

REPORT COVERING EXAMINATIONS AND DEVELOPMENT COMPLETED TO DATE ON THE LOG JAMB CREEK PROPERTY, TESLIN LAKE AREA, YUKON TERRITORY.

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SUMMARY

The Log Jamb Creek property is well located with regard to transportation as compared to other prospects in Yukon.

A very limited amount of work has exposed 11 silver-lead veins in a distance of 1,400'. Other veins undoubtedly exist.

One drill hole cut high silver values at a depth of 1,000' below the highest vein outcrop. 53.7% oz. Silver and 14.8% lead over 1.5'.

Preliminary sampling has indicated an average grade of 0.13 oz. gold, 28.5 oz. silver, 3.58% lead and 3.09% zinc over 2.5' on a veinage length in excess of 1,000'. Fresh surfaces and close sampling could give a higher grade.

Estimates show that a profit of over \$6.00 per ton is possible from this grade of ore and that there could be in excess of 300,000 tons down to 1,000' of depth.

RECOMMENDATIONS

The property warrants exploration and development. Due to the impracticability of surface drilling, it is recommended that an underground development program be undertaken. It is estimated that this will cost approximately \$80,000.00.

LOCATION AND ACCESS

The property consisting of # Eleven staked mineral claims is located on an East-West trending ridge between 5,300' and 6,000' Elevation; 1 mile north of Yukon - B.C. boundary, latitude 61°N., longitude 131° 35'W. Access is by way of an 11 mile jeep and pack trail from mile 753 on the Alaska highway approximately 50 miles east of Teslin, Yukon. A good truck road could be built to connect the property to the Alaska Highway for a reasonable cost.

HISTORY

The Silver-Lead veins were discovered by W. McKinnon working for Hudson's Bay Mining and Smelting Co. in 1945. Due to the rugged nature of the country, this Company completed a number of drill holes on the vein extensions, but none in the area of the vein outcrops. One hole on strike of the #5 vein returned an assay of 53.7 oz. Silver, 14.8% Lead over 1.5' true width at a depth of 1,000' below the highest vein outcrop. The other holes returned erratic assays up to 20 oz. on subsidiary vein structures. Core recovery was poor.

The property was allowed to lapse and was restaked by McKinnon. It was examined and sampled by Clive W. Ball on behalf of Canadian Explorations in 1958.

Five miles of jeep road and a limited amount of trenching were undertaken by Kootenay Base Metals in 1961. This program disclosed several new veins and extended the veins several hundred feet down the south slope of the ridge to a point where underground development work is practical.

GEOLOGICAL SETTING

Paleozoic Limestones and slates are intruded by granodiorite and related rocks. The main veins occur in silicified and brecciated shear zones in diorite. Veins dip vertically.

Exploration in 1961 found that veins intruding slate also carried high silver values.

DESCRIPTIONS OF SHOWINGS.

To date eleven veins, six striking N. 60°E and five striking N.30°E have been found in a width of 1,400'. Ore float indicates the presence of other veins in this area.

The #5 and #6 veins are the only ones on which preliminary sampling has been undertaken. Due to the steep slope on the north face of the ridge where the veins are exposed, sampling was done on ropes and for this reason was at wide intervals. The vein exposures were leached and oxidized so there is a good chance that some of the silver (which is quite soluble under these conditions) could have been leached out.

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The #5 vein was sampled over a horizontal distance of 350' and vertical distance of 450'. The five samples taken averaged 0.18 oz. Au, 30.6 oz. Ag, 2.7% Pb. and 6.5% Zn over 1.9' width. The Highgrade drill hole on strike of this vein indicates a further 250' of length.

The #6 vein was sampled over a horizontal distance of 300' and a vertical range of 400'. The six samples taken averaged 0.11 oz. Au, 25.8 oz. Ag, 4% Pb and 1.1% Zn over a 2.5' width.

Development work in 1961 exposed the #9 vein for 275' and sampling indicated that the grade would be similar to the #5 and #6 veins.

It should be noted that the veins do not terminate where exposed, but that the extensions are covered with overburden and rock talus.

ECONOMICS

The combined lengths of #5, #6 and #9 veins is in excess of 1,300'. If they extend to the 1,000' depth as indicated possible by the deep drill hole, there could be in excess of 325,000 tons of ore in these three veins alone, assuming a mining width of 2.5'.

The estimated grade of #5 and #6 veins from preliminary sampling is 0.13 oz. gold, 28.5 oz. silver, 3.58 % lead and 3.09% zinc. After allowing a 10% dilution factor this would be reduced to 0.11 oz. Au, 25.7 oz. Ag, 3.22% Pb and 2.79% zinc.

The following market prices are used in evaluation:

Gold	-	\$ 38.50 per ounce
Silver	-	1.10 " "
Lead	-	0.10 per lb.
Zinc	-	0.10 " "

(No value taken for Zinc as silver should go in Pb concentrate. Also no value allowed for cadmium content of ore.)

The following mining and milling costs are assumed to be applicable for a 100 ton per day operation in this area.

Mining	-	\$ 15.00 per ton
Milling	-	4.00 " "
Development	-	2.00 " "
Overhead	-	<u>1.50</u> " "
Total	-	\$ 22.50 per ton.

Metallurgical tests are necessary before recoveries and costs can be accurately estimated. For estimating purposes a concentration ratio of 20 to 1 has been assumed for the silver -- lead concentrate.

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FREIGHT AND HAULAGE ON CONCENTRATES

Property to Whitehorse 175 miles @ 8¢ per ten mile	\$13.92
Rail haul to Skagway @ \$3.00 per ton	3.00
Freight Skagway to Vancouver @ \$13 per ton	13.00
Rail haul to Trail, B.C.	8.50
Extra handling	2.00
	<u>\$39.92</u>

Assuming 20 to 1 concentration ratio cost per ton - \$2.00 per ton of ore.

PAYMENT CALCULATIONS

Assuming an 85% recovery for Gold, Silver and Lead and no payment for zinc and Grade of ore after allowing 10% dilution to be 0.11 oz. Au, 25.7 oz. Ag, 3.58% Pb, 2.79 Zn.

Gold 0.11 x 85% x \$38.50	\$ 3.62
Silver 26.7 x 85% x \$1.10	24.91
Pb. Assuming 60% con. 85% Recovery and 3.57% Grade	
Gross Value	<u>6.60</u>
	\$ 35.13

DEDUCTIONS

Allow for smelter charge \$2.00 per ton of ore.	\$ 2.00
Mining, Milling, Development and overhead	22.50
Amortization of \$550,000 plant cost on 350,000 tons of ore	1.80
Freight and haulage	<u>2.00</u>
	\$ 28.30

Profit per ton of ore - \$6.83.

ESTIMATE PLANT COSTS

Mill	-	\$175,000
Road	-	45,000
Mine Plant	-	200,000
Housing (use trailers)		50,000
Contingency	-	<u>75,000</u>
		\$545,000

RECOMMENDED PROGRAM OF EXPLORATION.

Surface diamond drilling to evaluate the property is impractical due to the nature of the terrain, lack of water and poor core recovery. Costs would be in the neighborhood of \$10 per foot and the end result again

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would be a widely spaced sampling job.

In order to ascertain the grade of the various veins systematic close sampling is required. This can best be done by underground development supplimented by underground drilling. By starting a tunnel at the 5300 contour on the #9 vein almost all of the work can be confined to drifting on known veins and some 300' of backs can be rapidly obtained. All mining should be contracted.

The initial program cost is estimated as follows:

1200' of drifting and x-cutting @ \$45 per ft.	\$ 54,000.00
1500' of underground flat hole drilling @ \$4	6,000.00
Assaying 300 samples @ \$5	1,500.00
Transportation and travel	1,000.00
Engineering Supervision	6,000.00
Head Office, Legal, Accounting etc.	4,000.00
Jeep truck and necessary equipment	<u>5,000.00</u>
	\$ 77,500.00

JDM:amc


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