTGOMERY MINES
 BLOCK A - 33,750 TONS
 BLOCK B - 45,000 TONS