FINLAY MINERALS LTD.

2 of 2

A GEOPHYSICAL REPORT ON A GROUND MAGNETOMETER, INDUCED POLARIZATION AND RESISTIVITY TEST SURVEY, OVER AN EPITHERMAL PRECIOUS METALS VEIN SYSTEM ON THE ATTY CLAIM GROUP, OMINECA MINING DISTRICT, BRITISH COLUMBIA

LATITUDE 57° 08' NORTH
LONGITUDE 126° 43' WEST
NTS 0943/2E

By

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LLOYD GEOPHYSICS INC.
VANCOUVER, BRITISH COLUMBIA

NOVEMBER 2001

SUMMARY

On August 3, 2001, Lloyd Geophysics Inc. carried out a ground magnetometer (MAG) and induced polarization (IP) survey on two lines over an epithermal precious metals vein system known as the Awesome showing, for Finlay Minerals Ltd.

There is no definitive magnetic or chargeability signature over the showing. There is, however, a weak, but definitive, resistivity high over the showing which could most probably be used as an exploration tool to search for similar mineralized veins in this particular geological setting.

It is recommended that in future pole-dipole array resistivity surveys the dipole length be reduced from 50m to either 10m or 25m. Alternatively, more rapid coverage could most probably be attained using the gradient array.

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MAP POCKET

1.0 INTRODUCTION

On August 3, 2001, Lloyd Geophysics Inc. carried out a ground magnetometer (MAG) and induced polarization (IP) survey on two lines over a mineralized epithermal precious metals structure known as the Awesome showing, on the Atty claim group in northern British Columbia, for Finlay Minerals Ltd.

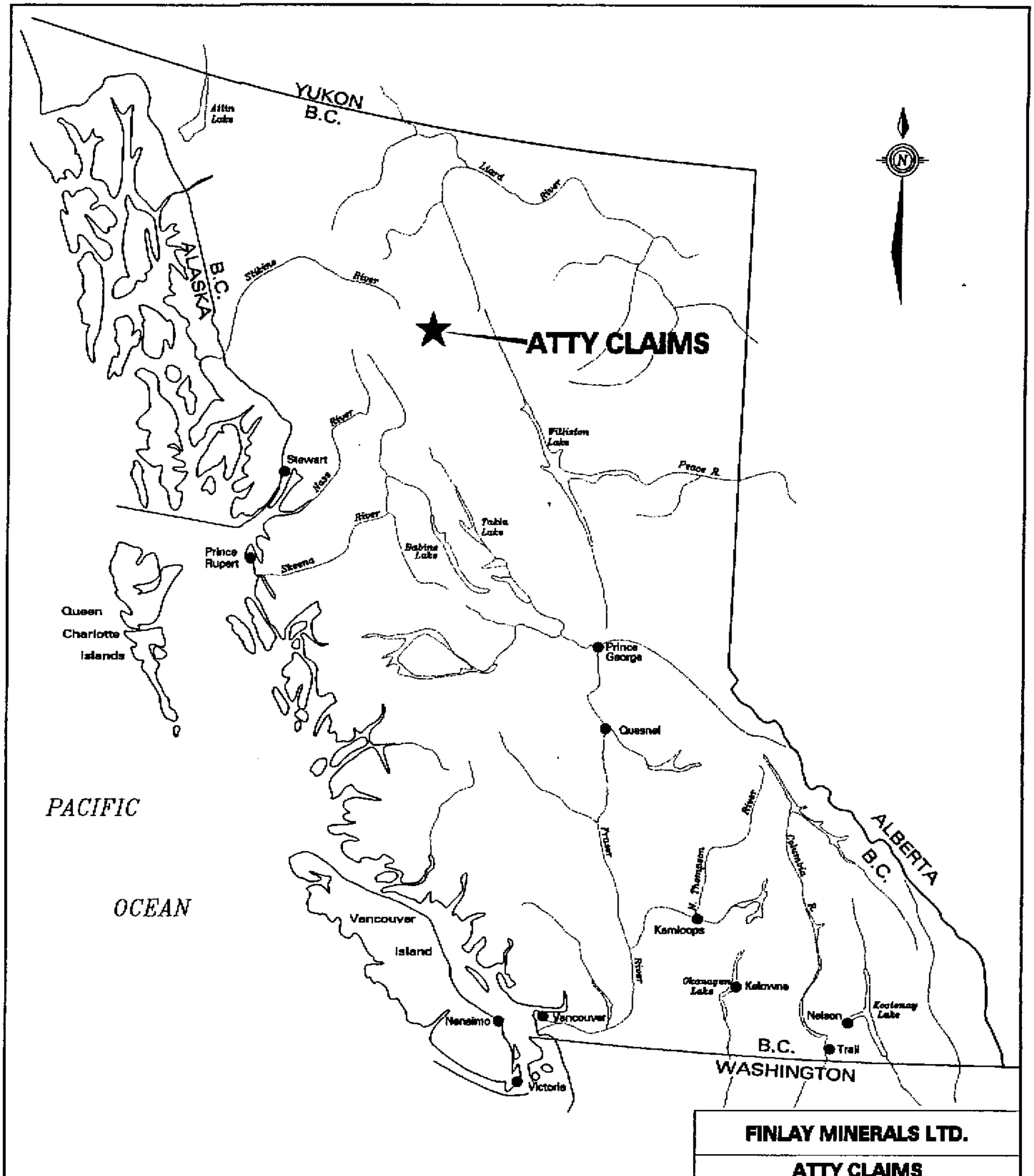
The purpose of this work was to assess the usefulness of these two geophysical techniques as an exploration tool to search for additional mineralized epithermal structures or veins in other areas of the claim group.

2.0 PROPERTY LOCATION AND ACCESS

The Atty claims (Figure 1) lie within a broad region of prospects and mines known as the Toodoggone mining camp. They straddle the west flowing Attycelly Creek, south of the Finlay River, in northern British Columbia. The claims are located in the Omineca Mining District, on NTS map sheet 094E/2E at latitude 57^0 08'N and longitude 126^0 43'W. The Atty Camp is approximately 10km north-northeast of the Kemess Mine. Access to the property for this work was by helicopter from the Kemess mine site.

3.0 CLAIM HOLDINGS

The following claim information was provided by Finlay Minerals Ltd. at the time of writing this report.



FINLAY MINERALS LTD.	
ATTY CLAIMS	
GENERAL LOCATION MAP	
Date: Oct. 2001	Figure: 1

Tenure Number	Claim Name	Issue Date	Good Standing To	Units
338121	A1	17-JUL-95	17-JUL-08	1
338123	A2	17-JUL-95	17-JUL-08	1
338124	A3	17-JUL-95	17-JUL-10	1
338125	A4	26-JUL-95	26-JUL-09	1
338126	A5	26-JUL-95	26-JUL-09	1
338127	A6	26-JUL-95	26-JUL-09	1
338128	A7	26-JUL-95	26-JUL-09	1
368386	AT991	9-APR-99	9-APR-09	12
368395	AT9910	9-APR-99	9-APR-09	1
368396	AT9911	9-APR-99	9-APR-09	1
368397	AT9912	9-APR-99	9-APR-09	1
368387	AT992	9-APR-99	9-APR-09	1
368388	AT993	9-APR-99	9-APR-09	1
368389	AT994	9-APR-99	9-APR-09	1
368390	AT995	9-APR-99	9-APR-09	1
368391	AT996	9-APR-99	9-APR-09	1
368392	AT997	9-APR-99	9-APR-09	1
368393	AT998	9-APR-99	9-APR-09	1
368394	AT999	9-APR-99	9-APR-09	1
241922	ATTY 3	17-APR-90	17-APR-09	6
241938	ATTY 4	17-APR-90	17-APR-10	12
311160	ATTY 5	10-JUL-92	10-JUL-09	20
320410	ATTY 7	25-AUG-94	25-AUG-09	6
			TOTAL UNITS	**74**

4.0 GENERAL GEOLOGY

Regionally, the Toodoggone area lies within the Intermontane Belt, between the east end of the Stikine Arch in the north and the Skeena Arch in the south. Geology along the east-northeast margin of the Stikine Terrane is dominated by the successive volcano-plutonic arcs, which were constructed from Permian time but most importantly during the late Triassic and early Jurassic. The Toodoggone area lies within a north-northwest trending corridor of Mesozoic island-arc magmatism.

Two supracrustal units are important hosts of mineralization in the Toodoggone mining camp. Volcanics of the Takla Group host the Kemess Mine (Kemess South deposit), and numerous porphyry prospects. The Toodoggone Formation of the Hazelton Group is the most important stratigraphic unit in terms of epithermal precious metal deposits.

5.0 INSTRUMENT SPECIFICATIONS

5.1 Ground Magnetometer System

The system consists of 2 Omni total field proton precession magnetometers manufactured by EDA Instruments Inc., Toronto, Canada.

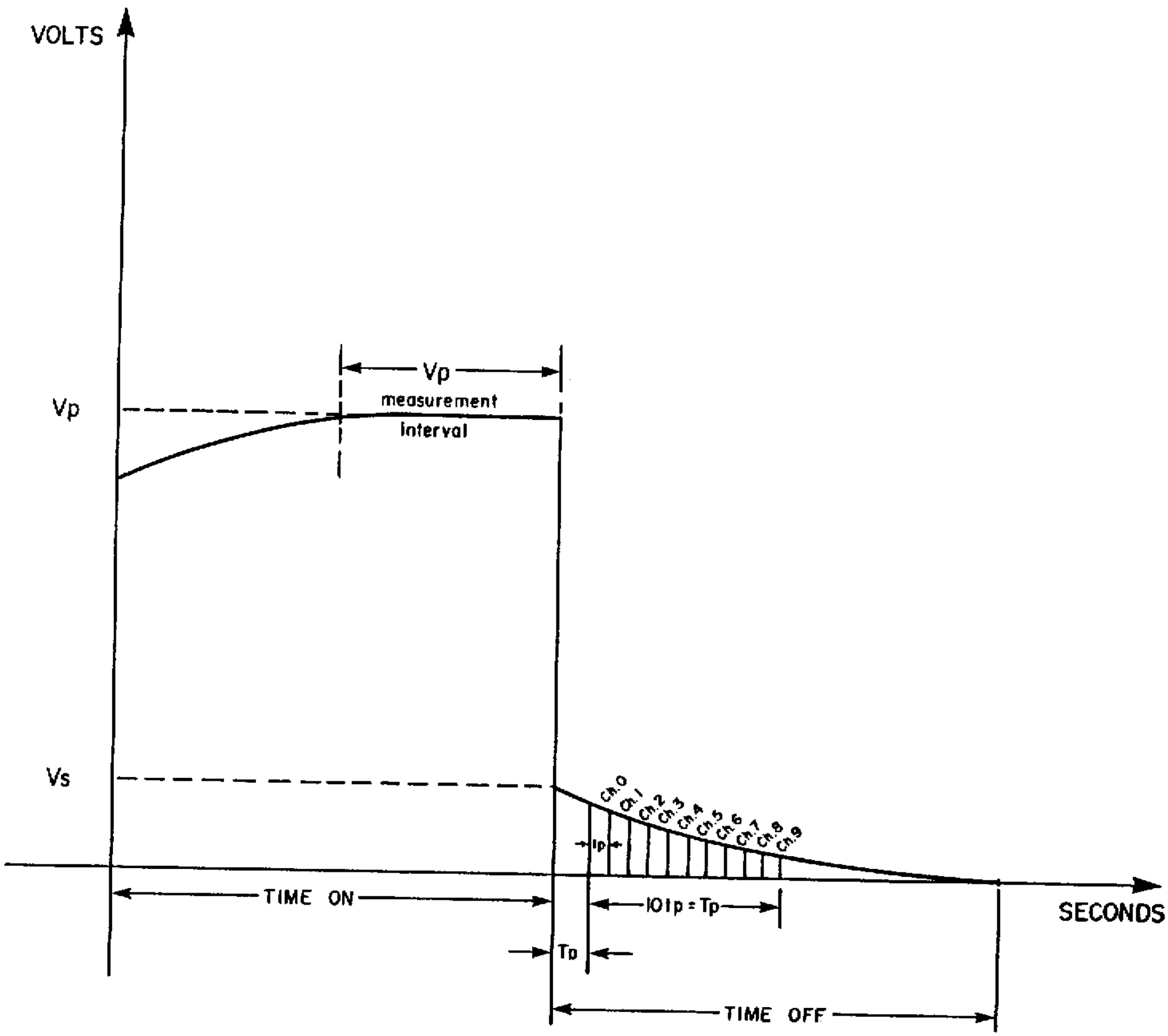
The system is completely software controlled. The field magnetometer measures and stores in memory, via the keypad, the time, the location and the value of the earth's total magnetic field at each station. The base station magnetometer measures and stores in memory, automatically, the daily fluctuations of the earth's total magnetic field throughout each survey day. At the end of each survey day, the 2 sets of data are merged and downloaded to a field computer. The field data is automatically corrected, via software, for diurnal variations recorded by the base station magnetometer.

5.2 Induced Polarization System

The system used to carry out this survey was a 7.5 kw time domain unit consisting of a 400 hertz Onan/Wagner Leland motor generator set and a Mark II transmitter manufactured by Huntec Limited Toronto, Canada and a 6 channel IP-6 receiver manufactured by Iris Instruments, Orleans, France.

The transmitter was operated with a cycle time of 8 seconds and the duty cycle ratio: [(time on)/(time on+time off)] was 0.5 seconds. This means the cycling sequence of the transmitter was 2 seconds current "on" and 2 seconds current "off" with consecutive pulses reversed in polarity.

The IP-6 receiver can measure up to 6 dipoles simultaneously. It is microprocessor controlled, featuring automatic calibration, gain setting, SP cancellation and fault diagnosis. **To accommodate a wide range of geological conditions, the delay time, the window widths and hence the total integration time is programmable via the keypad.**



IP-6 RECEIVER PARAMETERS

Figure 2

Measurements are calculated automatically every 2 to 4 seconds from the averaged waveform which is accumulated in memory.

The window widths of the IP-6 receiver can be programmed arithmetically or logarithmically. For this survey the instrument was programmed arithmetically into 10 equal window widths or channels, Ch_o, Ch_1, Ch_2, Ch_3, Ch_4, Ch_5, Ch_6, Ch_7, Ch_8, Ch_9 (Figure2). These are recorded individually and summed up automatically to obtain the total chargeability. Similarly, the resistivity (R) in ohm-metres is also calculated automatically.

The instrument parameters chosen for this survey were as follows:

Cycle Time (T_c)	= 8 secs.	Delay Time (T_D)	= 120 ms
Ratio (Time On)	= 1:1	Window Width (t_p)	= 90 ms
(Time Off)			
Duty Cycle Ratio		Total Integration Time (T_p)	= 900 ms
Time On)	= 0.5		
(Time On) + (Time Off)			

6.0 SURVEY SPECIFICATIONS

6.1 Ground Magnetometer Survey

The magnetometer survey measurements were recorded at 12.5m station intervals. The 2 lines surveyed were approximately 200m apart.

6.2 Induced Polarization Survey

The pole-dipole array was used for this survey with the dipole length (x) equal to 50m and measurements were recorded for n = 1 through 6. The current electrode (C_1) was always located to the **west** of the potential measuring dipole (P_1P_2) as depicted on each pseudo-section drawing.

7.0 DATA PROCESSING AND PRESENTATION

The magnetic data collected in the field is merged with the base station data, downloaded to a field computer, automatically corrected and plotted in profile form on the pseudo-sections.

The IP data was processed at the end of each survey day using a Pentium laptop computer and a Fujitsu printer. In the Vancouver office the data was transferred to a high-speed desktop computer coupled to an HP DesignJet colour plotter to make the final pseudo-sections. The numerical value obtained from a 21 point triangular filter applied consecutively at every station on each line is also plotted on the pseudo-sections.

The IP and magnetic data are presented on 2 pseudo-sections located in the map pocket at the end of this report:

Pseudo-Sections with Magnetic Profiles

Line No.	Drawing No.
ON	01451 – 01 AWS
200S	01451 – 02 AWS

8.0 DISCUSSION OF RESULTS

The identification of a magnetic signature is often quite adequate in distinguishing between different rock types based largely on their magnetite content. In conjunction with geological mapping, this kind of interpretation can also be extended to identify geological structures such as folds and faults.

There is no definitive magnetic signature over the Awesome showing that could be used as an exploration tool to search for similar mineralized epithermal structures or veins in this particular geological setting.

The chargeability response from rocks containing metallic sulphides depends largely on the following factors:

- The volume content of sulphide minerals.
- The number of pore paths that are blocked by sulphide grains.
- The number of sulphide faces that are available for polarization.
- The absolute size and shape of the sulphide grains and the relationship of their size and shape to the size and shape of the available pore paths.
- The electrode array employed.
- The width, depth, thickness and strike length of the sulphide body and its location relative to the array.

In addition to the chargeability response from sulphides, the problem is further complicated by the fact that rocks containing magnetite, graphite, clay minerals, or variably altered rocks, produce chargeability responses of varying amplitudes.

The Awesome showing is silica rich and sulphide poor. Therefore, in the absence of significant amounts of metallic sulphides, the resistivity of both the host and country rocks should be purely resistive and obey Archie's Law. Archie's Law is an empirical relationship linking the resistivity of a rock to its pore water resistivity as a function of porosity and is stated thus:

$$R = \frac{1}{P^2} \times R_w$$

where R is resistivity of the rock
R_w is resistivity of the pore water
and P is the porosity of the rock.

Two parallel trenches, about 50m apart, were cut over the Awesome showing some 20 years ago. The first trench is about 120m long, whereas the second trench is only about 50m long. The results of this trenching are unknown to the writer.

Chargeability and resistivity measurements on 2 lines, approximately 200m apart, were taken over the showing. The results of this work are discussed below.

Line ON

This line is located about 20m north (or more correctly northwest) of the longer trench. On this line, the Awesome showing occurs at about 300E. There is a very weak chargeability low immediately over the showing at about 300E, the significance of which is not readily evident. The resistivity data shows the axis of a weak but definitive "pant leg" anomaly high directly over the showing at about 300 to 325E. There is a second very weak resistivity high located at about 775E.

Line 200S

This line is located about 125m south (or more correctly southeast) of the shorter trench.

The chargeability readings on this line correlate well with those on line ON, however they are of little help in defining the location of the showing. On the other hand, the resistivity data forms a weak "pant leg" anomaly high at about 350 to 375E which is along strike from the known showing on line ON. There is a second better defined resistivity high located at about 725E which is along strike from a similar but weaker resistivity high on line ON.

9.0 CONCLUSIONS AND RECOMMENDATIONS

From a study of the geophysical data described in this report it has been concluded that:

- There is no definitive magnetic or chargeability signature over the Awesome showing.
- There is a definitive but weak resistivity signature, a high, over the showing, which could most probably be used as an exploration tool to search for similar mineralized epithermal structures or veins in this particular geological setting.

It is recommended that if resistivity surveys are contemplated in the future, then the dipole length (x) in the case of the pole-dipole array should be reduced to either 10 or 25m. Alternatively, more rapid coverage could most probably be attained using some form of the gradient array.

Respectfully submitted,
LLOYD GEOPHYSICS INC.

John Lloyd

John Lloyd, M.Sc., P.Eng.
Senior Geophysicist

APPENDICES

APPENDIX A

COST OF SURVEYS

Lloyd Geophysics contracted the acquisition of the magnetic data on a per km basis and the IP data on a per diem basis. Mobilization, demobilization, living and traveling expenses, truck charges, data processing and computer plotting, and interpretation and report writing were additional costs:

• Mobilization/Demobilization	$593.75
• Living and Traveling Expenses	213.35
• Truck Charges	218.16
• IP Survey Data Acquisition	1,450.00
• Magnetic Survey Data Acquisition	132.81
• Data Processing and Computer Plotting	93.02
• Interpretation and Report Writing	140.63
Sub-Total:	2,841.72
GST:	195.43
TOTAL COST:	**$3,037.15**

APPENDIX B

CERTIFICATION OF THE AUTHOR

I, John Lloyd, of 805 – 4438 West 10th Avenue, in the City of Vancouver, in the Province of British Columbia, do hereby certify that:

I graduated from the University of Liverpool, England in 1960 with a B.Sc. in Physics and Geology, Geophysics Option.

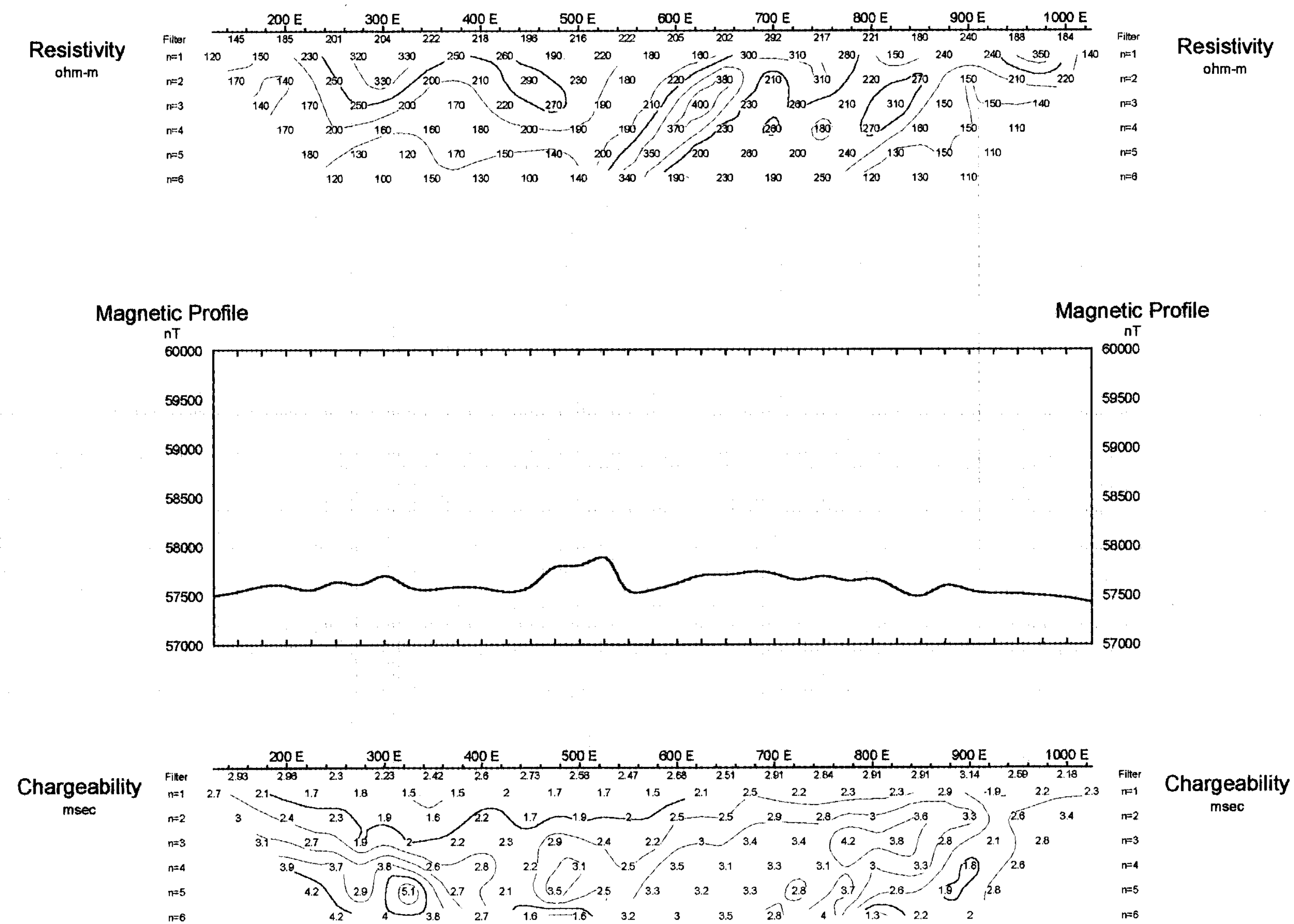
I obtained the diploma of the Imperial College of Science and Technology (D.I.C.) in Applied Geophysics from the Royal School of Mines, London University in 1961.

I obtained the degree of M.Sc. in Geophysics from the Royal School of Mines, London University 1962.

I am a member in good standing of the Association of Professional Engineers in the Province of British Columbia, the Society of Exploration Geophysicists of America, the European Association of Exploration Geophysicists and the Canadian Institute of Mining and Metallurgy.

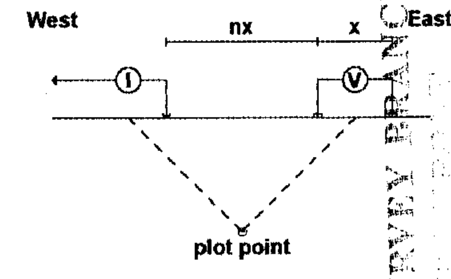
I have been practicing my profession for over thirty-five years.

Vancouver, B.C.
November 2001



LINE : 200 S

Pole-Dipole Array



x = 50 metres   n = 1 - 6

Current electrode west of potential dipole

Filter

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CONTOUR INTERVALS

RESISTIVITY   50 (ohm-m)

CHARGEABILITY   0.5 (msec)

SURVEYED : August, 2001

TX : Huntec Mk II model 7500

RX : Iris Instruments IP-6

Scale 1:5000

50 0 50 100 150 200

(meters)

FINLAY MINERALS LTD.

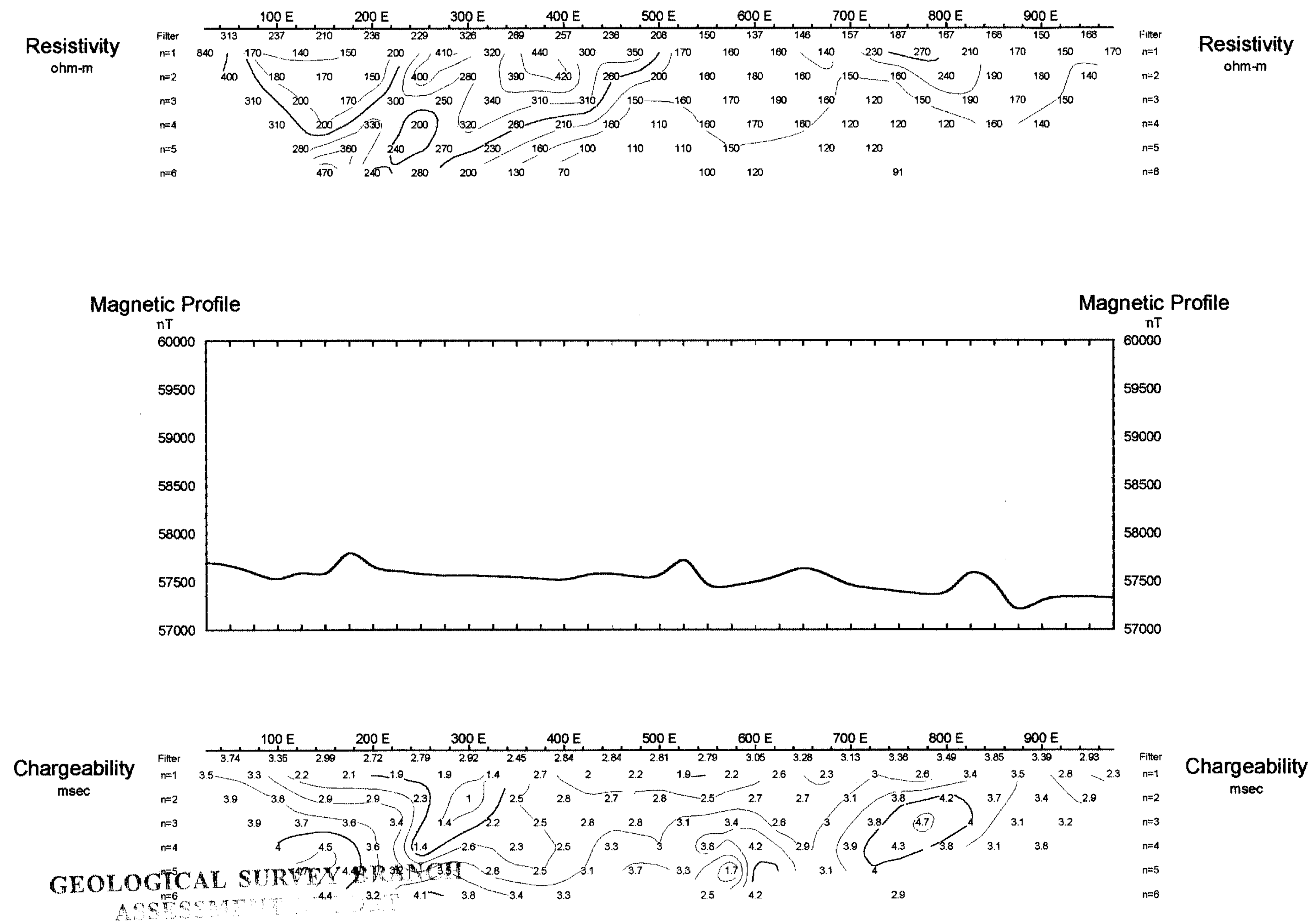
AWESOME GRID

LINE 200 S

INDUCED POLARIZATION PSEUDOSECTIONS
WITH MAGNETIC PROFILE

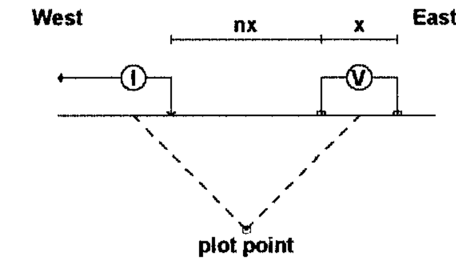
LLOYD GEOPHYSICS INC.

DRAWING NUMBER : 01451 - 02AWS



LINE : 0 N

Pole-Dipole Array



x = 50 metres n = 1 - 6

Current electrode west of potential dipole

Filter

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CONTOUR INTERVALS

RESISTIVITY 50 (ohm-m)

CHARGEABILITY 0.5 (msec)

SURVEYED : August, 2001

TX : Huntec Mk II model 7500

RX : Iris Instruments IP-6

Scale 1:5000

50 0 50 100 150 200

(metres)

FINLAY MINERALS LTD.

AWESOME GRID

LINE 0 N

INDUCED POLARIZATION PSEUDOSECTIONS WITH MAGNETIC PROFILE

LLOYD GEOPHYSICS INC.

DRAWING NUMBER : 01451 - 01AWS