IR

INTERPRETEX RESOURCES LTD.

LOG NO: March 5/91	RD.
ACTION:	
FILE NO:	

REPORT ON

GEOPHYSICAL SURVEYS

ON THE WMM GROUP CLAIMS

VANCOUVER MINING DIVISION

WHISTLER, BRITISH COLUMBIA

FOR

OVERSEAS PLATINUM CORP.

BY

INTERPRETEX RESOURCES LTD.

92J/2W

50° 12' N.

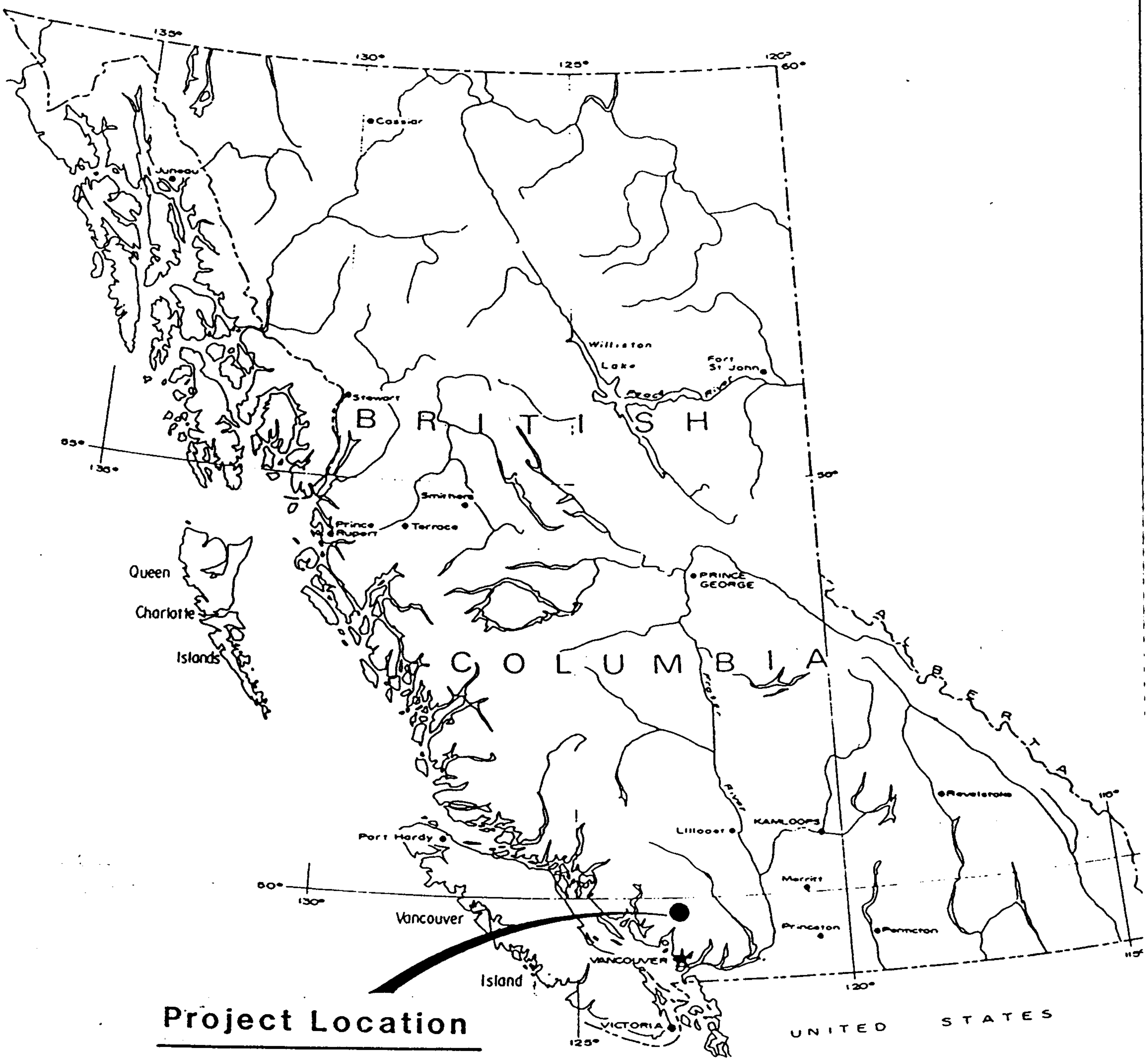
122° 58' W.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,028

TABLE OF CONTENTS

LIST OF FIGURES

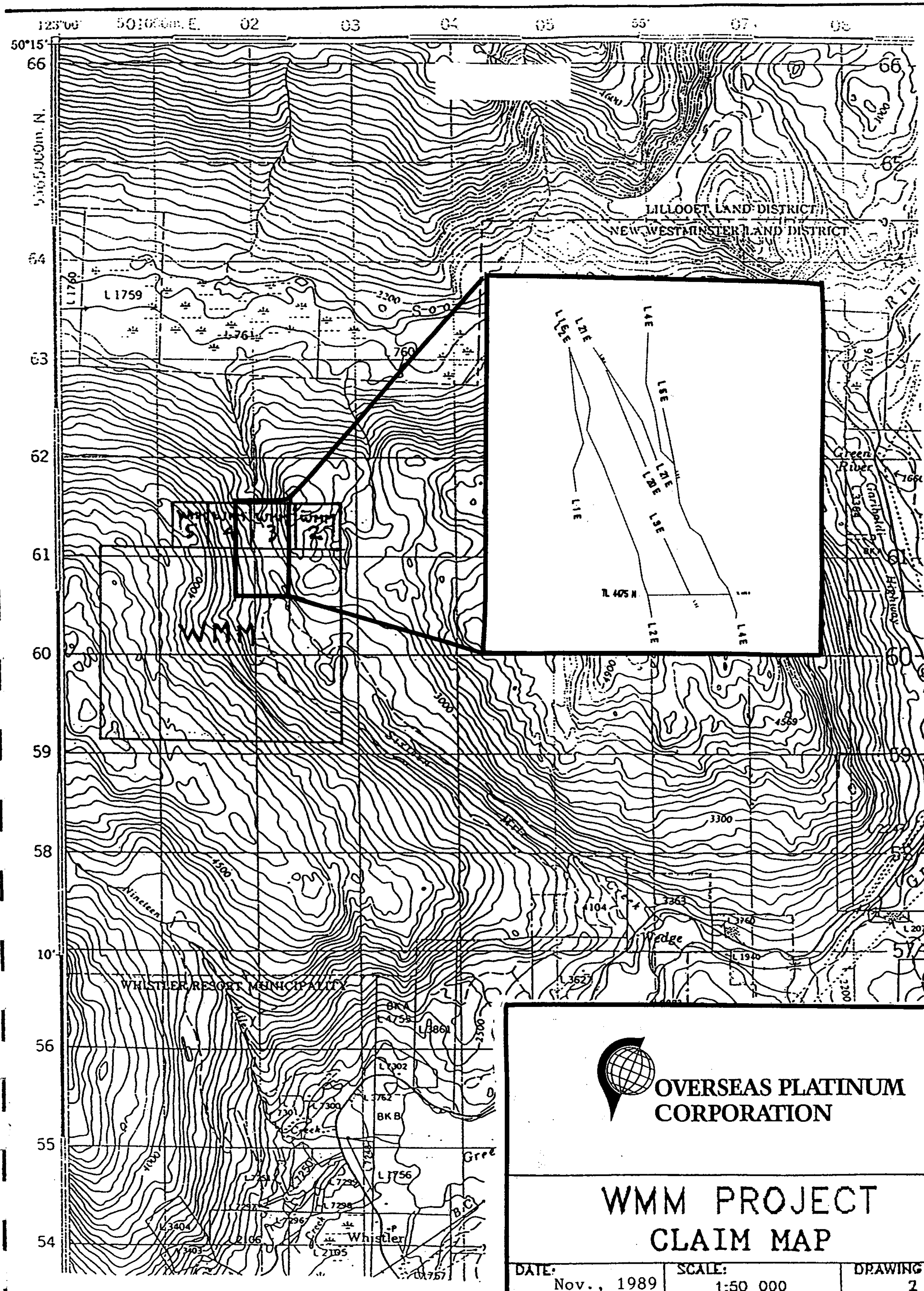


OVERSEAS PLATINUM CORPORATION

WMM PROJECT

LOCATION MAP

DATE: NOV '89	SCALE:	DRAWING No. 1



OVERSEAS PLATINUM CORPORATION

WMM PROJECT
CLAIM MAP

DATE:	SCALE:	DRAWING #
Nov., 1989	1:50 000	2

1.0 SUMMARY

An orientation electromagnetic (VLF-EM), magnetic, and induced polarization/resistivity survey program was carried out on the WMM claim group in order to determine the effectiveness of these methods in following mineralized trends.

The VLF-EM method proved responsive to known structural features on the WMM grid and therefore conductors are primarily interpreted to represent conductive structures which may be mineralized. Magnetic low lineaments are believed to represent oxidization within shear zones. The coincidence of conductivity with magnetic lows was considered the best type of target for follow-up exploration. Using the above criterion the following targets were chosen for the induced polarization survey:

Line 2E, 5325N
Line 4E, 5175N
Line 2E, 4600N

Induced polarization results over the WMM grid show high apparent chargeability values suggesting that significant disseminated sulphide mineralization is present. The chargeability anomaly at 4600N on line 2E is geophysically significant due its coincidence with VLF-EM and magnetic features. This coincidence shows that magnetic and VLF-EM methods are valuable reconnaissance surveys and can be used to define targets for induced polarization surveys.

Additional geological investigations and rock sampling of the targets found by the present survey should be carried out. Additional geophysical and geochemical surveys should be performed on a controlled grid system in order to understand the petrology and mineralogy of the area in greater detail and to more adequately define the present mineralized trends as well as to find additional targets which may contain gold mineralization.

Subsurface targets obtained from the additional surveys should be trenched or drilled to determine their economic potential.

....2

2.0 INTRODUCTION

2.1 General

An orientation geophysical program, consisting of electromagnetic (VLF-EM), magnetic and induced polarization/resistivity surveys was carried out on a single grid located on the WMM claim group in the Vancouver Mining Division near Whistler, B.C. The survey was carried out in October and November, 1989.

2.2 Objectives

- to test the effectiveness of VLF-EM in following possible mineralized trends and to establish new unrecognized conductive trends,
- to establish a correlation between magnetic minerals and mineralized trends,
- to determine the value of the induced polarization method for locating mineralized zones,
- to establish geophysical areas of interest for future exploration.

2.3 Method

Initially, a known mineralized shear zone located at 5325N on line 2E was surveyed, using the VLF-EM and magnetic methods, to determine a geophysical signature. Roads were then surveyed to determine the effectiveness of the VLF-EM and magnetic methods in the survey area. Lines 1, 2, 4, and 5 followed roads. Lines 20, 21 and 3 were surveyed parallel to roads to determine the lateral extent of anomalies discovered along roads. Magnetic and VLF-EM targets were surveyed using the induced polarization/resistivity method in order to determine if chargeable zones correspond with the above targets.

2.4 Claim Status

- Vancouver Mining Division
- WMM Grid - WMM Group Claims (WMM, WMM 2, 3, 4, 5)
- NTS 92 F/2W

Claim Name	Units	Record #	Record Date	Expiry Date
WMM	20	2002 (10)	24/10/86	24/10/91
WMM2	1	2003 (10)	24/10/86	24/10/94
WMM3	1	2004 (10)	24/10/86	24/10/93
WMM4	1	2005 (10)	24/10/86	24/10/93
WMM5	1	2006 (10)	24/10/86	24/10/93

2.5 Location and Access

The property is located 15 km. northwest of Whistler, B.C. Access to the WMM Grid is from Whistler via Highway 99 for 10 km north and along logging roads for 5 km. west to the eastern edge of the property.

....3

2.6 Operations and Communications

- personnel and equipment were mobilized from Vancouver, B.C. by truck.
- accommodation for all personnel was at a personal residence in Whistler, B.C.
- food was obtained in Whistler, B.C.
- communications were by land line telephone from Whistler. Field communications were by Motorola HT-600 transceivers.
- a four wheel drive truck was used to carry personnel and equipment into the grid area and for transportation within the survey grid.

2.7 Physiography

The topography of the survey area was moderate with numerous steep slopes. Vegetation consisted primarily of fir and pine. Extensive logging has taken place on the grid.

2.8 Previous Work

In 1973, Bow River Resources Ltd. carried out a soil geochemistry survey over the present survey area. Copper and gold soil geochemistry results from this survey are compiled with the present geophysical interpretation on Figure # 9 and Figure # 10 respectively. Stackpool Resources carried out a reconnaissance airborne magnetic and VLF-EM survey over the area in 1982. In 1988, Corona Corporation carried out overburden stripping and trenching of a mineralized shear zone located at line 2, 5315N on the present grid. Geochemical results from the shear zone gave values as high as 5990 ppb Au over an average width of 0.7 m. Corona also carried out a VLF-EM and magnetic survey over the shear zone. These surveys did not clearly define a geophysical response to the mineralized zone.

3.0 GEOLOGY

The WMM claims are underlain by Gambier Group metasediments and metavolcanics which occur as roof pendants in the Coast Plutonic Complex granites (van Angern, 1984).

The mineralized zone, trenched by Corona Corporation in 1988, showed oxidized zones within a chloritized basalt. Pyrite was observed in quantities of up tp 10% within a more silicified zone. Two shear zones were observed in the area, a narrow zone trending at Az. 075 degrees and a wider zone trending at Az. 120 degrees (Gaunt, 1988).

An oxidized shear zone was discovered along a road cut on line 4E, 5175N, during the present survey.

....4

4.0 SURVEY SPECIFICATIONS

4.1 Survey Parameters

- survey line separation - variable
- survey station spacing - 12.5 m.
- horizontal control - lines were surveyed by compass and hip chain with estimated slope corrections
  - stations were located using felt pen markings and flagging tied to vegetation
- VLF-EM survey total 5.3 km at 12.5 m. spacing
- magnetic survey total 5.3 km at 12.5 m. spacing
- induced polarization survey total 1.25 km. at 25 m. spacing

4.2 Equipment Parameters

- VLF-EM and Magnetic Surveys
  - Scintrex Omni Plus combined VLF-EM and magnetometer
  - In-phase (dip angle) and Quadrature (out-of-phase) measured in percent at each station
  - field strength measured at each station
  - transmitting stations used - NLK (24.8 kHz) - Seattle, Wash.
    - NAA (24.0 kHz) - Cutler, Maine
  - earth's total magnetic field measured in gammas (nanoteslas)
  - magnetic variations controlled by automatic magnetic base station recording every 30 seconds
  - instrument accuracy +/- 0.1 gamma
  - station repeatability better than +/- 3 gammas in low gradients

- Induced Polarization Survey
  - Huntec Mk IV 7.5 kilowatt transmitter
  - Androtex Limited TDR-4 time domain receiver
  - apparent chargeability measured in milliseconds
  - potential electrode voltage measured in millivolts
  - time delay - 160 msec., window width - 130 msec. x 5 windows
  - apparent resistivity calculated in ohm-meters
  - dipole spacing "a" = 25 meters, n = 1 to 6
  - pole-dipole method with pole southerly and dipole northerly

4.3 Equipment Specifications - see Appendix III

5.0 DATA

5.1 Calculations

Apparent resistivity values were calculated using the formula;

Pa = 2n(n + 1)PI*a*(V/i) (ohm-meters)

where: n = "n" value of 1 to 6
PI = 3.14
a = electrode separation (meters)
V = observed voltage (millivolts)
i = observed current (amps)
* = "multiplied by"

Total Field Magnetic Survey

Total field magnetic readings were individually corrected for variations in the earth's magnetic field using magnetic base station values.

The formula used for magnetic corrections was;

CTFR = TFR + (DBL - BSR) (gammas)

where: CTFR = Corrected Total Field Reading
TFR = Total Field Reading
DBL = Datum Base Level
BSR = Base Station Reading

5.2 Presentation

- Cutler VLF-EM in-phase, out-of-phase and field strength readings are presented in profile form on Figure # 3 at a scale of 1:2500,
- Seattle VLF-EM in-phase, out-of-phase and field strength readings are presented in profile form on Figure # 4 at a scale of 1:2500,
- Magnetic data were profiled and are presented on Figure # 5 at a scale of 1:2500,
- Apparent chargeability and apparent resistivity values for n = 1 to 6 are presented as contoured pseudosections and Fraser filter profiles on Figure # 6 and Figure # 7 at a scale of 1:2500,
- Paeudosections were plotted "westward looking" (south on the left hand side) for easy comparison with theoretical pseudosection plots computed with the pole to the left and dipole to the right.
- The geophysical interpretation is presented on Figure # 8 at a scale of 1:2500,
- Copper soil geochemistry values were posted and contoured and are presented on Figure # 9 at a scale of 1:2500,
- Gold soil geochemistry values were posted and contoured and are presented on Figure # 10 at a scale of 1:2500.
- Field readings and calculated values are listed in Appendix IV

....6

6.0 INTERPRETATION

6.1 Discussion of Results

VLF-EM data were noise free, and no cultural sources were observed. Field strength readings are dependent on transmitter power output and weather conditions therefore these results are time dependent. For this reason level changes in field strength values result from data acquired on different days. Only NAA, Cutler data were interpreted for north-south lines due to poor coupling with the Seattle transmitter. Only NLK, Seattle data were interpreted for east-west lines due to poor coupling with the Cutler transmitter in this direction.

VLF-EM data display a response to topography within the survey area. The topographic signature characteristically exhibits long wavelength and large amplitude in-phase and quadrature responses as well as a broad field strength anomaly. Topographic effects are seen as strong positive in-phase results on the northwestern portion of the survey area. Due to strong topographical responses the Seattle VLF-EM profiles were plotted at a compressed vertical scale of 1 cm. equals 20%.

Three VLF-EM conductors, labeled "C1", "C2" and "C3" on Figure # 8, were delineated over the WMM grid. Conductor systems "C1" and "C2" consists of two parallel weak conductors trending roughly east-west. The eastern portion of conductor "C1" exhibits fair correlation with magnetic lineament "L1". The longest portion of conductor "C2" trends east northeast whereas the short portion trends more east-west. Conductor "C3" is a moderate to weak conductor located in the southern portion of the grid. "C3" exhibits good correlation with lineament "L3".

Total field magnetic data over the WMM survey area were noise free with no cultural sources observed. Magnetic readings range from 55500 nT. to 58100 nT. The magnetic datum value for the total field magnetic profile map was determined by statistical analysis to be 56200 nT. This datum value graphically shows if a magnetic reading is above or below the mean value for the grid.

The magnetic environment over the survey area appears to be divided into two separate units, "M1" and "M2". The northern third of the grid exhibits little magnetic activity with values ranging from 56000 nT. to 56400 nT. The southern two thirds of the grid is characterized by an active magnetic environment which generally displays higher magnetic intensity than the northern third of the grid.

Three magnetic low features trending approximately northeast, have been delineated based on line to line continuation of magnetic profile character. These magnetic lineaments are labeled "L1" to "L3" on Figure # 5. Some portions of lineaments "L1", "L2" and "L3" are coincident with VLF-EM conductors. "L1" correlates with a known auriferous alteration zone at 5315N on line 2E. A part of "L2" correlates with a mineralized alteration zone observed at 5175N on line 4E. Lineament

....7

"L3" seems to be coincident with a conductor trending from line 2E to line 4E and describes a magnetic low which weakens and broadens to the east. This "L3" lineament interpretation should be viewed with caution due to the large separation between lines. Magnetic profiles indicate that the geology in this region of the grid may be complex and therefore the magnetic low continuation may be only coincidental.

Induced polarization and resistivity data collected over the WMM claim group were noise free and stable. Apparent chargeability values ranged from 7 msec. to 53 msec. The present survey did not cover enough ground to adequately determine a background chargeability value for the area but high chargeability values observed over much of the survey area indicate that the background chargeability may be of the order of 20 msec. in the more magnetic region. Readings in the less magnetic region suggest that background here may be of the order of 10 msec. or less.

A chargeability anomaly was observed to be coincident with conductor "C3" and lineament "L3" at 4600N on the southern portion of line 2E. This chargeability anomaly exhibits values 10 to 15 msec. above the local background and is interpreted to be a 75 m. wide feature near surface.

Apparent chargeability values for the northern portion of line 2E are the highest observed on the grid. These high chargeabilities, however, do not form a clear induced polarization anomaly, rather they form stratified chargeability layers with the lowest values at the top and the highest values at the bottom of the pseudosection.

Chargeability results for line 4E are significantly more complex than results for line 2E. There appears to be only one anomaly, located at 5175N, present on line 4E. This deep anomaly is coincident with an alteration zone and is thought to be of the order of 60 to 70 m. deep.

Apparent resistivity results over the survey area varied from 250 ohm-m. to over 7000 ohm-m. A shallow high resistivity layer was observed on line 4E and the northern portion of 2E. This layer is thought to represent the road which the lines followed and therefore is not considered to be an important feature.

No clear correlation between chargeability anomalies and resistivity features was observed on the grid, however on the northern end of line 2E a resistivity high is observed to be coincident with a lower chargeability zone.

....8

6.2 Conclusions

The VLF-EM method proved responsive to known structural features on the WMM grid and therefore conductors are primarily interpreted to represent conductive structures which may be mineralized.

The double conductor system "C1" and "C2" may represent a regional structural system which has been offset by another fault between line 2E and line 20E. VLF-EM results suggest that a significant gold showing, about 50 meters north of "C1" on line 2E, in an oxidized fracture (gossan zone), may be an offshoot of the main fault system. Added support to the importance of the "C1"/ "C2" structural system is the proximity of "C2" to a mineralized fracture on line 4 E at station 5175 N. The VLF-EM anomaly, about 25 meters north of the surface fracture, may represent conductive material within the fracture at depth, therefore suggesting a northerly dip.

Conductor "C3" is a relatively strong feature and may represent a major northeast trending fault zone. VLF-EM profiles indicate that conductivity has good depth extent. The coincident magnetic low suggests that the fault zone has been significantly oxidized.

VLF-EM anomalies found on east-west line 4475N are believed to represent bedrock conductivity. A more complete interpretation would require additional data to the north and south on additional lines oriented east-west.

Magnetic results over the WMM grid were successful in defining magnetic units, which may represent area lithology, and in delineating magnetic lineaments, believed to represent structural features such as faults or shear zones.

Magnetic units outlined on Figure # 5 define areas of varying magnetic susceptibilities which represent areas of different magnetic mineral content, thereby suggesting different rock types. The "boundary" between magnetic unit "M1" and "M2", although shown on the maps as a line, is somewhat indefinite, representing a gradual decrease in magnetic level rather than an abrupt level change. This suggests a more gradual change from one rock type to another at this boundary or perhaps a dipping contact. It is interesting to note that the most abrupt change in magnetism occurs at the mineralized showing on line # 2E. This seems to indicate that at this point the contact may be a fault. Generally, the more magnetically active areas represent higher mafic mineral content. For this reason, the more magnetically active unit "M2" is interpreted to define an area of more basic rocks such as basic volcanics or metavolcanics.

Magnetic low lineaments "L1", "L2" and "L3" are believed to represent oxidization within shear zones. The coincidence of conductivity with certain portions of the magnetic lows suggests that conductive fault material and possibly sulphide mineralization may exist along these magnetic low features.

....9

Induced polarization results over the WMM grid show high apparent chargeability values over the entire reconnaissance survey area. These unusually high chargeability values suggest that significant disseminated sulphide mineralization is present. The amount of anomalous sulphides which can be interpreted to be contained in the host rock is dependent upon the background chargeability of the rock, which, as discussed in the previous section, could not be adequately determined by the present orientation survey.

If the background chargeability was 5 to 10 msec., then significant mineralization, of the order of 10 to 15% disseminated sulphides, would be thought to be present. However, if the survey area is underlain by basalts or volcanic tuffs, then the background chargeability could be as high as 15 to 20 msec. and the percentage of disseminated sulphides present would decrease accordingly.

The chargeability anomaly at 4600N on line 2E is geophysically significant due its coincidence with VLF-EM and magnetic features. This coincidence shows that magnetic and VLF-EM methods are valuable reconnaissance surveys and can be used to define targets for induced polarization surveys.

The chargeability anomaly at 4600N on line 2E exhibits a wide body chargeability response. This anomaly is interpreted to represent relatively high concentrations of disseminated sulphides in bedrock. Chargeability readings gradually grade from anomalous values to lower local background values suggesting that halo mineralization may be present. If this interpretation is correct, then the generally high background chargeability values observed may represent high background concentrations of sulphide mineralization over the grid area covered by the present survey.

The layered chargeabilities observed on the northern portion of line 2E are believed to represent halo mineralization capping a large deeply buried intrusive source, which may be the source of mineralization in the area. Since the area is underlain by metasediments and metavolcanics occurring as roof pendants of the Coast Plutonic Complex granites, it is hypotheisized that the source of the interpreted halo mineralization is the Coast Plutonic Complex granites. The shear zone located at 5315N on line 2E appears to form a boundary between the low resistivity zone of layered chargeabilities and a higher resistivity, zone of low chargeabilities. This shear zone, which is coincident with conductor "C1" and lineament "L1", is therefore interpreted to be a control on mineralization in the area.

The deep anomaly at 5175N on line 4E is also interpreted to represent a relatively deep accumulation of sulphide mineralization, possibly similar to the source of layered chargeabilities on line 2E.

...10

7.0 RECOMMENDATIONS

The VLF-EM, magnetic and I.P. interpretation has delineated geophysical trends on the WMM survey area that warrant follow-up exploration. Additional exploration should be done in two phases.

Phase I

The first phase of exploration should consist of geological investigations and rock sampling of the targets found by the present survey on the present orientation grid. Anomalies along conductor system "C1" and "C2" are considered high priority targets for follow-up exploration due to the correlation with known geological features. An important "C2" target is on line 2 between station 5175N and 5200N. Additional attention should also be given to the alteration zone at 5175N on line 4E near conductor "C2". Next in priority are the strongest anomalies within conductor "C3". The most notable target along this conductor is on line 2E at 4590N which is associated with a high chargeability anomaly.

This first phase should also include establishing a controlled survey grid with grid lines oriented parallel to the present lines (approximately Az. 160 degrees). Then, additional VLF-EM, magnetic, geological and geochemical surveys should be performed on the controlled grid in order to understand the petrology and mineralogy of the area in greater detail and to more adequately define the present mineralized trends as well as to find additional targets, within the WMM claim group, which may contain gold mineralization.

Phase II

Since disseminated mineralization is believed to be present, the second phase should consist of an induced polarization/resistivity survey over VLF-EM, magnetic and geochemical targets to determine the extent and depth of mineralization. Phase II exploration should also constitute trenching and diamond drilling. Subsurface exploration targets obtained from the interpretation of geological, geophysical and geochemical data should be assigned priorities and trenched or drilled according to the expected depth of burial.

Respectfully Submitted

INTERPRETEX RESOURCES LTD.

Vancouver, British Columbia

PERMIT TO PRACTICE
INTERPRETEX RESOURCES LTD.
Signature
Date Dec. 4, 1989
PERMIT NUMBER: P 3100
The Association of Professional Engineers,
Geologists and Geophysicists of Alberta

E.R. ROCKEL

Consulting Geophysicist

T.R. MATICH

Geophysicist

CERTIFICATE

I, Edwin Ross Rockel, Geophysicist of Surrey, British Columbia, Canada, hereby certify that:

1. I received a B.Sc. degree in Geophysics from the University of British Columbia in 1966.

2. I am a Consulting Geophysicist and owner of Interpretex Resources Ltd. of 13000 54A Avenue, in the Municipality of Surrey, in the Province of British Columbia.

3. I currently reside at 13000 54A Ave, in the Municipality of Surrey, in the Province of British Columbia.

4. I have been practising my profession since graduation.

5. I am a Professional Geophysicist registered in the Province of Alberta.

6. I am a Professional Engineer registered in the Province of Saskatchewan.

7. I am a Certified Professional Geological Scientist registered in the United States of America.

8. Geophysical work described in this report and the interpretation of data therefrom were carried out by employees of Interpretex Resources Ltd., under my supervision.

9. This report may be used for the development of the property, provided that no portion will be used out of context in such a manner as to convey meanings different from that set out in the whole.

10. Consent is hereby given to the company for which this report was prepared to reproduce the report or any part of it for the purposes of development of the property, or facts relating to the raising of funds by way of a prospectus and/or statement of material facts.

Date: Dec. 4, 1989

Signed: [signature]

Surrey,
British Columbia

Edwin Ross Rockel
B.Sc., P.Geoph., P. Eng.

CERTIFICATE

I, Thomas Raymond Matich, Geophysicist of Surrey, British Columbia, Canada, hereby certify that:

1. I received a B.Sc. degree in Geophysics from the University of British Columbia in 1982.

2. I currently reside at 13914 116 Ave, in the Municipality of Surrey, in the Province of British Columbia.

3. I have been practising my profession since graduation.

4. I hold no direct or indirect interest in, nor expect to receive any benefits from, the mineral property or properties described in this report.

5. This report may be used for the development of the property, provided that no portion will be used out of context in such a manner as to convey meanings different from that set out in the whole.

6. Consent is hereby given to the company for which this report was prepared to reproduce the report or any part of it for the purposes of development of the property, or facts relating to the raising of funds by way of a prospectus and/or statement of material facts.

Date: Dec. 4, 1989

Surrey,
British Columbia

Signed: [signature]

Thomas Raymond Matich
B.Sc.

REFERENCES

1. Sumner, J. S., 1976. Principles of Induced Polarization for Geophysical Exploration, Elsevier Scientific Publishing Company, New York, N.Y.

2. Hanneson, J. E., 1988. A Model for Interpreting IP/Resistivity Data from Areas of Steep Dip and Thin Overburden, Ontario Geological Survey, Toronto, Ontario.

3. Gaunt, D., 1988, Assesment Report on the WMM Claim, Report for Corona Corporation.

4. Van Angeren, P., 1984, Assesment Report on the IKG 2 to IKG 20 and the Lou 1 and Lou 2 Claims, Report for Stakpool Resources Ltd.

5. White, G., 1973, Assesment Report on the Teen Claims, Report for Stackpool Resources Ltd.

APPENDIX I

Present Survey Expenditures

WMM CLAIM GROUP

WHISTLER AREA, VANCOUVER MINING DIVISION

Present Survey Expenditures

MOBILIZATION/DEMOBILIZATION	
- line location, VLF-EM, magnetic and induced polarization/resistivity surveys	$1,282.00
CONTRACTURAL FIELD WORK	
- line location	$ 550.00
- VLF-EM and magnetic survey	$1,240.00
- induced polarization/resistivity survey	$3,340.00
INTERPRETATION AND REPORT	
- data processing, interpretation, report and final map production	$3,247.50
TOTAL ORIENTATION SURVEY PROGRAM EXPENDITURE	$9,659.50

APPENDIX II

Proposed Exploration Budget

APPENDIX III

Personnel

PERSONNEL

The following personnel worked on the property and/or were involved in the supervision for all or part of the days noted (includes mobilization and demobilization):

Name	Position	Dates
E. R. Rockel Surrey, B.C.	Consulting Geophysicist	October 26 - 28, 1989 November 8 - 10, 1989
T. R. Matich Surrey, B.C.	Geophysicist	October 26 - 28, 1989 November 8 - 10, 1989
L. M. Bzdel Burnaby, B.C.	Geophysicist	November 8 - 10, 1989
J. A. Martin Vancouver, B.C.	Geophysical Technician	November 8 - 10, 1989

The following personnel were involved in data preparation or reporting of the project for all or part of the days noted:

Name	Position	Dates
E. R. Rockel	Consulting Geophysicist	October 30, 1989 November 22, 1989
T. R. Matich	Geophysicist	October 30, 1989 November 1 - 3, 1989 November 8, 1989 November 14, 1989 November 16 - 17, 1989 November 20 - 22, 1989

APPENDIX IV

Equipment Specifications

OMNI PLUS VLF/Magnetometer System

EDA

Specifications*

Frequency Tuning Range	15 to 30 kHz, with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz
Transmitting Stations Measured	Up to 3 stations can be automatically measured at any given grid location within frequency tuning range
Recorded VLF Magnetic Parameters	Total field strength, total dip, vertical quadrature (or alternately, horizontal amplitude)
Standard Memory Capacity	800 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings
Display	Custom designed, ruggedized liquid crystal display with built-in heater and an operating temperature range from −40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.
RS232C Serial I/O Interface	2400 baud rate, 8 data bits, 2 stop bits, no parity
Test Mode	A. Diagnostic Testing (data and programmable memory) B. Self Test (hardware)
Sensor Head	Contains 3 orthogonally mounted coils with automatic tilt compensation
Operating Environmental Range	−40°C to +55°C; 0 – 100% relative humidity; Weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid 18V DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for base station operation only.
Weights and Dimensions	
Instrument Console	2.8 kg, 128 x 150 x 250 mm
Sensor Head	2.1 kg, 130 dia. x 130 mm
VLF Electronics Module	1.1 kg, 40 x 150 x 250 mm
Lead Acid Battery Cartridge	1.8 kg, 235 x 105 x 90 mm
Lead Acid Battery Belt	1.8 kg, 540 x 100 x 40 mm
Disposable Battery Belt	1.2 kg, 540 x 100 x 40 mm

*Preliminary

EDA Instruments Inc.,
4 Thorncliffe Park Drive,
Toronto, Ontario
Canada M4H 1H1
Telex: 06 23222 EDA TOR,
Cables: Instruments Toronto
(416) 425-7800

In USA,
EDA Instruments Inc.,
5151 Ward Road,
Wheat Ridge, Colorado
U.S.A. 80033
(303) 422-9112

Printed in Canada

OMNI IV 'Tie-Line' Magnetometer

EDA

Specifications

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning	± 15% relative to ambient field strength of last stored value
Display Resolution	0.1 gamma
Processing Sensitivity	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient	1,200 data blocks or sets of readings
Tie-Line Points	100 data blocks or sets of readings
Base Station	5,000 data blocks or sets of readings
Display	Custom-designed, ruggedized liquid crystal display with an operating temperature range from −40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance	6,000 gammas per meter (field proven)
Test Mode	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Mode)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range	−40°C to +55°C; 0–100% relative humidity; weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
Weights and Dimensions	
Instrument Console Only	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt	1.8 kg, 540 x 100 x 40mm
Sensor	1.2 kg, 56mm diameter x 200mm
Gradient Sensor (0.5 m separation-standard)	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0 m separation-optional)	2.2 kg, 56mm diameter x 1300mm
Standard System Complement	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option	Standard system plus 30 meter cable
Gradiometer Option	Standard system plus 0.5 meter sensor

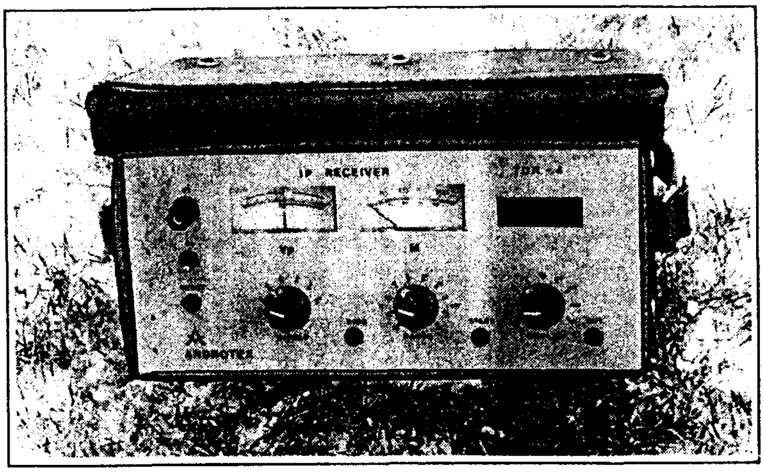
E D A Instruments Inc.
4 Thorncliffe Park Drive
Toronto, Ontario
Canada M4H 1H1
Telex: 06 23222 EDA TOR
Cable: Instruments Toronto
(416) 425 7800

In U.S.A.
E D A Instruments Inc.
5151 Ward Road
Wheat Ridge, Colorado
U.S.A. 80033
(303) 422 9112

Printed in Canada

ANDROTEX **TDR - 4**

TIME DOMAIN INDUCED POLARIZATION RECEIVER



Simple to operate, the TDR-4 Receiver measures self-potential (SP), primary voltage (Vp) and five selected width windows (M1 to M5), as well as total chargeability (MT) measured during full integration time.

Each parameter is individually averaged/stacked after each cycle and the updated value is displayed digitally. The operator can monitor any parameter on the analogue meter for direct evaluation of the signal quality.

The input signal is monitored on a separate meter, and an audio signal indicates achievement of automatic self-potential compensation.

Delay and integration time are switch selectable for the measurement of a wide range of IP responses.

The TDR-4 receiver features built-in high rejection analogue power line notch and RF filters, protection against excessive input voltage, and external continuity circuit tester.

The receiver can be used with any standard time domain transmitter at 1, 2, 4, and 8 seconds without any restrictions regarding time stability.

FEATURES

- Wide input signal range
- Automatic self-potential cancellation
- Stacking/averaging of Vp and M for high measurement accuracy in noisy environments
- High rejection of power line interference
- Continuity resistance test
- Switch selectable delay and integration time
- Multiwindow chargeability measurements
- Digital output for data logger
- Six channel input provided
- Compatible with standard time domain transmitters
- Large LCD display
- Audio indicator for automatic SP compensation
- Low power consumption
- Portable

SPECIFICATIONS

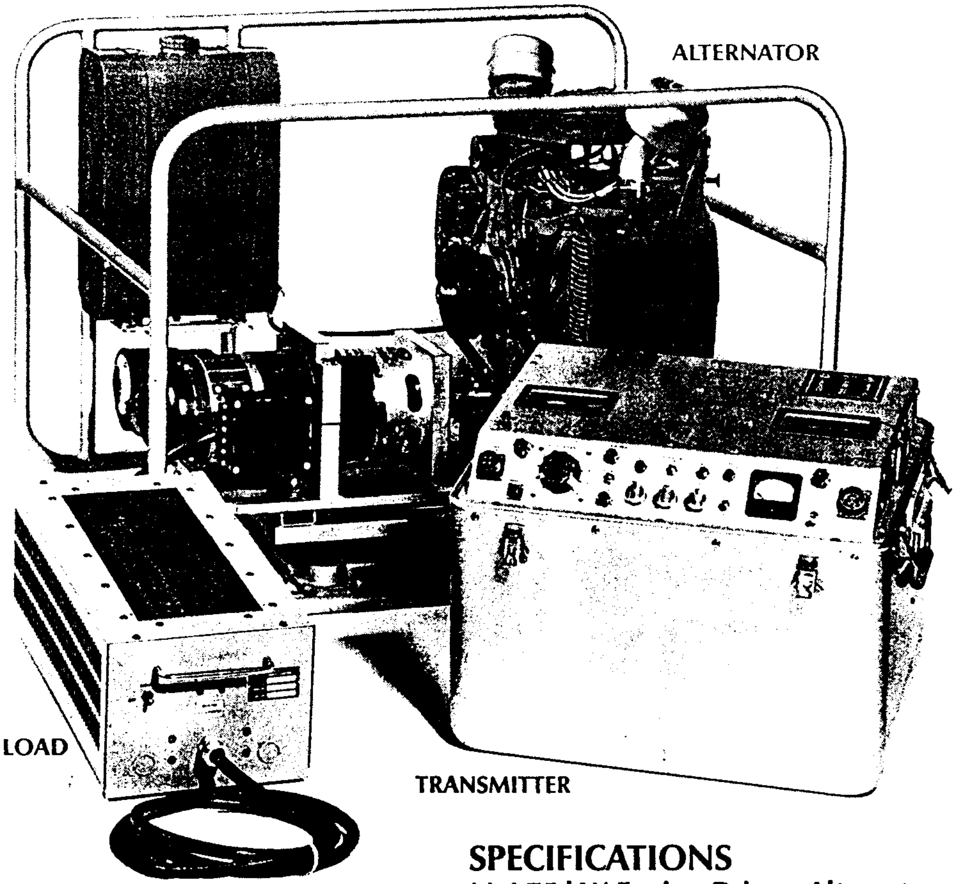
Input Impedance		10 megohm
Input Voltage (VP)	-range -accuracy -resolution	100µV - 20 Volts .5% 10 microvolt
Self Potential (SP)	-range -accuracy	±2.0 volts 1%
Automatic SP Compensation		±1.0 volt fluctuation per cycle
Chargeability (M)	-accuracy -resolution	1% 0.1 millivolt/volt
Automatic Stacking		2 to 16 cycles interruptible
Delay Time *		40 to 500 ms in four increments
Integration Time*		65 to 1300 ms (5 x 65, 130, 260 ms)
Power Line Rejection Filter		100 dB
Ground Continuity Range		0 to 200 Kilo ohms
Display	- SP, Vp, M - M	Liquid Crystal 3½ digit Analogue
External Recorder Output		Digital
Compatible Transmitters		Standard time domain (T=1, 2, 4, 8 sec)
Power Supply		Four "C" 1.5V cells (est. operation 4 mths)
Operating Temp. Range		-40°C to +60°C
Dimensions		30 x 14 x 21 cm (11.75 x 5.5 x 8.25 in)
Weight		4.5 kg (10 lbs)

* or as per customer requirements

Androtex reserves the right to change specifications when it results in product improvement

ANDROTEX LIMITED
GEOPHYSICAL INSTRUMENTS

6815 REXWOOD RD. UNIT 1
MISSISSAUGA, ONTARIO, L4V 1M2
Phone: (416) 677-7919 CANADA



SPECIFICATIONS
M-4 7.5 kW Transmitter

Power input:	96 — 144 V line to neutral 3 phase, 400 Hz (from Huntec generator set)
Output:	Voltage: 100 — 3200 V dc in 10 steps Current: 0.4 — 16 A regulated**
Current regulation:	Less than ±0.1% change for ±10% load change
Output frequency:	0.0625 Hz to 1 Hz (time domain, complex resistivity) 0.0625 Hz to 4 Hz (frequency domain) selectable on front panel
Frequency accuracy:	±50 ppm −30°C to +60°C
Output duty cycle: $T_{on}/(T_{on} + T_{off})$	0.5 to 0.9375 in increments of 0.0625 (time domain) 0.9375 (complex resistivity) 0.75 (frequency domain)
Output current meter:	Two ranges: 0-10 A and 0-20 A
Ground resistance meter:	Two ranges: 0-10 kΩ, 0-100 kΩ
Input voltage meter:	0-150 V
Dummy load:	Two levels: 2 kW and 6 kW
Temperature range:	−34°C to +50°C
Size:	53 cm x 43 cm x 43 cm
Weight:	50 kg

***Smaller currents are obtainable, but outside the current regulation range the transmitter voltage is regulated, not the current.*

SPECIFICATIONS
M-4 7.5 kW Engine Driven Alternator

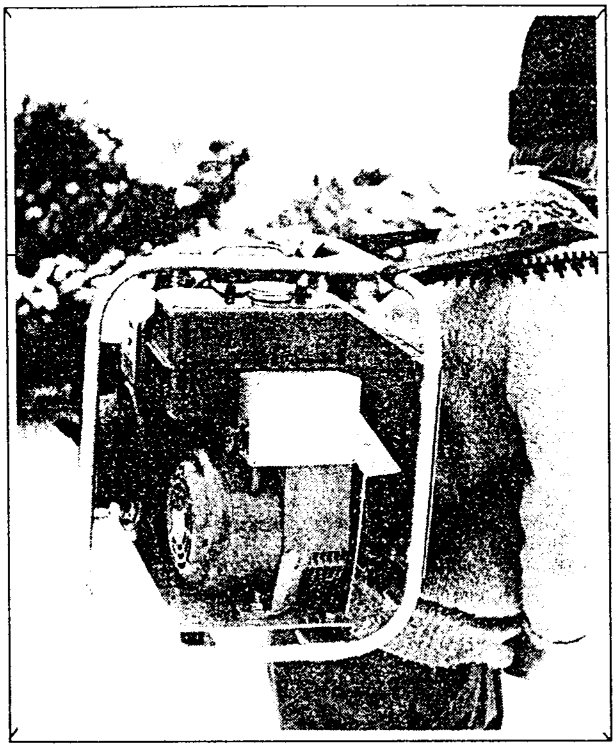
Output:	120 V ac 400 Hz 3 phase 18 kVA Maximum
Engine:	18.6 kW air cooled twin cylinder four cycle piston engine with electric start
Fuel:	Regular grade gasoline, tank capacity 14 L to give 2 h duration
Alternator:	Star connected aircraft type, belt driven, forced air cooled
Construction:	Tubular protective carrying frame with resiliently mounted engine and alternator
Size:	79 cm x 79 x 102 cm
Weight:	205 kg

HUNTEC
1750 Brimley Road, Scarborough
Ontario, Canada M1P 4X7
Phone: (416) 299-4100
Telex: 06-963640

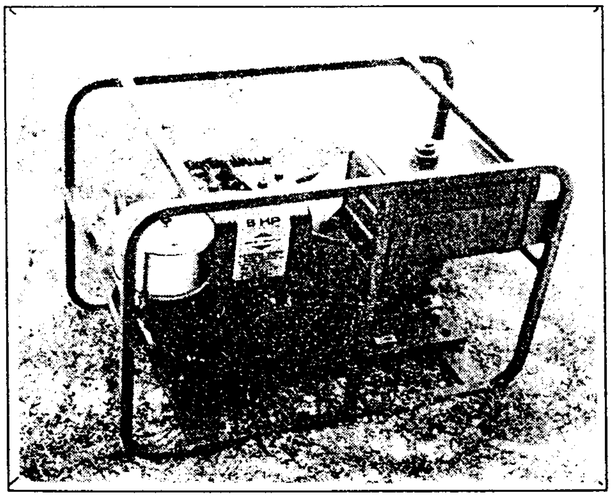
ANDROTEX

MG

MOTOR GENERATOR SETS



MG 1600



MG 2500

MODEL SPECIFICATIONS

MG550	Engine:	3HP
	Alternator:	Aircraft self excited
	Output:	Power - 550VA
		Voltage - 115V stabilized ±1%
		Frequency - 400 Hz
		Phase - Single
	Dimensions	58 x 31 x 38 cm
	Weight:	29 kg (64 lbs.)
MG600	Engine:	3 HP
	Alternator:	Permanent Magnet
	Output:	Power - 600VA
		Voltage - 115V
		Frequency - 400 Hz
		Phase - Single
	Dimensions	43 x 44 x 47 cm
	Weight:	28 kg (61 lbs.)
MG1600	Engine:	5 HP
	Alternator:	Aircraft self excited
	Output:	Power - 1.6 KVA
		Voltage - 115V stabilized ±1%
		Frequency - 400 Hz
		Phase - Single MG1600-1
		Three MG1600-3
	Dimensions	45 x 35 x 40 cm
	Weight:	27 kg (59 lbs.)
MG2500	Engine:	8 HP
	Alternator:	Permanent Magnet
	Output:	Power - 2.5 kVA
		Voltage - 115 V / 210 V
		Frequency - 400 Hz
		Phase - Three
	Dimensions	74 x 42 x 48 cm
	Weight:	54 kg (118 lbs.)

All engines are Briggs & Stratton four cycle, I/C - industrial series

Androtex reserves the right to change specifications when it results in product improvement

ANDROTEX LIMITED
GEOPHYSICAL INSTRUMENTS

6815 REXWOOD RD. UNIT 1
MISSISSAUGA, ONTARIO, L4V 1M2
Phone: (416) 677-7919 CANADA

APPENDIX V

VLF-EM and Magnetic Data List

INTERPRETEX RESOURCES LTD. Data listing (Line & Station + = Northings and Eastings, - = Southings and Westings) Current File Name:WMMDAT.WR1
From File:WMM.XYZ

Area: WHISTLER, B.C.
Grid: WMM
Date: October, 1989

DATA TYPE(S):	INSTRUMENT TYPE:	DATA DETAILS:
# 1. Total Field Magnetic Values	EDA VLF-EM/Magnetic System	Corrected total magnetic field
# 2. VLF-EM In-Phase Values	EDA VLF-EM/Magnetic System	Facing northerly using Seattle Transmitter
# 3. VLF-EM Quadrature (Out-of-Phase)	" " " "	Facing northerly using Seattle Transmitter
# 4. VLF-EM Field Strength	" " " "	Seattle total field strength
# 5. VLF-EM In-Phase Values	EDA VLF-EM/Magnetic System	Facing northerly using Cutler Transmitter
# 6. VLF-EM Quadrature (Out-of-Phase)	" " " "	Facing northerly using Cutler Transmitter
# 7. VLF-EM Field Strength	" " " "	Cutler total field strength

E/W LINE #	N/S STATION		# 1.	# 2.	# 3.	# 4	# 5.	# 6.	# 7.
line 2									
5000	4375	4375.0	57200.9	-19.6	2.3	182.1	-4.0	1.4	4.4
5000	4387.5	4387.5	56900.0	-18.7	2.6	179.9	-3.1	1.5	4.3
5000	4400	4400.0	56853.1	-19.9	1.3	178.2	-2.6	3.2	3.6
5000	4412.5	4412.5	56989.0	-18.8	1.2	177.0	0.0	5.3	4.2
5000	4425	4425.0	56793.1	-17.5	0.4	175.0	1.3	5.3	4.2
5000	4437.5	4437.5	56705.1	-17.6	0.3	174.2	1.5	4.6	4.3
5000	4450	4450.0	56823.8	-17.0	-0.9	171.2	3.9	3.2	4.3
5000	4462.5	4462.5	56755.3	-15.8	-1.4	167.9	4.2	3.7	4.2
5000	4475	4475.0	56626.8	-14.2	-1.8	167.8	7.1	3.8	4.2
5000	4487.5	4487.5	56528.4	-12.7	-2.4	170.9	8.8	6.5	4.1
5000	4500	4500.0	56437.3	-10.5	-2.8	172.8	12.2	10.6	4.1
5000	4512.5	4512.5	56272.0	-10.3	-3.4	176.1	13.1	11.9	4.3
5000	4525	4525.0	56280.1	-10.0	-4.9	180.5	14.9	11.9	4.3
5000	4537.5	4537.5	56544.0	-11.8	-4.1	155.6	14.0	10.6	4.7
5000	4550	4550.0	56398.2	-12.2	-4.5	154.4	12.8	9.2	4.8
5000	4562.5	4562.5	56287.6	-11.8	-3.8	156.8	13.6	12.4	4.8
5000	4575	4575.0	56125.1	-12.3	-2.9	161.8	11.6	11.5	5.0
5000	4587.5	4587.5	55733.6	-17.0	-3.7	170.4	6.1	8.1	5.3
5000	4600	4600.0	55868.7	-24.5	-5.9	164.8	1.6	2.4	5.4
5000	4612.5	4612.5	56007.4	-25.4	-5.7	158.3	0.2	3.9	5.2
5000	4625	4625.0	56110.8	-26.3	-5.1	152.7	0.4	6.0	5.3
5000	4637.5	4637.5	56190.8	-26.8	-4.7	149.6	-0.4	6.1	5.3
5000	4650	4650.0	56218.0	-26.1	-4.5	143.7	-0.8	5.8	5.4
5000	4662.5	4662.5	56324.6	-27.0	-4.1	139.8	-3.0	3.9	5.4
5000	4675	4675.0	56414.5	-27.3	-4.2	137.8	-3.8	3.3	5.3
5000	4687.5	4687.5	56392.9	-28.2	-4.0	137.5	-5.1	3.3	5.3
5000	4700	4700.0	56237.1	-29.4	-3.4	135.6	-7.8	1.9	5.2
5000	4712.5	4712.5	56267.2	-28.9	-2.3	133.9	-9.1	-0.5	5.0
5000	4725	4725.0	56281.6	-27.7	-1.4	130.4	-8.6	0.3	4.9
5000	4737.5	4737.5	56285.3	-26.5	-0.6	129.3	-6.6	0.6	4.9
5000	4750	4750.0	56204.6	-25.1	-0.6	127.6	-4.7	2.7	4.9
5000	4762.5	4762.5	56273.0	-25.7	-0.6	126.1	-3.0	3.8	4.8
5000	4775	4775.0	56322.5	-25.4	-1.0	124.2	-2.1	2.6	4.8
5000	4787.5	4787.5	56314.5	-25.8	-0.7	123.2	0.4	6.0	4.9
5000	4800	4800.0	56310.6	-26.2	-1.4	121.8	2.0	5.5	4.9
5000	4812.5	4812.5	56351.5	-26.5	-1.6	120.4	2.8	6.5	5.0
5000	4825	4825.0	56368.3	-26.1	-1.0	118.1	5.1	10.2	4.9
5000	4837.5	4837.5	56387.4	-25.6	-0.4	116.6	7.3	10.6	5.0
5000	4850	4850.0	56530.5	-26.5	-0.2	117.1	6.3	8.7	5.2

5000	4862.5	4862.5	56611.6	-27.0	-0.9	117.8	5.3	6.5	5.1
5000	4875	4875.0	56757.1	-25.3	-0.9	118.7	4.9	6.3	5.1
5000	4887.5	4887.5	56989.2	-26.7	-2.3	118.0	2.7	1.2	5.2
5000	4900	4900.0	57058.0	-28.3	-4.2	113.6	2.3	0.1	5.1
5000	4912.5	4912.5	56481.2	-26.2	-3.6	111.3	4.2	0.7	5.0
5000	4925	4925.0	56376.0	-25.1	-4.0	111.6	4.5	-0.6	5.1
5000	4937.5	4937.5	56415.4	-24.3	-3.6	110.7	6.6	1.5	5.1
5000	4950	4950.0	56452.3	-23.9	-3.5	110.2	7.6	1.7	5.1
5000	4962.5	4962.5	56406.2	-22.7	-3.5	109.5	8.1	1.9	5.1
5000	4975	4975.0	56275.3	-22.7	-3.2	109.8	9.6	3.1	5.2
5000	4987.5	4987.5	56326.8	-22.6	-3.1	109.9	9.8	2.7	5.3
5000	5000	5000.0	56485.1	-22.5	-3.8	110.3	9.5	0.8	5.3
5000	5012.5	5012.5	56643.7	-22.3	-3.8	108.5	10.1	2.4	5.4
5000	5025	5025.0	56255.1	-21.4	-3.6	107.5	9.6	2.2	5.4
5000	5037.5	5037.5	56148.0	-20.7	-4.4	107.3	8.3	-0.1	5.5
5000	5050	5050.0	56023.4	-21.5	-3.9	105.8	7.7	0.5	4.9
5000	5062.5	5062.5	55937.7	-20.7	-3.0	106.0	7.5	1.3	4.7
5000	5075	5075.0	55906.7	-20.3	-3.1	105.0	7.7	0.7	4.7
5000	5087.5	5087.5	55747.1	-20.0	-2.3	105.2	7.2	1.0	4.8
5000	5100	5100.0	55736.9	-20.2	-1.9	103.6	5.9	2.0	4.8
5000	5112.5	5112.5	55559.3	-19.9	-1.1	103.2	5.9	4.2	4.8
5000	5125	5125.0	55674.5	-20.2	0.0	102.9	5.5	2.9	5.3
5000	5137.5	5137.5	55946.0	-19.8	-0.3	103.9	5.5	3.7	5.0
5000	5150	5150.0	55886.8	-20.6	0.3	102.5	3.4	3.2	5.0
5000	5162.5	5162.5	55698.8	-21.0	0.7	102.1	3.6	4.8	5.0
5000	5175	5175.0	55661.5	-21.7	2.3	101.6	3.9	5.6	5.5
5000	5187.5	5187.5	55908.7	-20.7	5.7	98.6	2.2	5.9	5.6
5000	5200	5200.0	56039.4	-21.0	5.8	98.5	0.7	5.8	4.9
5000	5212.5	5212.5	56071.9	-21.1	6.1	98.8	-0.5	6.2	4.2
5000	5225	5225.0	56134.7	-21.1	7.8	98.2	-1.7	6.9	4.1
5000	5237.5	5237.5	56113.6	-21.2	8.2	99.4	-3.0	6.1	4.1
5000	5250	5250.0	56118.5	-21.8	10.3	99.3	-4.2	6.0	4.1
5000	5260	5260.0	56051.2	-22.7	10.5	99.4	-6.9	5.5	4.1
5000	5270	5270.0	56023.8	-25.3	9.6	99.5	-8.5	2.9	4.1
5000	5280	5280.0	56046.1	-28.4	10.2	97.9	-12.1	1.9	4.1
5000	5290	5290.0	56133.3	-29.6	10.6	96.3	-15.2	-0.1	4.0
5000	5300	5300.0	56162.9	-32.5	10.4	94.2	-17.3	0.5	3.8
5000	5305	5305.0	56035.0	-33.0	8.0	99.5	-15.2	1.0	6.0
5000	5310	5310.0	56047.9	-34.2	9.2	97.9	-16.4	0.6	5.9
5000	5315	5315.0	56023.1	-34.6	8.4	95.6	-18.0	0.5	5.9
5000	5325	5325.0	56104.5	-36.2	9.6	95.0	-18.8	-1.2	5.8
5000	5325	5325.0	56104.5	-36.2	9.6	88.1	-18.8	-1.2	5.8
5000	5336	5336.0	56167.1	-38.6	8.1	82.0	-20.1	-3.5	5.6
5000	5343	5343.0	56148.2	-38.7	5.1	75.9	-20.5	-3.0	5.5
5000	5350	5350.0	56148.2	-39.3	-5.9	72.8	-19.5	-3.4	5.5
5000	5362.5	5362.5	56143.4	-39.9	-3.5	69.0	-16.7	-1.1	5.3
5000	5375	5375.0	56172.8	-40.8	-2.8	66.1	-14.0	1.0	5.3
5000	5387.5	5387.5	56188.1	-41.5	-2.8	64.6	-13.0	1.5	5.3
5000	5400	5400.0	56198.1	-40.3	-5.2	65.5	-12.7	1.3	5.4
5000	5412.5	5412.5	56209.4	-40.0	-5.1	66.2	-13.7	-0.2	5.4
5000	5425	5425.0	56219.7	-39.1	-8.0	68.6	-14.8	0.5	5.3
5000	5437.5	5437.5	56211.2	-39.8	-9.3	74.4	-15.7	-2.6	5.3
5000	5462.5	5462.5	56257.9	-38.5	-3.1	137.2	-14.7	-0.4	4.8
5000	5475	5475.0	56256.0	-40.1	-4.3	135.6	-14.2	-1.3	4.6
5000	5487.5	5487.5	56253.0	-40.8	-4.8	138.2	-12.3	0.2	4.6
5000	5500	5500.0	56252.0	-38.2	-4.1	136.1	-12.0	1.2	4.6

line 4

5325	4375	4375.0	56373.9	3.2	6.6	150.5	-4.7	1.3	5.4
5325	4387.5	4387.5	56383.0	4.7	6.4	151.6	-5.2	-1.1	5.4
5325	4400	4400.0	56367.9	7.1	6.6	150.9	-4.8	-4.4	5.3
5325	4412.5	4412.5	56340.5	9.0	6.8	147.2	-3.5	-4.0	5.2
5325	4425	4425.0	56334.2	10.3	7.0	144.9	-2.2	-4.9	5.2
5325	4437.5	4437.5	56340.3	12.3	7.2	141.5	-0.5	-5.5	5.1
5325	4450	4450.0	56388.7	12.1	6.1	136.9	1.8	-4.3	5.1
5325	4462.5	4462.5	56415.6	12.2	5.7	134.7	4.4	-4.4	5.1
5325	4475	4475.0	56387.5	13.4	5.2	132.5	7.7	-1.8	5.1
5325	4487.5	4487.5	56385.1	14.0	4.3	132.4	10.3	-1.5	5.2
5325	4500	4500.0	56455.9	13.1	3.6	132.2	11.8	-2.1	5.4
5325	4512.5	4512.5	56541.3	12.7	3.7	131.8	13.6	-2.6	5.4
5325	4525	4525.0	56578.6	11.7	3.2	130.5	15.3	-2.2	5.6
5325	4537.5	4537.5	56677.4	10.6	3.1	129.0	15.6	-2.3	5.7
5325	4550	4550.0	56790.4	9.0	2.6	132.5	16.5	-2.5	5.8
5325	4562.5	4562.5	57031.1	7.0	3.1	134.6	17.1	-2.9	5.8
5325	4575	4575.0	56984.1	8.2	3.3	136.7	17.5	-2.2	6.0
5325	4587.5	4587.5	56820.3	9.8	4.3	138.8	18.4	-1.3	6.1
5325	4600	4600.0	56504.5	10.9	4.0	148.2	20.1	-0.8	6.1
5325	4612.5	4612.5	56437.1	8.2	2.8	149.9	18.4	0.0	6.4
5325	4625	4625.0	56360.7	8.9	2.8	152.7	18.0	-0.8	6.5
5325	4637.5	4637.5	56299.5	7.5	3.2	152.1	16.2	-0.6	6.6
5325	4650	4650.0	56281.6	5.1	3.8	156.6	13.8	-0.9	6.9
5325	4662.5	4662.5	56311.7	5.2	3.5	157.8	11.6	-0.6	6.9
5325	4675	4675.0	56335.3	5.2	4.1	158.3	9.2	-0.5	7.0
5325	4687.5	4687.5	56339.4	5.4	4.6	160.2	6.1	-0.1	7.0
5325	4700	4700.0	56311.2	5.7	4.8	159.6	3.4	-0.7	7.0
5325	4712.5	4712.5	56240.6	4.6	4.9	156.3	0.0	-1.2	7.1
5325	4725	4725.0	56191.9	3.7	5.6	154.1	-3.0	-2.7	7.1
5325	4737.5	4737.5	56207.3	3.8	5.4	151.9	-5.3	-2.1	7.0
5325	4750	4750.0	56221.8	3.9	5.1	149.1	-6.3	-1.3	6.9
5325	4762.5	4762.5	56315.6	2.9	4.6	148.3	-5.9	-0.1	6.7
5325	4775	4775.0	56414.0	1.9	4.2	145.8	-4.4	1.5	6.6
5325	4787.5	4787.5	56422.3	3.6	4.6	146.0	-3.0	3.1	6.5
5325	4800	4800.0	56466.1	5.0	6.2	143.9	-1.8	3.5	6.4
5325	4812.5	4812.5	56439.3	5.6	6.3	142.9	0.0	3.3	6.5
5325	4825	4825.0	56300.3	5.5	6.0	140.3	-0.7	2.9	6.6
5325	4837.5	4837.5	56246.7	5.5	6.3	140.7	-3.1	0.6	6.6
5325	4850	4850.0	56305.9	6.3	6.4	139.1	-2.3	0.5	6.5
5325	4862.5	4862.5	56320.9	6.6	6.8	141.7	-1.7	3.0	6.4
5325	4875	4875.0	56245.4	7.5	7.4	139.9	0.0	3.9	6.5
5325	4887.5	4887.5	56235.0	6.5	6.5	142.2	0.0	3.2	6.6
5325	4900	4900.0	56162.4	5.4	5.5	142.2	-1.1	2.8	6.7
5325	4912.5	4912.5	56110.1	3.8	4.1	143.5	-2.7	0.2	6.6
5325	4925	4925.0	56260.1	1.8	3.5	138.9	-2.5	-0.6	6.5
5325	4937.5	4937.5	56545.6	1.4	3.4	140.1	-1.7	0.4	6.6
5325	4950	4950.0	56277.0	2.3	4.1	139.0	-0.4	1.8	6.6
5325	4962.5	4962.5	56168.4	3.0	4.5	139.9	0.3	1.7	6.6
5325	4975	4975.0	56127.1	3.2	4.9	139.3	0.2	1.9	6.7
5325	4987.5	4987.5	56265.7	4.7	5.2	146.3	0.4	2.2	6.9
5325	5000	5000.0	56220.7	4.3	5.0	145.7	0.0	1.5	6.9
5325	5012.5	5012.5	56275.4	2.3	4.7	142.2	-1.4	0.0	7.1
5325	5025	5025.0	56450.0	2.6	4.6	139.6	-1.8	1.0	7.1
5325	5037.5	5037.5	56694.6	3.4	5.4	145.1	-2.3	-0.2	7.2
5325	5050	5050.0	56615.6	2.7	4.9	144.0	-4.2	-2.3	7.3

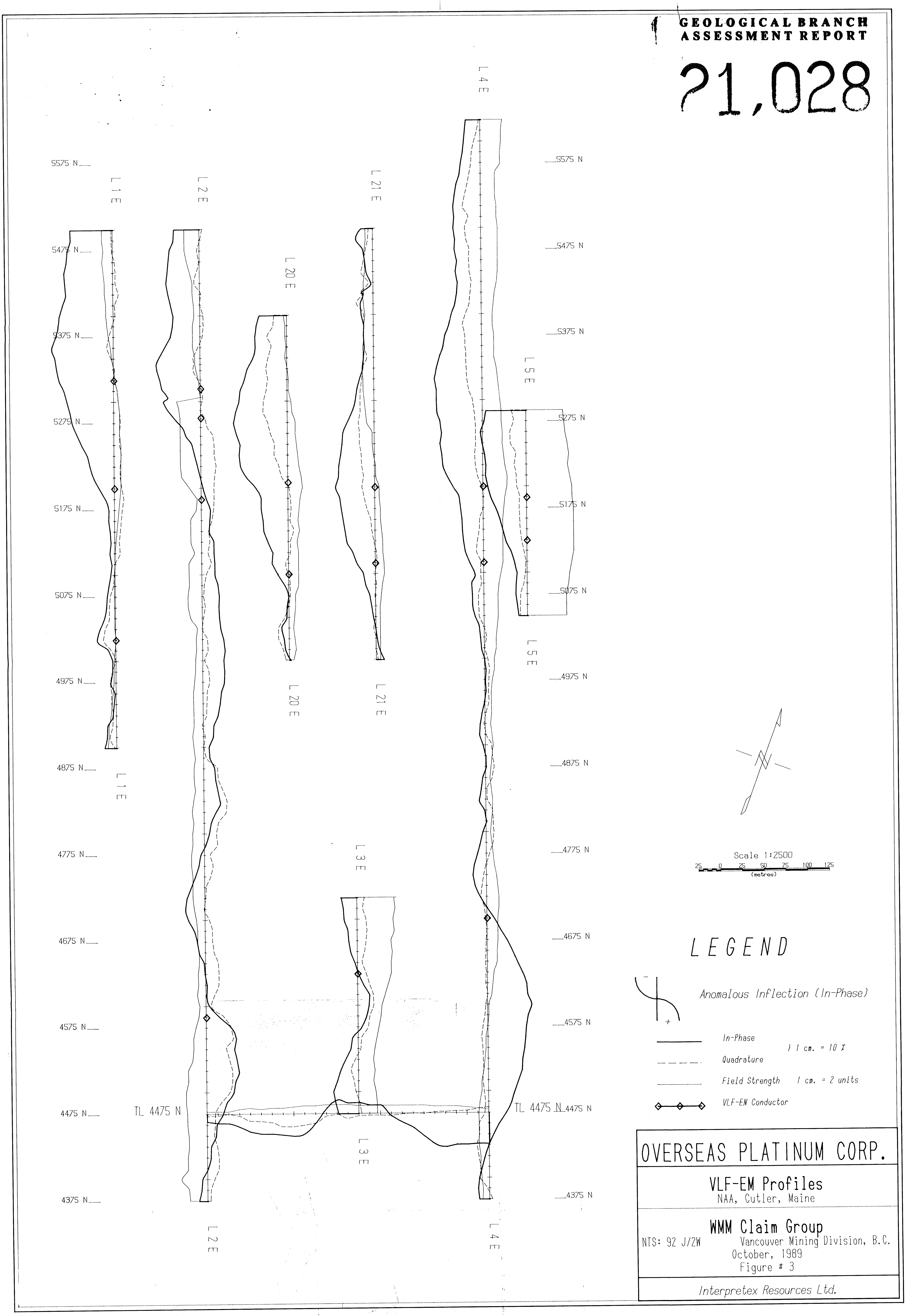
5325	5062.5	5062.5	56437.6	0.9	4.9	144.1	-5.3	-2.5	7.3
5325	5075	5075.0	56511.0	0.0	5.0	143.0	-5.4	-2.5	7.3
5325	5087.5	5087.5	56504.4	-0.4	4.7	144.3	-5.7	-1.2	7.4
5325	5100	5100.0	56577.9	-2.6	4.9	142.9	-4.2	-1.4	7.6
5325	5112.5	5112.5	56303.7	-4.2	4.5	143.9	-6.5	-1.4	7.8
5325	5125	5125.0	56179.1	-8.0	3.8	142.4	-8.5	-3.3	7.8
5325	5137.5	5137.5	55949.5	-8.6	4.0	144.5	-9.3	-2.8	7.8
5325	5150	5150.0	56146.4	-9.8	3.6	137.4	-9.7	-1.9	7.8
5325	5162.5	5162.5	56225.0	-10.3	3.8	136.7	-9.9	-1.7	7.8
5325	5175	5175.0	56123.9	-9.6	4.4	137.1	-10.5	-0.1	7.9
5325	5187.5	5187.5	55982.5	-9.3	5.7	136.9	-11.1	0.1	8.0
5325	5200	5200.0	56027.5	-10.3	6.6	138.4	-13.9	-0.7	8.2
5325	5212.5	5212.5	56060.1	-13.4	4.6	139.6	-16.6	-2.6	8.2
5325	5225	5225.0	56099.7	-15.1	3.9	133.8	-18.6	-3.5	8.0
5325	5237.5	5237.5	56145.6	-15.6	3.9	133.8	-19.0	-3.7	7.9
5325	5250	5250.0	56161.7	-15.9	3.8	130.2	-19.8	-3.2	7.8
5325	5262.5	5262.5	56161.9	-15.7	4.2	128.5	-19.2	-3.2	7.8
5325	5275	5275.0	56189.1	-14.8	4.4	127.3	-19.7	-3.4	7.7
5325	5287.5	5287.5	56243.4	-15.6	3.8	126.4	-21.2	-3.9	7.7
5325	5300	5300.0	56211.8	-17.3	2.9	123.0	-21.3	-4.6	7.6
5325	5312.5	5312.5	56233.0	-16.1	1.7	121.0	-21.3	-6.4	7.5
5325	5325	5325.0	56249.9	-17.2	1.0	121.7	-22.2	-7.1	7.4
5325	5337.5	5337.5	56271.3	-16.8	0.4	119.1	-21.4	-7.3	7.3
5325	5350	5350.0	56301.2	-15.3	0.0	116.7	-20.0	-7.4	7.1
5325	5362.5	5362.5	56274.7	-15.6	0.0	117.4	-18.2	-7.7	7.1
5325	5375	5375.0	56253.4	-15.2	-1.1	117.9	-17.3	-7.8	7.1
5325	5387.5	5387.5	56301.3	-13.1	-1.4	117.3	-15.4	-8.8	7.0
5325	5400	5400.0	56300.5	-11.9	-0.8	117.2	-14.3	-7.4	7.0
5325	5412.5	5412.5	56284.9	-11.3	-0.4	118.3	-12.5	-5.6	7.1
5325	5425	5425.0	56305.6	-8.7	0.4	120.6	-11.6	-5.1	7.2
5325	5437.5	5437.5	56293.7	-7.7	0.1	123.6	-11.2	-4.7	7.4
5325	5450	5450.0	56290.0	-8.2	-0.6	125.0	-12.0	-5.5	7.5
5325	5462.5	5462.5	56298.0	-8.8	-1.3	124.5	-11.5	-5.7	7.5
5325	5475	5475.0	56305.3	-8.3	-1.9	126.6	-12.4	-5.6	7.5
5325	5487.5	5487.5	56309.5	-9.1	-3.0	125.3	-12.3	-7.1	7.5
5325	5500	5500.0	56286.1	-7.9	-3.1	125.2	-12.9	-7.5	7.5
5325	5512.5	5512.5	56289.6	-8.3	-2.5	125.6	-12.6	-5.9	7.4
5325	5525	5525.0	56303.7	-8.0	-3.3	124.5	-12.9	-8.4	7.4
5325	5537.5	5537.5	56334.6	-7.0	-2.8	124.7	-12.4	-7.4	7.3
5325	5550	5550.0	56357.2	-4.9	-1.7	124.0	-11.6	-6.2	7.3
5325	5562.5	5562.5	56366.1	-3.2	-0.7	125.0	-10.0	-5.2	7.3
5325	5575	5575.0	56415.9	-2.2	0.3	120.6	-9.4	-4.3	7.8
5325	5587.5	5587.5	56376.4	-1.5	0.5	119.8	-8.5	-4.0	7.8
5325	5600	5600.0	56373.5	-1.7	1.4	121.1	-7.9	-2.9	7.9
5325	5612.5	5612.5	56353.2	-2.0	2.0	121.9	-7.4	-1.5	7.9
5325	5625	5625.0	56356.7	-2.4	2.1	121.8	-6.9	-0.6	8.0
line 5									
5375	5050	5050.0	56616.3	2.6	4.8	138.1	-4.1	-3.2	9.6
5375	5062.5	5062.5	56299.8	2.3	4.9	137.7	-4.7	-3.2	9.6
5375	5075	5075.0	56526.1	2.5	5.9	136.9	-5.4	-3.0	9.6
5375	5087.5	5087.5	56475.8	2.9	6.8	136.8	-5.3	-1.5	9.8
5375	5100	5100.0	56207.9	1.7	7.8	133.8	-4.9	-0.7	9.9
5375	5112.5	5112.5	56185.4	1.3	7.7	135.1	-5.9	-0.6	10.1
5375	5125	5125.0	56145.9	0.0	7.3	134.9	-7.5	-1.5	10.3
5375	5137.5	5137.5	56046.0	-0.8	7.8	134.0	-9.9	-2.5	10.3
5375	5150	5150.0	56004.4	-1.6	8.0	133.7	-11.2	-3.1	10.3

5375	5162.5	5162.5	56056.3	-1.9	8.3	135.6	-12.5	-3.2	10.3
5375	5175	5175.0	56077.0	-3.7	7.7	137.9	-14.3	-3.4	10.3
5375	5187.5	5187.5	56110.6	-4.3	7.4	136.4	-16.6	-3.2	10.2
5375	5200	5200.0	56138.7	-6.4	6.0	133.5	-17.9	-4.5	10.2
5375	5212.5	5212.5	56165.1	-8.5	5.4	132.4	-18.9	-4.7	10.0
5375	5225	5225.0	56191.4	-7.7	5.0	129.2	-18.8	-5.5	9.8
5375	5237.5	5237.5	56211.6	-8.4	4.5	128.3	-19.3	-4.8	9.9
5375	5250	5250.0	56248.1	-8.7	3.1	124.7	-20.3	-7.3	9.8
5375	5262.5	5262.5	56314.2	-8.3	2.5	121.8	-21.1	-7.4	9.6
5375	5275	5275.0	56348.4	-7.5	2.9	121.0	-19.6	-5.8	9.5
5375	5287.5	5287.5	56320.3	-6.8	2.8	121.2	-18.7	-6.9	9.4
line 1									
4900	4900	4900.0	56427.5	-36.5	2.9	164.8	-5.7	-0.8	5.2
4900	4912.5	4912.5	56470.0	-41.2	2.5	166.6	-4.6	-3.1	5.3
4900	4925	4925.0	56605.9	-42.6	1.1	154.8	-4.4	-1.8	5.3
4900	4937.5	4937.5	56544.8	-32.1	-19.2	149.9	-1.8	-1.4	5.5
4900	4950	4950.0	56468.3	-36.9	0.1	151.0	-1.3	-2.2	5.6
4900	4962.5	4962.5	56386.9	-36.4	-0.5	149.9	-0.8	-2.2	5.7
4900	4975	4975.0	56453.0	-30.0	-18.8	141.0	-2.6	-2.8	5.8
4900	4987.5	4987.5	56533.3	-28.9	-16.5	141.9	-1.9	-1.8	5.8
4900	5000	5000.0	56544.6	-27.9	-14.2	142.3	-1.8	-0.3	5.8
4900	5012.5	5012.5	56784.4	-30.7	-12.5	148.2	-3.4	-2.2	5.9
4900	5025	5025.0	57105.4	-37.5	-17.4	152.7	-8.7	-5.8	6.0
4900	5037.5	5037.5	56861.3	-36.2	-21.4	138.7	-7.5	-4.9	5.9
4900	5050	5050.0	56376.0	-41.7	1.4	142.2	-5.5	-2.9	5.9
4900	5062.5	5062.5	56528.1	-34.3	-22.2	133.3	-4.4	-2.9	5.9
4900	5075	5075.0	56540.1	-31.0	-20.5	130.8	-4.0	-2.4	5.9
4900	5087.5	5087.5	56627.8	-27.2	-19.0	129.6	-3.2	-0.9	5.9
4900	5100	5100.0	56493.4	-25.1	-16.1	129.4	-2.3	-0.2	5.9
4900	5112.5	5112.5	56139.7	-23.7	-15.6	130.0	-1.7	0.0	6.0
4900	5125	5125.0	56258.7	-27.6	1.4	136.9	-2.5	2.4	6.0
4900	5137.5	5137.5	56362.3	-27.6	1.4	137.6	-2.0	2.0	6.1
4900	5150	5150.0	56062.4	-26.4	1.7	140.0	-2.2	2.6	6.2
4900	5162.5	5162.5	55955.7	-26.3	3.1	143.2	-2.9	3.0	6.3
4900	5175	5175.0	56007.6	-26.9	-0.5	143.8	-2.8	3.5	6.4
4900	5187.5	5187.5	55769.6	-28.0	-0.7	146.2	-4.2	4.3	6.5
4900	5200	5200.0	55741.3	-30.9	2.3	149.4	-7.1	3.4	6.6
4900	5212.5	5212.5	55720.7	-32.7	4.5	149.4	-9.7	2.7	6.6
4900	5225	5225.0	55524.6	-33.6	1.5	152.3	-11.3	2.7	6.6
4900	5237.5	5237.5	55661.4	-36.0	1.0	154.3	-12.5	3.3	6.6
4900	5250	5250.0	55857.6	-38.6	-9.1	150.6	-15.1	2.5	6.6
4900	5262.5	5262.5	55945.2	-40.0	-8.9	151.6	-17.3	2.5	6.5
4900	5275	5275.0	55918.0	-41.0	-7.6	153.9	-19.4	3.0	6.5
4900	5287.5	5287.5	55852.7	-45.0	-5.1	153.7	-20.4	2.6	6.5
4900	5300	5300.0	55872.2	-46.7	-5.3	153.0	-21.7	2.0	6.4
4900	5312.5	5312.5	55868.4	-47.3	-7.0	156.9	-23.0	1.6	6.3
4900	5325	5325.0	55935.2	-50.1	3.9	163.1	-25.3	0.1	6.1
4900	5337.5	5337.5	56060.3	-52.7	-7.0	156.7	-26.4	0.5	6.0
4900	5350	5350.0	56086.0	-53.2	-7.3	155.7	-27.1	-1.2	5.8
4900	5362.5	5362.5	56111.9	-54.3	-9.0	150.3	-28.6	-3.1	5.7
4900	5375	5375.0	56146.7	-51.8	-8.1	151.9	-27.0	-2.2	5.5
4900	5387.5	5387.5	56155.6	-50.7	-0.4	154.4	-25.7	-0.7	5.4
4900	5400	5400.0	56165.7	-49.6	-1.2	157.4	-25.3	0.7	5.3
4900	5412.5	5412.5	56213.6	-49.0	-6.4	149.0	-23.7	0.7	5.3
4900	5425	5425.0	56237.1	-47.0	-6.6	148.2	-22.0	2.4	5.2
4900	5437.5	5437.5	56257.1	-46.9	-5.9	148.3	-22.4	1.1	5.2

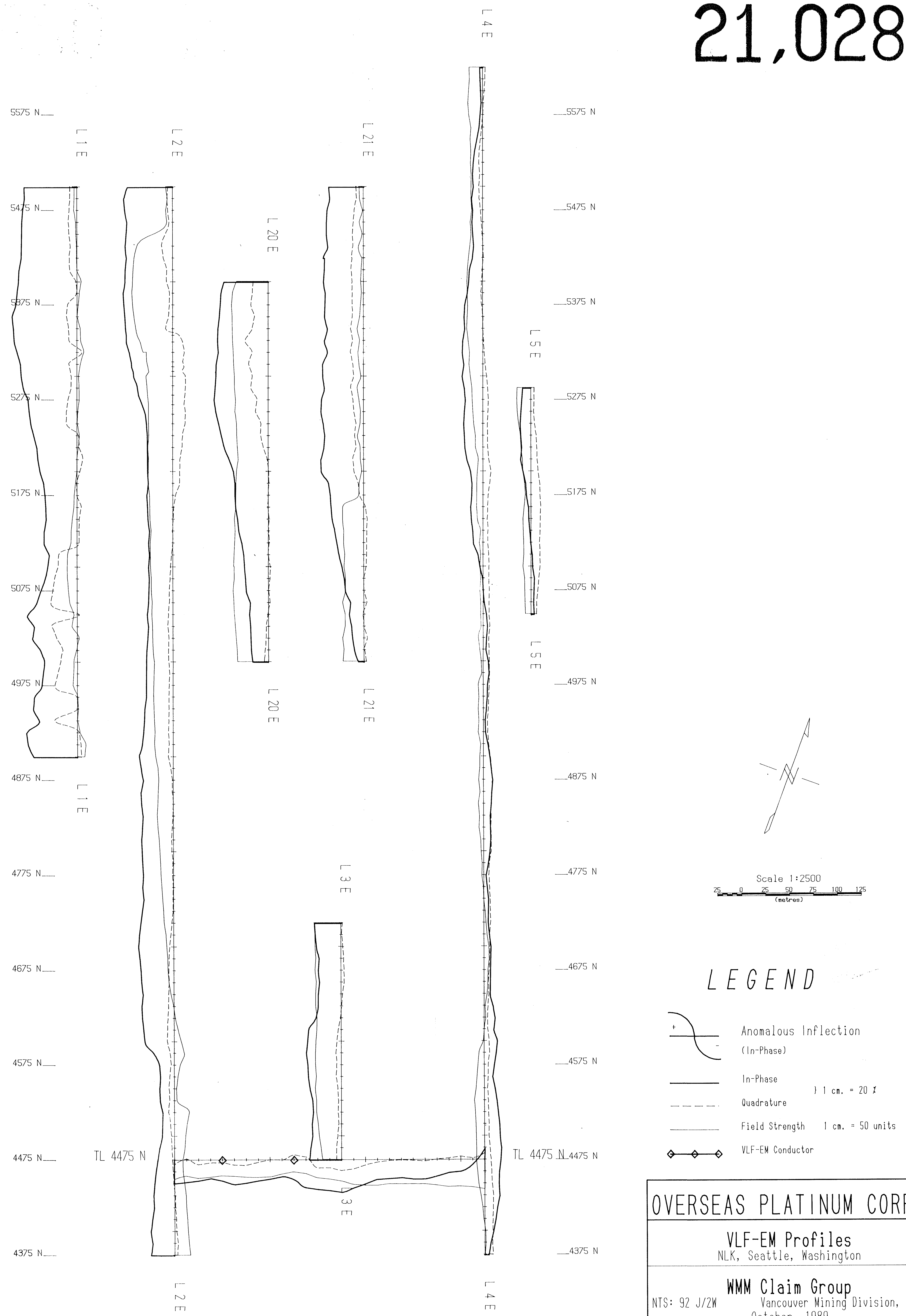
4900	5450	5450.0	56290.3	-46.7	-7.0	146.8	-22.7	1.1	5.1
4900	5462.5	5462.5	56271.3	-46.5	-7.4	146.6	-21.7	0.8	5.0
4900	5475	5475.0	56254.2	-45.8	-6.7	143.2	-21.2	-0.5	5.1
4900	5487.5	5487.5	56284.4	-44.4	-6.1	144.0	-19.7	-0.6	5.0
4900	5500	5500.0	56284.4	-44.4	-6.1	144.0	-19.7	-0.6	5.0
line 3									
5175	4475	4475.0	57404.5	-26.7	-4.3	110.3	-9.4	1.3	7.7
5175	4487.5	4487.5	57731.8	-26.0	-4.3	107.3	-10.7	0.4	7.7
5175	4500	4500.0	57874.0	-24.4	-3.2	103.4	-11.7	-1.3	7.6
5175	4512.5	4512.5	58018.7	-24.6	-2.5	101.2	-10.0	-2.1	7.4
5175	4525	4525.0	57679.6	-23.9	-2.9	98.1	-8.5	-3.3	7.5
5175	4537.5	4537.5	57512.1	-24.0	-2.8	97.9	-6.2	-1.4	7.4
5175	4550	4550.0	57333.6	-26.3	-3.3	95.3	-3.7	1.2	7.5
5175	4562.5	4562.5	57450.7	-27.6	-4.5	97.1	-2.9	1.6	7.7
5175	4575	4575.0	57340.0	-27.9	-4.0	95.8	1.4	4.7	7.9
5175	4587.5	4587.5	57390.1	-29.2	-4.6	95.8	3.7	5.5	8.1
5175	4600	4600.0	57265.8	-28.4	-3.7	96.5	4.9	7.3	8.2
5175	4612.5	4612.5	57060.1	-27.5	-2.6	98.2	5.3	7.2	8.5
5175	4625	4625.0	56698.1	-21.6	-0.6	98.5	2.5	5.4	8.8
5175	4637.5	4637.5	56650.6	-19.5	0.3	96.6	0.3	3.9	9.1
5175	4650	4650.0	56717.6	-19.4	1.1	96.5	-1.3	2.2	9.1
5175	4662.5	4662.5	56636.7	-18.2	2.5	97.7	-3.2	3.3	9.2
5175	4675	4675.0	56844.4	-19.0	2.3	95.4	-4.0	4.1	9.1
5175	4687.5	4687.5	56894.8	-18.5	2.0	96.7	-4.4	4.5	9.4
5175	4700	4700.0	56974.8	-20.6	1.2	95.4	-6.1	4.1	9.3
5175	4712.5	4712.5	56837.9	-21.5	0.5	94.9	-6.4	2.5	9.5
5175	4725	4725.0	56719.4	-22.0	0.9	93.8	-7.3	3.4	9.4
5175	4725	4725.0	56706.8	-22.1	0.4	93.1	-7.6	3.0	9.6
line 20									
5100	5000	5000.0	56378.2	-13.3	-3.6	84.5	0.6	-1.7	6.4
5100	5012.5	5012.5	56621.9	-14.3	-2.8	83.4	-1.9	-3.0	6.6
5100	5025	5025.0	56477.8	-14.7	-2.1	81.4	-2.5	-5.0	6.5
5100	5037.5	5037.5	56670.1	-14.9	-1.9	79.7	-3.6	-5.0	6.4
5100	5050	5050.0	56353.2	-15.8	-0.5	78.1	-1.3	-2.0	6.5
5100	5062.5	5062.5	56037.2	-15.4	1.1	77.2	-1.2	-0.4	6.6
5100	5075	5075.0	56158.2	-18.5	0.1	76.3	-0.3	0.7	6.6
5100	5087.5	5087.5	55990.8	-19.1	1.3	78.1	-2.0	0.6	6.9
5100	5100	5100.0	56046.6	-19.9	1.7	77.8	-5.1	0.4	6.9
5100	5100	5100.0	56043.9	-19.8	1.2	77.6	-5.0	0.0	6.9
5100	5112.5	5112.5	56142.0	-20.5	-0.3	78.5	-7.7	-1.3	6.9
5100	5125	5125.0	56003.4	-22.1	0.6	79.4	-7.4	0.9	6.9
5100	5137.5	5137.5	55869.1	-24.7	0.1	79.9	-9.6	0.9	6.8
5100	5150	5150	55951.1	-25.6	0.4	78.9	-11.4	2.4	7
5100	5162.5	5162.5	55950.9	-27.2	-0.5	81.9	-11.7	0.8	6.9
5100	5175	5175	56015.1	-27.9	-0.1	82	-12.5	1.3	7
5100	5187.5	5187.5	55945.9	-27.9	0.3	82.3	-12.5	1.1	7.1
5100	5200	5200	55874.1	-29	0.1	84	-14.9	0.3	7.3
5100	5212.5	5212.5	55950.7	-32.6	-1.1	86.5	-19.2	-3	7.2
5100	5225	5225	56008.2	-36.6	-4.3	84.8	-21.9	-4.2	7
5100	5237.5	5237.5	56051.6	-39.1	-6.5	83.6	-22.5	-6.3	6.9
5100	5250	5250	56080.5	-41.3	-6.4	82.9	-22.1	-6.1	6.8
5100	5262.5	5262.5	56104.5	-43.8	-10.7	80.2	-23.7	-8	6.7
5100	5275	5275	56060.8	-45.3	-9.5	81	-25	-9.2	6.7
5100	5287.5	5287.5	56109.5	-44.7	-14.7	78.7	-24.1	-11.3	6.4
5100	5300	5300	56132.9	-44.1	-13.5	78.4	-22.5	-11	6.3
5100	5312.5	5312.5	56149	-43.8	-16.4	77.1	-22	-9.7	6.1

5100	5325	5325	56174.5	-42.1	-13.7	76.2	-20	-9	6.1
5100	5337.5	5337.5	56208.4	-42.5	-19.4	75.1	-18.6	-9.8	6
5100	5350	5350	56219.7	-42.3	-13.3	74.3	-16	-8.7	5.8
5100	5362.5	5362.5	56185.1	-41.2	-11.6	74	-14.8	-7.3	5.9
5100	5375	5375	56169.8	-40.4	-14.6	73.3	-14.9	-9.1	5.8
5100	5387.5	5387.5	56197.3	-39.8	-13.4	75.4	-14.3	-6.4	5.8
5100	5400	5400	56203.4	-37.5	-12.8	84	-13	-5.9	5.7
line 21									
5200	5000	5000	55959	-4.9	1.6	105.5	3.6	0.9	6.4
5200	5012.5	5012.5	55877.3	-8	0.3	107.1	1.5	-0.1	6.4
5200	5025	5025	55862.9	-9.5	2.5	105.3	0.4	0	6.4
5200	5037.5	5037.5	55825.4	-10.4	-0.4	109.9	-0.3	-1.1	6.4
5200	5050	5050	55805.4	-12.3	-0.9	109.8	-1.3	-0.2	6.4
5200	5062.5	5062.5	55848.9	-11.5	2.2	105.2	-2	-0.1	6.4
5200	5075	5075	55857.3	-15.6	-0.2	110.6	-2.8	-0.3	6.5
5200	5087.5	5087.5	55855.2	-16.4	-0.1	110.9	-4.7	0.4	6.6
5200	5100	5100	55784.9	-18.2	1.9	108.5	-5.6	-0.3	6.8
5200	5112.5	5112.5	55895.8	-20.8	2.3	109.3	-8.6	0.8	6.8
5200	5125	5125	55975.6	-22.5	2.3	107.3	-10.5	0.5	6.7
5200	5137.5	5137.5	56035.2	-24.1	2.4	107.2	-13.2	-0.7	6.7
5200	5150	5150	56073.5	-26.4	2.6	105.6	-14	-1.6	6.6
5200	5162.5	5162.5	56117	-27.3	1	105.5	-14.8	-2	6.5
5200	5175	5175	56134.4	-28	-3.9	138.7	-15.6	-3.7	6.5
5200	5187.5	5187.5	56150.2	-29.5	-4.9	139.7	-16.3	-4.9	6.4
5200	5200	5200	56191.2	-35.6	-8.5	144.8	-18.2	-5.9	6.4
5200	5212.5	5212.5	56171.2	-35.8	-9.2	143	-16.9	-5.1	6.1
5200	5225	5225	56110.3	-33.7	-6.7	142.5	-16.7	-6	6.1
5200	5237.5	5237.5	56185.9	-32.8	-7.7	136.6	-15.8	-6.1	5.9
5200	5250	5250	56139.9	-33.8	-6.7	141.5	-15.2	-6.9	5.8
5200	5262.5	5262.5	56136.7	-35.9	-8.5	142.7	-14.8	-6.9	5.8
5200	5275	5275	56226.3	-35.6	-9.2	139.9	-12.7	-7.3	5.3
5200	5287.5	5287.5	56284.8	-33.2	-10.9	136.1	-10.4	-6.4	5.2
5200	5300	5300	56262.7	-34.2	-8.6	143.3	-9	-6.4	5.1
5200	5312.5	5312.5	56304.4	-34.4	-9.3	140.1	-8.2	-6.3	5
5200	5325	5325	56318.7	-30.7	-11.2	137.7	-6.9	-5.5	5
5200	5337.5	5337.5	56231.6	-32.9	-9.4	141.1	-5.3	-5.3	4.9
5200	5350	5350	56155.2	-30.7	-10.9	136.2	-5	-3.1	5
5200	5362.5	5362.5	56157.3	-32.7	-9.5	141	-4.5	-4.5	5
5200	5375	5375	56185.7	-32.5	-9.7	142.7	-4.7	-4.8	5.1
5200	5387.5	5387.5	56178.7	-32.3	-9.7	144.7	-4.6	-4.3	5.1
5200	5400	5400	56232.8	-33.7	-9.9	143.4	-5.7	-4.5	5.2
5200	5412.5	5412.5	56225.7	-33.2	-10.6	144.3	-6.1	-7.7	5.1
5200	5425	5425	56212.7	-32.9	-9.9	146.3	-4.7	-4.9	5
5200	5425	5425	56196.8	-34	-10.1	145.6	-5.7	-5.8	5.1
5200	5437.5	5437.5	56253.1	-30.3	-9.1	139.2	-1.2	-2.2	5.1
5200	5450	5450	56227.8	-31.2	-9.3	146.2	-3.3	-5.5	5.2
5200	5462.5	5462.5	56223.4	-31.2	-8.6	141	-3.9	-4.4	5.2
5200	5475	5475	56245.8	-30.8	-7.8	147.1	-4.7	-3.4	5.2
5200	5487.5	5487.5	56208.9	-28.6	-6.1	141.7	-7.9	-2.3	5.3
5200	5500	5500	56262.5	-29.1	-6.5	141	-5.7	-2	5.3
tieline 4475									
5000	4475	0	56550.1	-19.3	-3.9	108.7	-3.4	-1.1	6.2
5012.5	4475	12.5	57638	-18.3	0.5	115.5	-4.1	-0.9	6.2
5025	4475	25	57357.8	-17.1	-4.1	110.8	-4.2	0	6.2
5037.5	4475	37.5	56688.2	-15.2	-2.7	113.1	-5.9	-1	6.4
5050	4475	50	57109.2	-17.2	-2.5	116.1	-8.1	-3.3	6.5

5062.5	4475	62.5	57200.1	-20.2	-4.6	115.1	-9.1	-3.5	6.4
5075	4475	75	57306.4	-19	-4.7	112.9	-9.1	-4.1	6.5
5087.5	4475	87.5	56995.8	-17.1	-2.3	112.4	-9.6	-6	6.5
5100	4475	100	56926.9	-15.7	-0.2	113.7	-10.1	-6	6.6
5112.5	4475	112.5	56730.1	-13.7	-0.3	119.7	-9	-5.3	6.7
5125	4475	125	57094.9	-16.3	4	124.3	-3.9	-4.4	6.7
5137.5	4475	137.5	57333.2	-23.1	2.2	120.4	2.7	-1.2	6.8
5150	4475	150	57269.6	-24.4	-7.2	111.6	6.4	-0.4	6.8
5162.5	4475	162.5	57205.5	-25.5	-7	108.9	5	-2.3	6.8
5175	4475	175	57405.9	-27	-9.3	104.8	5.1	-1.2	6.7
5187.5	4475	187.5	57328.6	-23.2	-8	97.7	3.9	-0.9	6.7
5200	4475	200	56989.7	-19.7	-4.7	95.7	3.9	-1	6.7
5212.5	4475	212.5	56918.9	-16	-2.3	95.8	-1.2	-1.1	6.7
5225	4475	225	56917.2	-15.4	-1	99	-4	-0.5	6.7
5237.5	4475	237.5	56857.9	-14.7	-0.6	99.1	-6.5	0	6.7
5250	4475	250	56911.1	-15.8	-0.9	98.9	-10.4	-0.3	6.7
5262.5	4475	262.5	56959.8	-15.8	-1.5	98.8	-14.1	0.4	6.6
5275	4475	275	56959.3	-13.3	0.1	96.2	-15.4	0.5	6.6
5287.5	4475	287.5	56831.4	-10.5	1.1	93	-14.4	0.8	6.6
5300	4475	300	56762.3	-9.4	2.5	93.8	-14.4	0.9	6.5
5312.5	4475	312.5	56638.3	-3.5	1	92	-14	1.8	6.4
5325	4475	325	56362.6	9.9	5.3	88.1	-14.1	2.5	6.3



GEOLOGICAL BRANCH
ASSESSMENT REPORT
21,028
L1E
L2E
L20E
L21E
L3E
L4E
L5E
5575 N
5475 N
5375 N
5275 N
5175 N
5075 N
4975 N
4875 N
4775 N
4675 N
4575 N
4475 N
4375 N
TL 4475 N
Scale 1:2500
25 0 25 50 75 100 125
(metres)
LEGEND
Anomalous Inflection (In-Phase)
In-Phase
Quadrature
} 1 cm. = 10 %
Field Strength 1 cm. = 2 units
VLF-EM Conductor
OVERSEAS PLATINUM CORP.
VLF-EM Profiles
NAA, Cutler, Maine
WMM Claim Group
NTS: 92 J/2W
Vancouver Mining Division, B.C.
October, 1989
Figure # 3
Interpretex Resources Ltd.



OVERSEAS PLATINUM CORP.

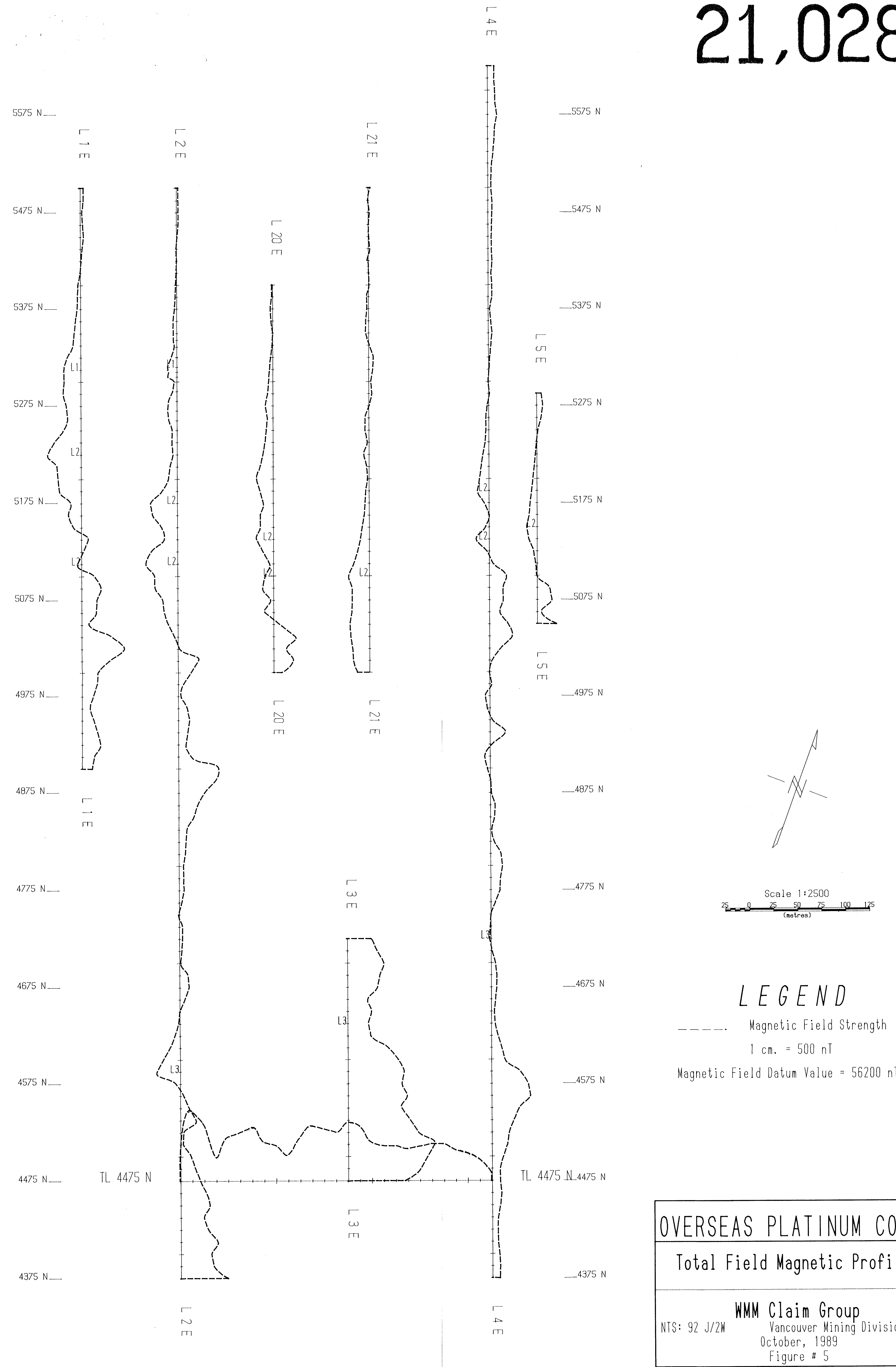
VLF-EM Profiles
NLK, Seattle, Washington

WMM Claim Group
NTS: 92 J/2W Vancouver Mining Division, B.C.
October, 1989
Figure # 4

Interpretex Resources Ltd.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,028



OVERSEAS PLATINUM CORP.

Total Field Magnetic Profiles

WMM Claim Group

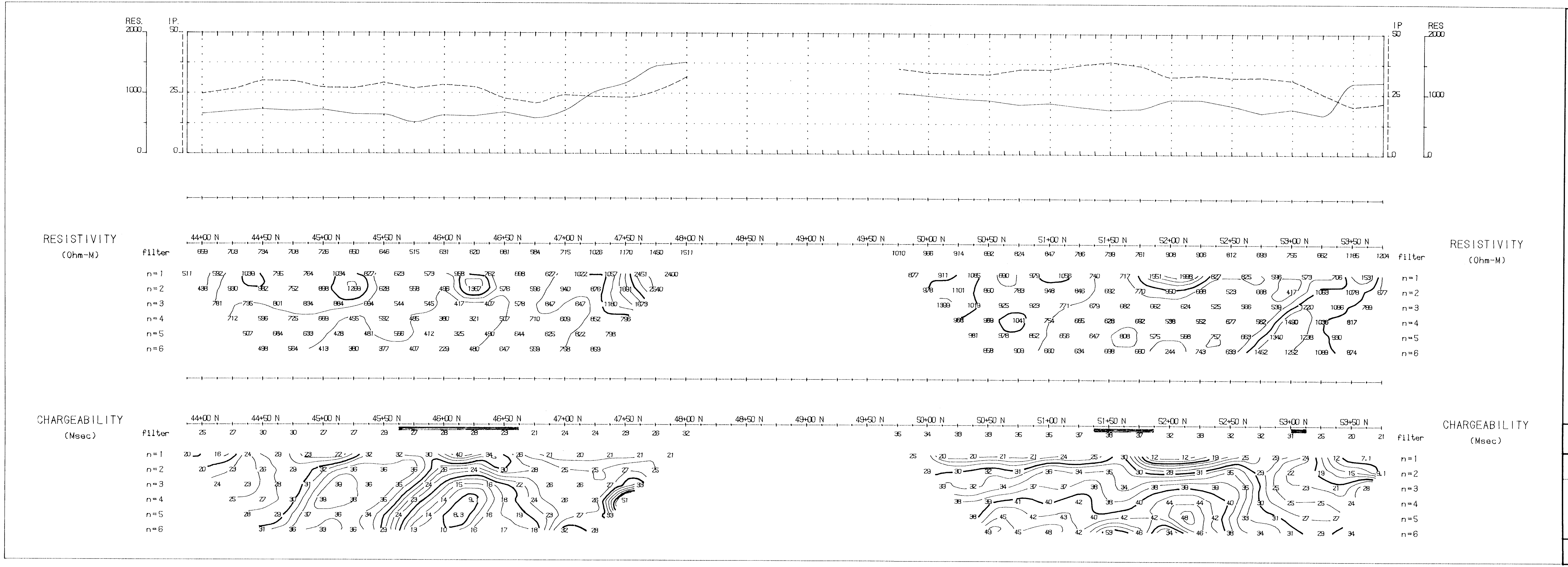
NTS: 92 J/2W Vancouver Mining Division, B.C.

October, 1989

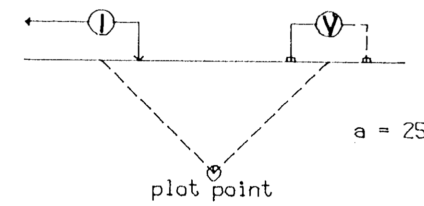
Figure # 5

Interpretex Resources Ltd.

21028



Line 2 E
Pole-Dipole Array



LEGEND

Filter

Filtered Resistivity ____

Filtered Chargeability ____

Chargeability Contour Interval = 2.5 msec.
Resistivity Contour Interval = 250 Ohm-m.

Instrument: TDR-4 Receiver
MK-4 Transmitter
Time Delay: 160 msec.
Integration Time: 650 msec.

Scale 1:2500

25 0 25 50 75 100 125
(metres)

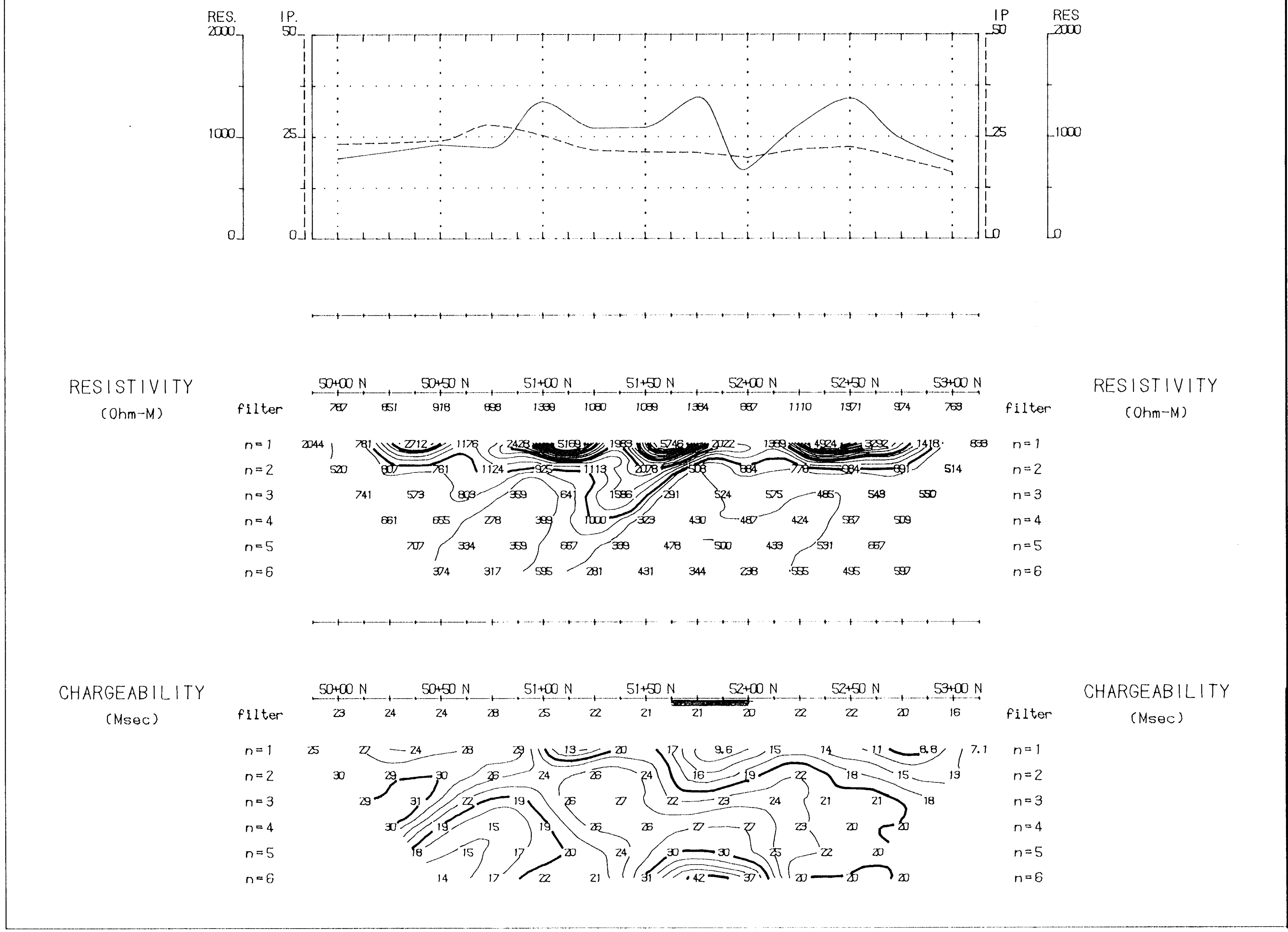
OVERSEAS PLATINUM CORP.

INDUCED POLARIZATION SURVEY

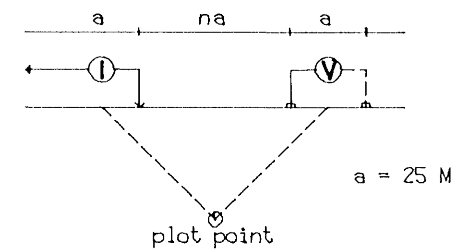
MMM Claim Group
Vancouver Mining Division, B.C.
NTS: 92 J/2W October, 1989
Figure # 6

Interpretex Resources Ltd.

21028



Line 4 E
Pole-Dipole Array



LEGEND

Filter

Filtered Resistivity ——
Filtered Chargeability - - -

Chargeability Contour Interval = 2.5 msec.
Resistivity Contour Interval = 250 Ohm-m.

Instrument: TDR-4 Receiver
MK-4 Transmitter
Time Delay: 160 msec.
Integration Time: 650 msec.

Scale 1:2500

25 0 25 50 75 100 125
(metres)

OVERSEAS PLATINUM CORP.

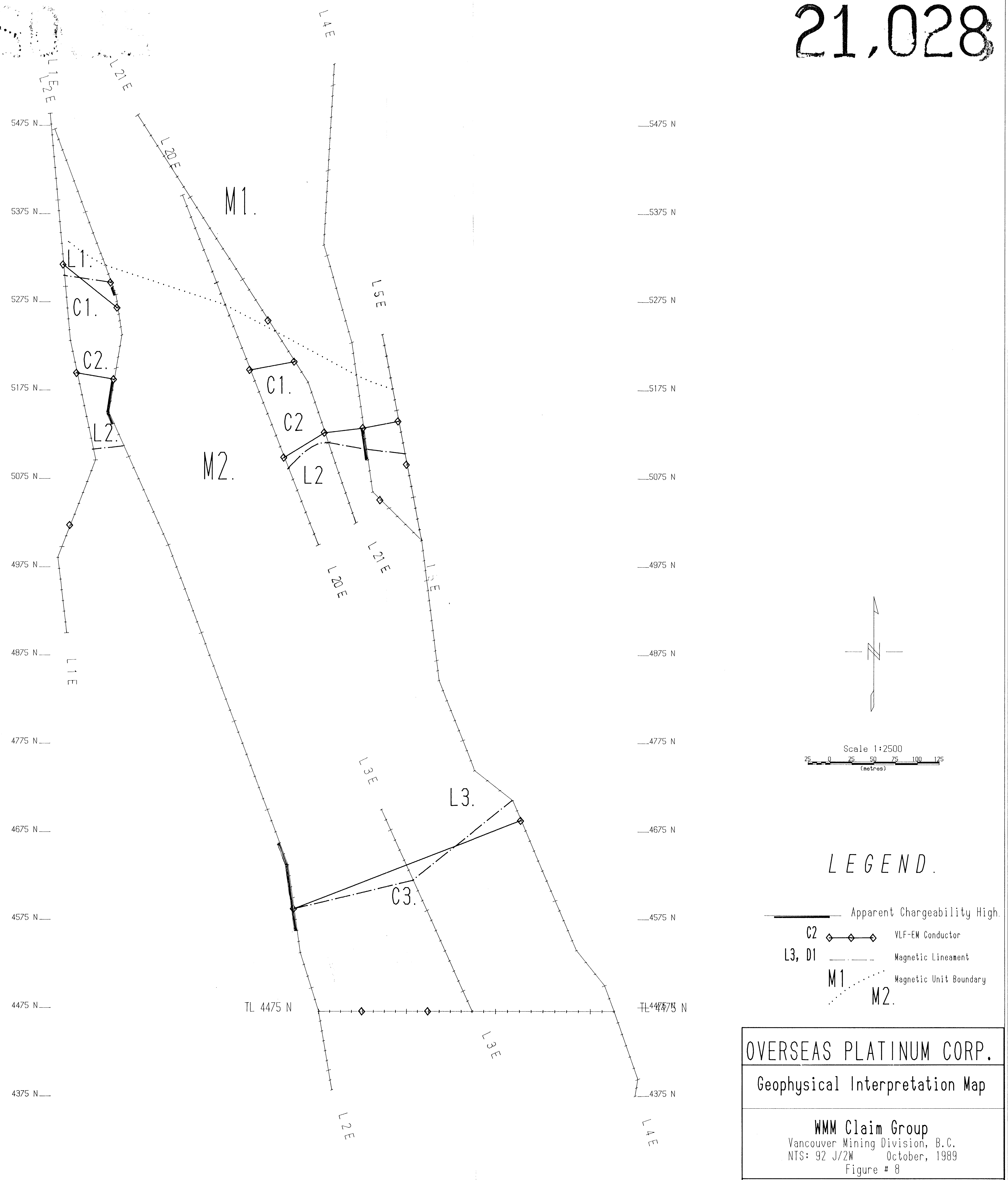
INDUCED POLARIZATION SURVEY

WMM Claim Group
Vancouver Mining Division, B.C.
NTS: 92 J/2W October, 1989
Figure # 7

Interpretex Resources Ltd.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,028

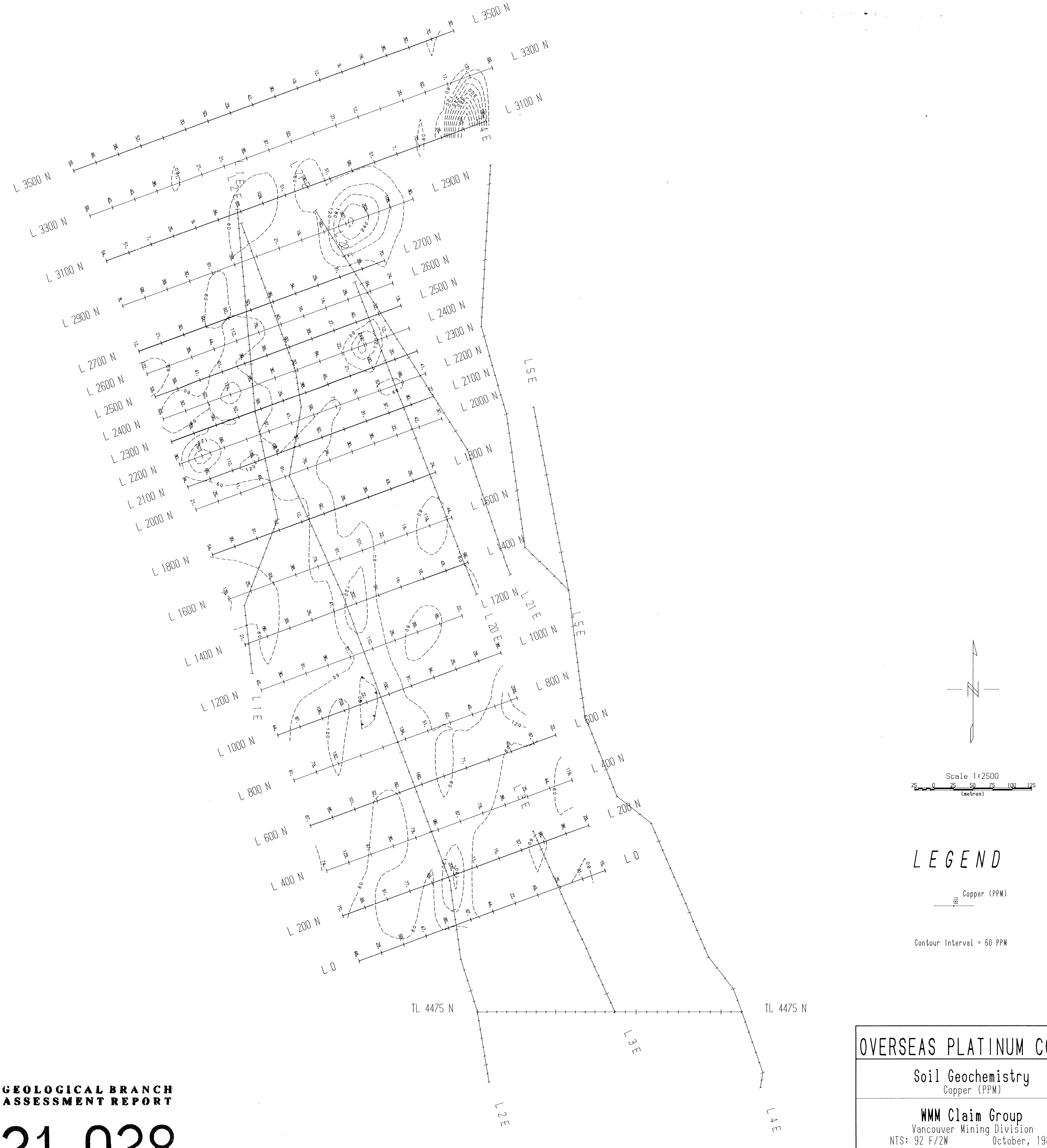


OVERSEAS PLATINUM CORP.

Geophysical Interpretation Map

WMM Claim Group
Vancouver Mining Division, B.C.
NTS: 92 J/2W October, 1989
Figure # 8

Interpretex Resources Ltd.



GEOLOGICAL BRANCH ASSESSMENT REPORT

21,028

OVERSEAS PLATINUM CORP.

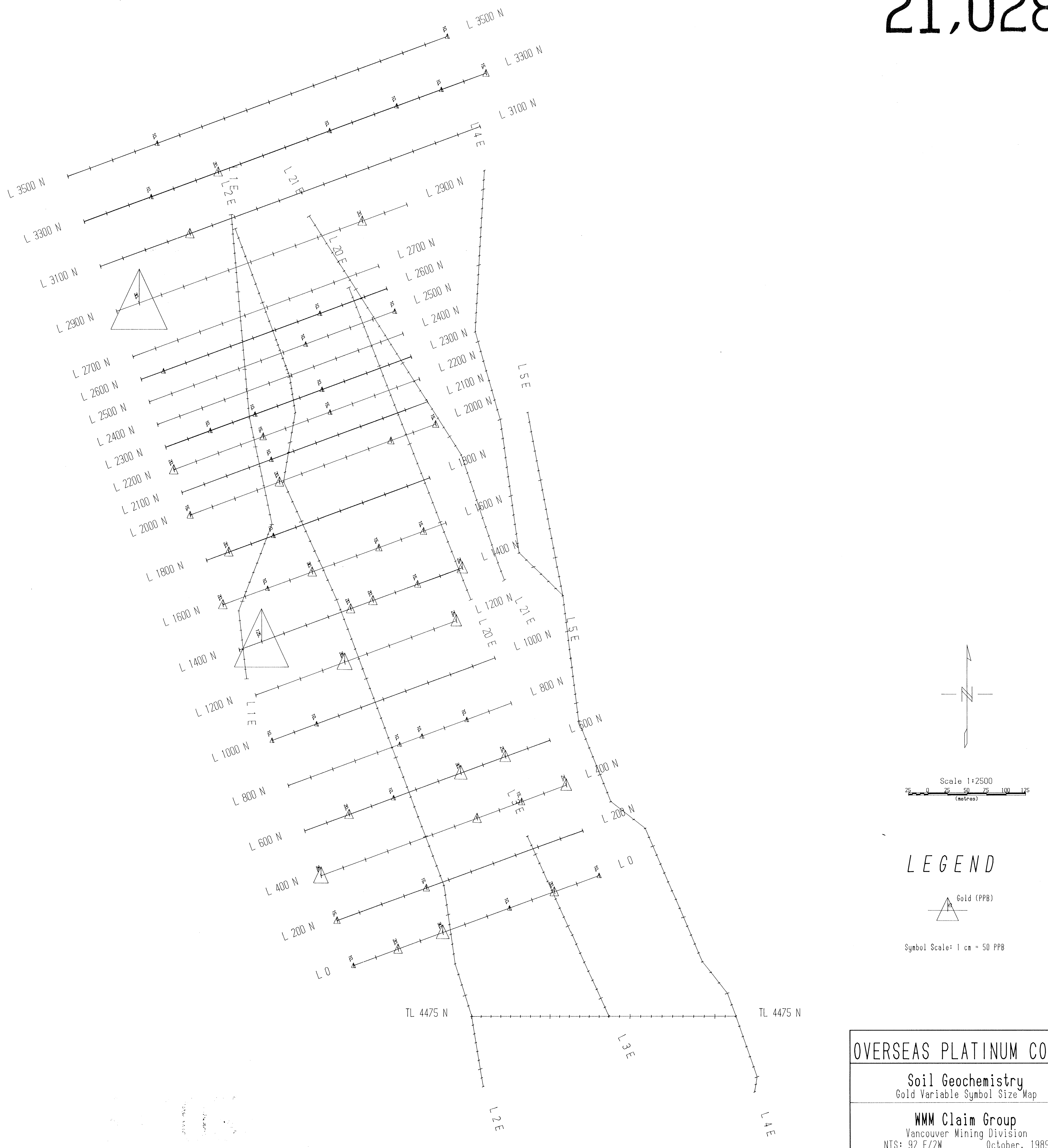
Soil Geochemistry
Copper (PPM)

WMM Claim Group
Vancouver Mining Division
NTS: 92 F/2W October, 1989
Figure # 9

Interpretex Resources Ltd.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,028



OVERSEAS PLATINUM CORP.

Soil Geochemistry
Gold Variable Symbol Size Map

WMM Claim Group
Vancouver Mining Division
NTS: 92 F/2W October, 1989
Figure # 10

Interpretex Resources Ltd.