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NEVADA BUNKER HILL MINING COMPANY.

The property of the Nevada Bunker Hill Mining Company consists of a solid group of twenty (20) Lode Claims and one (1) Mill Site, comprising in all about three hundred acres; situated in Railroad Mining District, Elko County, Nevada, on the East slope of Bunker Hill, one of the Northerly peaks of the Diamond Range of Mountains.

HISTORY OF THE DISTRICT.

With the discovery of the Bullion Lode in 1869, the mining activity of the District was inaugurated. Other locations followed between this time and 1873, at which time the production of the camp reached its then maximum. Like all other silver lead camps of the West, the district suffered severely from the panic of 1873, after which time the efforts of the operators were sporadic until 1880, when a second period of activity resulted from the purchase of the "STANDING ELK" Mine by Edw. J. Riley, who had previously sold the COPPER QUEEN Mine of Bisbee, Arizona, to its present owners. He operated the ELK up to the time of his death, in 1884. The total production up to this time is reported by the United States Government Reports to have been about THREE MILLION DOLLARS. A period of reduced activity continued until 1893, when, on account of the panic, the properties were closed down entirely and not reopened until the NEVADA BUNKER HILL MINING COMPANY was organized in 1905.

T R A N S P O R T A T I O N.

The camp of Bullion is connected by a good wagon road 28 miles in length with Elko, the County Seat of Elko County, which point is located on the main line of both the Southern and the Western Pacific Railways. A regular weekly mail route is maintained between these points by a stage line, which also carries light freight

and passengers. Bullion is also served by a good wagon road leading to Raine's Siding on the Eureka & Palisade Railroad, some ten miles distant, which connects with the two railroads mentioned above at Palisade.

LIST OF PROPERTIES AND TITLE.

The Nevada Bunker Hill Mining Company's group of claims is a consolidation of the principal old producing mines of the camp, supplemented by other claims of more recent location, held under possessory title from the United States and the State of Nevada, by virtue of location and discovery. Sufficient work has been done on all of these claims to entitle them to Patent whenever the same is applied for.

The following United States Patented Mines, the TRIPOLI, TRIPOLI EAST, HOFFMAN, STANDING ELK, CLEVELAND, SKY BLUE and MOUNTED LEDGE, are under lease and bond to the Company intil July 1st, 1915, for $109,000.00, under agreement whereby the Company has the right to mine and sell ore from any of these claims by paying the owners thereof a royalty of 20% of the net returns from ore mined and sold, and said royalty is to be applied upon the purchase price of the said claims.

There is a large amount of high grade shipping ore now developed in these mines, and now that the Eureka & Palisade Railway is again in operation, the Company intends to put men at work mining this ore as soon as spring opens.

The BULLION and WEBFOOT United States Patented Mines belong to the Company as well as the following unpatented claims:

The SNOWBIRD, PORTAL, PORTAL FRACTION, EAGLE, OWL, LARK, HOFFMAN FRACTION, KEY, STORM KING, MAHOGANY and BURKE FRACTION, embracing about two hundred acres.

The Company has a lease and bond on the STANDING ELK MILLSITE, and WATER RIGHTS, which is included in the above named price for the bonded mines above named. All of the above properties embrace about three hundred acres of ground.

The Directors have up to this time spent nearly $50,000.00 in equipping the property with proper machinery and buildings and have driven a main working tunnel in under the old mines a distance of 1900 feet, and have reopened and retimbered a large part of the workings of the older mines.

G E O L O G Y.

The mineral area consists of a sedimentary belt comprising shale, lime and quartzite having a North and South direction of six to seven miles, and an average width of one mile, with granite areas on both sides. Numerous porphyry intrusions have penetrated the stratified area; of these intrusions, those of the North and South strike predominate, but those of the East and West direction display more mineralization. Two general classes of intrusions are recognizable, differing essentially in their content of silica, the more highly silicious of the twain (the quartz porphyry) is more conspicuous in surface exposure. The lime formation has been extensively altered by igneous agencies.

A zone of contact metamorphism of nearly one hundred feet in width borders the granite contact on the West side of the properties, and a similar condition, although of reduced magnitude, accompanies the porphyryitic intrusions. A belt of garnet lime, about fifty feet wide can be traced across the Tripoli, Hoffman Fraction and other claims, and this Garnet is found in, or close to, the ore bodies of the Elk, Hoffman and Tripoli Mines (See Prof. W. H. Emmons' Report-United States Geological Bulletin #408.)

A series of nearly vertical fault planes penetrates both the sedimentary and the igneous formations with a resultant fissure system, which is well defined in the under ground workings of the properties. The ore bodies of commercial importance have been found either at the immediate contact of the lime and the porphyry (or granite) or chambered in the lime closely adjacent thereto.

Attention is called to the persistence of the ore chutes developed in the Elk, Hoffman and Tripoli Mines, the ores never having pinched out from the grass roots to the bottom of the deepest work-

ings (500 feet) in them, and to the many large ore chambers developed in them. Many of the porphyry dikes are heavily iron capped; these gossans all carry small values in gold, silver, lead and copper and are assumed to be leached out ore bodies, and that the values leached from them will be found at or near the water level, in the zone of secondary enrichment. None of these mines have been opened up in the sulphide zone.

D E V E L O P M E N T.

The development work done on all of the patented claims of the group (with the exception of the STANDING ELK, TRIPOLI, WEBFOOT, and BULLION Claims, which we will describe more fully later) consists of cuts, tunnels and shafts sunk upon the different ore croppings on the surface; these workings were as deep as a windlass or horse whim would permit, no machinery of any kind being installed on any of the mines of the group, (the Tripoli excepted.)

The BULLION and WEBFOOT Claims were worked in this manner to a depth of about two hundred feet, when it was decided to drive what is known as the "WEBFOOT TUNNEL", the portal of which is two hundred feet West of adit No. 5 of the STANDING ELK and on the same level; this tunnel was driven far enough to cut the Bullion or Webfoot veins, but, in driving this tunnel, after passing through four hundred feet of metamorphosed lime, a body of silicious silver-copper ore was encountered, over twenty feet in width; upon this ore the Company had drifted West for forty-five feet and crosscut for twenty feet; the entire body thus exposed shows an average value of 2 ounces silver and 4.6% copper, and is designated the KEY VEIN.

In Adit No. 5 of the Standing Elk Mine at about three hundred and fifty feet from its portal and two hundred and fifty feet East of the Webfoot Tunnel, the same ore body above referred to was cut; here the Company had drifted on it for fifteen feet East and cross cut it for a width of thirty-two feet. The ore thus exposed gives average values of 3 ounces silver and 3% copper. While up to this time suf-

ficient work has not been done on this ore body to determine its full extent, yet Mr. O. P. Ankeny, E. M. of Elko, Nevada, who examined and sampled it in February 1911, estimates that there is in sight six thousand (6,000) tons blocked out, of an average value of $19.00 per ton, or $114,000.00. We can conservatively figure on at least ten times the above tonnage in this one ore body, and while it is not high grade enough to ship to the Smelters at Salt Lake, yet it can be treated with the other basic silver-lead ores from the Tripoli and Elk in a Smelter at the property and yield a handseme profit.

ELK AND HOFFMAN MINES.

The Standing Elk and Hoffman Mines were worked in early days as one mine and from the discovery shaft down, the ore was mined at depth of six hundred feet by a series of five tunnels with intermediate connecting raises and winzes. In the bottom of the deepest workings the vein showed native copper and sample assayed 22 ounces silver, 20.8% lead and 5.3% copper, of a total value of $35.00 per ton.

There are two parallel ore veins developed in these properties, the one just referred to known as the STANDING ELK VEIN, the other about two hundred and fifty feet North, known as the EAST DRIFT, or HOFFMAN VEIN. Both of these veins have an East and West direction. The old workings on these two mines consist of over a mile of tunnels and numerous raises and winzes on the various ore bodies, many of which are of great extent. These large openings tend to bear out the heavy production credited to these properties. During 1907 the old workings above Adit No. 5 of the Elk were leased to two sets of leasers who mined and shipped over thirty carloads of silver-lead ores to the Smelters at Salt Lake, paying the Company a royalty of 25% on the net returns (Smelter Returns on file.) In Adit No. 5 of the Elk, at nine hundred feet from its portal, a copper bearing porphyry dike is cut, having a width of twenty-five feet and averaging 2 ounces silver and 2% copper; this dike can be traced for a distance of one hundred fifty feet North and South in the workings on this level and is found out-

cropping on the surface three hundred feet West of the Elk Discovery Shaft. At the point where the dike is cut by No. 5 Adit, a drift was run for one hundred fifty feet N. E. into the mineralized limestone encountering seven ore chutes, as evidenced by up raises from the drifts. One of these opened out into a chamber 18X30 feet and extending up over one hundred eighty feet. The ore mined by the leasers came from this vicinity. In a raise close to the porphyry dike, several bunches of enriched copper sulphides (chalcocite and bornite) were found, which with similar indications in other parts of this level, would indicate the proximity of the sulphide zone. When Adit No. 5 was driven, the ground West of it did not belong to the Company and, therefore, was not worked. It is still virgin ground and has immense possibilities and is now owned by this Company. On levels Nos. 3, 4, 5, and 6 of these mines, there is sufficient ore developed at this time to warrant the employment of twenty miners to extract it, if it could be handled and treated in a smelter at the property.

As a rule it is not practicable to block out ore in silver-lead mines, but it is customary for Mining Engineers in reporting on such properties to take into consideration their previous output, the formation, size of chambers, etc., and to estimate the possible future production accordingly, so that we believe we are very conservative when we estimate that these two mines will at least duplicate their past record of several million dollars, in the virgin ground that can be opened up between the Adit No. 5 and the main working tunnel some eight hundred feet below it.

T R I P O L I M I N E S.

These two claims have also been worked as one and have three well defined veins. At the Southerly end of the Tripoli is an East and West silicious silver-copper vein which may be the Easterly extension of the KEY VEIN above described, but not enough work has been done on it yet to prove this assumption. The East Tripoli Vein, which is at contact of garnet and limestone dikes, has several shafts sunk upon it to about one hundred feet depth. Sulphide ores show on these

dumps, and as this formation can be traced upon the surface for over half a mile, the zone of metamorphism being from fifty to one hundred feet wide, we expect to develop another rich mine when we cut this vein in our main tunnel, which we will do when the tunnel has been driven to the three thousand foot station, and will be some eight hundred feet below the outcrop of the East Tripoli. The main North and South Tripoli vein has been worked from the surface to a depth of two hundred fifty feet, by an incline shaft sunk upon the vein. At this depth, the shaft is thirty feet beyond the main vein. A drift was then run back to the vein and two winzes were sunk on the vein, both in ore, one to a depth of twenty feet, the other to seventy-five feet. In this last named a drift was run on the vein for ten feet North, and South for fifteen feet. The South face assays silver 29.3 ounces, lead 30%, copper 2.8%, worth $45 per ton. The North face assays silver 60 ounces, lead 27.7%, and copper 1.2%, worth $60 per ton. The entire bottom of winze for over five feet in width assays silver26 ounces, lead 15.9% and copper 0.8%, worth $30 per ton. This mine in olden days was equipped with steam hoisting plant, single drum, with a flat cable located fifty feet below the surface to guard against slides of snow. It was not practicable to carry this cable around drift and down into winze on No. 4 level, so that for want of proper equipment, the property has lain idle for many years, and as it would cost $15,000 to properly equip this shaft and get the mine in shape to work, we have decided to devote our energies to driving the main tunnel in under this vein some five hundred feet deeper and eliminate hoisting, pumping and surface handling.

EAGLE OR RED BIRD MINE.

The Eagle or old Red Bird Mine was opened up from the surface in a limestone fissure which averages three feet wide. The ore was followed down for about eighty feet, and then an Adit was driven on the vein to tap the ore, the ore was followed down one hundred feet and another Adit was driven to tap the vein at this last named depth. The last shipment of ore sorted from this vein gave return of fifty

ounces silver, 50% lead and 33% iron, which makes the ore very desirable for smelting with the more silicious ores of the other of the other mines of the group. The strike of this vein is nearly East and West. At about fifty feet from portal of Adit No. 1, a North and South fissure intersects this vein and shows upon the surface as crossing the axis of the main working tunnel at eighteen hundred feet from the portal. We expect to cut this vein in the next two hundred feet, or less, driven.

PLAN OF OPERATION.

On account of the elevation of most of the workings of the old mines (8,000 feet or more above sea level) the impracticability of keeping wagon roads open in winter, and the many disadvantages of carrying on mining operations in the snow during several months, which almost invariably forced the operators to close during the winter, it was decided to drive a low level cross cut tunnel from the foot of Red Bird Hill at about sixty-seven Hundred feet in under all of the workings of the old mines. This tunnel is accessible at all seasons of the year. This tunnel, which is 5½ feet by 6½ feet inside the timbers, single tracked and electrically lighted, is in a distance of One Thousand Nine Hundred ten (1910) 2002 feet on April 2, 1912 1913. The Company has devoted its energies to driving this main tunnel and to equipping the properties. It is the intention to continue this plan so as to carry on their mining operations through this main tunnel, thus insuring cheap and continuous mining all the year around.

CLASSES OF ORE.

Two general classes of ore are recognized, dependent on the method of metallurgical treatment. Ores of lower copper contant were smelted in early days in a water jacket furnace, with a resultant silver-lead bullion and no saving of copper. Ores in which the copper values predominated were reduced in a stack furnace to matte and in this form shipped to the Custom Smelters. The existing slag dumps on the old smelter sites attest to the treatment of thousands of tons of ores by the two old plants, now dismantled.

TUNNEL EQUIPMENT.

There is a good frame engine house located at the portal of the tunnel, size 16X36 feet containing one 13 horse power gasoline engine, one 7½ kilowatt Electric Generater, one Champion Exhaust Fan, one Adams' Electric Drill, six Ore Cars, Steel Rail, and a full supply of all necessary tools. On the South side of the portal of the main tunnel stands a fully equipped blacksmith shop 12X30 feet. The camp buildings are all constructed of rough lumber, battened and lined with a heavy building paper. They consist of two bunk houses, kitchen and Mess House, Office and Sleeping Rooms, a Stable, Cellar and Bank Powder House.

There is a frame blacksmith shop at the portal of Adit No. 5 of the Elk, and another at the portal of the Tripoli main tunnel, and an assay office and office building at the Mill site. The camp buildings and engine house are all well supplied with water from living springs located on the hill side above the camp buildings. Mine timbers in 8 foot lengths suitable for drift or shaft sets can be delivered at the mine under contract for five cents per running foot. Lagging in 5 feet lengths costs eight cents each. Rough lumber costs from $22 to $28 per M in Elko. Team freight one way Elko to mine is $10 per ton, and $8 when loads are furnished both ways. Team freight to Raine's Siding on the Eureka and Palisade Railroad is $3.50 one way, and $3 if loaded both ways. Railroad freights are scaled on the value of the ores shipped, being about $4.15 per ton on ore under $35.00.

ENGINEERS' EXAMINATIONS AND REPORTS.

These properties have been examined by many well known mining engineers, among them W. H. Emmons of the United States Geological Survey, whose full report is contained in Bulletin No. 408, a copy of which can be had for the asking of the Director of the United States Geological Survey at Washington, D. C.

Prof. C. E. Van Barneveld, Professor of Mining at the Minnesota School of Mines, in his summary draws the following conclusions: "The properties embraced in your holdings present a very attractive

development proposition for the following reasons :

1st-The formation is favorable to the disposition of lead, silver and copper ore.

2nd-Similar formations in adjacent districts have yielded enormous returns.

3rd-The Standing Elk and Tripoli Mines have records of good production.

4th-The lowest workings of the Tripoli Mine shows an ore chute of promise though of unknown extent.

5th-In addition to the known veins in the Tripoli and Standing Elk, the surface indications point to great intermediate possibilities before reaching the former.

6th-There is an enormous territory to be opened up by the main tunnel which you are driving.

The only satisfactory way of opening the property is by a deep level crosscut tunnel, always an expensive and patience trying undertaking. Your tunnel portal is well chosen with respect to all conditions, the work has been well done."

Mr. Geo. B. Harrington E.M. (late with the Guggenheim Exploration Company in Mexico) examined the property in November, 1909, and in his report states "The main crosscut tunnel has been driven 1424 feet, but has not yet reached a point where ore might be expected."

The property has been examined also by Mr. John Berg E.M. of Tintic, Utah, by Mr. Fred Bodfish, E.M., Manager of the Western Investment Company, Newhouse Building, Salt Lake City, Utah, Mr. G. W. Wilson, E.M., of the A.S.& R. Company, Salt Lake City, Utah, who for six years was Mining Engineer and Manager of the mines for the Chinese Government, who also endorses our mines and plan of operation.

The Company is incorporated under the laws of the State of Nevada for TWO MILLION SHARES of the par value of $1.00 each, of which there is 900,000 Shares in the Treasury.

C O N C L U S I O N.

To those who contemplate joining us in carrying our plans to

maturity, we have an attractive proposition to offer, and we guarantee honest, competent, conservative and yet progressive management, and promise that every dollar received from the sale of the Treasury Stock will go into the property and be accounted for.

Any additional information will be gladly furnished by the undersigned.

THE NEVADA BUNKER HILL MINING COMPANY.

By Frederick Davis
SECRETARY AND MANAGER.

Box 477 Elko.