

REPORT ON THE WICKS MINE

SECOND REPORT BY MR. JOHN A. KRUSE

Chicago, January 13, 1900

Messrs. Eggleato & Mallette,
Chicago, Illinois

Gentlemen:

I recently returned from Hillsboro, New Mexico, during which I made a thorough and further examination of your Wicks Mine. After such examination I am more than ever convinced of the accuracy of my former report on the same. Since that report was made, a large amount of work has been done, both in drifting and sinking, and every foot of it verifys the prediction I made as to the property in such former report. I found installed on the property a first class gasoline hoist plant, which is being operated at a very low cost, and which has the capacity to enable you to sink to a depth of 800 feet. The main shaft has been sunk to about sixteen feet, as near as I could judge, below the bottom of the third level the sixteen feet being used as a sump. At the end of the cross cut and directly across from the main shaft a winze has been sunk on the vein to a depth of ninety-six feet. This Winze disclosed what I have always said to you, that the vein, or rather pay streak would grow stronger and better as the depth was obtained. It shows a larger body of ore at the bottom than at any point above there, and indicated to a certainty that your ore will extend to a great depth.

The ore is very high grade, but is best in that it is almost all sulphurets, but the percentage of copper has very materially increased. The gold values remaining about the same. There is no doubt in my mind but what you will find the same quality of ore, with perhaps an increase in the copper continuing, as well as an increase in the quantity of mineral in the vein, to a great depth. In fact, I was more than ever convinced that you safely figure on the ore continuing downward to as great a depth as would be practicable to work. The south drift on the third level was being driven, and was in a body of ore that from the panning tests I should say would run not less than \$100.00 per ton. The surface tunnel to the South on the Smuggler vein was also showing up a splendid body of first class high grade ore. The gold in both of these ore bodys being practically free. I think this portion, that is, the south portion of the mine, indicates that the ore lies in continuous shoots, that is the richer ore, because in no place in the present openings is the vein barren. It all carries values. But in speaking of ore, I refer to that which will pay a profit through shipping, as per present methods. No work was being done in the North drifts on any level, nor anything in the South drift on the second level. I would not advise much further work on these levels until the shaft has been straightened out in the following manner; An up-rise should be started from the level on vein and continued until it would cut the shaft, which would be a short distance from the surface. This would enable you to take out your ore in a much more expeditious and economical manner than with the present shaft. I find a large body of high grade, perfectly free ore remaining in the north drift on the second level, and I am firmly convinced that the ore bodies now disclosed contain a greater value than that fixed by my former report, notwithstanding the conclusions of Mr. Getchell.

I am more than ever convinced that you have a good mine in the Wicks, and do not hesitate to state that with ordinary and careful management the ground above the third level should and will yield a profit on the ore extracted therefrom much greater in amount than the value that you now place upon the property. I should not for an instant hesitate to arrange for the continued working of this mine to a depth of at least 1,000 feet, nor would I feel my hesitation in opening up the vein in length to the extreme north and south lines of the property. I feel quite certain that you will disclose good bodies of ore (free gold) in both directions. I would advise that you do no further sinking until the shaft has been straightened out, and put in the vein as per plan outlined above, then I would sink the shaft, which would be a continuation of the present winze (the winze being the full size of a good working shaft) to a depth of 460 feet, that is 65 feet deeper, and at 150 feet or 55 feet below the present bottom of winze, I would open up the fourth level. I think you will find mining much more economical if you make your levels hereafter not less than 150 feet apart. I went through and over the property very carefully this time, and am convinced, that the conclusions arrived at as given above, are absolutely correct. You ought to, if you begin to mine, be able to produce a net profit of upwards of \$5,000.00 per month from the shipping ore alone, and then you will have a very large quantity of second-class ore on hand and on the same dumps, and in the mine, all of which ore will no doubt produce a good profit per ton whenever a proper plant for its reduction is installed on the property.

N.M. Bureau of Mines
& Mineral Resources
Socorro, N.M. 87801 File Data

Yours Respectfully,

(Signed) John A. Kruse

Confidential

Open

RWE Callin

SMALL SHIPMENTS CHET MAR NO. 4

	Dry Tons	AU	Ag	Pb	CU	ln	SlO2	Fe-Mn	CaO	Zn	S	Al2O3	Bi	Total
1936	7	1.35	13.5	.1	10.66	48.4	46.8	18.8	.4	.1	12.9	1.3	.33	\$ 430.85
1937	10	2.47	16.2		11.18	42.4	41.4	21.1	.2	.1	15.1	1.0	.01	1052.83
"	3	3.59	11.6		9.00	44.4	42.2	21.3	.2	.1	19.0	.9	1.27	351.13
1939	5	.93	5.3	.2	1.38	80.6	74.4	7.9	.1	.2	1.2	1.6	.03	141.62
"	5	2.98	11.35	.2	9.18	51.8	51.0	18.3	.2	.1	10.4	.6	.22	521.56
1941	7	1.47	10.2		10.90	59.4	58.4	11.0	3.5	.1	4.8	1.0	.42	416.31

This, the CHET MAR No. 4, to the best of our knowledge never had a report by engineer. Due South 1500 feet and adjoining the Wicks on the same vein. A tunnel on vein material said to be 740 feet in length at approximately a 200 foot level. Could start another at about 500 foot level and tap the shaft on the original Wicks property.

THE WICKS MINE

SUMMARY

JOHN B. FARRISH - 1895 -

Mine was then opened to the 200 foot level by Compromise Shaft No. 3. Level No. 1 had been run south to the surface and north to the old main shaft (No. 2). Level No. 2 had been run north a distance of 128 feet and south 105 feet. The stope on this level was 160 feet long and 35 feet high.

Records showed 164,885 tons of ore from this section, comprising 7231 sq. ft. of projected area or .228 tons per sq. ft. with an average value of 56.50 per ton or a present value of \$95.80 per ton. Values were obtained from the net returns paid by smelters.

He did not value ore reserves.

JOHN A. KRUSE - 1896 -

The No. 2 level had been opened for a distance of 535 feet north and 420 feet south of the shaft, a total length of 955 feet, reported all in ore. The No. 3 level had been opened for a total length of 100 feet. Better widths and values were reported on the third level than on level No. 2.

Kruse estimated ore reserves of 5950 tons at a value of \$56.50 per ton, a total of \$336,175.00.

L. W. GETCHELL - 1899 -

Mine had been opened to a point 95 feet below the No. 3 level. In checking ore values and tonnages Getchell found total ore reserves of 7180 tons with the average value of about \$34.00 or a gross value of \$243,730 and an estimated net worth of \$165,615.00.

JOHN A. KRUSE - 1900

This report was mainly recommendations for improvements in operations. He commented upon the fact that all portions of the mine workings were in ore and estimated that, with production increased to the point then warranted by ore reserves.

FRED L. BALLARD - 1900 -

This report was made by Ballard for his partners and himself with a view to purchase of the property. He excluded extensive blocks of ground which, he stated, contained values which were insufficient to yield satisfactory at that time.

He found, exclusive of these areas, 6881 tons of ore in sight with a gross value of \$164,809, or a present worth of \$280,175.00. This included 2970 tons of milling ore from old stope fills with an average value of \$13.30 per ton.

This seems to be the only authentic record of sampling of stope fills.

W. W. WILLIAMS - Supt. - 1902 -

Estimates of ore reserves were 6764 tons of shipping ore at \$40.00 per ton or \$270,560.00 gross and 9425 tons of milling ore at \$8.00 per ton or \$75,400.00 gross value. This included only ores blocked out above the 300 ft. level.

W. ROWLAND COX & STAFF - 1912 -

This report, made by C. Dawes Clark, Staff engineer, covered only the southern portion of the property. He pointed out that past production formed an accurate measure of value for ore then blocked out and, in that portion of the property, which was then open for inspection, calculated 1700 tons of milling grade ore, then valued at \$18,700.00.

He remarked upon the exceptional continuity of the deposit and stated that it was safe to figure twice the quantities given above as "possible" ore.

He recommended closing the operation to await improved conditions.

WALTER K. MALLETTE - 1934 -

This report was a reanalysis of the report of W. Roland Cox and Staff based upon the increased dollar value of gold and the existing costs of production.

He calculated ore reserves of 3633 tons with an average value of \$66.00 per ton, or a total, in this section of the mine, of \$239,778.00.

WALTER K. MALLETTE - 1938 -

After three years of profitable operation, during which the southern section of the property was reopened, levels extended to the south and about 1000 tons of ore mined and shipped. It was shown that previous estimates of tonnage were too low. Actual production was 1.58 times that estimated. Most of the production came from ground beyond the confines of the area included in the Cox report.

Ore reserves are calculated at 5474 tons developed ore with a net smelter value of \$361,284.00, 1949 tons of partially developed ore with a net smelter value of \$128,634.00 and 4061 tons of assured ore, with a value of \$268,026.00 or a total assured reserve of 11,484 tons worth \$757,944.00. Net profit is estimated at \$241,164.00.

Walter K. Mallette

Mr. Mallette is a Consulting Engineer with offices in Spokane, Washington. He has been engaged by many of the most important mining and smelting companies during the past twenty-five years. Among those may be mentioned the American Smelting and Refining Company, the United States Smelting, Refining, and Mining Company, Phelps Dodge Corporation, The Bunker Hill and Sullivan Mining and Concentrating Company and many others.

He is a member of the American Institute of Mining and Metallurgical Engineers.

W. Roland Cox

Mr. Cox is a Consulting Engineer with offices at 165 Broadway, New York City. The report was made by his Mr. C. Dawes Clark, a member of his staff.

Mr. John A. Kruse, E.M.

Mr. Kruse was employed in a consulting capacity, for many years, by Charles T. Yerkes, of London. His office was in the offices occupied by Dewar and Yerkes in Chicago, Illinois.

Under his general jurisdiction came all mining interests in the North American continent in which Mr. Yerkes and his associates were interested.

Mr. Kruse was a close personal friend of the late John D. Ryan who, endorsed by Mr. Kruse could be completely depended upon.

Col. L. W. Getchell

Col. Getchell served as mine superintendent and mining expert on the Comstock Lode at Virginia City during the days of its greatest activity. He subsequently became mining expert for Senator Jones of Nevada, and later, for James R. Keene.

He was the father of the present Senator Noble Getchell of Nevada.

John B. Farrish, E. M.

Mr. Farrish was an eminent Consulting Engineer with offices in Denver, Colorado. For many years he was the American Representative and examining engineer for the House of Rothschild of London, and Europe.

Mr. Fred L. Ballard

Mr. Ballard was a member of the firm of Tucker, Ballard and Company of Colorado Springs, Colorado. This concern was prominent in the mining and brokerage business during the greatest activity of the Cripple Creek District. They were heavily interested in the Golden Cycle Mine and in many other Cripple Creek properties.

The report made by Mr. Ballard was a report to his firm as prospective purchasers of the Wicks Mine. He wrote an unsolicited letter to a Mr. Dennis, of Chicago, one of their clients, copy of which is inserted herein to explain why his firm failed to purchase the Wicks Mine at the time.

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Professional Paper 68, U.S. Geological Survey, Ore Deposits of New Mexico, has the following data on the Wicks and Bonanza properties. (the Bonanza Mine is about 3/4 mile south of the Black Peak property.) In 1909, the Wicks mine, operated by the Sigma Consolidated Company, has attained a depth of 335 feet and is producing, milling and shipping ore. Some of the higher grade shipping ore is stated to contain 12 ounces of silver and 2.75 ounces of gold to the ton, as well as 6% copper. Data of production compiled from shipping records follows, total; 150,740 sq. ft. mined, 0.02239 tons per sq. ft. \$210,324.00. value per ton \$65.27.

Estimated possible ore reserve, all classes
2,537,850 sq. ft. or tons of ore to be 62,011

The above data was derived from operating reports from various periods, covering practically all of the ores produced since 1895.

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PART OF KRUSE

The sulphide ores, termed by Mr. Kruse, "Shipping ores", contain from 5% to 15% of copper as shown by the assays in Mr. Getchell's report and confirmed by shipments made to the smelters. They also contain an excess of iron and are admirably adapted for treatment by matte smelting. The erection of a plant for this process in Hillsboro would control the output of the other mines of the district and add largely to the profit of the Wicks Company.