

2240 0002

(170)
item 2GROOM MINESITUATION

Situated in the S. W. end of Tem Piute Mountains Range, 100 miles North from Las Vegas, Nevada, a station of the U.P.R.R.

EXTENT:

Two patented claims "White Lake and Conception #1", 3000 by 200 ft., "White Lake and Conception #2", 2600 by 200 ft., lying parallel with an intervening space of 100 ft. between. The two patented claims are covered by four claims held by location with an adjoining claim to the West to cover adit tunnel. (See sketch of claims.)

HISTORY:

One W. D. Osborn located and patented the claims in the sixties; built a smelter at hiko; planned to secure silica from Tem Piute mines, iron from a deposit in the Tem Piute Mountains, lead from Groom, and use charcoal made from pinon on Tem Piute Mountain; went in for steam tractors; borrowed from Pocin, failed and deeded the Groom claims to Pocin. Under some provision of law, whereby an abandonment of patented claims for five years constituted a relinquishment of ownership and reversion of title to the U. S. Government, Shean, Osborn and Wheatley covered the old claims by new location. A compromise was entered into whereby Pocin received $\frac{3}{6}$, Shean $\frac{1}{6}$, Osborn $\frac{1}{6}$ and Wheatley $\frac{1}{6}$.

OWNERSHIP:

The ownership at the present time is vested in the following:

Pocin Estate.....	$\frac{3}{6}$	interest
Osborn "	$\frac{1}{6}$	"
Wheatley "	$\frac{1}{6}$	"
Pat Shean "	$\frac{1}{6}$	"

W. D. Gassard, Phelan Building, San Francisco, California, who was Pocin's secretary previous to his death, holds options on Pocin, Osborn and the Wheatley interests.

PRODUCTION:

In 1915 the property was leased to Thos. McCormack, who shipped in 1915-16-17:

Tons	Total Ozs. Silver	Total Lbs. Ph.	Ozs. Per Ton	%Lead	Ratio % Ph. to Ozs. Ag.
2745.28	46546.46	2,716,915.65	16.99	49.45	2.9

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16N3

02 Ag

16 Pb

02 1/2 Ag

070 Pb

070 Pb / 02 Ag

The company resumed operations in 1922, since then there have been shipped:

1884.25 30218.93 2,284,437 16.09 60.62 3.8

Total shipments to date (Feb. 15, 1924):

4629.53 76765.39 5,001,352.65 16.58 54.01 3.27

The average smelter returns for all ore were -

Gold.....Tr
Silver.....16.58 ozs.
Lead.....54.01%
Copper.....0.53%
Iron.....2.18%
Insoluble.....11.55
Zinc.....1.86
Sulphur.....7.94
Lime (CaCo3)... 7.80

ORE VALUE:

The value of these metals - assuming silver at 60¢ and lead at 6¢ - is \$346,139.39, or a gross value per ton, for the 4630 tons shipped, of \$75.00

From stope openings and from estimates of reject dumps, the 4630 tons of shipping ore were derived from approximately 16,000 tons of mined ore, or a sorting ratio of 3.5 to 1.

Samples from the reject dump, approximately 5000 tons, assay:

	Silver	Lead	Dump Percentage	Ag Factor	Pb Factor
#234	2.60	10.45	15	3900	15675
#236	6.59	24.66	65	41035	160290
#237	2.80	11.06	20	5600	22120
				50535	198085

to approximately 5 ozs. Ag and 20% Pb.

The hand jig dumps, approximately 6000 tons, assay -

	Silver	Lead
#238	5.40	18.58
#238	5.50	18.27

or approximately 5 1/2 ozs. Ag. and 18-1/2% Pb.

The hand jib slimes pond, approximately 400 tons, assays:

Silver	Lead
6.60	24.45%

SUMMARY

Tons	Ozs. Age	% Pb.	Value Per Ton	Total	Ratio % Pb to Ozs. Ag.
5000	5	20	\$ 27.00	\$135,000	4.0
6000	5	18	24.60	147,600	3.6
400	6	24	32.40	12,960	4.0

4000 tons added to dumps since 1924.

<u>Total Averages Dumps:</u>					
11400	5 plus	19	\$ 26.00	\$295,560	3.8

<u>Total Averages Shipments:</u>					
4630	16	54	\$ 75.00	\$346,139	3.4

<u>Total Avgs. Dumps & Shipments:</u>					
16030	8.2	29 plus	\$ 40.00	\$641,699	4.85

GEOLOGIC OCCURRENCE:

The ore-bearing zone occurs in a reef of thinly-bedded limestone varying in width from a few feet to 300 feet, and from 1500 to 2000 ft. in length. It is closely related to a highly altered intrusivedyke (locally termed 'gob') intruded between the lime on the West and quartzite on the East. The quartzite near the intrusive is also greatly altered, but from 200 to 300 feet away is typical and forms the mountains 3000 or more feet away. West of the lime reef a typical lime shale, thinly bedded with bedding planes conforms generally with those of the lime reef. The shale forms a contact with massive quartzite which forms the mountains West of the area.

On the lime-shale-quartzite contact, large masses of pure white quartz occur which are more or less connected by quartz veins, partially brecciated and broken, bearing evidences of considerable movement and action.

The mountains north of the area are of quartzite, and to the south, the direction of drainage release, knobs and remnants of quartzite indicate quartzite.

The general geologic aspect of the district tends towards the belief that the area of sedimentary rocks was originally elevated by eruption intrusives, the latter having been altered to the present state by metamorphic and metasomatic processes.

The evidences of metasomatism throughout the rim of the area are apparent on every side and this fact coupled with the actual ore occurrence in the lime reef indicates, in my opinion that ore deposits of commercial magnitude are likely to be found outside and away from the zone thus far developed.

ORE OCCURRENCE:

The ore occurrence along the gob (late intrusive dyke) is one where the active solutions circulating along and through the brecciated material caused by the intrusion, followed out and along the bedding planes of the limestone depositing lead and silver with calcite, siderite, and a little barite, as a typical replacement deposit.

Stopes along the dyke have a slight dip to the West, white stopes of equal size on the bedding planes of the lime, dip to the East 35 degrees. In many instances, the two systems ~~intersect~~ of ore occurrence join, making an ore body 15 to 20 feet in width.

The adit level, driven at 90 ft. below the collar of the shaft, is driven through shale, and at 175 ft. encounters the lime reef and at 200 ft. strikes ore. A little winze down to water level 10 ft. shows remnants of some high-grade ore and Shean says that he shipped a car from these workings that sorted up to 70% lead. The drive continues for 200 ft. further, apparently encountering low-grade bunches of ore which were mined. From this point on for 500 ft. most of the ore was mined. In only a few instances did the ore come down to the adit level, but where it did, it was apparently just as good as higher up.

I would say that practically all of the 16,000 tons mined came from a zone 500 ft. long by 75 ft. deep, so that if all the stopes were reduced to one plane, the average width would necessarily be 5.7 ft.

The fact that the ore did not generally extend to the adit level is due to the fact that the drive is driven on practically one stratum of lime which did not happen to carry ore. The winze sunk at the 200 ft. point of the adit, encounters a lower stratum dipping under the adit and is in ore. Another winze sunk 20 ft. below the adit now filled with water, at the center of the ore-bearing zone is said to have encountered good ore. There is only one crosscut to the West, which was filled, so that I was unable to see the face. Shean tells me that it is driven in solid lime and that no drifting was done. It is just South of the main ore occurrence and does not discredit my belief that the underlying bedding planes are likely to contain ore.

Sampling along the adit indicates that silver values can be expected only associated with the lead, also that the only lead mineral of commercial importance is galena. At the present time, high-grade ore is being mined, on, or a little above, the level. It is mined carefully, roughly sorted underground, hoisted to the sorting shed where it is screened, the coarser resorted and cobbled, the finer ore put through a hand jig, the concentrates from which are added to the coarse.

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The last car, (January 21, 1924) smelter returns were as follows:

Tons	Au	Ag	Cu	Pb%	Insol %	Fe%	Zn%	S%	CaCo
45.8	-	21.35	-	66.3	5.2	1.6	2.1	8.2	3.05

With Silver at 60¢ and Lead at 6¢, the gross value of this ore at Salt Lake is \$92.37. The net return, after hauling, railroad freight, sampling, assaying, watchman, treatment, lead freight and deduction, is \$41.00, or a little less than 44%.

TRANSPORTATION:

The road to Las Vegas is a splendid one for a desert road. There is only one summit to cross and that by a gradual grade. The worst part of the road is along the old roadbed of the abandoned Las Vegas and Tonopah Railroad, a part of the Las Vegas - Tonopah Highway, and this is being gradually put in excellent condition.

*Hauled
by contract
last summer
\$10.00
per ton*

Ore is being hauled from Groom to Las Vegas by contract for \$23. in going freight for \$20. The contractor who has been hauling for over a year, likes his trade and expressed his willingness to haul both ways for \$20.00, provided he was assured of a substantial back-haul.

WATER:

There are two springs on or near the property, one furnishes ample water for domestic purposes and one that Shean says has been gauged and will maintain a flow of 8 miner's inches.

At the time of my visit, an exceptionally dry year, all the old shafts that were down 40 ft. or more, had water standing in them. The mine is making considerable water. A syphon running at the rate of 20 gallons per minute does not lower the water in the shaft sump any perceptible distance in five hours.

I therefore believe that enough water can be corraled to treat 50 tons per day and it is probable that when the lower addit is driven under the present workings, sufficient water will be encountered or can be developed to treat 100 tons per day. I am assuming that 20% will be extracted by hand sorting, as in past.

DEVELOPMENT:

The lower addit tunnel was started 850 ft. from the lode in the lime shale and South of the ore-bearing zone, and was driven 800 ft. (Shean's statement) and then stopped on account of lack of funds. Shean states that they expected to resume operations right away but on account of the conflicting interests caused by the death of all the other owners, the driving of the addit was not resumed, and now there is a bad cave 250 ft. from the mouth that has backed up the water so that it is likely practically all of the addit has

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sluffed. Shean says that a contractor is available who will furnish the labor to reopen the addit for \$500.00. The timbering necessary to catch up the ground is problematical, but it is likely to be considerable and it may be necessary to timber the entire 800 ft.

CONCLUSION:

Considering the past history, the possibility of encountering additional ore zones on the contacts of, and as replacements in, the quartzite, there is justification in reopening the lower addit and driving under the old stopes.

*This addit has
been reopened
and ore exposed
on this level.
Should be further
worked.*

Clearing & timbering old addit.....	\$2500.00
Driving, Crosscutting & Raising.....	9600.00
New Equipment.....	<u>3000.00</u>
TOTAL.....	\$15100.00

Mr. Cassard assures me that a satisfactory deal may be entered into to do this work and that if the venture is to be abandoned after this work is done, an arrangement might be made to let us get our money out of the dumps.

This would entail a simple little crushing, jigging, and tabling plant to treat 20 to 25 tons of ore per day and should not cost over \$17,000.00 including power.

C. G. Dennis.

March 10, 1924.

With Croom Mine report?

D U M P S

TOTAL TONNAGE 16,000 TONS
AVERAGE 16% LEAD 4 oz. Ag.

Concentrating Mill turning four tons into one.

Smelter recovery 90%.

Moisture 2%.

60% concentrate equals 1200 lbs. Lead.

120 lbs. smelter loss plus 24 lbs. moisture loss equals 1,056 lbs.

Lead recovered.

Lead @ \$5.10 per pound, Less 1¢ refinery charge, equals \$4.10 net per pound.

1,056 lbs. Lead times \$4.10 per pound, plus \$4.50 Silver, minus \$10.00 per ton hauling, minus \$7.30 per ton R. R. freight, minus \$3.05 royalty, minus \$3.00 milling, equals \$14.45 net on each ton of concentrate from dumps.

\$14.45 per ton times 4,000. tons concentrate, equals \$57,800.00 net from dumps.

The above is the immediate ore to be treated and from which profit is to be derived while the mine development is being continued in ore.

N. B.

Milling Cost	\$ 1.50 per ton
Delivery of ore to mill	.50
Amortization	<u>1.00</u>
	\$ 3.00

There is an additional 20,000 tons of 20% ore in the mine ready to be mined at this writing.