November 22nd, 1968.

The President & Directors, Anchor-Takla Mines Ltd. (N.P.L.), 1111 - 409 Granville St., Vancouver, 2, B.C.

Dear Sirs:

REPORT ON THE 1968 DIAMOND DRILL PROGRAM

INTRODUCTION

During the fall of 1968 a program of diamond drilling was carried out at the Takla Silver Mine, totalling 6268 feet, 1881' underground and 4387' on the surface.

The program was designed to investigate 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, feldspar porphyry dyke and the associated fault zone dipped about 60° to the west.

GEOLOGY

The principal rocks are limestone, argillaceous limestone, graphitic schists, phyllites and argillites intruded by continuous, though narrow, feldspar porphyry dykes. Minerals present in the No. 1 orebody are sphalerite, pyrite, galena, arsenopyrite, stibuite 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 (see section 50100N - Hole 68-S-9).

The graphitic schist anticline outcrops at surface on Section 49900N but is only encountered at depth for the next 400° to the morth. The axis of the anticline plunges at about 45° to the morth for 300° and then begins to rise again on Section 50300N.

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.

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DRILLING RESULTS

Drilling has undoubtedly proved the continuity of the No. 1 mineral zone in depth. As in many cases of drilling for silverbearing 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.

Following are drill hole intersections of current holes and pertinent Bralorne holes. (Holes which were drilled into the fault area and others are shown on the accompanying sections.)

| Drill Hole | Section | Angle | <u>Oz. Au</u> | Oz. Ag | Width | % Recovery |
|------------|------------|-------|---------------|--------|-------|------------|
| 68-UG-19 | 49900N | +430 | 0.10 | 21.0 | 1.7° | 100% |
| 68-UG-21 | # # | -450 | 0.11 | 14.8 | 7.0* | 60% |
| 68-UG-16 | 49950N | +40° | 0.06 | 6.0 | 2.2* | 100% |
| 68-UG-12 | 50000N | +450 | 0.03 | 4.1 | 1.1 . | 70% |
| 18 F | 8.6 | | 0.03 | 6.7 | 3.0" | Rubble |
| 68-UG-10 | 50050N | +420 | 0.01 | 4.7 | 5.01 | 100% |
| 68-UG-4 | 50100N | 00 | 0.01 | 7.3 | 1.0* | 90% |
| 68-UG-5 | 11 | -30° | - | 3.8 | 7.01 | Gouge |
| 84 | 49 | | 0.04 | 28.6 | 3.51 | 90% |
| 68-S-9 | \$ \$ | -60° | - | 23.4 | 4.0" | 80% |
| 83 | 81 | | | 4.2 | 14.01 | 50% |
| 68-S-3 | 50150N | -350 | 0.03 | 7.1 | 11.0" | 70% |
| 89 | 6.9 | | 0.02 | 2.5 | 3.0" | 1.00% |
| 68-S-4 | 50200N | -35° | 0.07 | 5.8 | 3.61 | 30% |
| 68-S-5 | \$ t | -60° | 0,02 | 4.4 | 6.51 | 5% |
| 68-S-11A | 50000N | -68° | 0.01 | 3.2 | 5.01 | 90% |
| 51 | 1.9 | | 0.02 | 2.1 | 5.01 | 80% |
| 68-S-9 | 50100N | -60° | 0.004 | 4.23 | 14.0 | 50% |

- 3 -

| Drill Hol | le | Section | Angle | Oz. Au | Oz. Ag | Width | % Recovery |
|-----------|----|---------|-------|--------|--------|-------|------------|
| Bralorne | 33 | 50100 | -75° | 0,38 | 13.8 | 1.0" | 80% |
| ** | | 81 | | 0.12 | 16.6 | 5.0' | 80% |
| 事故 | | 33 | | 0.15 | 8.0 | 1.0* | 100% |
| P.1 | | 8.0 | | 0.07 | 8.9 | 2.01 | 100% |
| 9.0 | | 88 | | 0.06 | 26.3 | 3.0" | 50% |
| 9.8 | | 55 | | 0.10 | 10.1 | 2.0' | 75% |
| 11 | | 88 | | 0.10 | 26.7 | 2.0* | 2.5% |
| Bralorne | 2 | 5.0 | -380 | 0.12 | 21.3 | 1.5* | 1.5% |
| 8.0 | | 11 | | 0,28 | 251.9 | 2.51 | 65% |
| 11 | | 11 | | 0.03 | 39.3 | 0.51 | 100% |
| Bralorne | 3 | 50200 | -38° | 0.06 | 2.8 | 1.0" | 50% |

The following surface holes were drilled this year: <u>Drill Hole 68-S1</u> was drilled due west at -45° for 380¹. The object was to check for a southward extension of the No. 1 vein. The hole passed 80¹ south of the main portal. Two feldspar porphyry dykes were intersected, as was the No. 1 vein structure at 70¹. The principal rock here is the unfavourable graphite schist.

<u>Drill Hole 68-52</u> paralleled 68-51 300 feet to the south of the latter. Results were similar to 68-51 and confirmed the belief that possibilities of finding commercial ore in a host rock of graphite schist are indeed poor. Minor pyrite at 97' was interpreted as being the structure. <u>Drill Hole 68-58</u> was drilled on the No. 3 zone for 554'. Dip of the mineralized zone was uncertain and this hole indicated that it is very steeply to the southwest. No mineralization was intersected in the hole as it passed beneath the zone of interest. The rocks intersected were limestone, argillaceous limestone, and tuffs with minor feldspar porphyry dykes. The accompanying surface geology plan shows that north of the area of recent exploration are four old <u>Bralorne</u> diamond drill holes as follows:

| Drill Hol | e <u>Vein Intersected</u> | |
|-----------|--|--|
| D.H. 5 | Ten feet of "indicated ore" - 2.7' recovered - no assay. | |
| 6 | 17' of "indicated ore" - 5.5' recovered - no assay. | |
| 6 | 3' of 6.2 oz. Ag - 2.0' recovered. | |
| 7 | No core 289'-299' - probable location of vein. | |
| 9 | 1.5' of 8.7 oz. Ag. 0.19 Au. 2.1% Pb - 100% recovery. | |

This drilling, though inconclusive, appears to indicate that the No. 1 vein zone continues for at least 500' north of the northernmost of the principal surface showings. Total strike length of the zone, including surface and underground evidence, is 1200'.

Sampling Chip samples were taken from the No. 1 vein in the underground workings as follows:

| Oz. Ag | Oz. Aŭ | Location |
|--------------|---|---|
| 197.0 | 0.13 | Back, at face of Drift N. |
| 48.8 | 0.10 | " 10' south of face. |
| 14.9 | 0.07 | 20 |
| 15.5 | 0.05 | 30 |
| .30.2 | 0.06 | 40 |
| 15.8 | 0.19 | Both walls, vein in XC East. |
| 48.6 (uncut) | 0.10 | |
| 27.5 (cut) | 0,10 | |
| | <u>Oz. Ag</u> 197.0 48.8 14.9 15.5 30.2 <u>15.8</u> 48.6 (uncut) 27.5 (cut) | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |

This grade is believed to be more realistic than the grade obtained from drill holes.

A 300 pound bulk sample of mineralized vein material was taken from underground and surface exposures for metallurgical testing.

CONCLUSIONS

The discovery of substantial graphite schist in depth is not an encouraging geological factor insofar as the downward continuity of the No. 1 vein is concerned. The full extent of the graphite schist is not known.

Above the schist, the No. 1 vein occurs in limestone. It is known for a strike length of 350 feet over a vertical range of 300 feet. Its grade, however, is conjectural in view of the incomplete nature of the drilling results in the mineralized zone.

RECOMMENDATIONS

It is considered that the drilling results, though incomplete, are sufficiently encouraging to warrant a limited amount of underground development work.

It is recommended that several steep raises be driven on the No. 1 vein, also that the adit be extended northward on the No. 1 vein.

> Respectfully submitted, BACON and CROWHURST

R.W. Phendler, P.Eng.

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