

SELF POTENTIAL SURVEY
OVER THE ELK GROUP,
INVERMERE AREA

GOLDEN MINING DIVISION,
BRITISH COLUMBIA

NTS 82K/9W
LAT/LONG 50 32' - 116 23'

FOR

W. POCHYLKO
STETTLER, ALBERTA

BY

FILMED

ISOGEOS EXPLORATION SERVICES LTD.

CALGARY, ALBERTA GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

JUNE 1996

24,586

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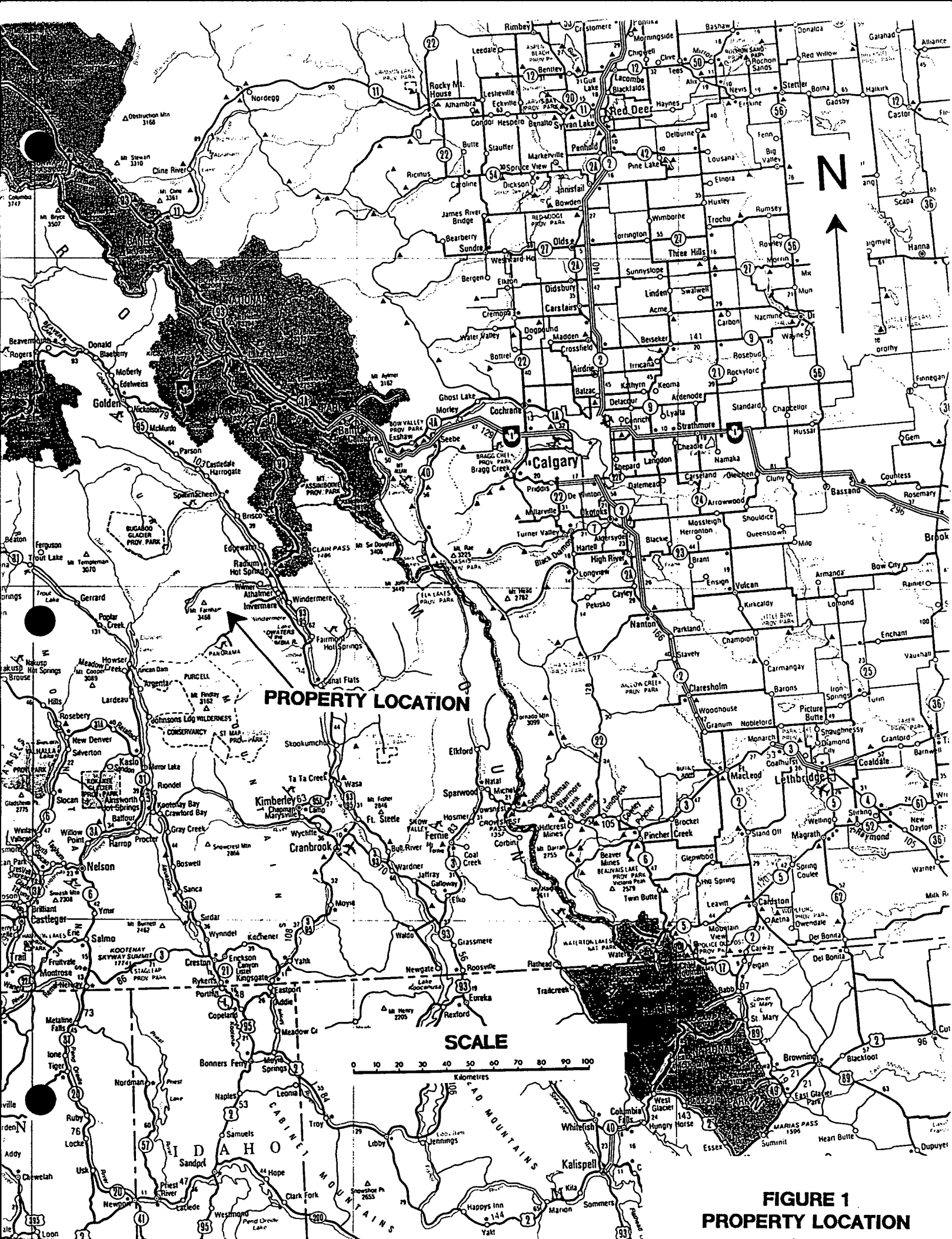
FIG 4 - SELF-POTENTIAL SURVEY MAP IN POCKET

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 20 kilometers west of Invermere. B.C., (Figures 1,2).

This report covers detail work in an area where a number of anomalies were located in the previous field season and which are described in an assessment report in 1993. The present work was concentrated on a detail grid of 100 meter line intervals and at a station spacing of 20 meters. A series of control base stations were established in order that an accurate contour map of the self-potential field would be obtained.

A total of 12.0 kilometers were surveyed with the detail station interval of 20 meters.



PROPERTY LOCATION

SCALE

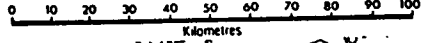


FIGURE 1
PROPERTY LOCATION

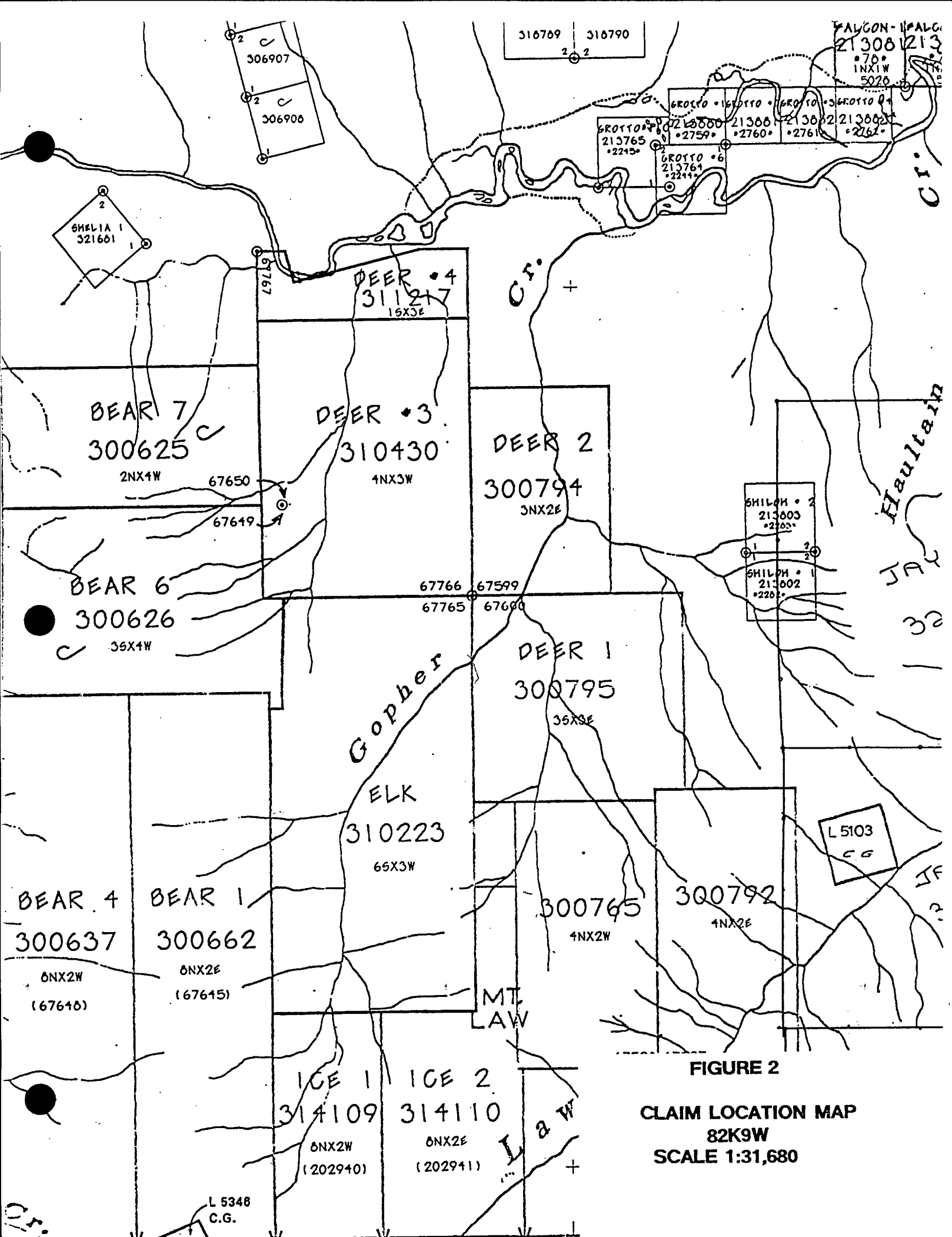


FIGURE 2

CLAIM LOCATION MAP
82K9W
SCALE 1:31,680

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, 96
Deer #3	310430	67766	12	Jun 5, 96
Deer #4	311217	67767	3	Jun 5, 96

The claims are located in the Golden Mining Division, 50 32' Lat, 116 23' Long., and in NTS map sheet 82K/9W, (Figures 1,2).

ACCESS

The property is located approximately 27 kilometers directly west of Invermere, 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.

HISTORY

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

GEOLOGY

The geology of the area was mapped by Pope (1990), and is shown in Figure 3. 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 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.

**GEOLOGY
LEGEND**

P R O T E R O Z O I C	H A D R Y N I A N	W I C O L O N I A N S C A L E	red arg.	Hh5			
			grit	Hh4			
			dot.	Hh3			
			arg.	Hh2			
			black last	Hh1			
			conglom./diamictite		Ht		
			H E L I K I A N	B E L T	P U R C E L L S U P E R G R O U P	U. dot.	Hmn7
						U. qtzite.	Hmn6
						dot.	Hmn5
						purple dol./arg.	Hmn4
M. orange dot.	Hmn3						
L. dot.	Hmn2						
L. qtzite.	Hmn1						
arg.		Hd					
dol.		Hg2					
dot./sst.		Hg1					
green qtzite.		Hv					

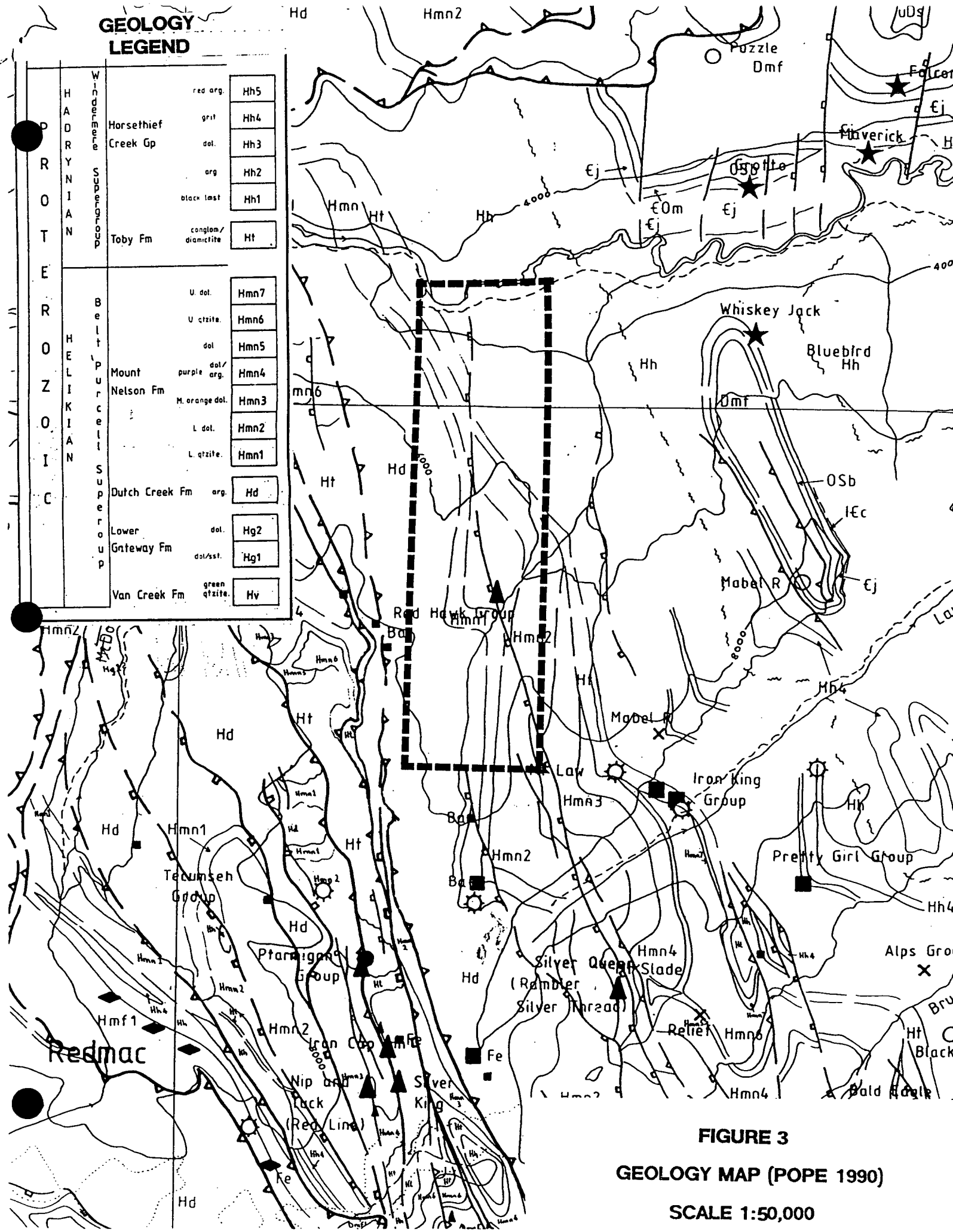


FIGURE 3
GEOLOGY MAP (POPE 1990)
SCALE 1:50,000

SELF-POTENTIAL SURVEY

(A) Specifications

The self-potential is conducted by measuring the natural voltage between the survey stations using non-polarising copper sulphate electrodes. The voltage is measured by a high input impedance voltmeter capable of measuring in millivolts. The station interval used for the majority of the work was 20 meters. A good summary of the theory and field application of the method has been provided by Burr, 1982.

The normal field procedure is to take the measurements in a series of closed loops so that a drift correction can be applied. The readings are taken in a leap-frog manner with the rear electrode moved past the forward electrode. This reduces the errors for any potential difference between the electrodes as well as establishes that one electrode is stable for adjacent measurements.

The survey was conducted by establishing a number of control stations with a long reel of wire, 600 meters, from which the various lines were surveyed.

(B) Results

The results are presented as a contour map, Figure 4.

The detail work shows that the geology of the property is complex. Outcrop is limited over the area of the main detail grid. The self-potential base level was established as 0 at the primary base and it would appear from the contour results that the regional background level is approximately positive 300 millivolts. A regional low is apparent over the central part of the survey and any values below positive 100 millivolts is considered to be of significance. Values in the negative range do show some trends which at present cannot be directly related to the geology. A number of strong anomalies exist at the southern limits of the present survey grid and an extension to the south using the established survey parameters should be carried out.

A small grid was surveyed at the southern limits of the map sheet over an area of highly fractured slates which had low concentrations of base metals. It is believed that

the location is that of a major structure through the area and continuing north along the eastern side of Taylor Creek. The present grid should be tied to these results in order to establish a common base level.

CONCLUSIONS AND RECOMMENDATIONS

The detail work has confirmed the presence of the anomalies and shows that there is a regional self-potential low within which a number of strong anomalies exist.

The survey should be extended to the south in order to fully define all of the anomalies.

The strike of some anomalies has already been established and confirmation by electromagnetic method, e.g. vertical loop in the difficult terrain, will confirm if a massive deposit is present.

Soil geochemistry may also be necessary to determine if base metals are present on the property.

REFERENCES

Burr S.V., 1982, A Guide to Prospecting by the Self-Potential Method, Ontario Geological Survey, Miscellaneous Paper 99.

Pope A., 1990, The Geology and Mineral Deposits of the Toby-Horsethief Creek Map Area, Northern Purcell Mountains, Southeast British Columbia (82K0, Geological Survey Branch, B.C., Open File 1990-26.

STATEMENT OF COSTS

Mobilisation/Demobilisation			\$775.00
T. Dundas	Geophysicist	7 days @ \$450	\$3,150.00
W. Pochylko	Assistant	7 days @ \$250	\$1,750.00
	Food & Exp	7 days @ \$50	\$350.00
	Sp rental	7 days @ \$25	\$175.00
	Vehicle	7 days @ \$50	\$350.00
	Report		\$1,900.00
			<hr/> <hr/>
			\$8,450.00

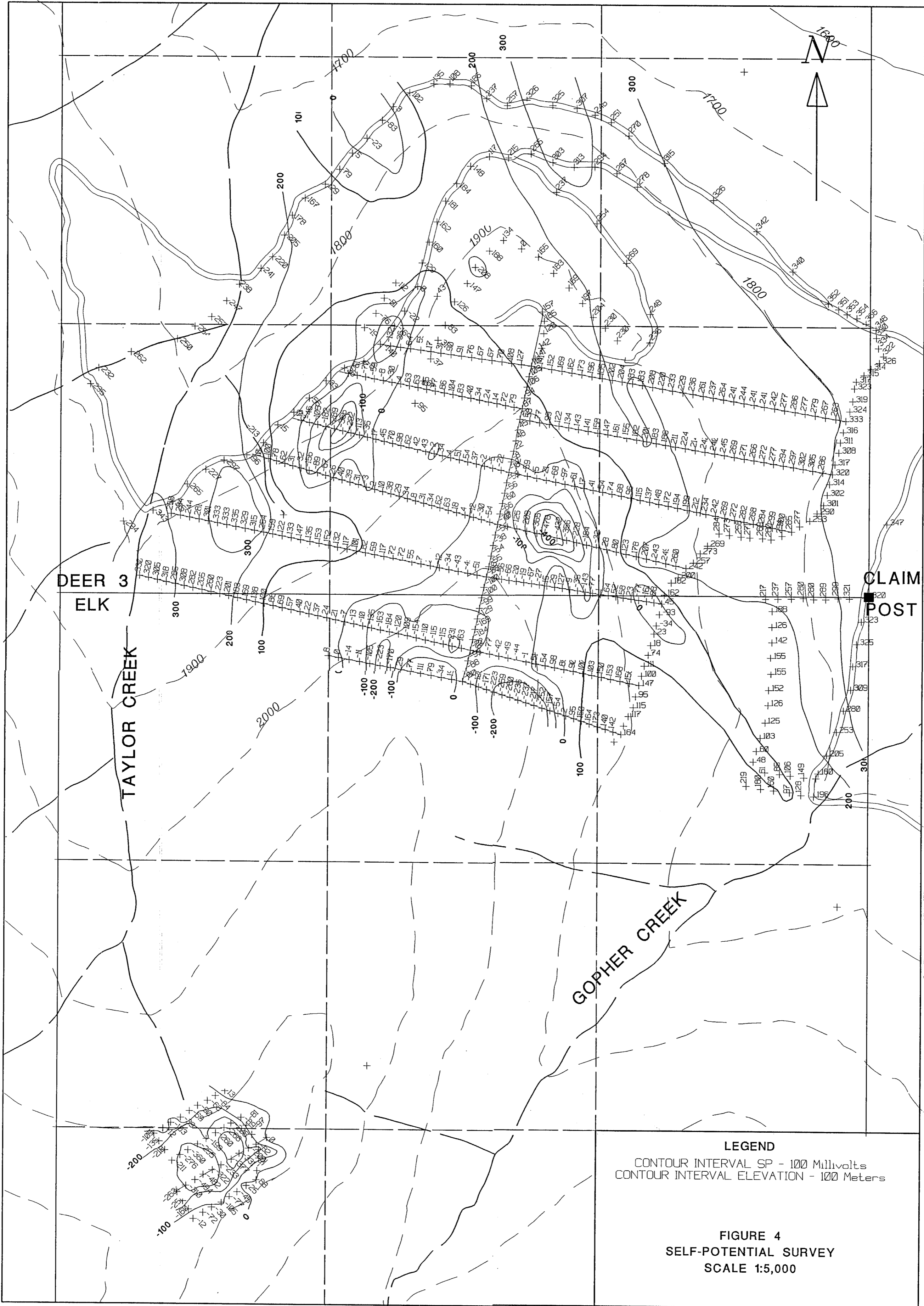
CERTIFICATE

I, Trevor R. B. Dundas do hereby certify that:

1. I am a practicing consultant geophysicist resident in Calgary, Alberta.
2. I have graduated with a B. Sc. Degree in Geology from Queen's University, Belfast in 1965 and an M. Sc. In Geophysics from Imperial College, London University in 1967.
3. I have been actively consulting as a geophysicist since 1968

Dated this 20 Day of Feb 19, 96


Trevor R. B. Dundas



LEGEND
 CONTOUR INTERVAL SP - 100 Millivolts
 CONTOUR INTERVAL ELEVATION - 100 Meters

FIGURE 4
SELF-POTENTIAL SURVEY
SCALE 1:5,000

24,586