

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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PACIFIC GEOPHYSICAL LIMITED

REPORT ON THE

INDUCED POLARIZATION AND RESISTIVITY SURVEY
AND MAGNETIC SURVEY

ON THE

DENND CLAIM

CARIBOO MINING DIVISION, BRITISH COLUMBIA

FOR

DOROTHY DENNIS

LATITUDE : 52 49' N LONGITUDE : 121 29' W

N.T.S. 93A/14W

PROPERTY OWNER: DOROTHY DENNIS

PROPERTY OPERATOR: DOROTHY DENNIS

BY

PAUL A. CARTWRIGHT, P.Geo.

Geophysicist

DATED: SEPT. 25, 1995

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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

SUMMARY

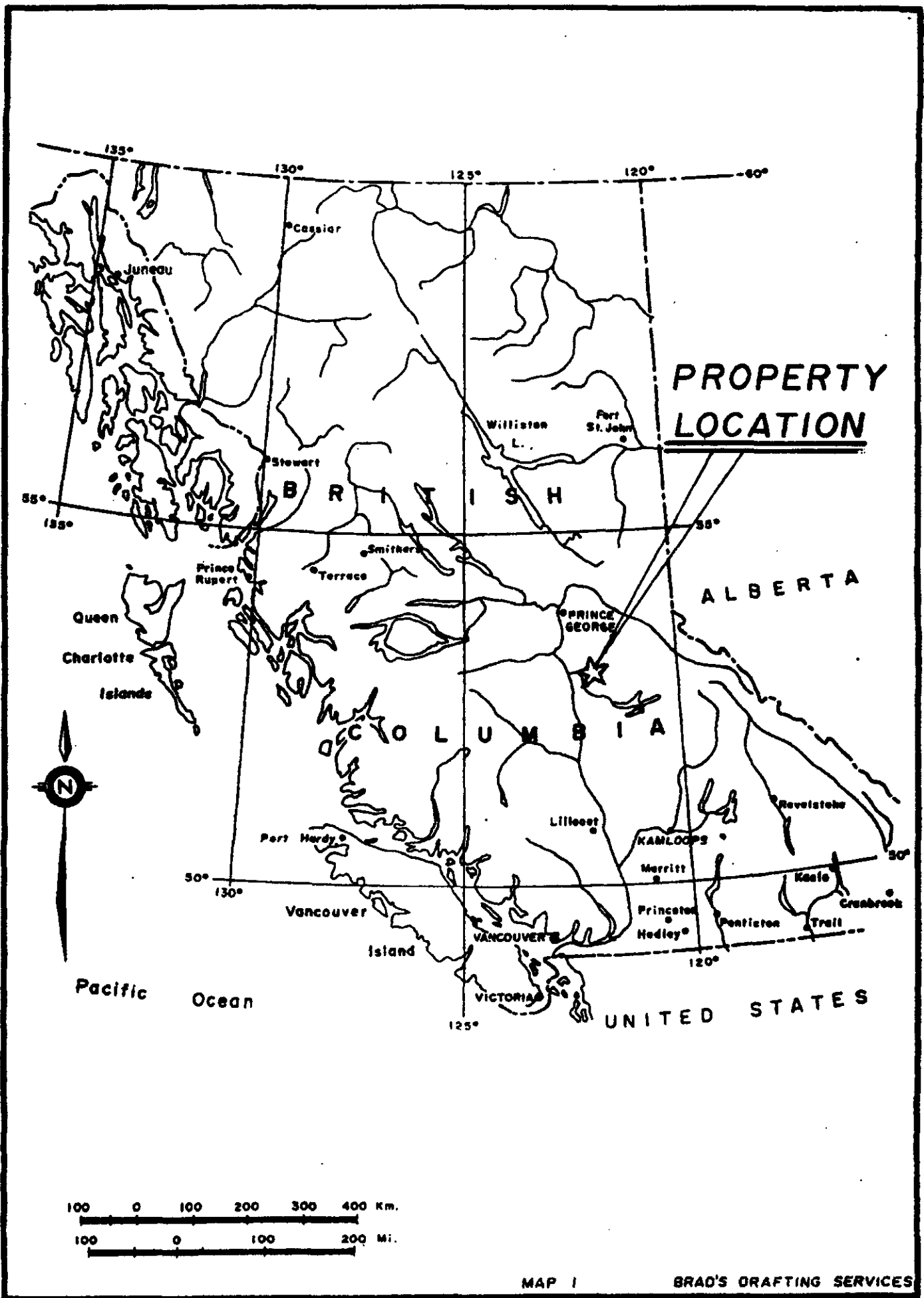
Induced Polarization(IP) and resistivity, and total field magnetic surveys have been carried out on the DENND Claim, Cariboo M.D., B.C. The IP and resistivity method has detected an extremely anomalous zone almost certainly caused by semi-massive or massive sulphide mineralization. Additional geophysical surveying has been recommended to further outline the anomalous IP zone, prior to drilling.

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PART B ILLUSTRATIONS

Location Map.	Map 1
Claim Map	Fig. 2
Geophysical Compilation Map	File:Mdor
IP Pseudosection Data Plot	1 Section



1. INTRODUCTION

Induced Polarization and resistivity, and total field magnetic surveys have been completed on the DENND Claim on behalf of Dorothy Dennis by Pacific Geophysical Ltd.

The DENND Claim is located approximately 23 kilometres north-northeast of the Community of Likely, British Columbia. Access to the property is via the Keithley Creek logging road from Likely. The claim straddles a portion of Snowshoe Creek, just north of it's confluence with Keithley Creek.

The area has been sporadically explored for both placer and lode gold since the 1860's. Noble Metal Group Inc. is presently preparing a placer mine for production on a section of Keithley Creek.

The objective of the present geophysical surveys was to test for the presence of metallic sulphide mineralization, possibly associated with economic gold concentrations.

Geophysical field operations took place on Sept. 15, 1995, under the direction of Paul Cartwright, P.Geo., geophysicist. A total of 0.8 l.km. of IP and resistivity data, and 0.8 l.km. of magnetic data were surveyed along the road that traverses the claim on the eastern side of Snowshoe Creek.

2. INSTRUMENT SPECIFICATIONS

An EDA Model IP-6 six channel time domain IP/resistivity receiver using "mode 3 (Td=80ms,M1-M10=4X80ms,3X160ms,3X320ms)", together with a Phoenix Model IPT-1 transmitter and 1.0 kw motor-generator, that produced a two second on/two second off square wave signal of alternating polarity, were used to make all the IP and resistivity measurements. IP effects were recorded as chargeability in milliseconds while apparent resistivity values were normalized in units of ohm-meters. Dipole-dipole array was utilized to make all of the measurements using an interelectrode distance of 25 metres and recording five separations at each station.

Total field ground magnetometer measurements were made using a GEM Systems Model GSM-19 magnetometer. Diurnal drift was estimated by re-occupying the initial station of the line immediately upon completion of the other magnetic measurements.

3. PROPERTY GEOLOGY

The following geological description has been provided by the staff of Dorothy Dennis;

" The Cariboo Mountain Belt has been subdivided into four distinct terranes, each one bounded by two major thrust faults. The DENND Claim is located within the Barkerville Terrane which is bounded to the east by the northeast dipping Pleasant Valley thrust

and to the west by the southwest dipping Eureka thrust. The terrane is characterised by continental shelf clastics, carbonates and volcanics, more specifically grit with black quartz grains and black siltite. The rocks have been metamorphosed and vary from chlorite to sillimanite grade, although in the vicinity of the DENND Claim, the rocks are of chlorite grade. The DENND Claim is underlain by metasedimentary rocks of the Cariboo Group, principally the Snowshoe Formation; the rocks are considered to range in age from Hydrynian to Palaeozoic. The Snowshoe Formation is the youngest known of the Cariboo Group. The Formation is composed predominantly of clastic rocks with subsidiary limestone. Micaceous quartzites are the commonest type of arenaceous rock, while the argillaceous rocks are mostly phyllites with fine siltstones. The calcareous rocks of the Snowshoe Formation are important because of gold-bearing pyritic replacement of certain beds.

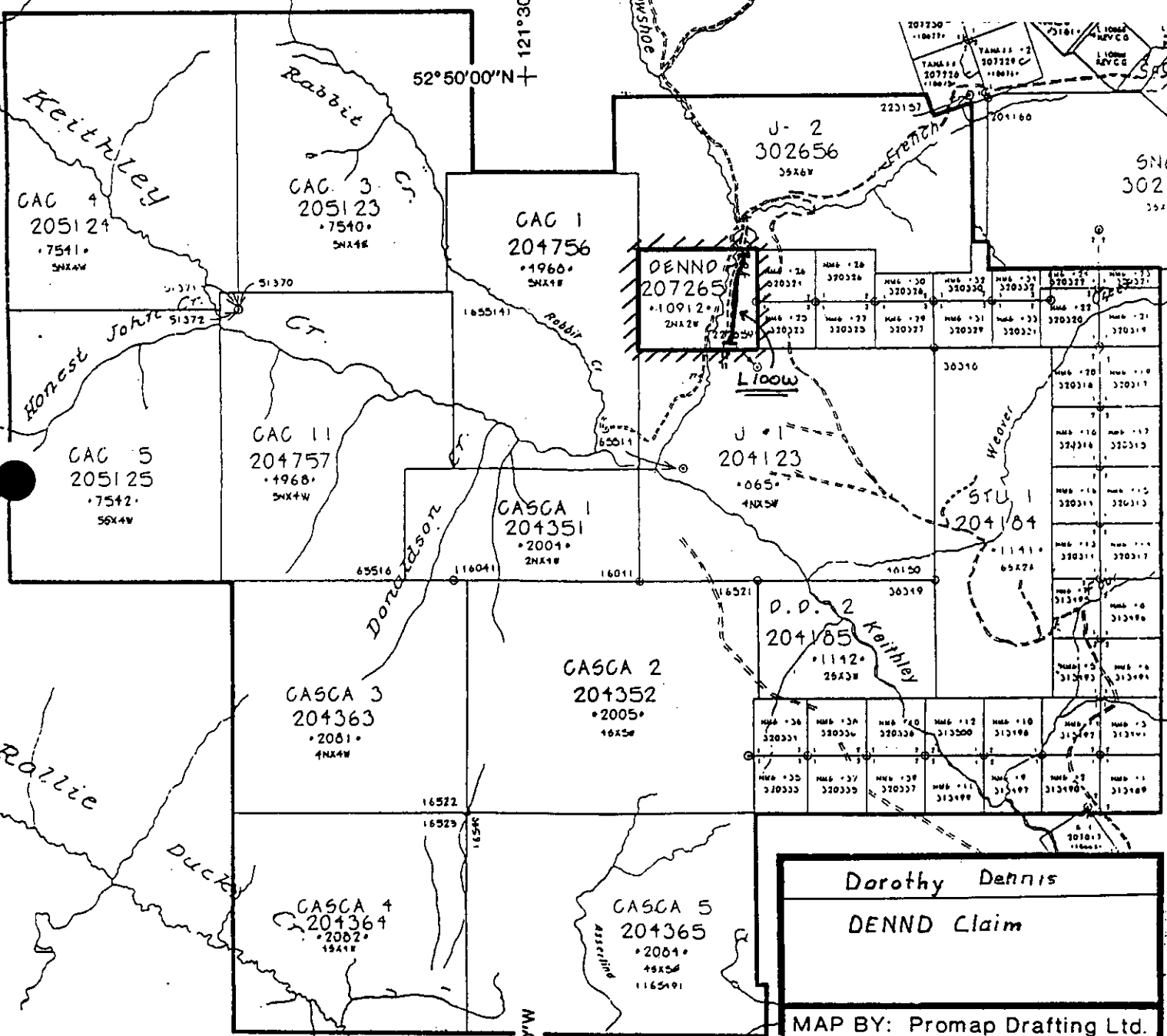
In the Cariboo area, gold mineralization occurs as follows:

1. As auriferous pyrite in quartz veins
2. As pyritic replacement ore in limestone

The Barkerville Terrane is cut by several generations of quartz veins the majority of which are barren. It is reported that some mineralized veins carry up to 25% pyrite with up to 70 grammes per ton of gold (Aldrick 1983).

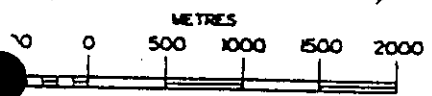
The replacement ore consists of massive pyrite lenses, with the finest sulphides containing the highest gold values. Structural control would appear to be important as the lenses are localized in

20130
20131
20132
20133
20134
20135
20136
20137
20138
20139
20140



Dorothy Dennis
 DENND Claim
 MAP BY: Promap Drafting Ltd.
 NTS GRID: 093A13E/T4W
 MINING DIV: Cariboo
 SCALE: 1:50,000
 DATE: 5 May 1994

FIG. No:
 2



121°30'00\"/>

52°50'00\"/>

121°30'00\"/>

52°45'00\"/>

the crests or troughs of the minor folds, in steeply dipping limbs of the main folds and in flat lying tabular lenses where the limestones have flattened (Aldrick). It has been suggested that the veins have developed outward from the replacement ore.

4. DESCRIPTION OF CLAIMS

The DENND Claim consists of the following:

<u>Claim Name</u>	<u>Units</u>	<u>Anniversary Date</u>	<u>Old Record No.</u>	<u>Tenure No.</u>
DENND	4	Sept.27, 1995	10912	207265

The mineral claims are located in the Cariboo Mining Division, Province of British Columbia.

5. PRESENTATION OF DATA

The IP and resistivity results are shown on the following data plot in pseudo-section format.

<u>Line</u>	<u>Electrode Int.</u>	<u>Reading Int.</u> (outermost electrodes)
100W	25 meters	0-800N

Also included with this report is Map File: MDor, a 1:5000 scale geophysical compilation plan map, which illustrates the interpreted IP anomalies, as well as the posted and profiled magnetics. These IP anomalies are indicated by bars in the manner shown on the plan map legend, as well as on the pseudo-section. These bars represent the surface projection of the anomalous zones

interpreted from the transmitter and receiver electrode locations when the anomalous values were measured, and should not be taken as representing the exact limits of the causative source.

6. DISCUSSION OF RESULTS


Highly anomalous IP values, together with very much lower than normal resistivity measurements, are evident in the data recorded near the southern end of the single line surveyed on the DENND Claim. This geophysical signature is strongly suggestive of a near-massive to massive sulphide source, such as would be expected over a massive pyrite replacement sulphide body. The remainder of the data indicates that Line 100W may be aligned roughly along the strike of the causative source, which is best seen in the interval between Station 150N and Station 200N, where the depth to top of the source is less than 25 metres sub-surface.

The magnetic values measured along Line 100W show less than 100 nT change over the 800 metre length of the line, except for single point local anomalies caused by metal culverts under the road. There does not appear to be close correlation between the magnetic data and the IP/resistivity data.

7. CONCLUSIONS AND RECOMMENDATIONS

Induced Polarization (IP) and resistivity surveying carried out across the DENND Claim has detected a very polarizable and conductive source. As this data could be indicative of the presence of massive sulphide mineralization carrying economic gold values, additional geophysical work is recommended to further define the strike direction and length, and depth of the source. A number of short lines at right angles to the existing line should be surveyed using the induced polarization and resistivity method, prior to locating drilling positions.

Pacific Geophysical Ltd.

Paul A. Cartwright
Paul A. Cartwright, A circular professional seal for Paul A. Cartwright, a Professional Geoscientist in the Province of British Columbia. The seal contains the text: PROFESSIONAL GEOSCIENTIST, PROVINCE OF BRITISH COLUMBIA, P. A. CARTWRIGHT, B.C. GEO.

Dated: September 25, 1995

8. PERSONNEL

The personnel employed during the data acquisition and reporting stages of the DENND Claim IP/resistivity, and magnetometer surveys are listed below.

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Date Employed</u>
P.Cartwright	Geophysicist	4508 W13th Ave., Vancouver	Sept 15, 21, 22/95
D.Helliwell	Geophysicist	4659 Simpson Ave., Vancouver	Sept. 15/95
B.Page	Geoph. Assis.	5792 Dunbar St., Vancouver	"
M.Major	Geoph. Assis.	425 East 11th Ave., Vancouver	"

PACIFIC GEOPHYSICAL LTD.

Paul A. Cartwright
 Paul A. Cartwright, P. Geo.



Dated: Sept. 25, 1995

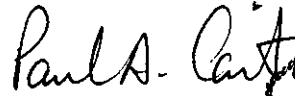
9. STATEMENT OF COST

Dorothy Dennis
 DENND Claim
 Cariboo M.D., B.C.
 NTS 93A/14W

IP/resistivity, magnetics

Data Acquisition	\$ 800.50
Data Processing, Interpretation & Reporting	\$ 600.00
	<hr/>
	\$ 1400.50
GST 7%	\$ 98.00
	<hr/>
Total	\$ 1498.54

Pacific Geophysical Ltd.



Paul A. Cartwright, C. Geoscientist




Dated: Sept. 25, 1995

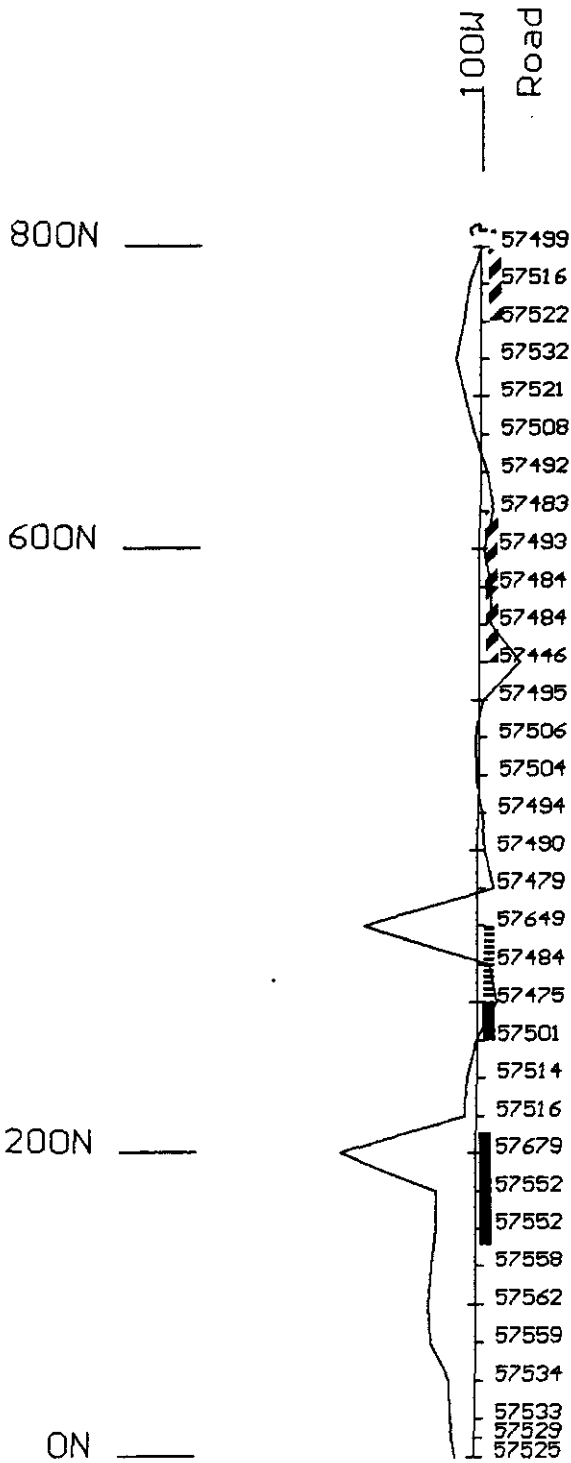
10. CERTIFICATE

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify:

1. I am a geophysicist residing at 4508 West 13th Avenue, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia, with a B.Sc. degree (1970).
3. I am a member of the Society of Exploration Geophysicists, and the European Society of Exploration Geophysicists.
4. I have been practising my profession for 25 years.
5. I am a Professional Geoscientist registered in the Province of British Columbia. I am a Professional Geophysicist licensed in the Province of Alberta.




Dated at Vancouver, British Columbia this 25th day of Sept., 1995.

Paul A. Cartwright
Paul A. Cartwright, P. Geophys.
A circular professional seal for Paul A. Cartwright, a Professional Geoscientist in British Columbia. The seal contains the text: 'PROFESSIONAL GEOSCIENTIST', 'P. A. CARTWRIGHT', and 'BRITISH COLUMBIA'.



MAG - Instrument : GSM-19
 - Field : TOTAL
 - Datum : 0.0 nT
 - Profile Scale: 100 nT/cm

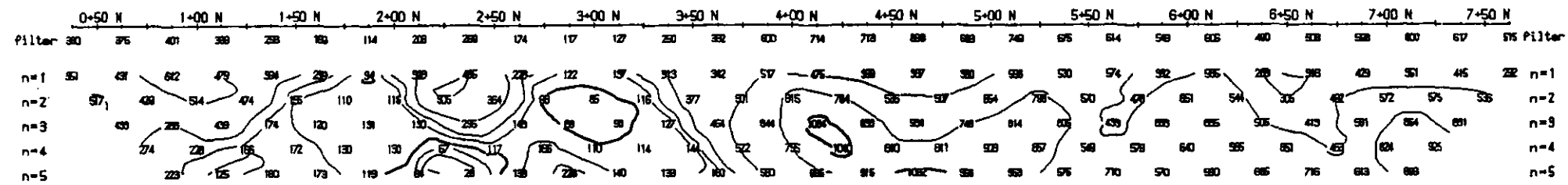
IP - Instrument : ELREC-6
 - Class. of Anomalous IP Zone

Strong 
 Moderate 
 Weak 

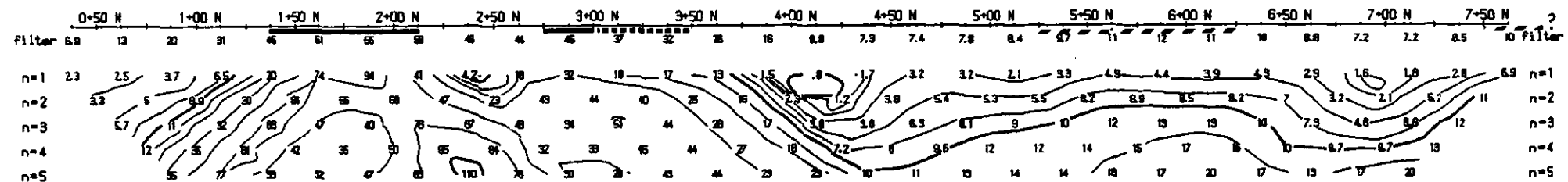
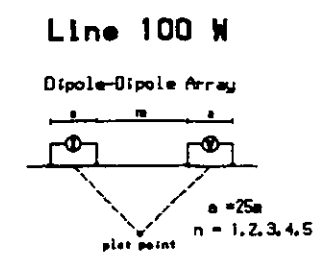
DOROTHY DENNIS

GEOPHYSICAL COMPILATION MAP
 Profile Mag. Values/Induced Polarization Anomalies
 DENND Claim; Cariboo M.D., B.C.

SCALE = 1 : 5000 DATE : Sept 1995
 SURVEY BY : PAC/DH NTS : 93A/14W
 FILE: MDor
 Pacific Geophysical Ltd.



RESISTIVITY
(ohm-m)



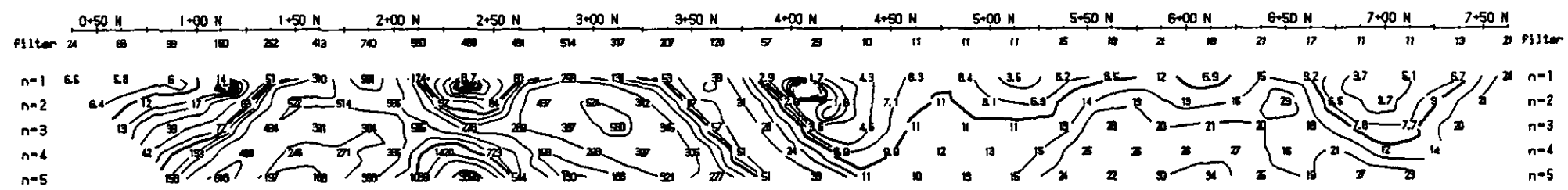
OBS. CHARGEABILITY
(%)

Logarithmic
Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instrument : EDA IP 6
Frequency : 2s ON / 2s OFF
Operator : PAC

INTERPRETATION

- Strong increase in polarization
- Moderate increase in polarization
- Weak increase in polarization



METAL FACTOR
(1p/res = 1000)

DOROTHY DENNIS

INDUCED POLARIZATION SURVEY

Line 100 W
DENND CLAIM, Cariboo M.D., B.C.

Date: Sept 85
Interpretation by: PAC
Scale 1:3000

Pacific Geophysical

Geopac (12) Software for the Earth Sciences, Toronto, Canada