REPORT ON ONETHA MINE

WHITE PINE MINING DISTRICT

HAMILTON, NEVADA

BEST CHANCE MINING CO.

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RENO, NEVADA 89502
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July 28, 1969

University of Nevada
School of Mines
John Schilling
Reno, Nevada

Re: White Pine Mining District, Hamilton, Nevada

Dear Mr. Schilling:

Recently I had occasion to review your files on the White Pine Mining District (Hamilton), Nevada.

I thought you might like to have a copy of the enclosed report on the Onetha Mines for your records and files.

As you know my company has been interested in Hamilton for many years and we have a large property holding in the District, although we do not own the Onetha Mine.

Good luck,

BEST CHANCE MINING CO.

F. W. Lewis
pl

F. W. Lewis
President

FWL/sl

MINING ENGINEER'S REPORT
ON
THE HAMILTON CORPORATION MINES

March, 1961

MINING ENGINEER'S REPORT

THE HAMILTON CORPORATION MINES

By

Sam Bida, E.M., P.E.

Registration 1327

INTRODUCTION

The White Pine Mining District, (Hamilton), has been a prolific producer of high-grade silver ores. The production of the district has been estimated to be between $40,000,000 to $70,000,000. This was derived from the shallow surface workings and principally from Treasury Hill. The ore occurred as a bedding replacement of favorable host limestone formation. This activity had taken place prior to 1890. After this, there was a general dying down of the district to the present times. In 1956, Hamilton Corporation was organized with a program to explore the possibilities of determining the downward continuation of the ore.

Hamilton Corporation obtained by leases, options to purchase, and purchases, most of the claims that were thought to be on the main mineralizing fissure in the district. These also were thought to hold the most promise. The fissure system has a strike of nearly East and West and can be traced from Treasury Hill to the Zadow property, a distance of about three miles.

Work was begun by the Hamilton Corporation on the Oro fissure. Later in 1958, the place of development was moved on to the Onetha vein. This was done at the request of D.M.E.A. geologists and engineers in order to enable Hamilton Corporation to obtain a loan for exploration. This work developed approximately 11,000 tons of ore with a gross value of about $625,000. See Appendix 3A. The present shipments originate from this section.

A tentative value of $500,000 is set on the Hamilton Corporation holdings at Hamilton, in the White Pine Mining District. See Appendix 5.

Hamilton Corporation has assets of $1,396,255. These are mining claims in the Hamilton Mining District, tentative estimate of $500,000 (See Appendix 1); beryllium mining claims in the Mount Washington Mining District, tentative estimate of $130,000. See Appendix 2. The gross value of ore developed in the Onetha Mine is $739,420. See Appendix 3A. Equipment at the Onetha Mine in Hamilton is worth $26,835. See Appendix 4. An estimate of the indebtedness, claims, etc. is $120,000, giving Hamilton Corporation an adjusted total assets figure of $1,276,255. See Appendix 5.

I think very highly of the White Pine Mining District and believe it is one of the undeveloped mineral provinces left in the Western United States.

HISTORY

There have been numerous engineer's reports and geological reports written on Hamilton, White Pine Mining District. The most recent of these is the one by Mr. Fred Humphreys, Doctor of Geology, of Stanford University. The report details the geology as to structure, giving us a stratagraphic column of the rocks throughout the entire district. It goes into the ore occurrances along the different fissures in the area together with the mineralization ore genesis and so forth.

The general consensus of opinion of the White Pine Mining District was that it was a bedding replacement area. Most of the work was directed toward finding bedding type deposits.

The Treasury Hill silver ore beds occurred in the guillmete formation, the top of the Nevada Limestone of the Devonian Era. This formation was capped by the Pilot Shale of the early Mississippian Era. The general elongation of the remnant replacable bed North-South has given the impression of North-South mineralization. The bed has numerous fractures East-West and North-South, making it somewhat difficult to discern the origin of the mineralization, if only this bed were apparent. The Treasury Hill ore occurring as pods were quite shallow and confirmed principally to this horizon. On looking over the area at the time of our first interest in the region, I found that most of the recently productive mines align themselves along in an East-West course from Treasury Hill to the Zadow Mining Property. These mines did not have as high grade silver bearing ores but carried additional values in lead and zinc, revealing a semblance of mineral zoning.

The Hamilton Corporation work is the most constructive in the District. The exploration had been conducted on the East-West fissures proving that the ore goes to depth on this pattern and also proving that the basic ores, lead-zinc-copper, have a direct relationship to the higher epithermal silver occurrances. The quantity of silver mined in the shallow workings should have a direct bearing on the quantity of the more basic ores that can be expected.

It was found in recent correlation of assays that the sulphide ores carry more silver than the oxidized portions of the vein. From this, it is believed that the deeper ores will carry more silver value.

TENOR

The average grade of the ore has been computed in Appendix 3A and it might be generally stated that the direct shipping ore comprises about two-elevenths of the total ore developed. This ore will average about 20 per cent lead per ton, two and one-half per cent zinc per ton, one per cent copper per ton, six ounces silver per ton and .0125 ounces gold per ton, having a gross value of $61.45 per ton. The lower grade ore will average about 10 per cent lead per ton, 10 per cent zinc per ton, one per cent copper per ton, five ounces silver per ton and .0125 ounces gold per ton, having a gross value of $55.79 per ton.

The values as noted in the above figures are quite close. The inability to make a separation between the lead and the zinc, the lower grade ore, as is designated above, does not bring a true value as a direct smelting ore.

Assays taken on the other mines of the Hamilton Corporation's holdings run from a few ounces to over 100 ounces silver per ton. There could be no definite block ore tonnage given on these ore sections as they are not developed.

On the explored property the Onetha vein shows that the better ore sections occur along the more brecciated areas, fissure intersections, the more favorable host formations and the flatter vein areas.

The ore on the Onetha vein carries as good a value to the depth explored as was evidenced at the outcrops.

The walls at the lower levels being loose brecciated limestone seem to show more movement than was apparent at the upper levels. This may be due to a downward joining of some of the minor fissuring.

The vein has a strike from North 70 degrees East, to East and West and dips slightly to the North 80 degrees. The strike of the vein corresponds very well to the general strike of the most productive systems in this region. This deposit could be classified as a mesothermal type with ore expectations to continue downward to the limitations of mining.

The epithermal Treasury Hill silver ore deposits indicate the upper reaches of mineralization showing that most of the ore horizons should still lie deeper than these surface deposits.

ORE DEPOSITS

The Onetha Mine has an estimated blocked ore section of 13,000 tons having a gross value of $739,420. No other sections were computed. It should be remembered, however, that this is only a small portion of the Hamilton corporation mines.

GEOLOGY

Rocks of the region are limestones, shales, and quartzites. The rocks in the vicinity of the Onetha Mine are the limestones of Silurian and Devonian Age. Treasury Hill is located in the Nevada Limestone of the Devonian Age. West of the Onetha, we again have the Devonian limestone outcrops. About two and one-half miles West of the Onetha shaft, a North-South block of Cambrian Limestone is exposed. The East side, the Zadow property, is the downthrow side of the North-South fault. The ore appears to terminate against this fault. A quartzite member is exposed at the Belmont Mine in the Northwest part of the mining district. The replaceable bed members are located near the top of the Nevada Limestone of the Devonian Era. The beds have a slight inclination about 15 to 20 degrees Easterly and strike Northeast Southwest. The general attitude of the bedding is about the same throughout this particular region.

The Westmost part, White Pine Mountain, west of the Zadow property has intrusions of granitic rocks that may have some distant relationship to the formation of the ore deposits.

The area had been broken by North-South trending mountain building faults. Later in Jurassic time, it was broken again Easterly and Westerly and mineralized along this fault pattern. Again, at a later time, it had reoccurrant movement along the North-South faults. This is evidenced by some drag ore in some of these faults.

MINERALIZATION

Mineralization is believed to have occurred during Jurassic time, with possible reoccurrant secondary mineralization. The principal ore mineral is cerrusitve, the lead carbonate

with the yellow silver mineral cerargyrite. Other ore minerals are anglesite, smithsonite, malachite, azurite, galena, chalcopyrite, sphalerite and the lead oxides, zinc oxides, silver salts, and other related minerals.

The gangue minerals are minor quartzing, silicification, calcite and iron oxides.

GENERAL:

LOCATION AND ACCESSIBILITY

The property is located in the White Pine Mining District, sometimes known as the Hamilton Mining District, in White Pine County, Nevada. It may be reached by traveling 40 miles West on the Ely-Eureka Highway, then traveling South 10 miles on a gravel and dirt road to the ghost town of Hamilton, then turing toward Sherman Town South, a distance of three miles. The present workings are located on the West drainage of Treasury Hill. The mine is accessible throughout most of the year.

CLIMATE AND PRECIPITATION

The climate of the area could be classified as semi-arid with a medium snowfall in the higher elevations.

TOPOGRAPHY

The Hamilton area can be generally classified as being rugged and mountainous.

ALTITUDE

The elevation at the present working site is about 7,000 feet above sea level.

HYDROGRAPHY

There are no streams in this locality. Water is obtained from local springs.

VEGETATION

The area is covered by sparce growth, pinion pine, spruce,

fir, cedar and mahogany. The lower regions are covered by desert grasses and sagebrush.

There is no mining timber available locally.

WATER

Water for processing ores at Hamilton would have to be developed by drilling.

BUILDINGS

Hoist house - Compressor building - One bunkhouse.

TRANSPORTATION

Ely is serviced by the Nevada Northern Railroad, a subsidiary of Kennecott Copper Corp. The region is also serviced by two trucking firms and is connected to the outside by the United Airlines and Lewis Brothers Stages. Hamilton has no transportation facilities.

Hamilton Corporation does, however, have its own trucking arrangement. They haul their ore to the railhead at Ely. From Ely, it is shipped to the United States Smelting & Refining Company at the Salt Lake City Plant.

OPERATION

Hamilton Corporation was organized in 1956. Shortly thereafter, in August, Hamilton Corporation drove a cross-cut adit into the Oro vein. This vein was explored for a distance of about 400 feet.

On August 30, 1958, a D.M.E.A. loan was granted to Hamilton Corporation. A shaft site was selected on the Onetha Mine and sinking was begun in October the same year. A 160 foot shaft was put down. From the 140 foot level, a tunnel was driven on the Onetha vein, a distance of 700 feet. This developed the present ore block.

Currently, the Hamilton Corporation is shipping about one carload of ore per week averaging 30 to 35 per cent lead per ton and running about five ounces of silver per ton. The ore is being shipped to the Salt Lake City Smelter.

The mine is being operated on a split-check leasing basis.

GENERAL (Continued)

MINING EQUIPMENT

See Appendix 4.

CONCLUSIONS

The Hamilton area, the White Pine Mining District, holds great promise to become a very worthwhile mineral province.

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P.E. License No. 1327

A P P E N D I X III-A

Sam Bida, E.M.

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An estimate of the probable ore reserves to be attained in the proposed 600 foot additional sinking and drifting program. This estimate is taken from the ores developed in the initial exploration program.

1. The developed Section:

UPPER WORKINGS - Onetha Mine (Surface level)

500 Tons:	20% lead per ton	@ $	.11	per lb.	=	$44.00	
	2½% zinc per ton	@ $	.11½	per lb.	=	5.75	
	1% copper per ton	@ $	.29	per lb.	=	5.80	
	6 oz. silver per ton	@ $	.91	per oz.	=	5.46	
	.0125 oz. gold per ton	@ $35.00		per oz.	=	.44	
	Value per ton					$61.45	
	Gross value 500 Tons @ $61.45				=		$30,725.00
1500 Tons:	10% lead per ton	@ $	.11	per lb.	=	$22.00	
	10% zinc per ton	@ $	.11½	per lb.	=	23.00	
	1% copper per ton	@ $	.29	per lb.	=	5.80	
	5 oz. silver per ton	@ $	.91	per oz.	=	4.55	
	.0125 oz. gold per ton	@ $35.00		per oz.	=	.44	
	Value per ton					$55.79	
	Gross value 1500 Tons @ $55.79				=		$83,685.00
Upper Workings - Gross value developed ore					=		$114,410.00

The Developed Section (Cont'd)

LOWER WORKINGS - Onetha Mine (140 Foot level)

"2000 Tons:	20% lead per ton	@ $ .11	per lb. =	$44.00	
	2½% zinc per ton	@ $ .11½	per lb. =	5.75	
	1% copper per ton	@ $ .29	per lb. =	5.80	
	6 oz. silver per ton	@ $ .91	per oz. =	5.46	
	.0125 oz. gold per ton	@ $35.00	per oz. =	.44	
	Value per ton			$61.45	
	Gross value 2000 Tons @ $61.45		=		$122,900.00
9000 Tons:	10% lead per ton	@ $ .11	per lb. =	$22.00	
	10% zinc per ton	@ $ .11½	per lb. =	23.00	
	1% copper per ton	@ $ .29	per lb. =	5.80	
	5 oz. silver per ton	@ $ .91	per oz. =	4.55	
	.0125 oz. gold per ton	@ $35.00	per oz. =	.44	
	Value per ton			$55.79	
	Gross value 9000 Tons @ $55.79		=		$502,110.00
Lower Workings - Gross value developed ore			=		$625,010.00
The Developed Section - Total Gross value			=		$739,420.00

At this time of production off from the 140 foot level, the ore is maintaining an average of over 30 per cent lead. It might be expected that lower developments might open up somewhat larger than these bodies found on the upper levels. This development program is to explore only a small segment of the Hamilton Corporation holdings.

2. Proposed Development - Four levels allowing 10 feet for drifting

300 FOOT LEVEL - Onetha Mine

2000 Tons @ $61.45 per ton = $122,900.00
9000 Tons @ $55.79 per ton = $502,110.00

Gross value 300 foot level = $625,010.00

450 FOOT LEVEL - Onetha Mine

2000 Tons @ $61.45 per ton = $122,900.00
9000 Tons @ $55.79 per ton = $502,110.00

Gross value 450 foot level = $625,010.00

600 FOOT LEVEL - Onetha Mine

2000 Tons @ $61.45 per ton = $122,900.00
9000 Tons @ $55.79 per ton = $502,110.00

Gross value 600 foot level = $625,010.00

750 FOOT LEVEL - Onetha Mine

2000 Tons @ $61.45 per ton = $122,900.00
9000 Tons @ $55.79 per ton = $502,110.00

Gross value 750 foot level = $625,010.00

Value of ore to be developed under the proposed loan $2,500,040.00

A P P E N D I X VII

Sam Bida, E.M.

These are the assays of the grab samples representative of the ore sections and were taken during the time of the development of these ore shoots. The assays were used as one basis to determine the value of the blocked ore reserves. Another basis is the shipments being mined from these sections. Some of the copies of these are also included.

ASSAYS 140 FOOT LEVEL: Onetha - West Onetha Mine

Ore car samples during exploration work on drift.

Description	Oz. Gold Per Ton	Oz. Silver Per Ton	% Lead	% Copper	% Zinc
432-438	0.04	7.30	18.05	0.07	3.95
438-442	0.02	5.20	14.85	0.55	14.95
442-448	0.01	5.60	8.55	0.80	13.40
448-454	0.01	6.00	4.90	0.60	11.30
454-460	0.02	5.40	13.95	0.50	9.90
460-466	0.01	5.50	8.85	0.70	10.40
466-472	0.01	4.00	6.00	0.60	10.40
472-478	0.01	4.00	6.00	0.60.	10.40
472-478	0.01	4.00	5.00	0.60	15.95
478-484	Trace	2.00	3.60	0.35	6 .00
484-490	Trace	3.20	3.50	0.45	7.00

These samples were grab samples of the cars of drift material that was hoisted to the surface, in the location of the proposed second raise eastward (see map for location).

ASSAYS #1 RAISE - 140 FOOT LEVEL: Steele Stope 30 Ft. back from the east-face of the exploration drift.

Description	Oz. Gold Per Ton	Oz. Silver Per ton	% Lead	% Copper	% Zinc
	0.02	5.60	25.85		5.15

ASSAYS 140 FOOT LEVEL: West Onetha - Onetha Mine

Cut samples of vein approximately 80 ft. east of the shaft station.

2' Cut	0.01	18.60	29.90	0.80
2' Cut		2.40	6.85	0.50

ASSAYS TAKEN FROM A VEIN SECTION 100' to 70' BACK FROM THE EAST FACE OF THE EXPLORATION DRIFT

2' Cut	0.01	4.90	11.30	0.70
2' Cut	0.01	3.60	8.20	1.40
2' Cut	0.01	3.20	4.10	
2' Cut		3.40	18.55	0.90