0770 0010

(35)
Item 10

April 13, 1978

Mr. James D. Williams
Lion Hills Mines
P. O. Box 1446
Salt Lake City, UT 84110

Dear Mr. Williams:

I have made an on-site inspection of the Buckskin Mine. Based on the examination and review of the data supplied by you, the property does not appear to have a target to warrant further interest by Continental Oil Company.

Continental Oil Company plans to continue our exploration program in the area this summer. Should future work change our opinion regarding the economic potential of your property, I will contact you.

Thank you for allowing me to review the data on the Buckskin Mine.

Yours very truly,

Gordon L. Pine
Digtrict Geologist

pb

(135)
Item 10

March 7, 1978

James D. Williams
P. O. Box 1446
Salt Lake City, UT 84110

Dear Mr. Williams:

Thank you for sending me the data on the Buckskin Mine. I have reviewed the data.

I have recently taken over the District Geologist position at the Reno office. I plan a general orientation field review of all our projects in late March and early April. The Buckskin Mine is scheduled for April. After the field examination, I will be in contact with you regarding Continental Oil Company's interest in your property.

Yours very truly,

Gordon L. Pine
District Geologist

ag

(35)
Item 10

A.I.Ch.E. A.I.M.E.

JAMES D. WILLIAMS
CHEMICAL ENGINEER
MINERALS EXPLORATION & DEVELOPMENT

409 FELT BUILDING
SALT LAKE CITY, UTAH 84111

TELEPHONE
(801) 363-6566

P.O. BOX 1446
SALT LAKE CITY, UTAH 84110

March 3, 1978

Mr. Gordon Pine
Continental Oil Company
P.O. Box 7608
Reno, Nevada 89510

Dear Mr. Pine:

Thank you very much for returning my telephone call of yesterday. I appreciated my conversation with you regarding the Buckskin Mine.

I am taking the liberty to enclose an Abstract of the property along with an Engineering report covering geology, tonnage and grade. Also; a metallurgical read-out from the Booth Company.

From what you stated, the tonnage may be too little for a big outfit; but I must say that this half million tons is from the surface tunnel to a depth of only 350 ft., so, why don't you look at it as an exploration project for something big and thus enhance your area holdings.

Sincerely,

James D. Williams

James D. Williams
Lion Hill Mines

JDW:s
Encl.

MAR - 6 REC'D

A.I.Ch.E. A.I.M.E.

JAMES D. WILLIAMS
CHEMICAL ENGINEER
MINERALS EXPLORATION & DEVELOPMENT

409 FELT BUILDING
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BUCKSKIN MINE

LOCATION

The Buckskin Mine is situate in Section 13, Township 13 North, Range 23 East and Section 18, Township 13 North, Range 24 East, Mt. Diablo Base and Meridian, in the extreme easterly portion of Douglas County, Nevada, six miles due West from the Yerington c opper pit of the Anaconda Company. The town of Yerington is some 13 miles Easterly via a gravel road.

The mine workings are in the South end of the Buckskin Range at elevation 5,000 feet just above the pediment area of Smith Valley. The topography at the mine rises gently to the West and North.

Three miles to the East of the mine is a large commercial sand and gravel operation and a 23,000 volt three phase power line runs within about one and one half miles to the East. The valley is a good aquifer as indicated by Artesia Lake, a few miles to the South, which is fed by underground springs.

Weather conditions are fairly mild and permit all year operations. Very little snow falls upon the lower Buckskin Range and winter temperatures are usually above freezing. Rainfall is generally light.

The property consists of six patented mining claims and a patented fraction.

HISTORY AND PRODUCTION

The original mining claims were located around the turn of the century as gold prospects and were patented in 1913. No records exist as to production but it is known that gold-copper crude ore was shipped to the Wabuska smelter during World War 1, and that gold ore was milled at various times during the period 1930-1950, as indicated by mill foundations remaining at the mine.

It is not possible to estimate with any degree of certainty the total tonnage of ore which may have been produced, but from stoping indication in the surface tunnel and on the 90' and 130' shaft levels, it would appear that any such production was probably less than 5,000 tons, plus a possible additional 5,000 tons from development drifts on the three levels.

The gold stope or 'glory hole' which was stoped from the surface tunnel level to the surface, having a section of 60' along strike by 20' in width, suggests ore of high gold content was produced. This assumption has been well confirmed by diamond drill holes cutting vertically below this stope area.

UNDERGROUND WORKINGS

A two compartment vertical shaft; 4½'x4' hoisting compartment and 3½'x4' manway, opens the underground levels. A total of approximately 2,500 feet of drifting has been done in the mine; 1,500 feet in the surface level, 230 feet in the 90' level, 670 feet in the 130' level and possibly 200 feet in the 250' level. Well over 50% of this development work has been done along and within the Buckskin Lode and in good ore as is amply demonstrated by the assay map of the levels. The 250' level has not been visited by the writer, nor is a map of it available, however, a report by an 'old timer' who worked there during World War 1, represented that the highest grade ore in the mine was being developed. This is confirmed by publication in the Mines Handbook for the years 1919 through 1923. Our recent diamond drill holes below this level also confirm these estimates.

Water stands in the shaft at about the 90' point. When the 130' level was unwatered in 1955 for the purpose of sampling, the mine was making about 20 gallons per minute. Later, unwatering was reported to have reached about 50' above the 250' level at which point the flow approximated 50 gallons per minute. From all evidence available, we think the flow from the 250' level will be somewhat less than 100 gallons per minute - sufficient for a milling operation. At that time, all underground workings were in good condition; the ground holds well and should present no unusual mining problems. The shaft timber is in splendid condition to the 130' level and is reported good as far as unwatering went.

PRESENT OPERATOR

The Buckskin was first examined by the writer in 1955 while it was being unwatered and sampled by third parties.

Check sampling was permitted and a copy of the completed assay map was obtained. Efforts were made during the ensuing years to acquire the property and in 1970 a purchase agreement was negotiated with the owner by Lion Hill Mines, a mining partnership of James D. and Ruth T, Williams, stipulating yearly payments to 1976. Final payment was made December 10, 1975, and title was conveyed to Lion Hill Mines by deed.

During the Fall of 1970, Lion Hill Mines re-established the corners of the patented mining claims which had been obliterated over the years, found and set the Section corners and plotted surface geology; all with plane table control. The surface tunnel was also mapped and sampled.

During 1971, 1972 and 1973, twelve diamond drill holes were drilled from the surface at various angles into the Buckskin Lode extending the vertical depth of the Lode to a point 400 feet below the surface; no effort being made to extend this deeper since our private funds were limited.The drilling extended over a strike length of some 1,000 feet, but was concentrated along a section of the lode 450' in length which we have designated as the Central Ore Zone. Expenditures by Lion Hill Mines since 1970 has amounted to $155,216 cash. **This covers only acquisition and exploration.**

All pertinent data covering the mine and drilling is represented by comprehensive 40-scale plan and section maps, assays and underground assay maps, assay certificates and engineering and geological reports; the metallurgy of the ore, based upon drill core rejects, showing good recovery of metal values in a high grade gold-copper concentrate, is available for inspection and study in our Salt Lake office.

TONNAGE AND GRADE

The attached engineering report by Louis W. Cramer, Consulting Geologist and Engineer, Salt Lake City, Utah, well states the grade and tonnage of ore delineated within the Central Block from the surface tunnel to the depth of 400 feet based upon underground assays and drill core samples, showing 391,300 tons assaying 0.20 oz. gold and 1.30% copper, plus 125,200 tons assaying 0.12 oz. gold and 1.30% copper.

So far as we have been able to determine, the Buckskin Lode continues Westerly from this Central Block approximately 1,000 feet to the end line of the claims and some 1,500 feet Easterly to the end line of the claims and there is absolutely no suggestion that limits its vertical extent. As a matter

of fact, the highly brecciated character of the ore cores from this Central Block strongly suggests we may be in a breccia pipe situation which has always been considered most favorable for deep seated ore zones.

FUTURE EXPLORATION

The property affords a number of additional exploration targets once the mine is in operation and a more complete understanding of the geological framework of the Buckskin Lode is adduced. The East-West extension of the Lode has been mentioned as has also the vertical continuation below the 400' point. Some 700' North from the Buckskin Lode is another well mineralized fissure zone with an East-West strike and a steep South dip. It was probably mined for gold in the past since random dump samples assayed 0.07 oz. gold and remnants of an arrastre remain nearby. The shaft appears to be open sufficiently to permit underground examination.

Active deeper drilling by a major copper company on adjacent mining claims owned by it has been in progress for three years. The apparent target seems to be a basement situation corresponding to a Yerington type ore body. Field reports suggest that results to date have been encouraging.

ECONOMICS

The Buckskin Mine was originally evaluated on the basis of the 516,500 tons of ore in the Central Block from the surface tunnel to the depth of 400 feet having a weighted assay of 1.30% copper, 0.18 oz. gold and 0.50 oz. silver per ton at metal prices of $0.60 per pound for copper, $100 per ounce for gold and $2.50 per ounce for silver, resulting in a gross metal value of $35 per ton of crude ore. At current metal prices the gross value per ton would be $50 and with the estimated near future prices for gold and copper, we may anticipate a gross ore value of $60 per ton. Metallurgical testing indicates an economic recovery of plus 90% of the metals in the crude ore. Current indicated ore reserves will support a 200 ton per day mining and milling operation for a minimum period of ten years. Additional exploration and development should increase this term substantially.

March, 1978

James D. Williams
Managing Partner
Lion Hill Mines.

JDW:s
Encl.

N.B. In 1974 grading was completed for a 150 ton mill, about one-third of the reinforced steel concrete foundations poured and a 65' high fabricated steel two compartment headframe was installed, at an additional cost of approximately $45,000.

REPORT ON
BUCKSKIN MINE
DOUGLAS COUNTY, NEVADA
May 1973

LOUIS W. CRAMER

OFFICE PHONE 322-0841 RES. PHONE 467-6952

LOUIS W. CRAMER
Geologist
514 ATLAS BUILDING
SALT LAKE CITY, UTAH 84101

REPORT ON BUCKSKIN MINE
DOUGLAS COUNTY, NEVADA

CONCLUSIONS

It is calculated that in the Center Block are 391,300 tons of ore in the hanging wall zone with a grade of Au 0.20 oz. Ag 0.5 oz. Cu 1.3%. A foot-wall zone in this block contains 125,200 tons of ore, having a grade of Au 0.12 oz. Ag 0.5 oz. Cu 1.3%.

Note: The values on the 90 foot level and Tunnel level show much higher values.

There are approximately 162,800 tons of ore in the East Block with an assay value of Au 0.05 oz. Ag 0.3+ oz. Cu 1.3%.

The West Block contains a sizeable tonnage of ore in the upper levels, of a grade similar to the ore in the hanging wall zone of the Center Block.

There is no indication that the ore has been bottomed and deeper ore should develop especiallyin the Center Block area as indicated by the greater amount of brecciation, quartz, silification, and mineralization. Much more magnetite, which is widespread, also indicates better ore conditions. The West Block is open on to the West. Possibilities exist east of the East Block.

LOCATION

The Buckskin Mine is located in Douglas County, Nevada, some 8 miles west of Yerrington, Nevada, (17 miles by road.) It is 6 miles west of Anaconda's open pit mine. The mine is in the south end of the Buckskin Range.

HISTORY

Little is known of the history of the mine. It is known that the area was worked for gold in the early part of the century. During World War I, the main shaft was opened to the 130 foot level and gold-copper ore was trucked to the Wabuska Smelter, some 18 miles northeasterly. During the 'thirties' and 'forties' desultory gold mining and milling operations were conducted on the property.

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LOUIS W. CRAMER
Geologist
514 ATLAS BUILDING
SALT LAKE CITY, UTAH 84101

MAPS

1 - 40' scale surface map
1 - 40' scale underground map
10 - drill hole and cross-section maps. 40' scale
1 - assay map 25' scale
1 - 100' surface map, showing the property, etc.
1 - set of assay sheets of drill holes.

PROPERTY

The property consists of 6 patented claims and 1 patented fraction.

GEOLOGY

A surface map, plane table control, was made for the Lion Hill Mines, Co. in 1970. Diamond core drilling was done in 1971, 1972, and 1973.

The surface rocks are andesites flows, with a rhyo-dacite flow from the tunnel cut and trending N N E at the base of the Buckskin Range. These rocks are classified as Triassic in age.

Drilling was mostly in the andesite rocks of different types with some tongues (?) of the more porphyritic rhyo-dacite type. The deeper rocks in Hole 3-1 were of the dacite type as was the rock in Hole No. 6 below elevation 4820. Below the gravel in Hole No. 7 an iron oxide gossan type deposit was drilled below which a siliceous dacitic type of flow was cored. The 'Lode' in this Hole was a series of gouge streaks, some quartz and traces of chalcopyrite. The gossan is in line with a series of iron springs trending northeasterly, along the base of the range. Hole No. 10 cut a fault at approximately the position of the hanging wall of the Lode. The structural situation here is not fully known and interpretation would be conjecture.

N W of the East Shaft is exposed a strong E W fault, with an area of Rhyo-dacite in the footwall. It carries quartz and is strongly and favorably altered. It appears to be intrusive.

The surface expression of the Lode is a series of E-W quartz-silica veins with iron oxide, and with considerable alteration. The zone over the East and West Blocks is about 30 feet wide; over the Center Block the Lode is 60-80 feet wide with intense alteration, especially on the footwall. Drilling shows more quartz and silification, also much more brecciation in this block. Holes 3, 5 and 8 reflect these widths at depth. Holes 3 and 8 show ore widths of 50-55 feet.

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Geologist
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DEVELOPMENT

A tunnel is driven westerly at elevation 4990.

A-23 Shaft, elevation 5014 develops the 90 foot level to the west. It is inaccessible.

The Main Shaft, elevation 4985 from which a short level is run west on the 225 level. The 130 Level develops the hanging wall section to the west and some to the east. Water stands in the shaft a short distance above this level. A connection was made to the A23 Shaft from which the footwall segment is developed a short distance to the west, and a raise runs to the A 23 90 foot level.

Other numerous shallow shafts have been dug and many surface prospect holes have been made. An open stope (Glory Hole) exists in the Center Block from which the ore was mined through a short tunnel, elevation 5028. The Stope is 60 feet long and 20 feet wide. The above work must have been done in the earlier period, with gold ore as the objective.

DRILLING DATA

Twelve holes were drilled totaling 5665 feet. The cross-sections show the nature of the rock drilled, and the mineral interscept cored. The Lode has been developed to an elevation of 4640 (Hole 3) in the Center Block and the ore block has been projected to the 4600 level.

ASSAY DATA AND SAMPLING METHOD

A representative sample was taken the length of the core assayed by taking pieces of the core at approximately 4 inches apart. The average sample weighed 6 to 10 pounds depending on the length sampled.

The ore on the Tunnel Level, the only underground workings accessible, was checked by responsible personnel confirming the sampling done in 1955. The assays shown on the 25 scale assay map were in 1955. Mr. Williams and Mr. Earl Young confirmed this work when they check sampled this mine in 1955.

The assay value used in the Tonnage Reserve Section, below, is a weighted average of all the sampling. It is thought to be the minimum value of the ore in these blocks.

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LOUIS W. CRAMER
Geologist
514 ATLAS BUILDING
SALT LAKE CITY, UTAH 84101

TONNAGE AND GRADE

CENTER BLOCK

Hanging Wall Zone

450 X 400 X 25 ÷ 11.5 = 391,300 tons
Au 0.20 oz. - Ag 0.5 oz. - Cu 1.3%

Footwall Zone

450 X 400 X 8 ÷ 11.5 = 125,200 tons
Au 0.12 oz. - Ag 0.5 oz. - Cu 1.3%

Note: The assays on the 90 level and Tunnel Level show much higher values.

This segment is from 30 feet west of the ore in Hole 3 to 70 feet east of Hole 9.

EAST BLOCK

400 X 350 X 15 ÷ 11.5 = 182,600 tons
Au 0.05 oz. - Ag 0.3 oz. - Cu 1.3%
This segment is from 70 feet east of Hole 9 to 100 feet east of Hole 6.

WEST BLOCK

The assay map shows two segments sampled in this block on the Tunnel Level which averaged 7.0 feet wide, Au 0.22 oz. - Cu 1.8%. It is therefore indicated that considerable ore exists from the Center Block to west of Hole 4, particularly in the upper levels.

Louis W. Cramer

Louis W. Cramer

THE BOOTH COMPANY
A Division of MCRC

Engineering Division:
333 WEST 1410 SOUTH STREET
SALT LAKE CITY UTAH 84115 • U.S.A.
PHONE 801 487-7845

December 14, 1973

Lion Hill Mines
409 Felt Building
Salt Lake City, Utah 84101

Attention: J.D. Williams

Subject: Preliminary flotation tests on Copper-Gold ore from the Buckskin Mine in Nevada, Booth Lots 1446, 1452.

Gentlemen:

This and the attached data sheets describe a preliminary flotation study on the subject ore.

The purpose of this study was to determine if the ore is amenable to conventional sulfide copper flotation practice employing a xanthate collector in a lime circuit.

The two samples tested represented weighted composites of drill core samples.

Head sample assays, by Union Assay

Lot No.	% Cu	% oxide Cu	Ozs per ton Au	Ozs per ton Ag
1446	0.844	0.009	0.220	0.50
1452	0.749	no assay	0.210	0.50
Average calculated head from tests				
1446	0.833	------	0.180	0.31
1452	0.789	------	0.199	0.30

Results shown on the attached data sheets indicate good metallurgy can be expected on both copper and gold using a conventional treatment scheme for sulfide copper.

Respectfully submitted,

THE BOOTH COMPANY

S. S. Mele

SSM:ms