

REPORT on
ANCHOR-TAKLA MINES LTD. (N.P.L.)

by J.J. Crowhurst, P.Eng. 673139

March 10/72

BACON & CROWHURST LTD.
CONSULTING ENGINEERS

March 10th, 1972.

Mr. H.E. Jacques, President,
Anchor Mines Ltd., (N.P.L.),
807 - 409 Granville St.,
Vancouver, 2, B.C.

Dear Mr. Jacques:

Pursuant to your recent request, I have reviewed the information concerning the Takla Silver Mines property and submit herewith this report. Reference is made to our report dated February 26th, 1969, which is attached hereto.

PROPERTY

The Takla Silver Mines property consists of 43 mineral claims located in the Omineca Mining District, approximately 50 miles west of Manson Creek and east of Takla Lake, at 55°30' N Lat., 125° 30' E Long. Access is by a gravel road from Fort St. James which is about 170 air miles to the southwest of the property.

HISTORY

The property was first staked in the early "40's" and was optioned to Leta Explorations Ltd., a wholly owned subsidiary of Leitch Gold Mines Ltd. Leta Explorations drove an adit drift for a length of 300 feet on a silver-lead vein zone, (known as #1) which had been exposed in surface trenches. The adit missed the desired zone but exposed a much lower grade structure and the option was subsequently dropped and the claims were allowed to lapse. The claims

were restaked in 1950-51 by Mr. J. Regan and optioned to Bralorne Mines Ltd. in 1952. From that year until 1960 Bralorne accomplished a large amount of surface exploration including: 3.5 miles of car road and trails to workings, 7 trenches in bedrock (4x6x2 ft.), 34 pits in overburden (4x4x2-9 ft.), 5000 lineal feet of bulldozer trenches 8 ft. wide by 4-15 ft. deep, and 19 diamond drill holes.

Takla Silver acquired the property in 1964 from Mr. Regan, improved the main access roads to all-traffic quality and, in addition, completed further bulldozer stripping, drove 750 feet of underground heading and diamond drilled 750 feet underground and 2500 feet on surface.

Besides the adits and drill holes mentioned above, there are about 60 pits and open cuts now on the property, in various states of disrepair, and about 30 extensive bulldozer trenches. These uncovered three other zones, one of which contained similar mineralization to No. 1; the other two contained zinc values in oxidized exposures. All of the showings lie along a north-northeastwardly trending belt that extends about 5000 feet from the adits and camp at the south end. This belt covers a vertical topographic interval of about 300 feet and is traversed throughout its length by a road.

Using funds supplied by Anchor Mines Ltd., a program of diamond drilling was carried out during the fall of 1968 at the Takla Silver Mine, totalling 6,268 feet, 1881' of which was underground drilling and 4387' was surface drilling.

This program investigated the No. 1 zone which, on surface, assayed 0.13 oz. Au and 23.4 oz. Ag across 7.0' for a strike length of 255'. The relationship between the vein on surface and the

mineral occurrences in the underground workings was not certain and had to be determined before intelligent planning could be carried out.

Systematic drilling on 50' sections was done from the adit, for 200 feet along strike, and showed that the principal mineral zone dipped steeply to the east while the host rocks, a feldspar porphyry dyke and an associated fault zone, dipped about 60° to the west. A small amount of preliminary exploration was conducted on the #3 and #4 zones.

GEOLOGY & MINERAL OCCURRENCES

The mine property is entirely underlain by folded and faulted, moderately metamorphosed, discontinuous bands of limestone, chert-argillite and greenstone schist, all of which have been intruded by feldspar porphyry and granodiorite dykes.

The ore occurrences on the property consist of steeply dipping replacement and fracture filling vein type bodies localized along north trending shear zones. Four separate zones are exposed on the property, of which No. 1 and No. 2 zones contain high grade silver-base metal ore, whereas No. 3 and No. 4 zones contain relatively large tonnages of medium grade zinc ore in iron mineral gangue.

Minerals present in the No. 1 orebody are sphalerite, pyrite, galena, arsenopyrite, stibnite and jamesonite, all associated with quartz and carbonate stringers. Andorite, freibergite and native silver and gold have been recognized by earlier workers.

The No. 1 zone vein varies from a few inches up to about ten feet in true width. Host rocks in the vicinity of the mine workings are massive, light to medium grey, impure, massive limestone,

with minor amounts of argillaceous material. The portal area is underlain by graphitic argillaceous schist. A northwesterly-plunging anticline of these schists appears to underlie the mineral area and most probably causes some major changes in depth to the principal veins. To generalize, one may say that veins that have good widths in limestone tend to pinch out in the less competent fissile schists. On the other hand, veins passing through massive host rocks, that may measure only a few inches in width, often are appreciably wider immediately upon entering a less massive host rock.

The graphitic schist anticline outcrops at surface but is only encountered at depth for the next 400' to the north. The axis of the anticline plunges at about 45° to the north for 300' and then begins to rise again northerly.

The major fault that is associated with the principal feldspar porphyry dyke has been observed in the No. 1 crosscut east in the underground workings and in numerous diamond drill holes. The fault appears to dip steeply to the west, conformable with the formations. It is undoubtedly a normal fault, displacing the No. 1 mineral vein about 60' vertically.

DRILLING RESULTS

The 1968 diamond drilling proved the continuity of the No. 1 mineral zone in depth. As in many case of drilling for silver-bearing veins, core recovery was a problem. Consequently, it is felt that many of the mineral intersections gave unreliable assay results. In almost all holes drill water was lost with associated loss of fine mineral. This is especially true of underground down holes which entered the expected location of the vein in the fault area.

North of the 1968 exploration area are four holes drilled by Bralorne which indicate that the No. 1 vein zone continues for at least 500' north of the northernmost of the principal surface showings.

On the basis of surface and underground evidence to date therefore, a strike length of 1200' is indicated. The 1968 diamond drill holes intersected the vein at an average depth of 250' over a strike length of 400'.

Six chip samples taken from the No. 1 vein in the underground workings averaged 0.10 ounces of gold per ton (uncut), 48.6 ounces of silver per ton (uncut), or 27.5 ounces of silver per ton (cut) across 1.75'. This grade is believed to be more realistic than the lower drill hole sample and grades, since the core recovery was exceptionally poor.

METALLURGY

A 300 lb. bulk sample of mineralized vein material was taken from underground and surface exposures for metallurgical testing by the Department of Energy, Mines and Resources in Ottawa. This sample assayed as follows:

<u>Element</u>	<u>Underground Ore</u>	<u>Surface Ore</u>
Gold	0.17 oz./ton	0.18 oz./ton
Silver	18.24 "	62.45 "
Lead (Pb)	2.35%	10.37%
Antimony (Sb)	1.95%	7.65%
Zinc (Zn)	2.38%	0.76%
Iron (Fe)	14.79%	11.42%
Arsenic (As)	6.37%	11.20%
Insoluble	22.56%	36.48%

While significant amounts of arsenic remained in flotation products produced, results contained in letters from the Department dated November 24th and December 5th, 1969, show that marketable products can be obtained in the form of a bulk lead antimony concentrate and a zinc concentrate. Acceptable recoveries of both base and precious metals are indicated.

The lead antimony concentrate would contain approximately 200-300 ounces of silver per ton, 20-24% lead, and 20% antimony. The zinc concentrate would contain approximately 52% zinc, 13 ounces of silver per ton, and 1-2% antimony.

Overall recoveries of 80 to 85% of the silver, 75-80% of the lead and 80% of the zinc are indicated.

SUMMARY

Ore Potential

Evaluation of the property's potential as a possible gold, silver and antimony producer, coupled with the 1968 diamond drilling results shows that further exploration is warranted.

This should be primarily directed toward the No. 1 zone, in order to measure accurately the metal values in the vein system, to determine continuity, to evaluate possible mining methods and to obtain a bulk sample for metallurgical test work.

The proximity of the No. 2 zone to the No. 1 zone indicates that some exploration of this vein be carried out in conjunction with the No. 1 vein program. This vein has been exposed on surface for 300' and six samples taken from three trenches average 0.10 oz. Au, 5.8 oz. Ag,

1.8% Zn and 4.1% Pb across 3.5'. The vein parallels the No. 1 vein about 250' west and the south trace of it may have been encountered in the west crosscut of the principal 4300' level. Surface drilling is warranted.

Drifting and raising on the principal structure in the 4300' level will effectively determine whether the property can support a mining operation. About one thousand feet of lateral work is required to expose the vein as are nine properly-placed 50' raises.

Sufficient work has been completed on certain parts of the No. 3 and No. 4B zones to indicate their probable size and grade. Extensive overburden in the No. 3 and No. 4 zone areas, generally however, effectively hides any possible parallel or adjacent similar mineral deposits. Not too much exploration other than cursory surface prospecting has been carried out so far to rule out their existence.

The fact that widespread mineralization has been discovered in these zones however, even though of apparently modest size and grade, warrants further exploration work.

ACCESS

The British Columbia Railway (formerly the P.C.E.) has been extended to the south end of Takla Lake and will very shortly pass through Takla Landing, some 50 miles northward up the lake. The road from Fort St. James to the Germansen Landing area and its extension westward, has been recently pushed through to Takla Landing and is now serviceable on a year-round basis. Operating costs at the Anchor Takla Silver Mines property will therefore now be correspondingly substantially reduced, since the property is connected to this road and railway system by about three miles of good gravel road.

RECOMMENDATIONS

Further exploration at the Anchor-Takla Silver Mines property is recommended. This should consist of extensions to the existing level and the completion of short raises inclined upwards at about 30° to follow the vein structure. A careful sampling and assaying programme should then determine the metal content of the vein and will also provide metallurgical samples for further test work.

Exploration should be continued on the No. 3 and 4 zone areas by completing surface prospecting and geological mapping, together with reconnaissance geochemistry. Further work would depend on results obtained.

As outlined in the accompanying Bacon & Crowhurst report dated February 26th, 1969, the estimated cost of this program as separated into two stages, amounts to \$125,000.00 for each stage. Carrying out of stage 2 would depend on results obtained from stage 1.

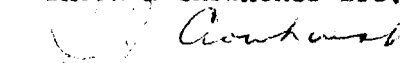
CONCLUSION

Your company possesses a substantial interest in the Anchor-Takla Silver Mines property which, in our opinion, constitutes a good prospect. Extension of the presently known vein structure by underground work and further metallurgical testing may well indicate that the property could be placed in profitable production, particularly if the current trend in the price of metals continues to improve.

Depending on policy commitment and availability of funds, it is suggested that the Company give serious consideration, therefore, to the program recommended in our February 26th, 1969, report.

Respectfully submitted,

BACON & CROWHURST LTD.


J.J. Crowhurst, P.Eng.