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THE LUCKY TIGER-COMBINATION GOLD MINING COMPANY

710 COMMERCE BUILDING

KANSAS CITY, MISSOURI. October 11th, 1939.

Mr. Edward Wisser,
Geological Department,
Johns Hopkins University,
Baltimore, Maryland.

Dear Mr. Wisser:-

We are enclosing check for \$86.94 covering your services in examining the Soulsby-Bell Mine.

We want to thank you very much for this report. It is just what we wanted, more of a synopsis than a general report, and we were glad to see that you look at it from a business standpoint in your conclusion.

I hope you will let us know as soon as you return to San Francisco as I am in hopes that some day either you will get us a mine or we will find one where I can have you associated with us.

Let me hear from you occasionally.

With best wishes,

Very truly yours,

A E Mosier

AEM-H
Encl.

THE LUCKY TIGER-COMBINATION GOLD MINING COMPANY

710 COMMERCE BUILDING

KANSAS CITY, MISSOURI. September 15, 1939.

Mr. Edward Wisser,
Bryan, Wisser & Payne,
533 Call Building,
San Francisco, California.

Dear Mr. Wisser:-

Soulsby-Belle Mining Co.

We are sending you under separate cover a report on the above property. I thought perhaps you might know something about this mine. Please look this report over and if you think the property has sufficient merit you might run up and give it the "once-over". You are so much closer than our Mr. Budrow down at San Diego and perhaps are more familiar with this district.

I know the gentlemen who own this mine. They are not promoters but they have put their money into this thing and I believe do not have enough money to go ahead and finish it. I think you will find the engineers who made this report are very reliable, but you will know more about this than I do.

With best regards,

Very truly yours,

A E Mosier
(A. E. Mosier)

AEM-H

September 24th, 1939.

Mr. A. E. Mosier,
Lucky Tiger-Combination Gold Mining Co.,
710 Commerce Building,
Kansas City, Mo.

Dear Mr. Mosier:

In response to your request contained in your letter to me of September 15th, 1939, I examined carefully the reports sent me concerning the Soulsby-Belle Mining Co. While I was not too favorably impressed with the property as a whole, as described in these reports, the exceptionally high grade of the ore kidneys impelled me to follow your suggestion and make a trip to the mine. Mr. Young told me over the telephone that the mine had been closed for some time, but I had hoped to be able to climb down to at least the uppermost level in order to get a look at the structure of the vein. I did not miss my guess far, but just far enough, because the water stands just at the top of the uppermost level. Fortunately Mr. Young's report is quite comprehensive, and the look I had at the ground and at the diamond drill cores, together with the dump, gave me several pointers of aid in coming to the conclusions expressed in the following report.

With kindest regards,

Sincerely yours,

Edward Wisser

REPORT ON THE
SOULSBY BELLE MINE
Tuolumne County, California

by

Edward Wisser
Mining Geologist.

September 24th, 1939.

REPORT ON THE SOULSBY-BELLE MINE, TUOLUMNE COUNTY, CALIFORNIA.

by

Edward Wisser.

INTRODUCTION: The following report is based on a visit to the property by the writer on September 21st, 1939, on reports by George S. Young and others, and on information furnished by the superintendent of the mine. The mine was filled with water to the top of the highest (30') level at the time of my visit, so that my examination had to be limited to an inspection of the surface, of diamond drill cores, of the dump and to questioning the superintendent. It is impossible to form definite conclusions regarding an inaccessible mine; the conclusions that follow must be regarded as the best possible under the circumstances.

PROPERTY, LOCATION: According to the report by George S. Young dated April 9th, 1937, the property is located in the southwest quarter of the northeast quarter of section 30, township 2 north, range 16 east, Mount Diablo base and meridian, and comprises 40 acres of agricultural patented ground. It lies in the so-called "East Belt" of the Mother Lode, in Tuolumne County, 1 mile north of the town of Soulsbyville and 9 miles by road from the town of Sonora. Details on topography, water, timber, power etc. are given in Mr. Young's report. Mr. Young gives also the detailed history of the mine. The total production seems to have been about \$60,000, from a total footage of about about 1650 feet of drifts and crosscuts. The shaft is about 450' deep. Costs given for drifting and crosscutting are \$18.00 per foot; cost of sinking shaft \$52.00 per foot. Present development underground therefore cost approximately \$53,000, so that the enterprise is well in the red; possibly 2000 tons of ore were mined. Guessing the cost of mining and milling at \$7.00 per ton, the total mining cost, exclusive of development, works

out at about \$14,000. Subtracting this from \$60,000 gross production leaves a net operating profit of about \$46,000. Against this is the cost of shaft sinking, drifting and crosscutting, approximately \$53,000, and the cost of the surface plant, including headframe, hoist, compressor, drill sharpener, a 25-ton amalgamation-table concentration mill, superintendent's residence, change house, etc.

According to the superintendent, Mr. Kelly, the property has been idle for about two years. The surface plant is in good condition, but the collar of the shaft has cratered, with no damage, so far, to the shaft itself.

GEOLOGY: The principal country rock is granodiorite, a portion of the main mass of the Sierra Nevada batholith. Within the granodiorite mass are roof pendants of the Calaveras formation (metamorphosed Carboniferous sediments, in the main). A few pieces of Calaveras float were picked up from the hillside west of the mine, but little or none of this type of rock was found on the dump, so that it is inferred the workings are almost if not entirely driven in granodiorite.

The characteristics of the East Belt in Tuolumne County are well known. The veins in granodiorite are usually narrow, and irregular in strike and dip. The ore occurs in kidneys, high grade but sporadically distributed. Between the kidneys the vein commonly pinches to a barren knife-edge strip, or an ill-defined zone of narrow quartz stringers.

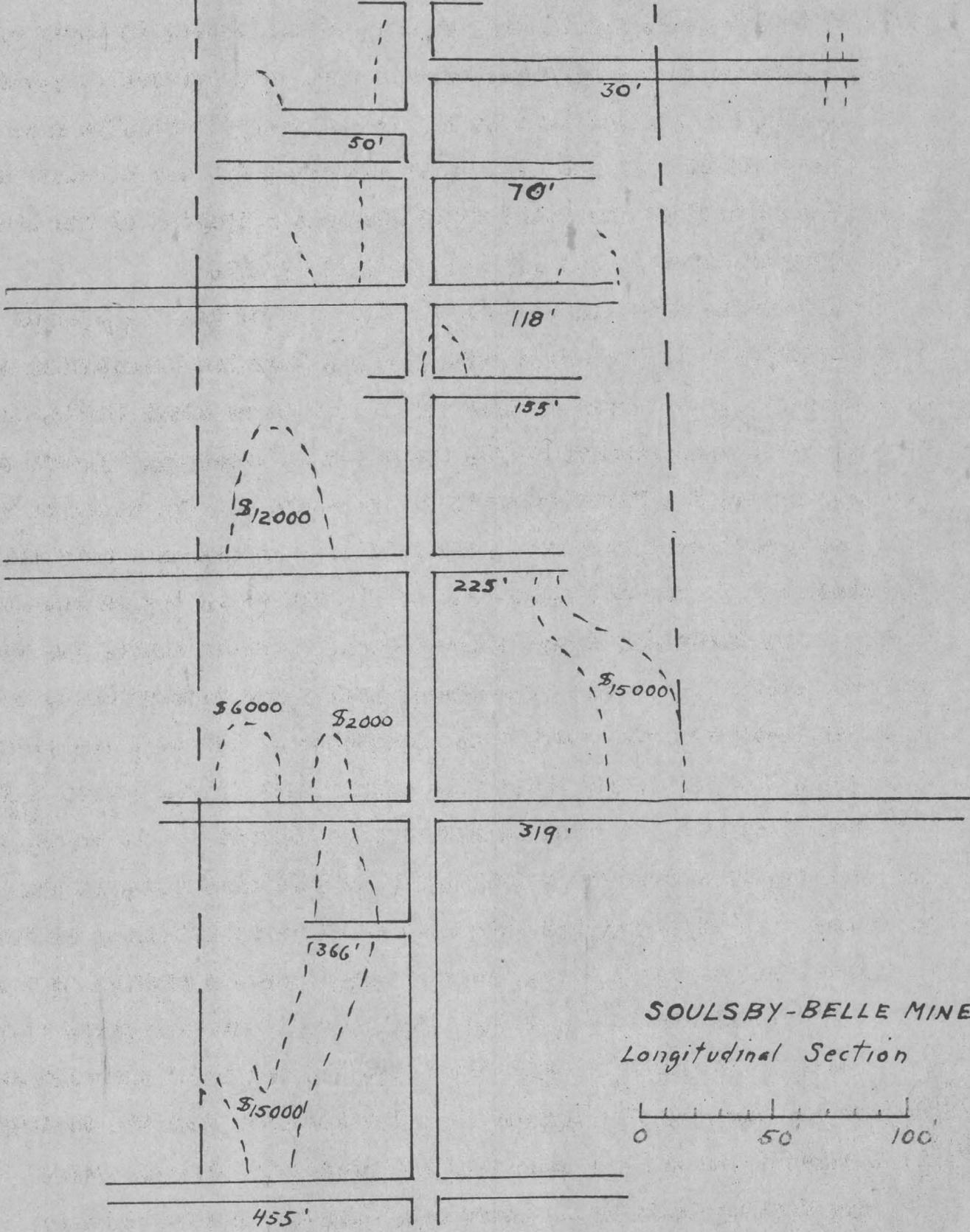
The Soulsby-Belle vein strikes, in the workings, about N65°E and dips almost vertically. Careful inspection of the dump revealed very little quartz, so that it is inferred that the vein pinches greatly between the kidneys of ore. This notion was confirmed by conversation with Mr. Kelley.

The longitudinal section accompanying Mr. Young's report shows

SW

NE

← "Shaft kidney zone" →



SOULSBY-BELLE MINE
Longitudinal Section

the ore kidneys. They are pipe-like in shape, with the longer axis nearly vertical. In drift length they range from 15 to 40 feet; in height, from 30 to 170 feet. The kidneys show a certain system in their spacing, and seem to form a zone perhaps 200 feet long horizontally, and extending from the surface down to the 445 or bottom level. The zone hugs the shaft, so that the few drifts extending for any distance northeast or southwest of the shaft found nothing. A tracing of the longitudinal section showing this accompanies this report.

The Soulsby mine, said to have produced over \$5,000,000, lies about a mile southwest of the Soulsby-Belle mine. From the orientation of the Soulsby claims, the strike of that vein seems to be about $N20^{\circ}E$. The Soulsby-Belle vein strikes $N65^{\circ}E$. There are no exposures between the two properties. Mr. Young attempts to correlate the two veins on the basis of a well said to have struck gold at bedrock, and a hole called the Black and Morgan shaft, now full of old tin cans. Legend has it that Messrs. Black and Morgan struck a vein in their shaft. The well and the "shaft" lie between the Soulsby-Belle and Soulsby mines, but I consider their evidence worthless. Inspection of the mine map accompanying Mr. Young's report shows that either most drifts toward the southwest (toward the Soulsby mine) were on separate split veins, or that the true vein was frequently lost going in that direction. In the first case, the Soulsby-Belle vein appears to be splitting up to the southwest; in the second case, it must have been too weak going southwest to be easily followed. Either conclusion is discouraging, both for the future of the Soulsby-Belle mine (for the northeast workings are approaching the property boundary) and for the hope that the Soulsby-Belle vein is one and the same with the productive Soulsby vein.

The Soulsby-Belle vein, therefore, must be considered on its own merits, and not as a possibly northeastward extension of the Soulsby

vein.

FUTURE OF THE MINE: One pipe or kidney was found on the 445 (lowest) level, and drifting is so inconsiderable as to offer the possibility that one or more similar kidneys will be found there, within the pipe-like zone of kidneys that seems to hug the shaft. The approach toward systematic spacing of the kidneys within the kidney zone offers a possibility toward a quantitative guess at probable results of further exploration of the kidney zone downward.

Production of the various kidneys is given from the 155 foot level downward. Five kidneys were found with an average value produced of \$10,000 for each. To find these kidneys 300 feet of shaft were sunk, at a total cost of about \$16,000, and about 750 feet of drifting and cross-cutting, at a total cost of about \$13,500. Total development cost: \$29,500. Apparently about 1900 tons of ore were mined from these kidneys. Guessing at the mining and milling cost at \$7.00 per ton, the total cost would be about \$13,300. Adding this to cost of development gives a grand total of \$42,800. Subtracting this from the \$51,000 gross production from the kidneys gives an operating profit of \$8200. (This procedure is not strictly orthodox, for the shaft might be utilized in finding other kidneys not connected with the kidney zone near it; the same thing applies to the drifts, so that most cost-keepers would not charge total shaft-sinking to development, nor all the drifting. I have only charged those portions of the drifts within the kidney zone to the cost of developing that zone; I have charged the whole shaft. A prospective investor cannot afford to assume any other group of kidneys because what drifting has been done in search of others has been disappointing.)

It would seem, therefore, that on the assumption that the mine will continue its present performance in depth, further sinking along the kidney zone is not attractive.

Lateral exploration by drifting along the vein on existent levels does not look very attractive either, although were the mine unwatered this opinion might be changed. There is little room for drifting northeast, for present drift faces are close to the boundary. The inferred unfavorable condition to the southwest has been described.

It is true that lateral exploration without any shaft sinking might pay for itself and even return some of the money invested. The average kidney found so far contains about 400 tons (diluted) and has a net value of \$10,000 minus cost of mining and milling—\$2800, or \$7200 net. This would pay for 400 feet of drifting at \$18 per foot. The assumption in such figuring lies in the thought that the mine will repeat its performance laterally as it has done in the Shaft Kidney Zone vertically. The assumption may be false, because the old-timers were good surface prospectors. The Shaft Zone as known at or near the surface from the start. But no other zones have been, either on the surface or in the longer drifts underground.

Lateral exploration in search of other veins, i.e., by crosscutting, seems to be definitely out. Six diamond drill holes, totalling 536', were drilled horizontally from the 319' level, exploring the ground NW of the vein for a distance of 180', and the ground to the southeast for 120'. Most of these holes were drilled to account for supposedly favorable showings on the surface. The writer carefully inspected the cores from these holes, and was shown the logs by Mr. Kelly. Nothing whatever of interest was found excepting two feet of quartz reported in one of the holes drilled northeast. This quartz has been removed from the core box, but is of very doubtful interest, because nothing corresponding to it was found in the nearby hole, drilled parallel and only 55 feet away.

CONCLUSIONS: The analysis given above suggests that continued exploration downward is unwarranted, because each level within the Shaft Kidney zone yields insufficient ore to pay for the necessary shaft sinking,

drifting, crosscutting, raising etc. On the other hand, lateral exploration along the vein might be expected to pay, provided other kidney zones, or separate kidneys not too far apart might be found.

The situation seems to me as follows: For an outside investor, who would have to buy the mine or pay royalty on production, the property does not seem calculated to return the necessary investment. For the present company, provided they own the property and equipment and are free of debt, lateral exploration to the southwest might get some of their money back, just possibly all of it, assuming that the vein, as I suspect, is not splitting up or getting very weak in the southwest faces of the present drifts. Only unwatering the mine, or the statement of some reliable observer, can decide this question.

San Francisco, Sept. 24th, 1939.

Edward Wisser

DATE OF INVOICE	P. O. NO.	DESCRIPTION	AMOUNT	CASH DISCOUNT	NET AMOUNT
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To professional service: field examination, September					
21st, 1939; office investigation, September 20th,					
1939; writing report, September 24th, 1939- - - - -			\$75.00		
Expenses of trip- - - - -			7.12		
Preparation of report (stationery, typing, print etc.)			3.52		
Postage- - - - -			<u>1.30</u>		\$86.94

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