VLIF SURVEY
OVER THE ELK GROUP, INVERMERE AREA

## GOLDEN MINING DIVISION, BRITISH COLUMBIA

NTS $82 \mathrm{~K} / 09 \mathrm{~W}$
LAT/LONG 50 32' - 116 23'
*
aUg 172001
Gold Commissioner's Office VANCOUVER, B.C.
W. POCHYLKO

STETTLER, ALBERTA

BY

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JUNE 2001

## geological survey brancer ASSESCMYNT TEPORT



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## INTRODUCTION

The property covered by this report consists of a total group of 33 units covered by the Elk and Deer claims. These claims are located approximately 30 kilometers west of Radium, B.C., on the Horsethief Creek road, (Figures 1,2).

This report covers a VLF survey using a local transmitter, (Geonics Tx 27), located to the east of the property, (Fioure 3). A total of 7.2 kilometers was surveyed in an area where a major self-potential anomaly was located on previous surveys. The target is a potential replacement ore body at the Windermere unconformity which has been mapped through the claim group.

Previous VLF surveys using the standard transmitters did not produce definitive results due to the poor electromagnetic coupling with the anticipated north-south regional structural trend, hence the use of a local transmitter.

## PROPERTY

The property consists of a total of 33 units registered to W. Pochylko, Stettler. Alberta and are listed as follows:

| Claim Name | Record No. | Tag No. | Units | Expiry |
| :--- | :--- | :---: | :---: | :--- |
| Elk | 310223 | 67765 | 18 | Jun 5, 00 |
| Deer \#3 | 310430 | 67766 | 12 | Jun 20, 00 |
| Deer \#4 | 311217 | 67767 | 3 | July 18, 00 |

The claims are located in the Golden Mining Division, 50 32' Lat, 116 23' Long., and in NTS map sheet 082K/09W, (Figures 1,2).

## ACCESS

The property is located approximately 30 kilometers directly west of Radium, B. C. The property can be reached from the Horsethief Creek road which is accessed from the town of Radium, just north of Invermere, and passes through the northern part of the property. Old logging roads from the Horsethief Creek road along Gopher Creek cross the central part of the property and connect to Taylor Creek. The majority of the roads cannot be traveled by vehicles due to extensive bush re-growth and washouts at Gopher Creek.

## HISTORY

There are no known major mineral occurrences within the claim group.
$4$

|  |
| :---: |

## GEOLOGY

The geology of the area was mapped by Pope (1990).
The criteria that was established for many of the ore deposits in the area was to be located on major structures below and close to the Windermere unconformity. The mapping by Pope indicates that the unconformity is located in the northern part of the claim group and that at least one major north-south structure crosses the unconformity. The fault as mapped by Pope is the same structure shown as the location of a number of old base metal prospects in the Mt Slade area. These are located approximately 3 kilometers south of the property limits.

The geophysical work carried out on the property to date indicates a number of cross faults in addition to the main north-south regional structural trend. Potential replacement ore bodies could be located in the underlying Mt. Nelson formation similar to that at the Paradise Mine located approximately 10 kilometers to the south-east.

## VLE SURVEX

(A) Specifications

A local VLF transmitter was established just to the east of the claim boundary and a series of lines were surveyed on the side of steep ridge, 300-400 meters in elevation difference above creek level. Readings were taken at 20 meter intervals along 6 grid lines in an east-west direction, Figure 4. Two line were surveyed to the north also at 20 meter intervals, Figure 5. All readings were taken facing west.

A total of 7.2 kilometers of line was surveyed. Operational difficulties were encountered due to wildlife in the area breaking the transmitter cable on numerous occasions.
(B) Results

The results are presented as profiles, Figures 4,5.
The results show very strong cross-overs near the top of the ridge at the west end of most lines on the main grid. The results would indicate a shallow source. The results could be influenced by a combination of geology and topography with the transmitter location to produce this effect just to the west of the crest of the ridge. If a source cannot be identified on the ground then the validity could be checked by setting the transmitter to the west of the grid and rechecking the area of the anomaly.

A similar but weaker response was obtained near the west end of Line $B$ in the vicinity of a north trending selfpotential anomaly. Signals were weak in this area with very broad nulls. Re-surveying the anomaly with a transmitter
location to the west would probably provide better response.



## CONCLUSIONS AND RECOMMENDATIONS

The survey located an anomaly trending along the main ridge and located just west of the crest. The results suggest a shallow source and if not confirmed by ground observation should be checked using a transmitter located to west to rule out any topographic influence. There appears to be close correlation of the VL.F anomalies with the location of previous self-potential anomalies.

Extension of the survey over the rest of the property should be considered depending on the relevance of the present results.

## REFERENCES

Dundas T.R.B., 1995-1997, Assessment Reports 23007, 24586 and 25146 - Elk Group

Pope A., 1990, The Geology and Mineral Deposits of the Toby-Horsethief Creek Map Area, Northern Purcell Mountains, Southeast British Columbia (82K), Geological Survey Branch, B.C., Open File 1990-26.

## STATEMENT OF COSTS

| Mobilisation/Demobilisation |  |  |  | \$750.00 |
| :---: | :---: | :---: | :---: | :---: |
| T. Dundas | Geophysicist | 6 days | \$450 | \$2,700.00 |
| W. Pochylko | Assistant | 6 days | \$300 | \$1,800.00 |
|  | Food \& Exp | 6 days | \$50 | \$300.00 |
|  | VLE rental | 6 days | \$30 | \$180.00 |
|  | Tx 27 rental | 6 days | \$50 | \$300.00 |
|  | Vehicle | 6 days | \$50 | \$300.00 |
|  | Report |  |  | \$1,420.00 |

## CERTIFICATE



