A BRIEF STATEMENT OF CONDITIONS NOTED AT THE STRONG MINE 16 MILES NORTH-EAST OF LARAMIE, ALBANY COUNTY, WYOMING.

The following statements and figures relating to the Strong Mine are taken from measurements made and conditions noted at and in the mine from 1903 to 1909, during my terms as State Geologist of Wyoming, and for the official report thereon dated January 26th, 1906, as of record in the files of that office, but which report is not now available, owing to conditions which arose after I left the office.

These measurements of workings were taken in the mine at different times and for various purposes, but so far as I am now informed no actual underground survey or map of the workings was ever made, and I believe that my notes of that time are the only records now existing of this work. I am informed that work was carried on subsequent to my records and the workings extended, probably on the same lines as the former work, and in that case the included figures should be considered as the minimum amount of workings to be expected at the mine when it is unwatered and the workings made ready for inspection.

SITUATION--

The Strong Mine is situated sixteen miles north-easterly from Laramie, Albany County, Wyoming, on the main Horse Creek and is ten miles west of Horse Creek Station on the Colorado and Southern Railroad, north of Cheyenne, Wyoming.

The property is located on Section 4, Township 16 North, Range 71 West, on the easterly slope of the Laramie Hills at the above point.

HISTORY--

The Strong Mine was originally known as the Swigart-Baker Group and was located October 31st, 1898 by Dr. I.N. Swigart and E.P. Baker, of Laramie, Wyoming, as equal partners and the preliminary work done, the ground surveyed and recorded, the shaft started on the main outcrop on the Strong Claim and the development of the property begun.

Other claims were located and at one time the group included some 16 claims, about 270 acres, which were duly surveyed and mapped, but of which no plat is now available. The claims were never patented but title was maintained while the property was in active operation.

Later, in 1901, the Strong Copper Company was organized, a close corporation, which was succeeded Jan/ 12th, 1903, by the Strong Copper Mining Company, organized for 1,000,000 shares, par value $1.00 each, of which 500,000 shares were treasury stock and 500,000 shares went to Swigart, Baker and otners who put in the property and for which deeds were made to the Company and recorded.

Work then continued at the main shaft, with interruptions for various causes, until about 1915, but after Dr. Swigart's long illness and death, development stopped and the property was practically abandoned for lack of money to carry on the work.

The stock was sold principally in Laramie and Boston, Mass. and every effort was made to develop the mine on a substantial and equitable basis but owing to business conditons at the time, Company disagreements and misunderstandings, and the death of Dr. Swigart, who was the main moving force in the work, and who had the most implicit faith in its outcome, work finally ceased. It was too much for his strength and he literally gave his life to keep it going but to no avail, and the enterprise finally folded up.

GEOLOGY--

The strong Property lies on the eastern slope of the range of low mountains that extends northerly and southerly from the Wyoming-Colorado State line on tne south to the high point of the range at Laramie Peak, a distance of about 150 miles, and which are generally known as the Laramie Hills.

The general formation of this range consists of a core of granite flanked on either side by the succeeding sedimentary formations, such as limestones, shales, sandstones, etc.. The granite shown is usually of a red feldsitic variety but grey granites are frequently found thruout the range, and both these granites are found to contain numerous dykes, ledges, and bands of gneiss, schist, diorite, diabase, gabbro, and allied dyke rocks.

It is also noted that the mineral showings thruout the entire range are all found to be in itimate connection with these dykes or ledges, as with the gabbro-diorite at the Strong, and other combinations shown elsewhere in the range.

This condition pertains at the Strong Mine, and the ledges outcrop with a general north and south direction, the "Strong vein" showing on both sides of the shaft. There are some quartz veins noted nearby but the general ore condition shown in the ledge matter and is of the typical surface copper minerals.

This ledge condition is bourne out by the results of the development work and it is also indicated that blind shoots are to be expected in the further development of the known ore bodies.

WORKINGS-- (as of March, 1907)

The workings at the Strong Mine are listed as follows:

Main Shaft: Total depth 350 feet, vertical for 80 feet, then with a five degree dip to the east.

50 Level: This is a crosscut to the east, 14' long, in ore

500 Level: Drift north from shaft, 43 feet long. Winze 5' deep, at 27 feet from shaft. Crosscut on east side of drift, 5' at 13'6" from shaft. Ore noted in drift at winze, 7'9" wide at bottom. Quartz ore along drift, insides, roof, and bottom showing copper sulphides. Gabbro shows in crosscut and at winze.

150 Level: Drift, south from shaft, 180 feet long. Crosscut, on east side of drift, 11' at 63' from shaft. Crosscut on east side of drift, 28' at 113' from shaft. Crosscut on west side of drift, 31' at 113' form shaft. Ore shows from shaft to angling crosscut in drift, little from crosscut to face. Drift north from shaft, 26' long.

250 Level: Drift north from shaft, 182 feet long. Crosscut on west side of drift, 45' at 19'6" form shaft. Crosscut on east side of dirfft, 22' at 12'8" from shaft. Crosscut on east side of drift, 11' at 120' from shaft. Drift south from shaft, 195'8" long. Crosscut 36'6" at 62'8" from shaft. Crosscut 5' at 128'8" from shaft. Crosscut 8' at 154'8" from shaft. Crosscut 15' back west under shaft.

350 Level: Drift north from shaft, 50 feet long. Crosscut, west side of drift 10' near shaft. Drift south from shaft, 45 feet long.

Summary:		
	Total depth, main shaft.	350 feet
	Total work, 50 level,	14 feet
	Total work, 100 level,	53 feet
	Total work, 150 level,	276 feet
	Total work, 250 level,	510 feet
	Total work, 350 level.	105 feet
	Total workings as above	1308 feet

The above figures represent the workings to March, 1907 as stated but as work is known to have continued for several years after that date, the total must be considerably greater, altho no later figures are available as to this fact, and the actual total is therefore unknown at this date.

The accompanying sketch of workings is compiled from the above notes, and shows the workings in their general relation to each other but as no survey was made at the time, the exact courses thruout the levels cannot be shown, and the plan and sections are intended simply as an aid in visualizing the works as listed herein.

VALUES AND ORES--

At the present writing there is little real information at hand concerning the values in the Strong ores, altho some hundreds of assay were made during the progress of the work, the sampling varying from hand specimens and grab samples to full face samples and ton or carload lots.

As usual in the Laramie Hills ores, the gold and silver values were uniformly low and the main values were in copper. Attempts were made at various times to determine the possible values in the then rarer metals, as nickel, manganese, etc., but as there was practically

no market for these metals at that time, not much was accomplished, aside from prving their presence in the ores of these deposits. As far as known, none of the above records are now available.

The following list of assays is taken from a copy of a publication issued by the Company now in my possession, and which states the assays were made at the School of Mines, University of Wyoming, by Prof. W.C.Knight, then Professor of Mining, and his assistants, and which are probably of record at the University at the present time, and may be verified.

Following is the list:

no.	Depth	Gold	Silver	Copper
1	9 ft.	.68 oz.	.88 oz.	19.3 %
2	9	T	7.86	19.85
3	11	T	13.72	5.08
4	11	.01	3.20	13.33
5	13	.04	6.86	38.81
6	15	T	7.70	32.91
7	15	T	T	43.12
8	15	T	4.00	35.48
9	21	.08	3.68	7.55
10	25	T	5.30	19.93
11	25	T	5.10	39.96
12	26	T	5.40	34.76
13	28	.04	6.76	30.37
14	38	.16	3.60	20.56
15	49	.18	3.50	51.56
16	50(12'in Xct)	T	2.90	16.02
17	50(14'in Xct)			22.00
18	54	T	2.50	25.26
19	58	T	T	26.02
20	58	T	3.70	26.24
21	58	T	2.95	36.82
22	80			68.00
23	80			68.50
24	85			26.64
25	85			45.50
26	90			20.50
27	92			29.50
28	100(12' in drift)			22.80
29	100(12' in drift)			42.00

From these results, it is evident that they were made on the high grades of copper ores, the sulphides such as Chalcocite, Chalcopyrite, and Bournite, all of which were noted in the Strong ores, and the usual oxides and carbonates at the surface and in the upper ores.

The ore gangue varied from a clear white quartz to a mixture of the granite, gabbro and diroites encountered in the lower levels, as the work was done on the vein or in the ledge matter in various parts of the mine.

Four pounds of the ore from a depth of 70 feet, was sent to the Paris Nickel Company, Paris, France, and returned

Gold,	.75 oz per ton.
Silver,	9.50 oz per ton.
Nickel,	1.00 per cent.

A ton of ore taken from 32 feet in the 100 level drift, was sent to the Boston and Colorado Smelter at Argo, Colorado, and returned,

Gold,	None
Silver,	3 oz per ton
Copper,	16.6 per ton

The above returns are personally known to me to have been made, and also many others of which I have no present records but which showed the presence of the copper values in the ores thruout the mine, sometimes very high on specimen assays and usually varying from ten to fifteen percent copper, with small gold and silver values, as the samplings included the working faces or across the vein as exposed therein.

SUMMARY--

The within statements regarding the old Strong Mine are compiled from records now in my possession and made during the progress of the work in the mine, and from memory and diaries kept at the time, hence I believe same are the most complete and accurate information to be had at this time.

As far as I am now informed, there is no record of the work done since Dr. Swigart's death and as I have had no connection with the property since that event, this later work is not included herein.

In my opinion, the Strong Mine is a property worthy of development, that the ore occurred therein as stated and that the present proposed re-opening and development work is certainly justified by the showings made in the present workings.

The formations and ore conditions, the persistence of the ores at the depth reached and the values shown thruout the work, all tend to indicate the presence of commercial ore bodies, and their development is therefore reccomended.

Respectfully Submitted:

Henry C/ Beeler

Mining Engineer

Denver, Colorado

November 28th, 1942

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