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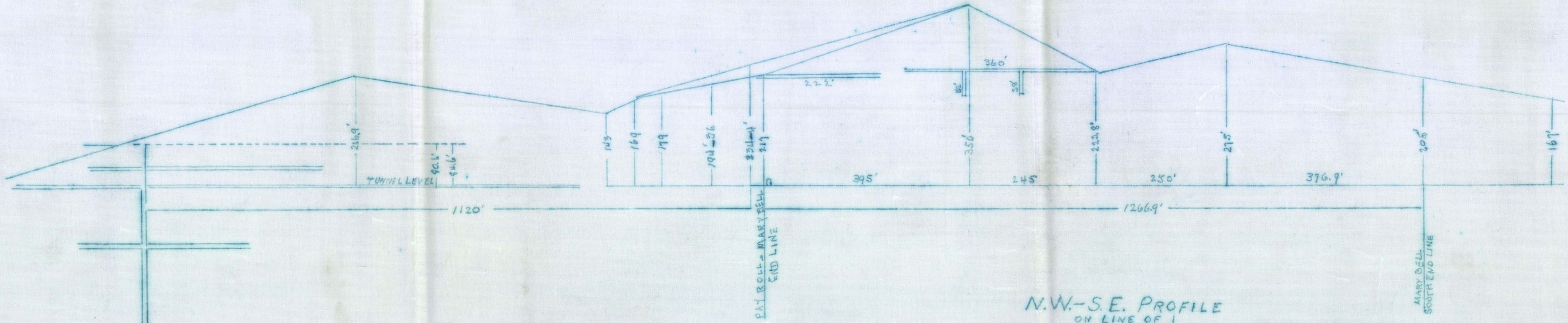

N.W.-S.E. PROFILE
ON LINE OF
MARY BELL TUNNEL.

BY

C.E. MAJOR, E.M., PRESCOTT, ARIZ.

SCALE 1"=150'. 4.1919.

HERSHEY & WHITE
Consulting Engineers
Crocker Building San Francisco, Cal.

GEOLOGICAL REPORT ON THE MARY BELL GROUP

COPY. BY OSCAR H. HERSHEY.

San Francisco, California.
April 24th, 1929.

Dr. J. G. Blackwell,
Chloride, Arizona.

Dear Sir:

Yesterday I made an examination of your Mary Bell group of mining claims, situated on the west slope of the Cerbat Range, about 1.5 miles from Chloride, Mohave County, Arizona. I regard the property as constituting an exceptionally attractive prospecting opportunity and hence I will discuss it in considerable detail.

The group consists of the Mary Bell, Tenby, Silver Glance and Silver Glance Fraction quartz mining claims and the Mary Bell mill-site. These claims are held by location and annual assessment work.

The strongest vein traverses the Mary Bell claim on a course about N. 30 W. and dips northeastward 75 to 80. The claim is 1267 feet in length. About 100 feet from the southeast end of the claim the dump of an old hole has a pile of oxidized porous quartz with lead carbonate and remnants of galena derived from a small footwall band. You have told me that this material was sorted and the best ore shipped during the war. A streak of quartz and yellow dirt 6 to 8 inches thick may be traced southeastward to beyond the end line of the claim. About 50 feet across altered granite possibly seamed with quartz leads to the hangingwall band of what I am going to call the vein zone. This hangingwall band is soft, makes a slight depression partly filled with debris, and has been little prospected on your claim. From what I can see of it, it seems to be more

strongly stained by iron and manganese oxides that is the footwall band and I suspect that it has less quartz but more of an iron bearing carbonate of intermediate composition, probably ankerite, and more pyrite than the footwall band. The latter outcrops strongly and the development has been practically confined to it. Yet, I suspect the hangingwall band may be the better.

Several hundred feet from the southeast end line the footwall quartz outcrops 6 feet wide and is much stained by iron oxide. Here it is 80 feet to the hangingwall band. The intervening rock is mostly an altered pegmatitic granite, sheeted, dipping northeastward 75. The wall rocks are a rather fine-textured light colored granite that occupies a large area extending northeast and southwest. Thence to the mouth of the South tunnel, the footwall band is strong and, in places, there is much porous limonite which may overlie an orebody. At the mouth of the tunnel there is a bold outcrop of iron-stained porous quartz 12 feet wide whose footwall is a small fault gouge that dips northeastward 80, and the hangingwall dips in the same direction 75, suggesting widening of the quartz downward. There is another quartz vein about 40 feet southwest of the mouth of the tunnel. This converges upon the main vein and meets it about 260 feet northwest.

The South tunnel, driven from the south side of Mary Bell hill, is about 265 feet long and is mostly in the soft altered granite on the footwall side of the quartz band. At 70 feet in, a cross cut goes 15 feet through the quartz but fails to reach the hangingwall. There is a little sulphide in places. At 45 feet further in there is a crosscut to the left that shows vein matter 16 feet wide, dipping northeastward 75, probably the branch vein seen 40 feet southwest from the mouth of the tunnel. It is partly compact fine-textured altered porphyry, but there are porous

bands rich in limonite, good indication for ore below the zone of oxidation. About 10 feet further in the tunnel there is a right hand crosscut that goes 10 feet through porous, iron-stained quartz with much limonite and a little malachite stain. You have told me that some of this material assays well in gold. The remaining 7 feet of the crosscut is in altered porphyry.

At 142 to 148 feet from the mouth of the tunnel an inclined winze has been put down 38 feet. It penetrates the sulphide zone and the lower portion shows an ore band 6 feet wide that dips northeastward 75. A sample that you took across 6 feet 8 inches assayed 0.06 gold, 3.2 ozs. silver, 3.6% lead, 0.6% copper and 10.5% zinc. My impression is that this represents one of the poorer sections of ore-shoots that may be developed on the claim.

From the winze the tunnel runs 27 feet along the wall of the quartz band to a crosscut 20 feet through fine-grained altered porphyry with a little pyrite. At the end there is a band with some ore sulphides, but at the face there is a porous mass rich in limonite that may overlie a good orebody.

Next the present accessible tunnel has been driven along the hangingwall side of the quartz band where a sulphide streak develops that in about 45 feet becomes thick enough to be commercial and thence to the face, 45 feet, it may be 1 to 2 feet thick. It dips northeastward 75 to 80. It is 2 feet thick at the face, is rich in dark brown sphalerite and the best band 6 inches thick has considerable galena, a little chalcopyrite and pyrite. About 15 feet back from the face there is a winze 7 feet deep. You took three samples over this winze that averaged by assay 0.12 oz. gold, 10.00 ozs. silver, 19% lead and 19% zinc. A sample across a 6 inch streak in the winze assayed 1.05 oz. gold, 19.6 ozs. silver, 3.00% copper,

25.2% lead, and a small amount of zinc. But this is just part of an 18 inch band that was mined clean and placed on the dump. A sample from it assayed 0.68 oz. gold, 14.1 ozs. silver, 0.4% copper, 34.7% lead and 21.6% zinc, according to a certificate by John Herman. These assays do not represent much tonnage but they demonstrate that the vein has some very good grade ore. Of course, I cannot assume responsibility for any statements of values based on assays in this report but I see no reason to question them as the material sampled has the appearance of containing the lead and zinc claimed.

This South tunnel is too high to make much showing of ore but it reveals a lot of oxidized and leached material that is probably underlaid with milling grade ore and where it penetrates the sulphide zone it shows a narrow band of good grade ore.

The iron-stained porous quartz outcrop runs from the tunnel to the top of the ridge where it is about 20 feet wide over the end of the tunnel and 120 feet above it. Here the vein zone is 135 feet wide, chiefly somewhat altered pegmatitic granite. A dark gray gneissic rock appears in the footwall country.

Thence down to the North tunnel near the northwest end line of the claim the outcrop and float of the footwall quartz band are strong. There is dark gray granodiorite on the footwall. The North tunnel, 140 feet long, has been driven in the gougy soft band on the footwall side of the quartz band, which dips northeastward 75 to 80. The gougy material has small pockets of sulphides, one with galena that yielded a small pile of ore on the dump. A 4 foot drill hole in the quartz band showed it oxidized and leached.

Some years ago a tunnel was begun on the Mary Bell mill-site and driven across a corner of the Pay Roll claim about 735 feet to the

presumed hangingwall of the Pay Roll - Mary Bell vein. This is now known as the Rankin tunnel and is in good condition except that it ought to have heavier timbers near the mouth and is caved at the vein. It passes through gneissic granite with pegmatite and aplite dikes and cuts an altered zone that is said to be barren. The face of the tunnel is in Pay Roll ground about 100 feet from the Mary Bell end line. In a small side crosscut and short drift to the left of the tunnel the vein is 20 feet wide and its hangingwall dips northeastward 70. About 6 feet from the hangingwall there is a dark gray fault gouge several inches thick that dips northeastward 75. Between it and the hangingwall is the presumed hangingwall band of quartz, the iron-bearing carbonate and thin bands of sulphides, chiefly sphalerite, some galena, pyrite and chalcopyrite, probably low grade ore. The remainder of the vein is altered gneiss streaked with quartz and carbonate and with scattered bunches of sulphides. A 2 to 4 inch streak of sulphide ore along the footwall dips southwestward 85. It may represent the footwall quartz band in a greatly pinched place, in fact, the entire vein zone is greatly pinched here, probably due to a dike of light colored rock that is said to trend more eastward than does the vein zone and leaves it going southeast. This dike is soft and has caused the caving in the main tunnel. You have told me that you drove along the footwall streak 98 feet to the end line and 15 feet into the Mary Bell claim and that in a short crosscut you had 2 feet of ore, practically pure sphalerite and galena, and did not go through it. The ore on the dump is chiefly dark brown sphalerite, with some galena, chalcopyrite and pyrite.

The Pay Roll claim covers the vein northwest from the Mary Bell claim. Holes dug on the vein in the first 500 feet in that claim seem to be on the hangingwall band which is more porous and iron-stained than

the footwall band and may have more ore. Kernels of galena are usually present in material from these holes. This becomes a boldly outcropping iron-stained porous quartz vein 20 feet thick on the top of the ridge and leads to near the Pay Roll main shaft 625 feet deep. A longitudinal section prepared in 1919 by C. E. Major of Prescott, Arizona, shows this shaft 1120 feet from the face of the Rankin tunnel, a 50 foot level driven 340 feet toward the Mary Bell, a 200 foot level driven 205 feet and a 400 foot level driven 325 feet in that direction. A leasing company is now driving a 600 foot level toward the Mary Bell and you have told me it is 370 feet long, with the ore getting better and that the last time you saw it it was 6 feet wide. I did not get a chance to go underground here but while I was on the dump a carload of ore that came up from the 600 foot level was rich in pyrite and had considerable galena and chalcopyrite, with some sphalerite. You say there is less gold and silver in the Pay Roll mine than in the Mary Bell and give the dike as the dividing line. Perhaps, however, the difference is due to the Pay Roll workings being in the hangingwall band and your workings on the footwall band.

In "Mineral Deposits of the Cerbat Range, Black Mountains, and Grand Wash Cliffs", published in 1909 as Bulletin 397 of the United States Geological Survey Publications, Mr. F. C. Schader describes the Pay Roll as one of the large veins in the Chloride rigion. He says: "As shown by its persistent croppings it has a horizontal extent of nearly a mile, but is reported to be somewhat broken in the bottom of the mine. It varies from 6 to nearly 100 feet in thickness, 10 feet being perhaps a fair average, and in places contains a fair grade of concentrating ore. The gangue is mainly quartz, and the vein is in places separated from the wall rock by a thick sheet of argillaceous or talcose gouge.

"Near the mine, as shown in figure 4, the vein is joined by the Redemption Clyde vein, which probably enriches the Pay Roll ore shoots. The ore in the persistent pay shoots consists of lead carbonates and galena, with some pyrite and chalcopyrite. It contains both gold and silver. The total production of the mine was not learned but it is reported to include many carloads of rich shipping ore than ran about $80 a ton, mostly in gold, derived principally from the surface workings, excellent values being found in the sbuth shaft. So far as can be judged at present the deposit is a good-sized body of low grade ore".

That was written at a time when the zinc content of the Chloride veins was a detriment instead of an asset. The leasing company that is now developing the Pay Roll 600-foot level is erecting a 50-ton selective flotation plant. My guess is that they ought to have at least 100-ton per day plant.

In the gulch beyond the main shaft the vein seems to end abruptly, Schrader says by being cut off on the northwest by a raised fault block of hornblende schist, or is sharply bent down the gulch as you think.

Returning now to your property: The Silver Glance tunnel has been driven about 100 feet on a band of porous, honeycombed quartz 6 inches to 3 feet thick in a zone of altered and quartz-seamed rock, granite apparently, at least 25 feet wide. At one place the quartz and galena and lead carbonate and you took a sample that assayed 2.1 ozs. gold, 14 ozs. silver and 54.2% lead. There is very little of such material in sight but, at depth, the vein might be found to have a large body of low grade milling ore. The vein stands nearly vertical with a slight tendency to dip southwestward. At a cut on the vein S. 60 E. from the tunnel the vein zone is 6 feet wide. Further southeast a shallow shaft has seams rich in fine-grained, or so-called steel galena, in the wide

mineralized zone. Traces of the vein continue southeast to the end of the claim, then the vein is relatively weak in the Tenby claim.

The Tenby vein is supposed to pass obliquely from the Silver Glance to the Pay Roll vein. Where first seen it strikes N. 60 W. and has a tendency to dip steeply northeastward, in places nearly vertical. The vein material is a very porous, coarsely crystallized Quartz, rich in limonite and lead carbonate, with kernels of galena and traces of chalcopyrite remaining in places. This occurs in one, and in places, in two small veins. They will go down into narrow streaks rich in sulphides, probably chiefly pyrite and chalcopyrite with considerable galena and may carry good gold and silver values.

Going southeastward in the Tenby claim there is considerable float of quartz with lead, copper and iron stains. Then in a cut the vein is a foot wide and dips northeastward 75, cutting gray granodiorite. In a tunnel in a small gulch the Tenby vein, 6 inches wide and standing vertical, is supposed to reach the Silver Glance vein, dipping southwestward 80. The latter is narrow and continues S. 40 E. across the gulch and in a cut and small tunnel it has 1 to 2 feet of quartz and limonite banded ground that will go down into lead-silver ore. It dips southwestward 80. This is supposed to be the Tenby vein and to become the Redemption vein on the adjoining property. No more work has been done on the vein in your ground but you say it improves in size in that direction.

Schrader says "the Redemption Clyde vein in the Redemption mine strikes N. 60 W. and dips 85 northeast and is known to have an extent on the surface equal to the length of at least four claims. The vein is about 4 feet thick and the ore shoot is about 18 inches thick. The ore contains chalcopyrite in quartz and carries about 8 per cent of copper,

1 to 2 ounces of silver to the ton, and some gold. The production amounts to 200 tons of ore."

I suspect the vein of being better in the Tenby claim but because of its small size I do not recommend immediate further development of it. The same recommendation applies to the Silver Glance vein.

The big chance in the property is in the Pay-Roll-Mary-Bell vein. I am surprised that it has remained so nearly undeveloped to this late date. However, an important portion of its metal content is zinc and until recent times mining operators were not anxious to develop the zincy ores in the Chloride district. Now things are different and you ought to have no difficulty either in selling the property if you will give long time for development or in financing exploration on some other basis.

It appears to be a very easy prospecting proposition. A railroad is within one mile and a power line within 3000 feet. I would carry a power-line to the mouth of the Rankin tunnel, install the necessary machinery, strengthen the timbering in the outer part of the tunnel, clean up and timber the caved ground at the vein and then drive your drift on the footwall quartz band the entire length of the Mary Bell claim, about 1300 feet. The Major longitudinal section indicates that this drift would pass 217 feet below the North tunnel and 223 feet below the South tunnel. It will be deep enough to develop entirely in the sulphide zone. I would drive a few crosscuts to the hangingwall band, and if it appeared encouraging would drive along it. Say at most 3500 feet of driving on the Rankin tunnel level would thoroughly explore the vein zone in the Mary Bell claim. If that will not yield a large tonnage of millinggrade ore such as is in the South tunnel I will be very greatly surprised.

The cross-section of ore-shoots determined on the Rankin tunnel level, the ore can be expected to extend very deep. Ore in the neighboring Tennesse mine has been developed to a depth of 1400 feet or more. The geology is favorable to commercial ore extending much deeper in the district. Thus the possibilities at the Mary Bell run into rather large figures, though it would be foolish for me to be more specific.

At some later date, with a mill in operation to pay for the work, the Rankin tunnel can be driven ahead into the Mary Bell ground and then turned northeast and driven to the Tenby vein, a distance of probably 450 feet. An additional 450 feet will take it to the Silver Glance vein in the Silver Glance claim. Both veins may be cut about 400 feet deep. Considerable driving on them would perhaps bring this prospecting campaign to an aggregate of 3000 feet of work. Thus 6500 feet of driving on the Rankin tunnel level may be required to prospect the property as it deserves prospecting but I contemplate work only on the Pay Roll-Mary Bell vein as a requisite to determining the value of the property.

Deep development will probably solve the water problem as suggested by Schrader. Climatic conditions are favorable to continuous and relatively cheap operation. Nearness to Chloride precludes the necessity of constructing bunk and boarding houses. Nearness to the railroad solves the problem of transportation. The only question that remains somewhat in doubt is that of disposing of the zinc concentrate at a profit. That is a problem that will have to be solved for the district as a whole, but there is so much zinc-lead ore in the district that I am satisfied that by the time the Mary Bell has been properly developed, and equipped with a selective flotation plant, a market for the zinc concentrate will be in sight.

Respectfully submitted,

Oscar H. Hershey.

SAMPLES FROM MARY BELL CLAIM

	Gold ozs.	Silver ozs.	Lead %-	Zinc %	Copper %
X-cut at #1 winze across 18"	0.32	12.9	3.0	0.6	1.07
32' below collar #1 winze across 6'	0.066	3.52	3.96	11.56	
#2 winze across 18"	0.30	10.7	11.9	27.2	1.12
6' below collar #2 winze across 40"	0.09	0.9	1.5	8.2	
20' below collar #2 winze across 44"	0.19	2.2	4.1	4.7	
40' below collar #2 winze across 40"	0.02	0.2	0.14	5.5	
260' from portal south drift across 20"	0.14	9.40	13.95	21.35	
Face south drift across 12"	0.13	15.00			5.90
194' from portal north tunnel across 12"	1.11	10.4	4.6	19.4	
206' from portal north tunnel across 14"	0.20	8.8	0.4	10.9	
218' from portal north tunnel across 18"	0.13	4.2	1.7	23.2	
Ore on dump Rankin tunnel	0.07	8.7	22.0	18.8	

MARY BELL MINE

Chloride, Arizona

MEMO:

Visit from Dr. Blackwell in May, 1946, who left Hershey's report and two tracings (~~in roll cabinet~~).

Blackwell stated that at present the Rankin tunnel was caved at 135' from the portal but that it could be cleaned out and entered at small expense. The upper tunnel , all in the Mary Bell, is in good shape and can be examined.

Ore is found in the face of the Rankin tunnel and back along the footwall for a distance of 115' where there is much quartz in the vein and some of this Rankin tunnel ore is in the Pay Roll claim.

The values found in the Mary Bell are generally much higher than those in the Pay Roll.

The Mary Bell (probably in conjunction with the Pay Roll has been examined by Herndon and Stone of the Eagle-Picher Company and Blackwell claims that they both liked the formation and were favorably impressed with the possibility of combining several of these claims, including the Rainbow, for one operation but the Company turned them down.

In such a combination Blackwell would be glad to join on any reasonable basis and thinks that he could persuade Tom Scott to include the Pay Roll.

These mines might interest Wimer of the Tennessee-Schuylkill and should also be mentioned to Harrison Schmitt now scouting for the New Jersey Zinc Company.

September 9, 1948

Mr. Thomas B. Scott, Jr.
Post Office Box 644
Albuquerque, New Mexico

RE: Payroll Mine

Dear Mr. Scott:

This will acknowledge yours of September 3 and I note that you have arranged to lease your property to Mr. Frank H. Grannis of Chloride and his associates. I assume that Mr. Grannis has obtained a lease from Dr. Blackwell on the Mary Belle Claim and I trust that his operations may prove very successful.

If you or Dr. Blackwell will inform me at anytime that a substantial body of pay ore should be encountered in either of these properties and in the vicinity of the Rankin Tunnel, I will be very glad to take the matter up with one or more mining companies who might be interested and who would also consider dewatering the Payroll Mine to reach the ore as shoots which are found in the lower levels and shown on my assay map.

Yours very truly,

GMC:IM

THOMAS B. SCOTT, JR.
316 ROSENWALD BUILDING
(MAIL) P. O. BOX 644
Albuquerque, New Mexico
PHONE 7830 TWX-AQ-16

September 3, 1948.

Ai 9/9/48

Mr. George M. Colvocoresses
1102 Luhrs Tower
Phoenix, Arizona

Dear Mr. Colvocoresses:

Thank you for your letter of August 9, 1948.

Frank H. Grannis of Chloride was in this morning and I have sent the terms of a contract to Frank J. Ryley today so that he can make us up an agreement. As you know, Mr. Grannis has been working by himself for sometime and now has another man, who he claims to be a practical mining man, named C. G. Patterson. Apparently they have cleaned out the Rankin Tunnel from the Mary Bell mill site to the end of the tunnel and have also cleaned out the old drift that runs from the end of the tunnel to the Mary Bell mine. He says they are getting into some stuff that looks pretty good. My agreement with him will be on the Payroll and for the right of way through the Rankin Tunnel.

I merely mention this to you because I think maybe he is getting somewhere. I hope he does. If he does develop any ore, he can probably get some good financing with these present prices. It might be well worthwhile for some of your people to take a look at him when they are up in the Chloride area.

Very truly yours,

Tom Scott Jr

Thomas B. Scott, Jr.

TBS:ms

Grannis no doubt has also the Mary Bell as if he [illegible] find [illegible] either a [illegible] [illegible]. I'd be glad to [illegible] for his Company

HERSHEY & WHITE
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mineralized zone. Traces of the vein continue southeast to the end of the claim, then the vein is relatively weak in the Tenby claim.

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It appears to be a very easy prospecting proposition. A railroad is within one mile and a power line within 3000 feet. I would carry a power-line to the mouth of the Rankin tunnel, install the necessary machinery, strengthen the timbering in the outer part of the tunnel, clean up and timber the caved ground at the vein and then drive your drift on the footwall quartz band the entire length of the Mary Bell claim, about 1300 feet. The Major longitudinal section indicates that this drift would pass 217 feet below the North tunnel and 223 feet below the South tunnel. It will be deep enough to develop entirely in the sulphide zone. I would drive a few crosscuts to the hangingwall band, and if it appeared encouraging would drive along it. Say at most 3500 feet of driving on the Rankin tunnel level would thoroughly explore the vein zone in the Mary Bell claim. If that will not yield a large tonnage of millinggrade ore such as is in the South tunnel I will be very greatly surprised.

The cross-section of ore-shoots determined on the Rankin tunnel level, the ore can be expected to extend very deep. Ore in the neighboring Tennesse mine has been developed to a depth of 1400 feet or more. The geology is favorable to commercial ore extending much deeper in the district. Thus the possibilities at the Mary Bell run into rather large figures, though it would be foolish for me to be more specific.

At some later date, with a mill in operation to pay for the work, the Rankin tunnel can be driven ahead into the Mary Bell ground and then turned northeast and driven to the Tenby vein, a distance of probably 450 feet. An additional 450 feet will take it to the Silver Glance vein in the Silver Glance claim. Both veins may be cut about 400 feet deep. Considerable driving on them would perhaps bring this prospecting campaign to an aggregate of 3000 feet of work. Thus 6500 feet of driving on the Rankin tunnel level may be required to prospect the property as it deserves prospecting but I contemplate work only on the Pay Roll-Mary Bell vein as a requisite to determining the value of the property.

Deep development will probably solve the water problem as suggested by Schrader. Climatic conditions are favorable to continuous and relatively cheap operation. Nearness to Chloride precludes the necessity of constructing bunk and boarding houses. Nearness to the railroad solves the problem of transportation. The only question that remains somewhat in doubt is that of disposing of the zinc concentrate at a profit. That is a problem that will have to be solved for the district as a whole, but there is so much zinc-lead ore in the district that I am satisfied that by the time the Mary Bell has been properly developed, and equipped with a selective flotation plant, a market for the zinc concentrate will be in sight.

Respectfully submitted,

Oscar H. Hershey.

SAMPLES FROM MARY BELL CLAIM

	Gold ozs.	Silver ozs.	Lead %-	Zinc %	Copper %
X-cut at #1 winze across 18"	0.32	12.9	3.0	0.6	1.07
32' below collar #1 winze across 6'	0.066	3.52	3.96	11.56	
#2 winze across 18"	0.30	10.7	11.9	27.2	1.12
6' below collar #2 winze across 40"	0.09	0.9	1.5	8.2	
20' below collar #2 winze across 44"	0.19	2.2	4.1	4.7	
40' below collar #2 winze across 40"	0.02	0.2	0.14	5.5	
260' from portal south drift across 20"	0.14	9.40	13.95	21.35	
Face south drift across 12"	0.13	15.00			5.90
194' from portal north tunnel across 12"	1.11	10.4	4.6	19.4	
206' from portal north tunnel across 14"	0.20	8.8	0.4	10.9	
218' from portal north tunnel across 18"	0.13	4.2	1.7	23.2	
Ore on dump Rankin tunnel	0.07	8.7	22.0	18.8	

HERSHEY & WHITE
Consulting Engineers
Crocker Building San Francisco, Cal.

GEOLOGICAL REPORT ON THE MARY BELL GROUP

COPY. BY OSCAR H. HERSHEY.

San Francisco, California.
April 24th, 1929.

Dr. J. G. Blackwell,
Chloride, Arizona.

Dear Sir:

Yesterday I made an examination of your Mary Bell group of mining claims, situated on the west slope of the Cerbat Range, about 1.5 miles from Chloride, Mohave County, Arizona. I regard the property as constituting an exceptionally attractive prospecting opportunity and hence I will discuss it in considerable detail.

The group consists of the Mary Bell, Tenby, Silver Glance and Silver Glance Fraction quartz mining claims and the Mary Bell mill-site. These claims are held by location and annual assessment work.

The strongest vein traverses the Mary Bell claim on a course about N. 30 W. and dips northeastward 75 to 80. The claim is 1267 feet in length. About 100 feet from the southeast end of the claim the dump of an old hole has a pile of oxidized porous quartz with lead carbonate and remnants of galena derived from a small footwall band. You have told me that this material was sorted and the best ore shipped during the war. A streak of quartz and yellow dirt 6 to 8 inches thick may be traced southeastward to beyond the end line of the claim. About 50 feet across altered granite possibly seamed with quartz leads to the hangingwall band of what I am going to call the vein zone. This hangingwall band is soft, makes a slight depression partly filled with debris, and has been little prospected on your claim. From what I can see of it, it seems to be more

strongly stained by iron and manganese oxides that is the footwall band and I suspect that it has less quartz but more of an iron bearing carbonate of intermediate composition, probably ankerite, and more pyrite than the footwall band. The latter outcrops strongly and the development has been practically confined to it. Yet, I suspect the hangingwall band may be the better.

Several hundred feet from the southeast end line the footwall quartz outcrops 6 feet wide and is much stained by iron oxide. Here it is 80 feet to the hangingwall band. The intervening rock is mostly an altered pegmatitic granite, sheeted, dipping northeastward 75. The wall rocks are a rather fine-textured light colored granite that occupies a large area extending northeast and southwest. Thence to the mouth of the South tunnel, the footwall band is strong and, in places, there is much porous limonite which may overlie an orebody. At the mouth of the tunnel there is a bold outcrop of iron-stained porous quartz 12 feet wide whose footwall is a small fault gouge that dips northeastward 80, and the hangingwall dips in the same direction 75, suggesting widening of the quartz downward. There is another quartz vein about 40 feet southwest of the mouth of the tunnel. This converges upon the main vein and meets it about 260 feet northwest.

The South tunnel, driven from the south side of Mary Bell hill, is about 265 feet long and is mostly in the soft altered granite on the footwall side of the quartz band. At 70 feet in, a cross cut goes 15 feet through the quartz but fails to reach the hangingwall. There is a little sulphide in places. At 45 feet further in there is a crosscut to the left that shows vein matter 16 feet wide, dipping northeastward 75, probably the branch vein seen 40 feet southwest from the mouth of the tunnel. It is partly compact fine-textured altered porphyry, but there are porous

bands rich in limonite, good indication for ore below the zone of oxidation. About 10 feet further in the tunnel there is a right hand crosscut that goes 10 feet through porous, iron-stained quartz with much limonite and a little malachite stain. You have told me that some of this material assays well in gold. The remaining 7 feet of the crosscut is in altered porphyry.

At 142 to 148 feet from the mouth of the tunnel an inclined winze has been put down 38 feet. It penetrates the sulphide zone and the lower portion shows an ore band 6 feet wide that dips northeastward 75. A sample that you took across 6 feet 8 inches assayed 0.06 gold, 3.2 ozs. silver, 3.6% lead, 0.6% copper and 10.5% zinc. My impression is that this represents one of the poorer sections of ore-shoots that may be developed on the claim.

From the winze the tunnel runs 27 feet along the wall of the quartz band to a crosscut 20 feet through fine-grained altered porphyry with a little pyrite. At the end there is a band with some ore sulphides, but at the face there is a porous mass rich in limonite that may overlie a good orebody.

Next the present accessible tunnel has been driven along the hangingwall side of the quartz band where a sulphide streak develops that in about 45 feet becomes thick enough to be commercial and thence to the face, 45 feet, it may be 1 to 2 feet thick. It dips northeastward 75 to 80. It is 2 feet thick at the face, is rich in dark brown sphalerite and the best band 6 inches thick has considerable galena, a little chalcopyrite and pyrite. About 15 feet back from the face there is a winze 7 feet deep. You took three samples over this winze that averaged by assay 0.12 oz. gold, 10.00 ozs. silver, 19% lead and 19% zinc. A sample across a 6 inch streak in the winze assayed 1.05 oz. gold, 19.6 ozs. silver, 3.00% copper,

25.2% lead, and a small amount of zinc. But this is just part of an 18 inch band that was mined clean and placed on the dump. A sample from it assayed 0.68 oz. gold, 14.1 ozs. silver, 0.4% copper, 34.7% lead and 21.6% zinc, according to a certificate by John Herman. These assays do not represent much tonnage but they demonstrate that the vein has some very good grade ore. Of course, I cannot assume responsibility for any statements of values based on assays in this report but I see no reason to question them as the material sampled has the appearance of containing the lead and zinc claimed.

This South tunnel is too high to make much showing of ore but it reveals a lot of oxidized and leached material that is probably underlaid with milling grade ore and where it penetrates the sulphide zone it shows a narrow band of good grade ore.

The iron-stained porous quartz outcrop runs from the tunnel to the top of the ridge where it is about 20 feet wide over the end of the tunnel and 120 feet above it. Here the vein zone is 135 feet wide, chiefly somewhat altered pegmatitic granite. A dark gray gneissic rock appears in the footwall country.

Thence down to the North tunnel near the northwest end line of the claim the outcrop and float of the footwall quartz band are strong. There is dark gray granodiorite on the footwall. The North tunnel, 140 feet long, has been driven in the gougy soft band on the footwall side of the quartz band, which dips northeastward 75 to 80. The gougy material has small pockets of sulphides, one with galena that yielded a small pile of ore on the dump. A 4 foot drill hole in the quartz band showed it oxidized and leached.

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Oscar H. Hershey.

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Ore on dump Rankin tunnel	0.07	8.7	22.0	18.8	

August 9, 1948

Mr. Thomas B. Scott, Jr.
Post Office Box 644
Albuquerque, New Mexico

RE: Payroll Mine file

Dear Sir:

Replying to yours of August 2, the high prices of lead and zinc, particularly zinc, should make your Payroll Mine an attractive investment for anyone who is willing and able to make the considerable preliminary expenditure that will be necessary to reopen the mine and equip it for operation.

I have in the past brought this property to the attention of all of my clients who seemed likely prospects and most of them have copies of my report and assay map. As opportunity permits I will try to remind them of this opportunity, but I do not care to act as a promoter and devote a lot of time and attention to such an effort merely on the chance of obtaining a commission in case the mine is leased or sold, and I think you may very likely wish to put the matter into the hands of other people.

Yours very truly,

GMC:IM

THOMAS B. SCOTT, JR.

316 ROSENWALD BUILDING

(MAIL) P. O. BOX 644

Albuquerque, New Mexico

PHONE 7830 TWX-AQ-16

August 2, 1948.

Mr. George M. Colvocoresses
1102 Luhrs Tower
Phoenix, Arizona

Dear Mr. Colvocoresses:

I notice the prices for lead and zinc have been increasing and are at a pretty high level. Have you heard anything or are you thinking anything is possible relative to our Payroll Mine in the Chloride, Arizona, area?

As previously mentioned to you, if you can get anything started, we would appreciate it. As for myself, I do not wish to operate or develop it.

Very truly yours,

Tom Scott

Thomas B. Scott, Jr.

TBS:ms

June 25, 1946

Dr. J. G. Blackwell
Chloride, Arizona

RE: Mary Bell Mine

Dear Dr. Blackwell:

I am returning herewith the report on your Mary Bell group which you left with me in May, also an extra copy of same as you requested. It happens that my office has been very much crowded with some other work so that there has been no opportunity to previously complete the copying of this report.

As to the tracings which you have also left with me, I have not yet had any prints made from these but I will retain them for the present, if you do not mind, and will have prints made whenever I find anyone who is interested in your property.

I have already taken that matter up by letter with one party but found that they did not care to consider your mine and the Pay Roll just now; however there are some engineers representing another company who will probably come to see me in the near future, and I will find out if they or others are more favorably disposed. The lifting of the ceiling price for zinc and probable advance in the price of silver should be helpful, then on the other hand, as you probably know, it is still extremely difficult and expensive to secure competent labor, and some essential supplies are almost unobtainable.

Hoping that you are in good health and that something will soon develop in respect to the Mary Bell, I remain,

Yours very truly,

GMC

GMC:IM

Enclosures 2

SHAFT

PAY ROLL

SILVER GLANCE FRAC.

SILVER GLANCE

TENBY

GULCH

DRAW

VEIN

VEIN

VEIN

GULCH

MARY BELL MILL SITE

DRAW

MARY BELL

N

Scale 1" = 150'