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The following data taken from Report book of Ophir Mining Co.
year 1898-9 at the University of Nevada at Reno. Book-# 9 .

309 item 70

REPORT OF G.MC M. ROSS
RE- CENTRAL TUNNEL OR 146FOOT LEVEL OF

-----THE OPHIR MINING COMPANY-----

Virginia City, Nevada .

November 30th. 1899.

Quotes - The Central system of workings was re-opened and the most westerly vein referred to in last year's report was followed north, the drift being driven on the footwall for a distance of 63 feet, when a connection was made with an old x-cut, that had been driven from the east. From this x-cut a north drift had been driven in the vein along the hanging wall for 150 ft., the course of the vein having changed from a north and south to a north-east course, the wall continuing on this course for 160 feet. At this point the course of this vein changed to due north and so continued to the Mexican line, when the north drift was stopped. Before reaching the Mexican line, two cross-cuts were run into the footwall of this vein. These with the old workings made a very thorough exposure of the vein. The only point where ore was found was just south of the point of connection with the second west cross-cut. The average of the face of the cross-cut assayed \$2.10 in gold and \$1.20 in silver (\$3.30 per ton), while selected samples assayed \$4.00 in gold and \$8.52 in silver (total of \$12.52 per ton). The ore was base, carrying lead, zinc and copper. It is quite possible that there is a large body of this ore, as there is between 200 and 250 feet of ground between this point and the surface. An upraise would determine the value of the vein. The joint west cross-cut started on the Ophir-Mexican line, driven west for 230 feet to date, is being driven west in search of the lower part of the Burning Moscow vein, in which there is reported to be a body of base ore or refractory ore that can be treated successfully by concentration. The formation passed through has been porphyry; the cross-cut cutting seams of clay and quartz assaying from \$1.00 to \$4.00 per ton and ranging in thickness from one inch to two feet; none of the seams having any appearance of being ore-bearing veins. There is no history of the Burning Moscow workings available, so we cannot say how much further we may have to run west to intersect the vein. The joint Ophir and Mexican east cross-cut from the north drift was driven east 74 feet. This cross-cut was first driven through the vein followed from the south. The formation to the east is a soft porphyry that continues for 46 feet. Beyond this porphyry a heavy black clay wall 14 feet thick was found. In cutting through it we found the branches of ore, together with quartz and porphyry pebbles. Within a foot of the west side of the clay in the south side of the cross-cut we found an irregular streak of ore. A south drift was run on the ore 31 feet. The course of the ore was found to be north and south, with an easterly dip of 45 degrees. The vein has ranged from 6 inches to 2 feet. 17 feet south of the joint east cross-cut, in the south drift an upraise was started and put up 13½ feet. The assay value of the ore from the vein since the south drift was started has ranged from \$14.00 to \$363.00 per ton. The south drift has been timbered, as a little water from the footwall of the vein made the ground dangerous. Work will be continued in the raise and drift. No ore has been taken out of the mine. All that has been taken from the south drift and raise has been stored in a drift underground. As near as can be determined from a study of the old maps, it is possible for an ore body of considerable length and depth to exist in this part of the mine which was never reached by the old workings.

As of Nov. 30th, 1899, Mr. G. Mc M. Ross further states distinct possibilities of two other ore-bodies existing in Ophir ground. The first ore-body is on the surface, in the Ophir croppings while the second which lies above the Mexican Winge and to the south was found and which is designated as Block-F of the Ophir claim.

In reference to the above he quotes the following as found by leasers.

"~~While the results obtained have not been~~ entirely satisfactory, the Company has gained some valuable information, and has exposed two bodies of ore that will probably yield some revenue, when the ore can be worked advantageously. One of these bodies is on the surface, in the croppings and is a well defined 5 foot vein with a westerly dip that averages $\$17\frac{77}{100}$ per ton gold values of ~~the~~ ^{the} ore, the proportion of value being 70% gold to 30% silver. (This would be $\$30\frac{10}{100}$ per ton gold value ^{at} ~~the~~ ^{36⁰⁰ sell} ~~current~~ prices)

The second development is a short distance above the Winge Station of the main west drift in the Central Tunnel, and consists of streaks of ore in hard porphyry. In a 3 foot face there are 10-12 inches of ore in 3 irregular streaks. Some rich bunches

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of ore have been found in this neighborhood and in the same formation. The ore is base, containing copper, zinc & lead. The ore exposed ranges from \$30⁰⁰ to \$100⁰⁰ per ton and of the value 55% is silver and 45% Gold. Values are calculated at 60 cents per oz for silver, gold at par (20⁶⁷)

On the Central Central level, in the north section of the Ophir was ~~continued~~ resumed during the year 1900. Mr. G. Mc M. Ran quotes: the ore found in a clay wall in the joint Ophir & Mexican east X-cut was followed by an ~~upraise~~ ~~for~~ 45 from 13½' to 45 feet. The ore continued to the top of the raise in an irregular streak in the clay, and at that point was cut out. X-cuts were run from the top of the raise into the foot & hanging walls but no values found. The X-cut into the hanging wall struck a little water which has not yet drained out. The south drift was followed and a connection made with the Central tunnel system of workings. While driving the south drift a large vein formation was prospected, but no ore of value was found outside of the heavy black clay, in which the ore was first found. From the workings there were extracted 17 cars

(5-A)

grade of $\$39\frac{2}{4}$ value per ton. It was found impossible to keep this ore clean while mining it, as it was badly mixed with clay.

A wing was sunk just south of the line of the vein found by the joint E. x-cut, a depth of 72 feet on the slope or 50 ft vertically. North & south drifts and E. & W. x-cuts were run. The formation was found which carried ore on the Central Tunnel level and above it, but nothing of value found below in any part of the wing, nor in the workings from it.

The joint W. x-cut was driven 62', a total of 79 feet and stopped in hard porphyry. 18' back from the face a small vein of clay & quartz was cut and was followed south for 203 feet. The vein has been continuous but irregular, ranging in width from a few inches to between 3 & 4 feet, carrying values ranging from .50 up to $\$8.00$ per ton. Work has been discontinued in this drift, but a little more work should be done before it is abandoned.

Central Tunnel System -

This system embraces all the workings on this level which is the level of the collar of the Ophir shaft. Ore has been extracted from the stopes west of the Mexican shaft and

5-B

south of and above the Mexican wing station. The ore is a heavy sulphide in quartz stringers that run into hard porphyry, without any separation. There were extracted from these stopes $19\frac{1913}{1000}$ tons of ore ^{by leaches} that netted the Company $\$61\frac{91}{100}$ per ton and $13\frac{1817}{1000}$ tons of ore that netted $\$28\frac{28}{100}$ per ton. There is a considerable quantity of such ore left on the margin of the old stopes, which can be worked when a good modern mill has been provided for the treatment of such ores. (Mr. G. Mc M. Ross referred to the ~~the~~ section of ground, now known as Block-F)

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Ophir Croppings

As of Nov 30th 1900 Mr. E. Mc M. Ross reports on the Ophir Croppings, which lie ~~above~~ on surface in the north section of the Ophir Claim. He quotes:

During the past year no work has been done on the westerly dipping vein referred to in last year's report. An examination has been made of the Ophir Croppings and work done to determine the position of the vein. The work shows that to the east of the slide, there is a great mass of brecciated quartz containing some ore & no sulphides and beyond the slide to the west a well defined vein of massive or unbroken quartz containing ore with partly decomposed sulphides of silver, lead, zinc & copper. In places on or near the surface the sulphides are very much decomposed, while at other places sometimes close to the decomposed sulphides there are masses of unaltered sulphides. The decomposed & partly decomposed sulphide ore ~~but~~ carries but little gold. On assaying 30- to 50 ozs ($\$48.00 - \30.00) of silver, contains but .80 cents of gold per ton, while the lumps of ore found in the brecciated quartz contains from 70% to 90% of the value in gold, with silver calculated at 60 cents per oz. The brecciated quartz, where exposed has shown a width of 60 feet and the solid quartz a width of 40 feet. The ^{Ophir} croppings are irregular in size & value,

Ophir Croppings

but are very favourably located for open cut mining or quarrying. They could in this way be mined & roughly assorted at a very low cost per ton. 20 ft North & 120 ft. west of the collar of the Mexican shaft, and 380 ft. south of the north line of the Ophir Mine, a tunnel has been re-opened in which there is a body of black manganese stained quartz 50 feet thick which assays from $\$2.00$ to $\$6.00$ a ton. It is for the purpose of reaching this body of quartz on the 56 foot level, off the Mexican shaft, above the central tunnel, that the main west x-cut on that level is being cleaned out & repaired. (It is well to mention that Mr M. Ross found values on the above mentioned 56' level, assaying from $\$5.00$ to $\$8.00$) This level is 100 feet below the surface Tunnel.

The Burning Moscow workings which are now a part of the Ophir and included within the Ophir patent, have been partly reopened. There had been no work done in this part of the mine for probably 25 years (since 1875) So far we have been unable to find one drift and that badly caved. As the old workings are to the east of the slide and no great distance below, it is not likely that we will find

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Ophir Crappings

any of them open. A Tunnel was started near the north line of the Ophir and about 40 feet above the collar of the Mex. Shaft. This x-cut was driven South-westerly a distance of 150 feet. Shortly after the x-cut was started and when in 19 feet, ore was struck and found to be an irregular bunch of oxidized ore, 4 feet thick, in quartz of the same general character as the ore. Short drifts were run north & south and a winze sunk 10 feet. From this bunch there were extracted 15 Tons of $\$34\frac{38}{100}$ ore and 10 Tons of $\$9\frac{46}{100}$ ore. The quartz surrounding the ore body was not separated by clay walls, nor by any different kind of quartz or rock. It was a kernel of ore in a body of quartz. 44' beyond the first ore (67' in) we have found a vein or body of ore 8 feet thick on the sill of the floor. Just west of this ore we cut into one of the old Burning Moscow drifts, so badly caved that we could not examine but little of the ground opened by it. The S.W. x-cut was continued with a slight change in its course to the north and has been run 150 feet thru an oxidized quartz body. Just back of the face we have cut into a blue clay wall containing bunches of white quartz. West of this clay there

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Ophir Crappings

is supposed to be a large body of solid quartz. From the 2nd ore body found in this tunnel there have been extracted since Oct 19/00, 100 Tons of $\$108^{32}$ ore, 45 Tons of $\$33^{80}$ and 44 Tons of $\$111^{64}$ ore, as per mine assays;

While drifting thru this body going north one set, south 2 sets and in raising 7 sets.

This ore body is not much better defined than the 1st bunch of ore found. It is a mass of ore in a quartz body.

Cole Croppings - Feb 8/1901

At a point near the south end of the central mass of croppings, a winge that had been sunk on a streak of ore was cleaned out and found to be 26 feet deep. This winge has been sunk 4 feet (30 ft) on the south end of the bottom there a 4 foot vein of ore increasing in size with depth. The average value of the vein is now 15^{00} per ton.

The winge was sunk 6 ft - (36') bottom in a 4 foot vein of 8^{00} to 14^{00} ore.

Winge sunk 4 ft - (40') bottom in a 4 foot vein 12^{00} - 13^{00} per ton

Winge sunk 6 ft - (46') bottom in $3\frac{1}{2}'$ vein of 4^{00} - 6^{00} ore

Winge sunk 5 ft - (51') bottom in $2\frac{1}{2}'$ vein of 3^{00} - 4^{00} ore

800
50
850

Ophiu Capping Tunnel

1st On-body - 15 Tons @ 34³⁸
 10 " @ 9⁴⁶

36.56
 756) 9361⁰⁹
 768
 1681
 1536
 1450
 1280
 1709

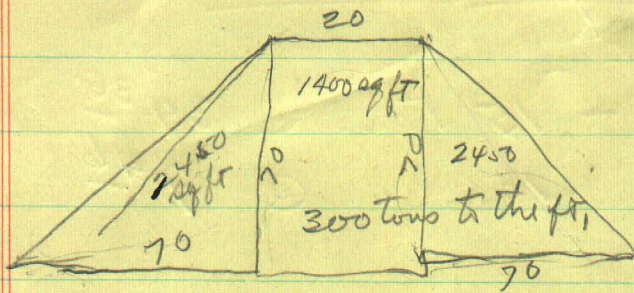
2nd On body - 100 Tons @ \$ 108³²

6 Tons @ 45 ¹⁸	45 " @ 33 ⁸⁰	58 @ 39 ¹⁴
23 " @ 24 ⁹³	44 " @ 111 ⁶⁴	10 @ 94 ²
5 " @ 6 ⁷³	16 " @ 61 ⁸⁸	92 @ 45⁵²
21 " @ 63 ³⁷	4 " @ 22 ⁶⁴	34 1/2 @ 41 ⁶¹
37 " @ 19 ¹⁴	18 " @ 10 ⁸³	22 @ 11 ⁴⁰
20 " @ 10 ⁶⁴	31 " @ 59 ⁷⁰	46 @ 31 ¹⁸
31 " @ 28 ²²	3 " @ 39 ¹⁸	15 @ 99 ⁹³
17 " @ 10 ²⁴	13 " @ 6 ⁶³	47 @ 41 ⁷⁰
14 " @ 49 ²⁰	40 " @ 101 ²³	14 @ 7 ⁸⁹
15 " @ 24 ⁸⁰	14 " @ 27 ⁴⁷	6 @ 50⁵¹
12 " @ 16 ⁴⁰	15 " @ 9 ⁴⁹	2 @ 115 ⁰⁰
12 " @ 41 ⁴⁰	37 " @ 70 ⁴⁵	48 @ 31 ⁶²
21 " @ 29 ⁷⁶	17 " @ 25 ⁰⁰	11 @ 80 ⁶
13 " @ 11 ⁷⁶	21 " @ 10 ¹⁷	30 @ 28 ²⁰
14 " @ 69 ⁶⁷	27 " @ 67 ⁰⁵	20 @ 6 ⁸³
10 " @ 29 ²¹	18 " @ 27 ¹⁴	
15 " @ 89 ²	31 " @ 10 ⁴²	
105 " @ 15²¹	27 " @ 160 ⁴⁸	
33 " @ 22 ⁸⁴	14 " @ 18 ²⁵	
34 " @ 24 ⁴³	7 " @ 14 ³⁶	
26 " @ 13 ²⁰	25 " @ 100 ⁰⁸	
42 " @ 47 ¹⁴	12 " @ 23 ⁴⁵	
60 " @ 14⁶⁹	27 " @ 7 ⁵²	
18 1/2 " @ 34 ²⁴	21 " @ 78 ⁷⁷	
3 1/2 " @ 10 ¹⁵	20 " @ 28 ⁰⁰	
34 " @ 37 ⁶⁰	25 " @ 13 ⁶⁴	
5 " @ 14 ²⁶		
59 1/2 " @ 47 ⁸⁶		
17 1/2 " @ 16 ⁷⁹		
68 1/2 " @ 28 ²⁶		

1147
 677
 672
 257
 1706

125' long
 25' wide on top
 70' high East end
 30' high west end
 slope 45° sides.

$$\begin{array}{r} 20 \\ 70 \\ \hline 90 \end{array}$$



$$\begin{array}{r} 125 \\ 300 \\ \hline 37500 \end{array}$$

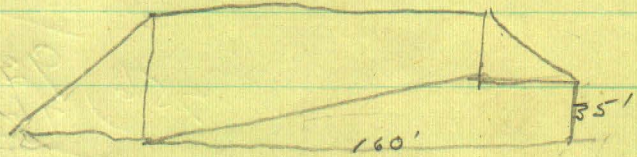
$$\begin{array}{r} 70 \quad 35 \\ 20 \quad 70 \\ \hline 1400 \quad 2450 \\ 2450 \\ \hline 1400 \end{array}$$

$$\begin{array}{r} 125 \\ 35 \\ \hline 160 \end{array}$$

$$\begin{array}{r} 21 \overline{) 6300} \quad (300 \\ 63 \\ \hline 0 \end{array}$$

$$\begin{array}{r} 35000 \\ 3,10 \end{array}$$

$$\begin{array}{r} 3500000 \\ 1050000 \\ \hline 10850000 \\ 4570000 \\ \hline 13500000 \\ 565500 \quad (4,18 \\ 540 \\ \hline 258 \\ 135 \\ \hline 1200 \\ 1215 \end{array}$$



477

455

$$\begin{array}{r} 14928 \\ 30 \overline{) 448153} \\ 30 \\ \hline 148 \\ 120 \\ \hline 280 \\ 270 \\ \hline 100 \\ 90 \\ \hline 10 \end{array}$$

100 men
 94

10%—

10%—

10%—
 818
 81

7.37

151

220'054