GEOPHYSICAL SURVEY DATA

ON PROPERTY OF

CASINO SILVER MINES LTD. (N. P. L.)

'B' ANOMALY AREA

YUKON TERRITORY

CANADA

CANA EXPLORATION CONSULTANTS LIMITED

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Plan No. 2 Geophysical Survey Data on Property of
Casino Silver Mines Ltd. (N. P. L.)
'B' Anomaly Area
Yukon Territory, Canada
July, 1966

Scale: 1" = 200'

The President and Directors
Casino Silver Mines Limited
1st Avenue and Strickland Street
Whitehorse, Yukon Territory

Gentlemen:

This report describes the results of a program of geophysical survey, conducted on the "B" anomaly area of your property located in Casino Creek area, Yukon Territory. The results are depicted on Plan No. 2 accompanying this report.

SURVEYED AREA -

The area surveyed is at the west part of a 222-claim property described in the writer's report dated August 3, 1966. The term Anomaly "B" is from an aeromagnetic low anomaly outlined by Aero Photo Inc. for Nordex Exploration Ltd. in 1965. A block of claim was designed to cover this anomaly area.

The geophysical operators found a claim line and claim posts No. 1, for Joe Group 53 and 54; No. 2, for Joe Group 51 and 52, at the south-west corner of the surveyed area. In correlation with the claim map and topography, the surveyed area apparently only covers the eastern end of the said "B" anomaly. This is partly due to the fact that the plotting of aeromagnetic data was on an inaccurate base map.

Readers are referred to the above said report for the general description of the property.

ACESS -

Acess to the surveyed area was by helicopter.

OBSERVED GEOLOGY -

During a visit to the surveyed area, the writer and Mr. C. D. N. Taylor, P. Eng., observed considerable amounts of black sand and boulders of amphibolite-pyroxenite along the upper reach of the creek which runs more or less parallel to the base line. There are numerous large boulders of granitic rocks. When checking at a magnetic anomaly to be described below we found outcrops of amphibolite at L 12 E, 14 + 70' N, 15' east and along the line at 15 + 20' N to 15 + 60' north. At 16 + 25' north, there are boulders of granite. Specks of iron sulphide were observed on a few small boulders of the ultrabasic rock. Rock samples from the outcrop reacted negative to nickel test, using Dimethyl-glyoxime powder.

SURVEY METHOD AND INSTRUMENTS -

The geophysical survey was carried out along picket lines cut at 400' intervals, vertical to a base line cut at an N 60° W direction. The magnetic north was assumed to be at 32° to the east of the astronomic north. Stations were established at 100'

intervals along the picket lines.

A Sharpe A-2 magnetometer with a sensitivity of 21.5 gammas per scale division was used for the magnetic survey and a Sharpe SE-200 unit was used for the electromagnetic survey.

SURVEY RESULTS AND INTERPRETATION -

The magnetometer survey outlined a narrow magnetic zone which runs northwesterly across the north central part of the surveyed area. The zone has indicated widths from 50 ft. to about 200 ft. On L-12 E, a width of about 130 ft. corresponds closely to outcrops of amphibolite found after the survey. Readings in the order of over 800 gammas is inferred as indicating this ultrabasic rock with high readings of up to about 2,500 gammas along the zone.

The ultrabasic intrusive is apparently in a dike form cutting granite. However, there are several dipole effects with magnetic depression associated with the magnetic high. The northwesterly elongated narrow magnetic depressions are inferred as indicating faults or shears. These inferred structures are apparently minor, because of the fact that they do not continue to great distances.

It is possible that the magnetic depression located at L 4 W and L 8 W along the creek is responsible for part of the

magnetic depression outlined at the eastern part of aeromagnetic low anomaly "B". Since the magnetic zone outlined by the ground survey opens to the west part of the surveyed area, other magnetic depressions could be associated with the ultrabasic intrusive and could account for the aeromagnetic low anomaly "B". The writer and Mr. Taylor flew over the west part of the surveyed area and observed nothing of interest on that mostly barren treeless area prospected by one of your fieldmen.

The electromagnetic survey obtained negative results on the surveyed area.

CONCLUSIONS AND RECOMMENDATIONS -

The survey outlined a narrow zone of ultrabasic instrusive on the surveyed area believed to be located at the eastern end of an aeromagnetic low anomaly "B". The ultrabasic intrusive is magnetic but appears to be associated with many magnetic depressions inferred as due to minor faults or shears. There is no indication of any appreciable concentration of sulphides at shallow depths on the surveyed area.

The fact that the ultrabasic zone is barren and open to the

west led the writer to conclude that the aeromagnetic low anomaly "B" could be outlined over magnetic dipoles associated with the ultrabasic intrusive.

It is not recommended to conduct any more exploration work on and to the west of the surveyed area.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED

S. S. Szetu, Ph. D.
Consulting Geologist

SSS:pl
Encl.

Toron to, Ontario
August 15, 1966.

L - 16 W

L - 12 W

L - 8 W

L - 4 W

L - 0+00

L - 4 E

L - 8 E

L - 12 E

L - 16 E

L - 20 E

L - 24 E

L - 28 E

L - 32 E

Magnetic

Part of Joe 71-72
Joe 69-70

BASE LINE N 60° W
'B' BLOCK

LEGEND

- Claim posts observed
- Steep hill and high ground with estimated slope
- Creek
- Picket line cut and chained
- Magnetic readings obtained by using a Sharp A-2 magnetometer are plotted to the east of picket line.
- Magnetic contour
- Below 200 gammas
- 200 - 0 "
- 0 - 200 "
- 200 - 400 "
- 400 - 600 "
- 600 - 800 "
- 800 - 1000 "
- 1000 - 1500 "
- 1500 - 2000 "
- Over 2000 "
- Electromagnetic readings obtained by using a Sharpe SE-200 unit, parallel line method. Scale of profile: 1/10" = 1° dip angle
- Electromagnetic "Cross-over"

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YUKON TERRITORY, CANADA

SCALE 1" = 200' DATE JULY 1966

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PLAN NO. 2