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#### OKLAHOMA COLD MINING COMPANY

1914

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This group of claims, consisting of six mining locations, is situated on the eastern slope of the Pine Forest Range of Mountains in the northwestern corner of Humboldt County, Nevada.

The locations are the Oklahoma, Black Bart, Dorothy, Daisy, Blue Bird, and Top of Them All. The Blue Bird Claim covers some large springs, affording ample water for camp and milling purposes, as well as some mineral croppings.

These claims all join, as shown in small map, and are located in the Florence Mining District of that section, twelve miles west of Quim River Crossing.

There are two parallel veins running through the property, cropping in places above the surface, in other places covered by wash or debris from above, to a depth of several feet. These veins are from 350 to 450 feet apart at the north end of the ground, coming together at the south end of Top of Them All claim. The course of the vein is north 20° east. On these croppings, holes and shallow shafts were sunk, trenches run, etc. These holes, shafts and trenches all show the veins carrying gold ore of good grade. In some, very high grade ore is found, running from twenty to hundreds of dollars per ton. These shallow shafts, holes, trenches, etc., show the ore-bearing veins to be of 2000° or more in length from north to south, with one or more diagonal veins or fractures filled with ore running from one vein to the other.

But little work was done on them to develop

 $2\frac{1}{2}$  feet in others, and will assay anywhere from \$5.00 to \$200. and over per ton,--panning in free gold anywhere, the average milling ore being about \$30.00 per ton.

At about 130 feet from the portal, where the vein shows well, an incline shaft has been sunk to a depth of 120 feet below the bottom of the tunnel. On the ore, the vein shows from 15 inches to 3 feet in thickness, assaying well, and pans well in free gold. At the bottom of this incline the main ore vein is overhead on the hanging wall. An upraise of a few feet exposes the vein about three feet inwidth, with a rich streak of fine ore in the center, which will pan high in free gold and assay \$70.00 per ton.

A short drift to north shows the vein  $2\frac{1}{2}$  feet, with the same ore in appearance as that in the upraise 30 feet away, and assays \$69.00 per ton, panning well in free gold also. Near portal No. 1 the diagonal vein shows in the tunnel. A 60-foot drift has been driven on this vein to the northwest toward the Oklahoma vein on good ore, showing free gold and assaying \$22.00 to \$70.00 per ton. On the face of this tunnel 351 feet from the portal and 156 feet below the surface of the mountain side, the ore is of good grade, mostly free. The vein shows well, has every appearance of widening, and should extend to the south a long ways, as the appearance on the surface indicates as well as below.

Back from the face about 80 feet, there is some sulphide ore showing, which assays well -- \$15.00 to \$30.00 per ton, with but a few cents in silver. There is quite

the mines properly until the present company undertook to develop them by tunnels and incline shafts under instruction of mining men of experience and skill.

The formation of the main mountain is principally granite, with diorite dikes cutting through. On the eastern slope of the mountain there is a porphyritic granite or granitic porphyry zone of several hundred feet in width. In this zone these veins are located.

The character of the ore is a quartz and hematite iron ore, carrying gold and a small amount of silver. The gold, when amalgamated, is worth over \$18.00 per ounce. Where the vein is the widest, the ore is generally the highest in value. There is, so far as developed, no base metal other than ore connected. The veins dip to the west at about 50°.

Development work upto the present time is as follows: Several shafts on Oklahoma vein; two tunnels on Dorothy Vein No. 1, which was driven on the vein to a depth of 351 feet; a deep incline winze sunk in No. 1 tunnel 120' deep; a drift on No. 1 diagonal vein from No. 1 tunnel portal, 60 feet, and No. 2 tunnel, a deep cross-cut tunnel now in 650 feet, which cuts two veins at 500 and 600 feet below the surface--about 1500 feet in all.

In No. 1 tunnel the vein above the tunnel lays flatter than below the tunnel level, apparently pressed down the hill, but carrying the same grade of ore as below, but not quite so wide. The vein continues from the portal to the face 351 feet, and from a few inches in places to

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feet below the surface. This would establish at once, by drifting north and south at this point, the importance of the value of the upper or Oklahoma vein, placing in the orereserves, without taking into consideration the almost certainty of the successful development of the large vein encountered in the tunnel. Very large amount of valuable ore would be made available almost at once by connection with the No. 2 tunnel. This, wankinks with the reserves now at hand, by the development of the Dorothy, would require years to mine out and mill, producing a large amount of money.

The cropping on the surface of the Oklahoma extending into the Black Bart claim on the north, with its showing, so far as any development work has been done, for 1000 feet in length, make this ore shoot give prominence and promise as well as assurance that much can be expected from it when connected with the tunnel 700 feet below, which drains all the veins, avoiding all expense of pumping plant, as well as expensive operation of the same.

The cutting of these veins at a depth of 500 feet to 700 feet in depth, not only carrying the values as shown 300 and 400 feet above, with the oxidized free ore, gives much positive assurance of the ore extending to much greater depth, that a much deeper development of the property may be expected to meet with success only. This certainty of opening greater ore-bodies may be proven by driving of a deep tunnel No. 3, the portal of which would be at the proposed mill. This tunnel would cut all the veins in the series, the Dorothy first, at 850 feet deep, the No. 2 or

an amount of ore on the dump taken out in doing this work.

The most important work done during the past summer was the driving of a cross-cut tunnel 300 feet on the vein dip below No. 1 tunnel, intersecting the Dorothy vein at 500 feet below the surface of the mountain and 502 feet from the portal of the tunnel. Where the tunnel cuts the vein, which is from 15 to 18 inches wide, the ore is very rich--almost entirely free-milling ore. The assays show the average ore to be about \$50.00 per ton, while the high-grade ore runs way up to hundreds of dollars per ton by panning.

Drifts north and south were driven on the vein at the point of intersection. To the south the drift shows the vein widening and the high-grade streak also increasing in width. To the north 30 feet it is not so wide, but quite rich ore shows. The drift to the south should continue to increase in width for a long distance. The tunnel has been continued to the west, and at 125 feet from the Dorothy vein, a large vein 5 feet in thickness was encountered. This vein has smooth, hard walls, filled with quartz and breccia, showing some free gold. This vein may prove to be the main vein of the series. Should the values show any increase by drifting onthe vein, to \$10 or \$15 per ton, it would more than double the value of the property. The tunnel should cut the Oklahoma vein at about 120 to 150 feet further to the west of the present face, and 850 feet from the portal, intersecting the vein at over 700 large vein at 950 feet, and the Oklahoma from 1000 to 1050 feet, draining the entire series of veins to that depth, making a highway practically to mine and to deliver automatically all the ores of this group of mines, making it possible to mine and mill the ores at a very small expense.

This tunnel would be about 1300 feet in length, and would be run with power drills, costing for compressor, drills, pipe for air, supplies, labor, etc., not exceeding \$13,000.

This work will be done after the mill is completed and running, the cost of which would scarcely be felt by the stockholders of the company.

The most important work now is to develop the orebodies already opened and exposed, by drifting on the ore
to the south on the Dorothy until reaching a point directly
under the deep winze below No. 1 tunnel, upraising on the
ore to connect with that winze, thus ventilating the mine,
connecting the 500 foot level with the 220 foot level and
also No. 1 level, starting stopes thruout these levels and
getting ready to extract ore generally for milling as well
as to drift on the large or No. 2 vein to the north and south
and drive the No. 2 tunnel to an intersection with the Oklahoma vein at a point 700 feet below the surface.

I have carefully gone into the question of the erection of a suitable mill with a capacity of 50 tons daily. This will be a first-class plant, modern in every way, rapid crusher with regrinding pans to a fine mesh, gold plates for the recovery of the free gold, and a precipitat-

ing, amalgamating settling pan charged with quicksilver to finish up the free gold recovery process. Should the pulp still retain some value, as I think it would in the hematite iron, then it can be passed over the new No. 4 Deister concentrating tables, which would recover about all that is left of value in the shape of concentrates, which can be reduced by a cyanidation or chlorination at home. This can all be done automatically and at a very little cost. This plant will be so favorably arranged and located that it can be operated \*\* as a very inexpensive plant in every way.

The power would be two oil-burning engines, one of 40 H.P. to drive the compressor and crusher which would be disconnected from the main mill building, so as not to interfere with the amalgamation and concentration. The mill engine would be 60 H.P. for driving all machinery connected with the mill, including electric light. The entire plant would cost not exceeding \$25,000., and can be completed and put into commission from the time the order is given, in about 60 days. The company can commence monthly dividends from the start, which will be large in proportion to the tons of ore reduced, owing to the high-grade class of the ore.

There is a possibility of obtaining water power sufficient to generate electricity to furnish the power required, about 8 miles distant from the property. If this can be done, it will further reduce the cost of mining and milling these ores materially.

As previously stated, there is ample water for both milling and home use on the ground.

One of the strong features to recommend this property and a sure confidence, is the fact that wherever work has been done to develop the mines, the high-class milling ore has been found extending way below the water level.

When all the connections are made with the upper levels and the tunnel connection with Oklahoma vein, with years of ore supply developed, the mine will be in its infancy. Everything points for the future to greater depths for developing greater bodies of ore--the resources of the property.

The accompanying small surface and section maps give a very good idea of the property.

The title has been looked into carefully. The abstract in the hands of the company shows no contests or claims against the property.

The system of assaying by taking large samples, of ore as work progresses and sending them to the well-known assayers, C. A. Lockhardt & Co., 53 Stephenson Street, San Francisco, to be assayed, who need no endorsement as they are well-known standard assayers by mining men everywhere. Also by constantly panning the ore samples daily for free gold, which shows freely all over the property in all faces, drifts and winzes. A table of assays made by these assayers is attached.

The average width of the vein thruout the development, continues to increase as depth is attained all along the line.

When the plant is completed and ready to run, the cost of mining and milling will be about \$5.00 per ton.

This will be reduced as the mine becomes better opened and employes organized and accustomed to the work.

Respectfully submitted:

# C. A. LUCKHARDT CO.,

#### Assayers

# NEVADA METALLURGICAL WORKS

## 53 Stevenson Street

## San Francisco, California.

No.	Silver.	Gold.	Total.
1	.90	26.87	27.77
2	1.85	68.22	70.07
3	1.80	15.29	17.09
4	3.00	95.09	98.09
5	.90	38.86	39.76
6	.40	4.13	4.53
7	.25	14.47	14.72
8	.30	7.23	7.53
9	.80	29.56	30.36
10	1.50	7.44	8.94
11	•55	19.84	20.39
12	1.25	29.35	30.60
13	.10	3.72	3.82
14	1.05	56.22	57.27
15	.25	7.44	7.69
16	.25	13.64	13.89
17	.05	25.63	25.68
18	.20	19.84	20.04
19	.25	2.89	3.14
20	•55	69.04	69.59
21	.80	67.80	68.60
22	•55	25.84	26.39
23	.25	7.44	7.69
24	•30	13.64	13.94
25	.30	1.03	1.33

No.	Silver.	Gold.	Total.		
26	1.90	136.43	138.33		
27	3.10	77.72	80.82		
28	4.00	225.32	229.32		
29	.05	5.78	5.83		
30	1.65	11.57	13.22		
31	1.50	70.50	72.00		
32	2.35	23.97	26.32		
33	7.50	8.26	15.76		
34	.55	42.58	43.13		
35	.25	31.83	32.08		
36	1.20	71.73	72.93		
37	2.65	222.01	224.66		
38	.85	28.94	29.79		
39	1.60	44.23	45.83		
40	1.90	108.11	110.01		
41	1.40	83.10	84.50		
42	1.05	29.35	30.40		
43	2.95	43.41	43.36		
44	.90	67.39	68.29		
45	1.90	162.48	164.38		
46		54.04	54.04		
47		44.38	44.38		
48	.10	42.58	42.68		
49	.60	17.36	17.96		
50	.25	56.22	56.47		
51	.20	54.78	54.98		
General Average 52) 83					

DRIFT 30FT LONGITUDINAL PROLECTION Sketch Only-TUNNEL NO.2 (CROSSCUT)