

GEOLOGICAL BRANCH
ASSESSMENT REPORT

PAID

JAN 31 1990
GOVERNMENT AGENT
VERNON

19,626

TRANS. #.....

0205

Part 2 of 4

REPORT ON

GROUND GEOPHYSICAL SURVEYS,
WHIT CLAIMS, WHITEMAN CREEK AREA
VERNON MINING DIVISION, B.C.

NTS 82L/4E

CLAIM SHEET 82L/4E

LAT: 50° 13'N

LONG: 119° 39'W

Claims: WHIT 1-18 and WHIT 20-23

Record Nos.: 18010-18027, 176, 177, 337, 338

Vernon Mining Division, British Columbia

FILMED

for

Canadian Occidental Petroleum Limited Minerals

by

Frank L. Jagodits, Dipl. Eng., P. Eng., F.G.A.C.

Consulting Geophysicist

Covering Work Completed During the Period 1989



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LIST OF ACCOMPANYING MAPS

DWG. NO.	TITLE	SCALE
EIC-2191A	Ground Magnetic Survey, Profiles of Total Magnetic Intensity, Grid A, WHIT Claims	1:2500
-2191B	Ground Magnetic Survey, Contours of Total Magnetic Intensity, Grids A, WHIT Claims	1:2500
-2192A	Ground VLF-EM Survey, Profiles of In-phase/ Quadrature Components, Grid A, WHIT Claims	1:2500
-2192B	Ground VLF-EM Survey, Contours of Filtered In-phase Component, Grid A, WHIT Claims	1:2500
-2193	Induced Polarization Survey, Line 400S, Grid A, WHIT Claims	1:2500
-2194	Induced Polarization Survey, Line 200S Grid A, WHIT Claims	1:2500
-2195	Induced Polarization Survey, Line 0 Grid A, WHIT Claims	1:2500
-2196	Induced Polarization Survey, Line 200N Grid A, WHIT Claims	1:2500
-2197	Induced Polarization Survey, Line 400N Grid A, WHIT Claims	1:2500

LIST OF ACCOMPANYING MAPS

DWG. NO.	TITLE	SCALE
EIC-2198	Induced Polarization Survey, Line 600N Grid A, WHIT Claims	1:2500
-2199	Induced Polarization Survey, Line 800N Grid A, WHIT Claims	1:2500
-2200	Induced Polarization Survey, Line 1000N Grid A, WHIT Claims	1:2500
-2201	Induced Polarization Survey, Line 1200N Grid A, WHIT Claims	1:2500
-2202	Ground Geophysical Survey, Interpretation Map, Grid A, WHIT Claims	1:2500
-2203A	Ground Magnetic Survey, Profiles of Total Magnetic Intensity, Grid B, WHIT Claims	1:2500
-2203B	Ground Magnetic Survey, Contours of Total Magnetic Intensity, Grid B, WHIT Claims	1:2500
-2204A	Ground VLF-EM Survey, Profiles of In-Phase/ Quadrature Components, Grid B, WHIT Claims	1:2500
-2204B	Ground VLF-EM Survey, Contours of Filtered In-Phase Component, Grid B, WHIT Claims	1:2500
-2205	Ground Geophysical Survey, Interpretation Map, Grid B, WHIT Claims	1:2500



1. INTRODUCTION

During the summer of 1988 Hutington Resources Inc. announced the discovery of gold mineralization over the Brett property about 3 km northwest from the WHIT claims. The gold mineralization occurs in a shear zone. Canadian Occidental Petroleum Limited (Canoxy) mapped a strong fault zone with intense alteration, situated along the strike extension of the gold bearing shear zone in the Brett property. Earlier geochemical surveying by Canadian Occidental indicated that a hydrothermal system along the altered fault zone exists and the discovery of gold mineralization elsewhere along this structure suggested that mineralization could exist within the WHIT claims.

To investigate this possibility further geochemical analyses were conducted, which outlined areas of further interest, report by Namik Saracoglu entitled "Gold and Multielement Geochemistry of the WHIT (1-18 and 20-23) Claims ", Canadian Occidental Petroleum Limited, Minerals, November 15, 1988.

The purpose of the ground geophysical surveys was to aid the exploration effort of the property by assisting the mapping of the subsurface lithology and structure within the broad areas

of interest outlined by mapping and geochemistry in general and locating sulphide mineralization which may be associated with gold mineralization in particular.

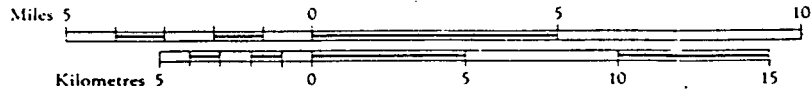
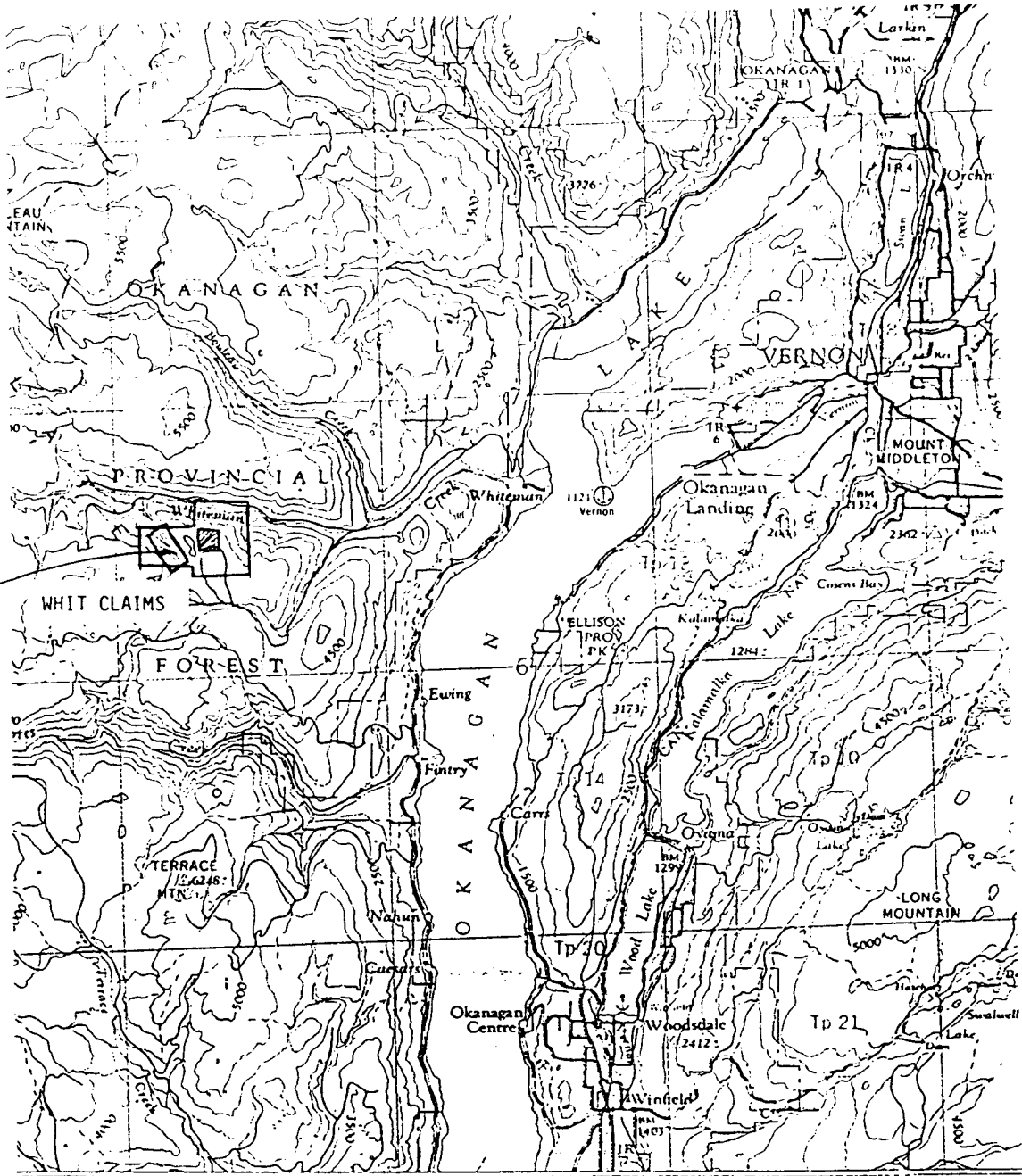
The WHIT claims are recorded on Claim Sheet 82 L/4E in the Vernon Mining Division, British Columbia and are located 11.5 km west of Okanagan Lake, south of Whiteman Creek (Figure 1). The topographic location of the WHIT claims and the approximate location of the grids are shown on Figures 2 and 3 respectively.

Peter E. Walcott & Assoc. Ltd. of Coquitlam, B.C. was contracted by Canadian Occidental Petroleum Limited to conduct ground magnetic, VLF-EM and induced polarization (IP) surveys over parts of the WHIT claims. These surveys covered two grids, Grid A and Grid B, consisting of approximately 19.2 line km of magnetic, 15.7 km of VLF-EM and 6.1 km of IP surveying over Grid A. 5.2 km of magnetic and VLF-EM surveying was needed to cover Grid B; induced polarization survey was not conducted over Grid B at this time. The work was carried out between June 12th and July 3rd, 1989 over Grid A and the subsequent survey and grid preparation over Grid B took place from September 7th to September 25th.

119° 30'

50° 15'

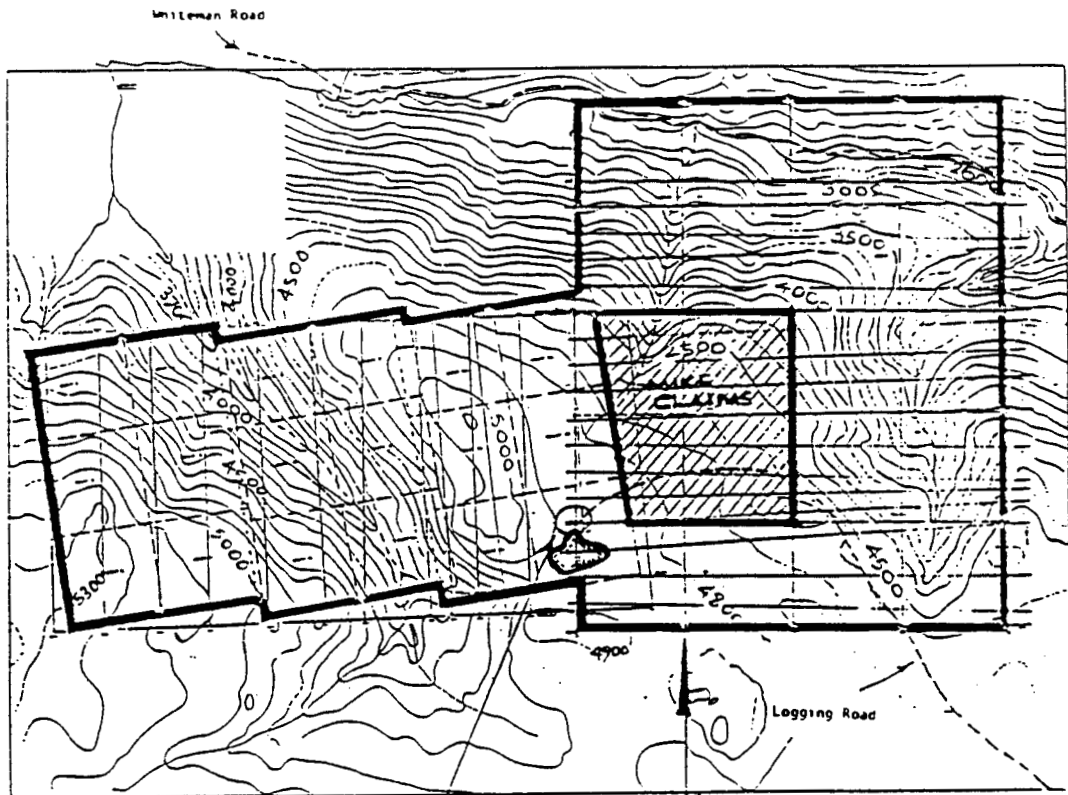
GRID "A"



LOCATION MAP

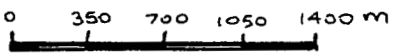
Scale 1 : 250,000

Figure 1



Proposed Camp Site

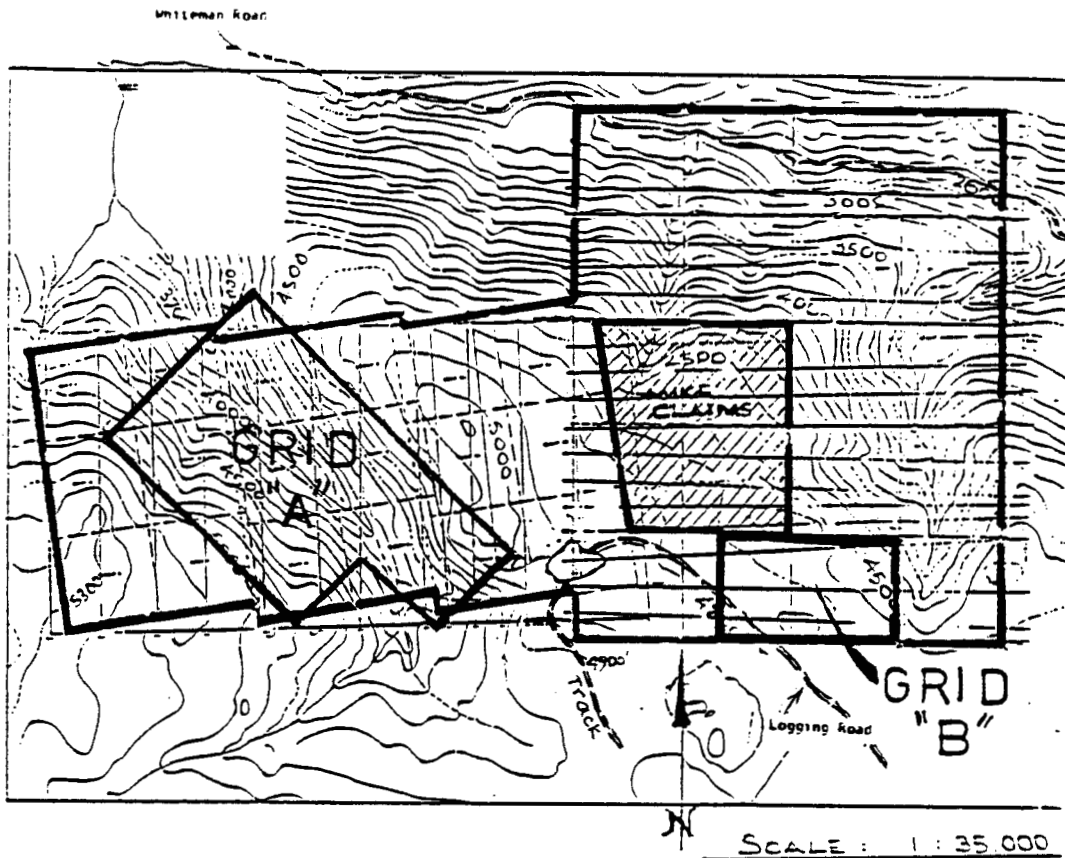
SCALE : 1 : 35,000



WHIT CLAIMS
 TOPOGRAPHICAL LOCATION MAP
 NTS 82 L/4E

FIGURE 2

N.S., Oct. 1988



WHIT CLAIMS
GRIDS "A" & "B"

TOPOGRAPHICAL LOCATION MAP

FIGURE 3

The following report presents the interpretation of the geophysical data, which is given on interpretation maps, overlaying the geophysical maps.

2. SURVEY SPECIFICATIONS AND INSTRUMENTATION

2.1 Grid Preparation

The survey lines of Grid A are 100 metres apart and were prepared by Andy Dupras Exploration Ltd. of Pentincton, B.C under contract to Canoxy. The azimuth of the survey lines is $N45^{\circ}E$, and pickets were established every 25 metres.

Grid B was prepared by Peter E. Walcott & Associates Ltd. The lines are 100 metres apart and the azimuth of the base line is 0° .

2.2 Magnetic Survey

The earth's total magnetic field was observed along the survey lines, base lines and tie lines at every 12.5 metres. The instrument employed for the surveying of both grids was the Omni Plus proton precession magnetometer manufactured by EDA Instruments Ltd. of Toronto, Ontario. The instrument measures



the variations of the magnetic field to an accuracy of plus or minus one nT.

The daily and diurnal variations of the magnetic field were monitored by an Omni base station magnetometer, also manufactured by EDA. The observations of the total field were corrected for the above variations by comparing them with the readings obtained by a base station magnetometer. The sampling rate of the base station magnetometer was 5 seconds and it was established near the survey area.

2.3 VLF-EM Survey

The in-phase and quadrature components of the VLF magnetic field were observed at every 12.5 metres along the survey lines employing the Omni Plus instrument while surveying Grid A. The EM-16 instrument manufactured by Geonics Ltd of Mississauga, Ontario was utilized for the coverage of Grid B. The primary electromagnetic field was provided by the VLF transmitter located at Annapolis, Md. (NSS, frequency: 21.4 kHz, azimuth: 94°T, distance: 3585 km) for the surveying of Grid A and the tie-lines of Grid B. The lines of Grid B were surveyed using

the VLF transmitter located at Seattle, Washington (NLK, frequency: 24.8 kHz, azimuth: 217°T, distance: 280 km).

2.4 Induced Polarization Survey

The induced polarization survey was conducted along selected portions of lines 200 metres apart. The line-by-line coverage is listed in the following Table I and also indicated on the interpretation map. The survey was carried out employing the "pole-dipole" electrode array, the distance between the potential electrodes ("a") being 25 metres. Observations of apparent resistivity and chargeability were made at stations 25 metres apart and the measurements were made at "pole-dipole" separations of 25 metres, 50 metres, 75 metres and 100 metres ("n"= 1 to 4). The second current electrode was kept constant, at "infinity" to the east of the survey lines.

A pulse-type system was employed, consisting of a receiver made by EDA Instruments Ltd. of Toronto and a transmitter and motor generator manufactured by Huntco Limited of Toronto. The cycling rate of the transmitter was 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The maximum current provided

TABLE I

INDUCED POLARIZATION SURVEY COVERAGE

LINE	STATIONS	LENGTH (m)
400S	4+37.5E - 8+87.5E	450
200S	4+37.5E - 8+87.5E	450
0	0+37.5E - 8+87.5E	850
200N	0+12.5E - 8+87.5E	875
400N	0+37.5E - 8+87.5E	850
600N	0+37.5E - 8+87.5E	850
800N	3+62.5E - 8+87.5E	525
1000N	3+37.5E - 8+87.5E	550
1200N	6+12.5E - 8+87.5E	275
	TOTAL	5,675

to the ground by this transmitter is 2.5 kW d.c. The transmitter obtains its power from a 2.5 kW, 400 cps alternator driven by a gasoline engine.

The following parameters were measured employing the micro-processor controlled digital receiver: (a) the current (I) flowing through the current electrodes, in amperes, (b) the primary voltage (V) occurring between the potential electrodes during the "current-on" cycle and (c) the apparent chargeability in millivolts per volt as direct readout. The apparent chargeability is measured after a 160 millisecond delay from the commencement of the "current-off" cycle. The length of the window used for the measurement was 1580 milliseconds.

The apparent resistivity in ohm-metre is computed from the current and the primary voltage and a geometric factor depending on the "a" and "n". It is noted here that the chargeability and the resistivity obtained are "apparent", indicating the values which would be obtained if the electrical properties of the ground were homogeneous down the depth of penetration of the particular electrode array used. As the electrical properties are not homogeneous in most cases, the chargeabilities and resistivities are functions of the actual chargeabilities and resistivities of earth materials.

3. PRESENTATION OF THE RESULTS

3.1 Base Maps

The base maps at a scale of 1:2500 were prepared from line-cutters' maps and show survey lines, station, major planimetric features and ties with previous grids covering the claims.

3.2 Magnetic Survey

The corrected magnetic information is shown in two formats on copies of the above base maps (1:2500): (a) as the corrected values of the total magnetic field given at each station together with the profile presentation of the data and (b) as contours of the total intensity, the basic contour interval being 25 nT and 10 nT (for Grids A and B respectively), with suitably larger intervals in areas of steep gradients.



3.3 VLF-EM Survey

Copies of the base maps were utilized to present the VLF-EM results as profiles of the in-phase and quadrature components together with the values indicated at each station. The in-phase values were filtered using the method published by Fraser (D.C. Fraser: Contouring of VLF-EM Data, Geophysics, Vol. XXXIV, No. 6, December 1967) and the positive values were contoured employing a basic interval of 2.5.

3.4 Induced Polarization Survey

The apparent resistivity, apparent chargeability and apparent metal factors are given in pseudo-section formats along the lines surveyed. In addition, the above quantities were also filtered (the filter design is shown on the pseudo-sections) and are given as values and as profiles, located above the pseudo-section.

4. KNOWN GEOLOGY

The following notes were taken from a report by Namik Saracoglu (1988). It is noted by him that the property is found within an area mapped by A. G. Jones in 1956 (Vernon Map Area, G.S.C. Memoir 296). Property was subsequently mapped by Canadian Occidental Petroleum Ltd. in 1975 and 1977 at a scale of 1:4800.

Two distinct rock groups were identified by the Canadian Occidental geologist: (a) "an older felsic intrusion, probably related to the mass of syenite shown by Jones which is overlain by (b) "a group of younger volcanics which were mapped regionally as Tertiary (Jones)" (Saracoglu, 1988).

Two units of the felsic intrusion are described: the first is the rarely outcropping coarse grained syenite and the second is a latite porphyry. It is noted that about 80% of the property is underlain by the felsic intrusions. The Tertiary volcanics include rocks ranging in composition from felsic to mafic and outliers of volcanics were found at widely different elevations, suggesting that "they were deposited over a very rugged pre-Tertiary topography" (Saracoglu, 1988).

Few trends of joint sets were measured which is about 130°T , approximately parallel to the main valley in the western part of the property. Observations which were made regarding the contact between the intrusives and the Tertiary volcanics and the fact that the tributary stream flows against the Whiteman Creek flow led Saracoglu to the suggestion that there is "a post-volcanic fault along the linear tributary stream" (Saracoglu, 1988).

It was noted that pyrite is locally abundant and occurs both in altered and unaltered rocks.

5. DISCUSSION OF THE RESULTS

5.1 General Comments

The magnetic units which are shown on the interpretation maps were outlined on the basis of the varying magnetic characteristics. These features were subsequently assigned a geological identification which is based on the correlation between the known geology and the magnetic signatures.

VLF-EM responses are generated by two phenomena singularly or in combination and these are: (a) current gathering and (b) induction. In the first instance, the return current to transmitter, which seeks the paths of least resistance (conductive shears, faults, conductive contacts etc) causes VLF-EM responses. The anomalous responses occurring over these features are very similar to those responses generated by induction. In the second case the VLF-EM anomalies are caused by secondary electromagnetic fields induced by eddy currents in a conductor (sulphides, graphite conductive structures etc). It is believed that the detected VLF-EM responses are mainly due

to current gathering along conductive structures and contacts.

The induced polarization anomalies are classified as: (a) "well defined, strong increasing polarization with or without marked decrease in resistivity", (b) "fairly well defined moderate increase in polarization" and (c) "poorly defined polarization increase". In addition the symbol "RT" is used to indicate that the anomalous induced polarization responses may be due to rock type changes rather than discrete polarizable sources e.g. volcanics known to contain fairly abundant pyrite. Well defined apparent resistivity lows are identified on the pseudo-sections as well as on the interpretation map.

5.2 Grid A

There are four reasonably well defined magnetic domains covering Grid A. These were delineated on the basis of the perceived prevalence of the magnetic anomalies, which could represent flat-laying Tertiary volcanics. These rocks cover the older intrusives and their magnetic signatures may obscure the anomalies caused by the intrusives.

Magnetic Domain A occupies the northern one-third of the grid, where the magnetic gradients are relatively gentle. The domain describes generally non-magnetic intrusives; the small amplitude, local magnetic anomalies may indicate outliers of the volcanics, albeit less magnetic than the ones to the south, or more magnetic phases of the intrusives. The domain is identified as "intrusives and some volcanics" on the interpretation map.

The relatively small aerial extent Domain B in the central west map area is believed to represent a zone of transition between Domains A and C. Domain B is marked as "intrusives and volcanics". The main feature of Domain C is the magnetic lows associated with the "positive" anomalies of Domain D delineating the flat-laying Tertiary volcanics. The domain also include anomalies which represent magnetic volcanic rocks.

Domain D, denoted as "volcanics and some intrusives" occupies the approximate southern one-third of Grid A. Magnetic units M1, M2 and M3 were singled out as examples of the magnetic signatures caused by the mafic composition, flat-laying Tertiary volcanics. It is known that elsewhere (e.g. State of Washington) the Tertiary volcanics have a considerably large remanent magnetization component which is opposing the present day field. It is not unreasonable to assume that the magnetic signatures of

the Tertiary volcanics of the WHIT claims may also include the effects of remanent magnetization.

Nearly east-west, west-northwest and north-northeast faults and/or shear zones were outlined on the basis of the discontinuities displayed on the magnetic contour map.

The fault which is believed to control the north-flowing main creek of Grid A is not recognizable in the magnetic data, however, displacements of the main fault along east-west, north-south, north-northeast can be inferred from the magnetic data.

The recorded VLF-EM fields demark generally weak, discontinuous conductors with few exceptions. Prior to discussing the exceptions it is worth examining the VLF-EM signatures associated with the structure of interest, the fault controlling the creek. One could expect that a fault having considerable strike length will produce VLF anomalies; however in this particular case only minor, weak anomalies obtained over the fault, indicating that the feature is only weakly conducting. It is noted here, that distinct, low apparent resistivity patterns, displayed on the pseudo-sections, demark the creek.

The strongest responses are associated with VC1 and VC2 which could indicate structures subparallel to the main fault. Weaker, but longer strike length VC3, VC4, VC5, VC6 and VC7 are representatives of the nearly east-west striking structures.

Two main groups of induced polarization anomalies can be distinguished:

Group A: consisting of generally strong IP responses located along the northern margin and within Magnetic Domain D, and

Group B: composed of generally weaker anomalies found in Magnetic Domain A, intrusives and some volcanics.

The best developed system composed of anomalies located along Lines 0, 200N, 400N and 600N is associated with Magnetic Unit M1 which is believed to represent volcanics. The volcanics are known to contain considerable pyrite. Although the best responses are associated with magnetic anomalies, the induced polarization signatures extend beyond the magnetically indicated volcanics. Fairly wide sources are implied, excepting Line 0 where the best response is narrower and it is just south of the

creek, which may represent the favourable fault. The narrow, well defined anomaly on Line 400S is only partly associated with a magnetic response and it is on the extension of the creek; significantly it may be located at the intersection of the main fault and an interpreted shear zone. It is a worthwhile target for further investigation, together with the narrow part of the anomaly along Line 0.

As noted earlier the anomalies of Group B are weaker and more diffused. The stronger parts of the responses are more often than not associated with local magnetic anomalies indicating possible volcanics. The somewhat narrower second order anomalies of Lines 200N and 200S may hold further interest.

5.3 Grid B

Two distinct magnetic domains can be recognized over Grid B. Domain AB, described as "intrusives and volcanics" covers almost the entire grid area, save the southern margin. The domain encloses two magnetic units, M1B and M2B, demarking mafic volcanic rocks, which cover the essentially non-magnetic intrusives. Other, nearly north-south striking, lower amplitude



anomalies of the domain may indicate less magnetic volcanics and/or intrusives with increased magnetite content.

Domain BB located along the southern margin of the grid encloses large amplitude anomalies which signify mafic composition, flat-lying volcanics (Tertiary).

Northeast and northwest striking shear zones and/or faults were interpreted from the dislocations of the magnetic contours.

The significant feature emerging from the VLF-EM data is the north-northwest striking interpreted fault VB1, which may be the offset continuation of the major structure of Grid A. As noted earlier, the major structure of Grid A is on strike of the gold bearing structure of the Brett property.

The best defined VLF-EM event is located in the eastern quadrant of the grid. It is suggested that this nearly north-south striking conductor describes a shear zone and/or fault. The VLF-EM survey have also outlined other nearly north-south striking (not surprising when the location of the transmitter is taken into account) anomalous trends which may indicate shear zones and/or faults.



The important discovery of the possible north-northwest striking structure VBl needs additional work for which recommendations are made in the following.



6. CONCLUSIONS AND RECOMMENDATIONS

The ground magnetic surveys of Grids A and B have outlined zones which are underlain by intrusives and areas of the above older intrusives are covered by Tertiary volcanics. The intrusives are non-magnetic and the magnetic characteristics of the volcanics indicate composition varying from felsic to mafic, which is in accord with the known geology.

The VLF-EM survey of Grid A have delineated a set of conductor axes (VC3 to VC7) which generally strike east-west. It is noted that the major fault of the grid, which is believed to control the location of the creek did not produce well defined VLF-EM signatures. On the other hand, easily discernible apparent resistivity lows were defined by the IP/resistivity survey over the creek. Saracoglu notes that alteration can be observed on both sides of the fault, however, there are no easily recognizeable geophysical signatures of this alteration.

Two zones of IP activity were outlined. The first one, in the southern part of the grid is within the area underlain by "volcanics and intrusives". The anomalies of the second zone are generally weaker and are found in the north where intrusives




prevail with outliers of volcanics. The relatively high pyrite content of the volcanics is known. The correlation between magnetics and IP anomalous responses suggests that the majority of the IP responses may be due to pyrite in the volcanics, but there are exceptions.

It is recommended, that the results of the ground geophysical surveys should be integrated with previous geochemical data and geological field observations. Furthermore, on the basis of the induced polarization results, two areas of special interest are selected which deserve further attention. The first anomalous locale is centred about 5+25E along Line 400S where a narrow well-defined anomaly occurs in a structurally complex zone. The second anomaly of interest is centred at 4+75E along Line 0, just south of the creek. The best part of the anomaly is at the eastern end of a much wider anomalous zone which itself may indicate pyrite bearing volcanics.

It is recommended that the vicinity of the north-northwest trending fault VBl should be investigated for mineralization and that this area should also be sampled for

geochemical analysis. Further work on Grid B will depend on the results of the mapping and geochemical analysis.

Respectfully Submitted


REGISTERED PROFESSIONAL ENGINEER
Frank L. Jagodits, Dipl. Eng., P. Eng., FGAC
F. L. JAGODITS
Consulting Geophysicist
PROVINCE OF ONTARIO
Dec. 1989.

7. APPENDIX

- Cost Break-down
- Writer's Qualifications



COST BREAKDOWN

Grid Preparation			
Grid A	\$13,600.00		
Grid B	11,010.00		
			\$24,610.00
Ground Geophysical Surveys			
Grid A	26,708.00		
Grid B	1,218.00		
			27,926.00
Data Reduction and Presentation			
Tesla-10 Ltd.	1,442.00		
	820.00		
		2,262.00	
R. T. Marcroft & Assoc.	100.00		
	825.00		
		925.00	
MC Reproductions	8.75		
	89.49		
		98.24	
			3,285.24
Professional Services			
Survey planning,	1,480.00		
interpretation and	2,720.00		
reporting by			
F. L. Jagodits, P. Eng., FGAC			4,200.00
			\$60,021.24
			=====



CURRICULUM VITAE

NAME : Francis (Frank) L. Jagodits

RESIDENCE : 353 Berkeley St.,
TORONTO, Ontario, Canada, M5A 2X6

ACADEMIC : Elementary and Secondary education in
QUALIFICATIONS : Szombathely, Hungary

Geophysical Engineering Diploma, Technical
University of Sopron, Hungary - (1951-1956)

Post Graduate Studies in Photo-Interpretation
for Engineers, University of Toronto
Extension

WORK EXPERIENCE :

1956 Hungarian Uranium Mines, Geophysicist;
uranium exploration, supervision of field
crews, data compilation and interpretation.



1957 - 1964

Hunting Technical and Exploration Services Ltd. later Hunting Survey Corporation, Toronto, Ontario. Project Geophysicist: interpretation of airborne magnetic and radiometric surveys (mineral and oil exploration) from Latin, America, Canada and U.S.A. Shallow refraction engineering seismic surveys and interpretation.

1963 - 1964

Hunting Survey Corporation, Toronto, Manager of Gravity Operations; in charge of large scale gravity surveys in the Foothills of the Rocky Mountains and helicopter supported surveys in the Canadian Arctic Islands.

1964 - 1970

Huntec Limited, later Huntec Division of Kenting Earth Sciences Ltd., Toronto; Senior Geophysicist (1964-1967): interpretation of airborne magnetic and radiometric surveys for the U.N. (Nicaragua, Costa Rica, Panama); supervision of airborne surveys (Africa); participated in the development of the Hydrosonde marine seismic system and later conducted numerous surveys with the system.

Operations Manager (1968): responsible for all projects from negotiating to reporting, including integrated exploration programmes in Canada and Central America.

General Manager, Earth Science Department (1969): responsible for management of the Department.

Chief Geophysicist (1970): responsible for all technical aspects.

1970 - 1978

Barringer Research Ltd., Toronto; Senior Geophysicist rising to Chief Geophysicist, Manager of Airborne Operations: responsible for the Geophysical Department of the Exploration Division which conducted airborne and ground surveys for a Joint Venture in integrated exploration programmes in Canada and Fiji. Participated in the development of the E-PHASE airborne resistivity system, and later supervised and interpreted the data. As Manager of Airborne Operations organized and supervised airborne geophysical and airborne geochemical surveys.

1978 - present

Excalibur International Consultants Ltd.,
Toronto;

Consulting Geophysicist: consultant to
mining exploration companies (uranium, base
and precious metal exploration), supervised
airborne surveys and interpretations for the
U.N. (Mauritania, the Yemens), airborne
survey planning for CIDA (Honduras),
conducted geophysical seminars for mining
companies and for civil engineers. Part-time
instructor of geophysics at the Ryerson
Polytechnical Institute, Toronto.

PROFESSIONAL
AFFILIATIONS

- : - Member of the Association of Professional
Engineers of the Province of Ontario
- Society of Exploration Geophysicists
- Canadian Exploration Geophysical Society
- European Association of Exploration
Geophysicists
- Canadian-Hungarian Engineers Association
- British Columbia Geophysical Society
- Canadian Geophysical Union
- Geological Association of Canada

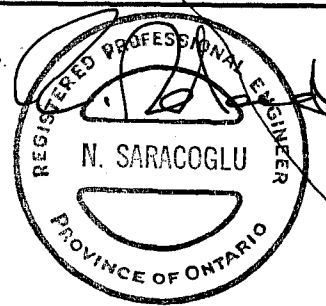


- Past Member, Committee on Exploration and Classification of Earth Materials, Transportation Research Board, National Research Council, USA
- Past Member, Working Group on Geoscience, Canadian Advisory Committee on Remote Sensing, Department of Energy, Mines and Resources

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Part 2 of 4

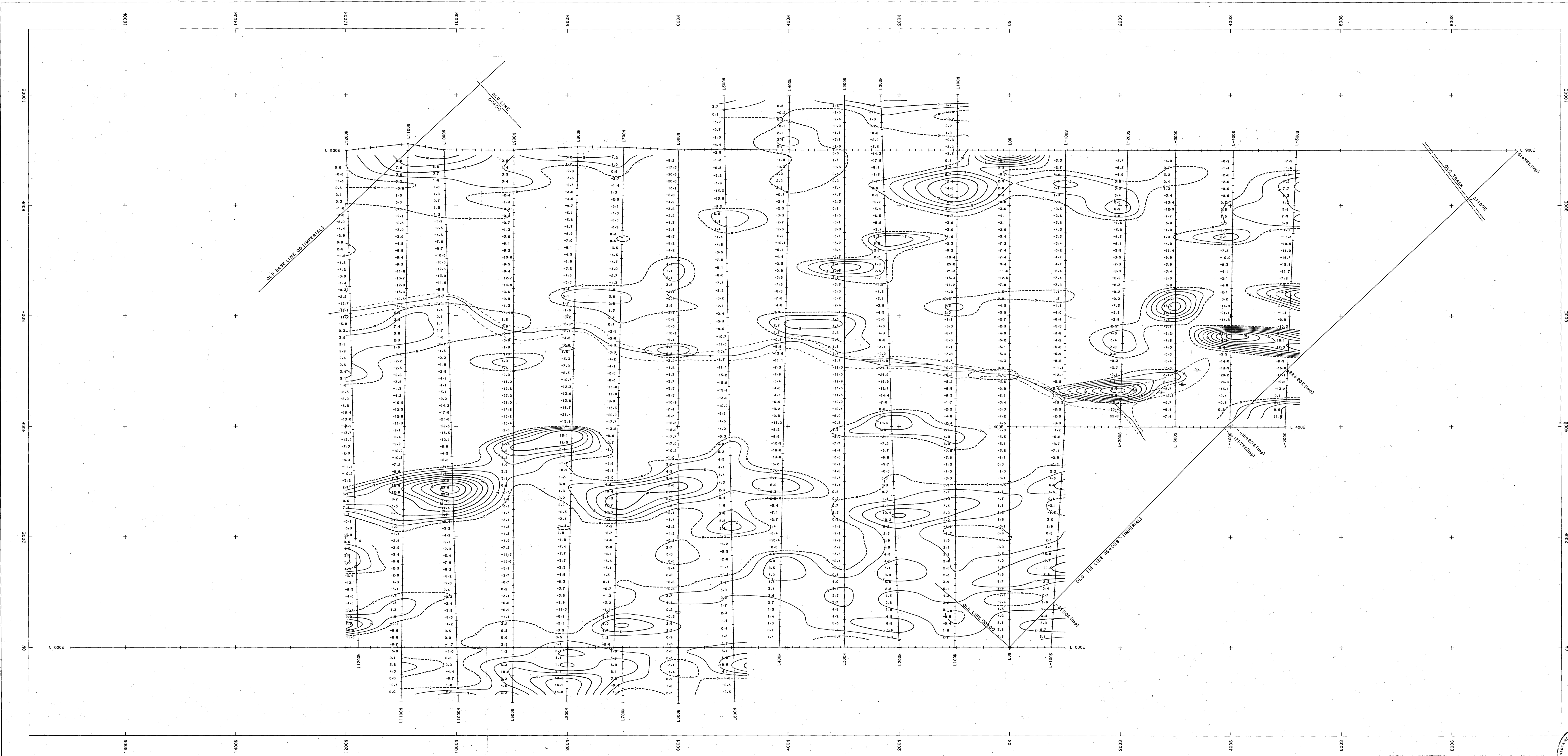


SCALE 1:10,000



- BASEMAP FEATURES**
- Topographic contour (Interval - 100ft)
 - Stream
 - Swamp
 - Canadian Dry claim post
 - Other claim post
 - Road
 - Track

Canadian Occidental Petroleum Ltd. MINERALS			
WHIT CLAIMS VERNON MINING DIVISION, BRITISH COLUMBIA N.T.S. B2L/4E			
LOCATION OF GRID "A" & GRID "B"			
Date: Jan. 1990	Geologist: N. Saracoglu	Drawn By: J. Reid & Assoc.	PLAN #: 1

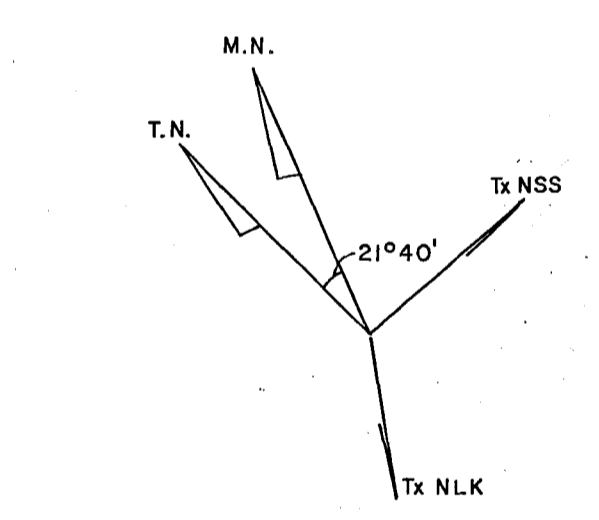


INSTRUMENTS
 EDA OMNI PLUS
 EDA BASE STATION SYSTEM

LEGEND
 CONTOUR INTERVALS
 ——— 10.0
 ——— 5.0
 ——— 2.5

TRANSMITTER : NSS, Annapolis, Md.
 FREQUENCY : 21.4 kHz
 AZIMUTH : 94 Degree
 DISTANCE : 3585 m
GEOLOGICAL BRANCH
ASSESSMENT REPORT
19,626 *Part 2 of 4*
 GROUND GEOPHYSICAL SURVEYS BY
 PETER E. WALCOTT & ASSOCIATES LTD.
 Coquitlam, B. C.

PROCESSED BY
 TESLA - 10 LTD
 Mississauga, Ont.

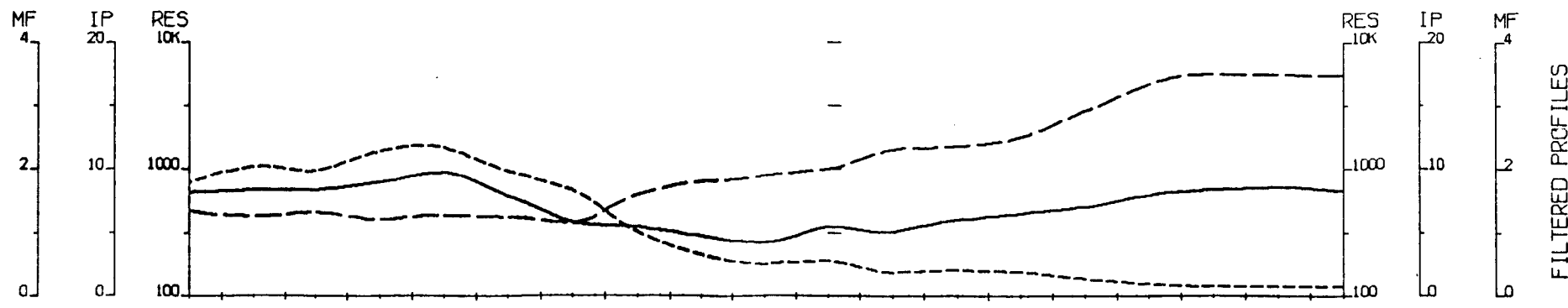


Scale 1:2500

CANADIAN OCCIDENTAL PETROLEUM LTD
 MINERALS
WHIT CLAIMS
 VERNON MINING DIVISION, BRITISH COLUMBIA
 N.T.S. 82L/4E
 GRID A
GROUND VLF - EM SURVEY
 CONTOURS OF FILTERED IN-PHASE COMPONENT

DATE: Oct. 89
 GEOLOGIST: N. Saragaglia
 DRAWN BY: TESLA-10 LTD
 DWG. NO.: EIC-2192B

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.



TOPOGRAPHY

filter	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter										
n=1	468	425	498	403	488	418	374	625	802	074	991	1435	1529	1791	2818	4688	9695	9589	5540	n=1
n=2	467	423	407	430	358	285	205	470	917	619	815	1557	1171	1529	3037	6298	8537	5374	5074	n=2
n=3		522	455	418	308	315	202	205	916	889	700	1104	1641	1586	1790	3720	5735	5006	5406	n=3
n=4		470	331	353	489	539	365	441	1207	954	1019	1093	2039	1905	2024	4189	5516	6583		n=4
		360	308	488	502	681	507	551	1235	1318	801	1279	2045	2262	2251	4259	6220			

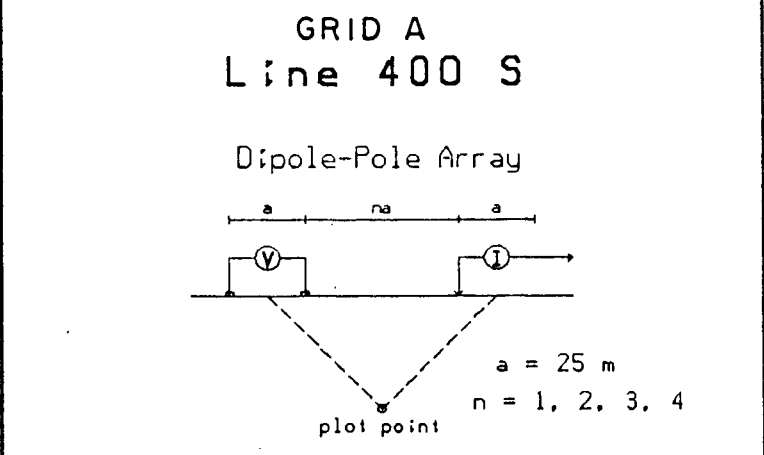
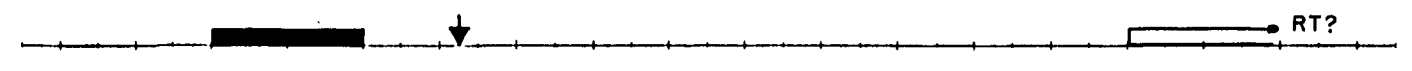
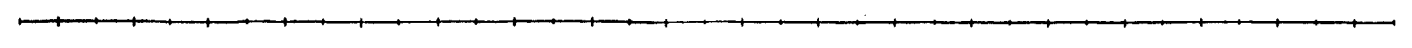
RESISTIVITY (ohm-m)

filter	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter										
n=1	8.2	8.4	8.4	9	9.7	7.9	5.8	5.4	4.7	4.2	5.4	5.1	6	6.5	7	8	8.4	8.6	8.3	n=1
n=2	5.9	5.8	6.4	10	12	6.3	4.5	5.1	4.1	3.3	5.6	4.8	5.8	5.9	8.1	10	10	9.5	7.8	n=2
n=3		9.2	8.8	9.3	8.5	12	6.2	3.5	5.8	4.3	4.5	5.8	4.6	7.4	6.4	7.6	8.6	8.7	8.4	n=3
n=4			11	9.2	7.1	7.6	10	6.3	3.5	5.1	4.8	4.5	5.2	4.8	7.8	6.4	8.6	7.4	8.4	n=4
		12	8.5	7.4	7.4	11	6.4	3.5	6.3	4.6	3.1	9.6	4.8	7.7	5.8	5.9	7.6			

CHARGEABILITY (MILLIVOLTS/PERVOLT)

filter	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter										
n=1	1.8	2	2	2.9	2.4	2	1.7	1	.7	.5	.6	.4	.4	.4	.3	.2	.2	.2	.2	n=1
n=2	1.3	1.4	1.1	2.4	3.3	2.4	2.2	1.1	.8	.5	.7	.3	.5	.4	.3	.2	.2	.2	.2	n=2
n=3		1.8	1.9	2.2	2.5	2.3	2.2	1.2	.6	.5	.6	.5	.3	.5	.4	.2	.2	.2	.2	n=3
n=4			2.3	2.8	2	1.6	1.8	1.7	.8	.4	.5	.4	.5	.2	.4	.3	.2	.1	.1	n=4
		3.2	2.8	1.5	1.5	1.6	1.3	.6	.5	.3	.3	.8	.2	.3	.3	.1	.1			

METAL FACTOR (ip/res * 100)



Filtered Profiles

Resistivity ——— filter *

Polarization ——— **

Metal Factor - - - - - ***

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

INTERPRETATION

Well defined, strong increase in polarization with or without marked decrease in resistivity.

Fairly well defined moderate increase in polarization.

Poorly defined polarization increase.

RT Change in rock type

Resistivity feature.

CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY

WHIT CLAIMS
VERNON M.D., B.C.

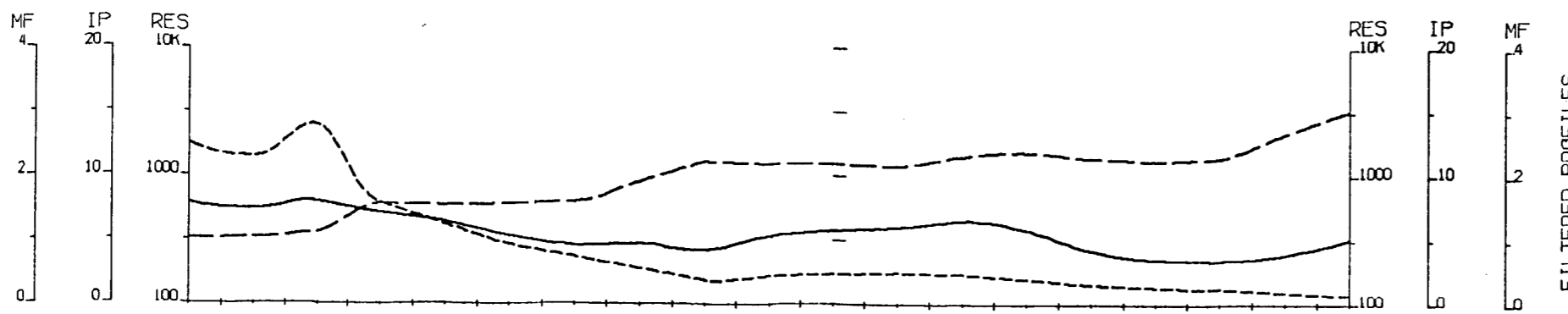
Date: 89/06/21 N.T.S.: 82L/4E

Scale: 1 : 2500 Dwg. No. E.I.C.-2193

PETER E WALCOTT & ASSOC. LTD.

To accompany report by: F. L. Jagodits, Dip. Eng., P. Eng., Consulting Geophysicist.

GEOSOFT (tm) Software for the Earth Sciences, Toronto, Canada



FILTERED PROFILES

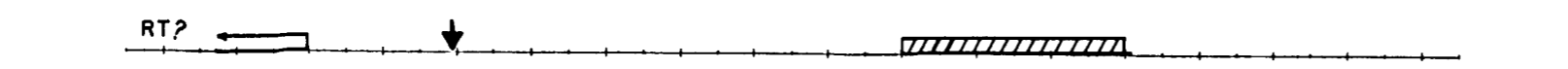
TOPOGRAPHY

	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E											
filter	323	326	364	604	999	605	621	900	1285	1237	1237	1201	1424	1548	1366	1322	1377	2184	3163	filter
n=1	226	235	197	724	379	306	552	1109	1923	1348	1364	1363	2168	2255	1265	1092	1305	3033	4396	n=1
n=2	373	278	221	520	490	435	676	1172	1410	1275	1207	1236	1424	1418	1365	1128	1340	3274		n=2
n=3	397	321	234	1018	649	587	790	1110	1318	1231	1074	991	1174	1479	1584	1154	1335			n=3
n=4	517	407	1381	787	701	607	646	1080	1268	1138	655	1022	1363	1748	1700	1283				n=4

RESISTIVITY
(ohm-m)

	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E											
filter	7.8	7.4	8	7.1	6.4	5.3	4.5	4.7	4.2	5.3	5.7	6	6.5	5.8	4.2	3.5	3.4	3.9	5.1	filter
n=1	6.3	4.8	7.4	5.1	4.8	3	3.1	4.8	4.1	6.3	6.6	8.1	8.8	7.3	3.4	3	4.1	5.8	7.3	n=1
n=2	8.1	8.1	7.9	6.5	5	4.6	3.6	4.8	3.1	7.1	5.2	7.4	7.6	4.8	3.5	3.1	3.1	4.3		n=2
n=3	9.3	8.6	7.5	8	6.6	5.1	3.5	4.8	5.1	6.3	4.8	4.8	5.8	4.6	4.1	2.8	2			n=3
n=4	9.2	7.6	8	7.6	7.6	4.8	3.1	5.1	4.6	5.1	3.8	3.8	5.0	4.8	3.5	1.8				n=4

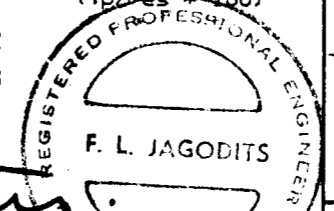
CHARGEABILITY
(MILLIVOLTS PER VOLT)



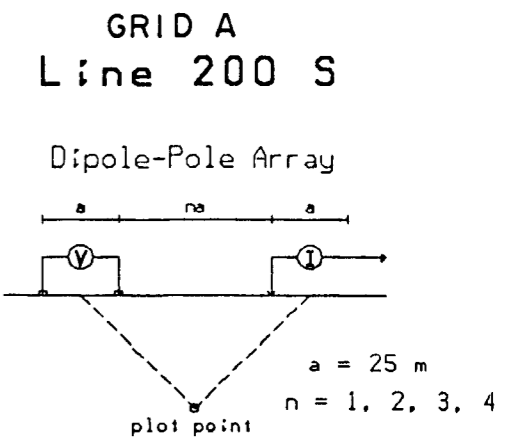
INTERPRETATION

	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E											
filter	2.5	2.9	2.8	1.8	1.2	.8	.7	.6	.4	.4	.5	.5	.5	.4	.3	.3	.3	.2	.2	filter
n=1	2.8	2	3.8	7	1.3	.6	.4	.2	.5	.5	.8	.4	.3	.3	.3	.3	.2	.2		n=1
n=2	2.4	2.9	3.4	1.3	.9	.5	.4	.2	.6	.4	.6	.5	.3	.3	.3	.2	.1			n=2
n=3	2.3	2.7	2.5	.8	1	.9	.5	.4	.4	.5	.5	.5	.3	.3	.2	.2				n=3
n=4	1.8	1.9	1.6	1	1.1	.8	.5	.5	.4	.5	.4	.4	.4	.4	.3	.2	.1			n=4

METAL FACTOR
(ip/res * 100)



To accompany report by: F. L. Jagodits, Dip. Eng., P. Eng., Consulting Geophysicist.



Filtered Profiles

Resistivity ——— filter *

Polarization ——— **

Metal Factor - - - - - ***

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

- INTERPRETATION
- Well defined, strong increase in polarization with or without marked decrease in resistivity.
 - Fairly well defined moderate increase in polarization.
 - Poorly defined polarization increase.
 - RT Change in rock type
 - ↓ Resistivity feature.

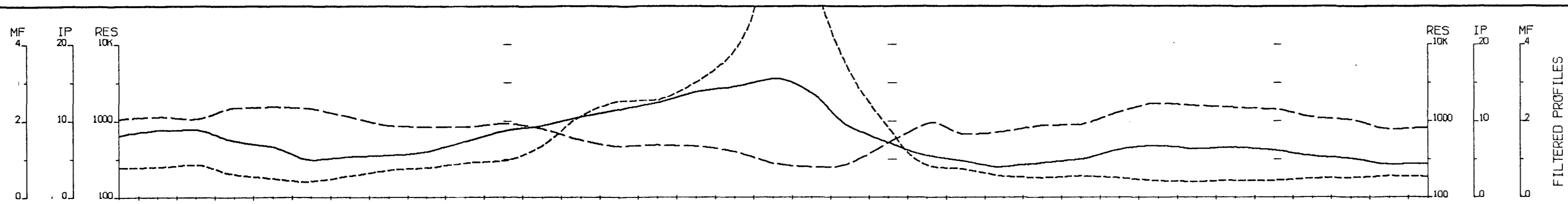
CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY
WHIT CLAIMS
VERNON M.D., B.C.

Date: 89/06/21 N.T.S.: 82L/4E

Scale: 1 : 2500 Dwg. No. E.I.C.- 2194

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FILTERED PROFILES

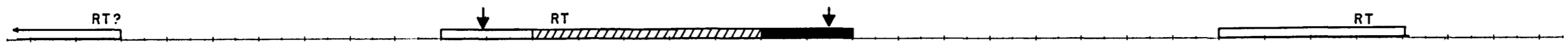
filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																		
n=1	1061	1131	1063	1478	1527	1446	1123	661	840	836	926	796	536	457	489	470	397	279	250	278	522	930	678	730	882	888	1313	1701	1585	1515	1426	1118	1035	781	818	n=1
n=2	970	1282	1272	1926	1750	2021	1357	1213	1151	764	918	797	498	496	491	445	233	166	233	807	1823	614	537	850	834	1860	2276	1985	1284	1370	918	1006	502	735	n=2	
n=3	1324	1088	1000	2720	1513	1289	954	904	804	940	104	385	406	470	617	428	288	182	298	241	815	670	458	808	930	918	1730	1758	1537	1472	1157	880	830	872	n=3	
n=4	1055	841	1029	2014	1191	728	658	665	650	930	840	376	435	517	519	342	268	236	308	298	599	885	734	873	937	1029	1924	1773	1738	1428	1231	833	1067	n=4		

TOPOGRAPHY

RESISTIVITY
(ohm-m)

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																		
n=1	8.1	8.8	8.9	7.4	6.6	4.9	5.3	5.5	6	7.3	8.7	9.4	10	12	12	14	14	16	14	9.3	7.2	5.5	4.7	4	4.5	5	6.3	6.8	6.4	6.6	6.2	5.4	5.1	4.3	4.4	n=1
n=2	7.6	9.2	9.4	6.4	6.3	2.8	4.5	4.6	4.6	5.9	8.1	8.6	10	10	10	15	14	8.7	3	6.3	6.1	4.5	1.8	2.8	3.6	6.4	7.6	6.4	6.6	6.3	4.8	4.6	3.1	4.3	n=2	
n=3	8.7	9.3	9.1	6.1	4.8	3.5	5	4.8	5.8	8.7	10	12	12	15	16	17	18	12	4.8	4.5	4.1	4	3.5	4.5	5.8	7.6	6.6	6.4	7.4	5.2	5.2	4.6	3.5	n=3		
n=4	8.8	8.6	9.1	5.5	6.3	4.6	5.8	6.9	7.4	9.3	9.2	10	12	15	15	12	15	20	13	4.8	4.3	4.8	5.8	4.6	5.9	6.4	6.4	6.5	6.4	6.6	5.3	5.8	5.1	n=4		

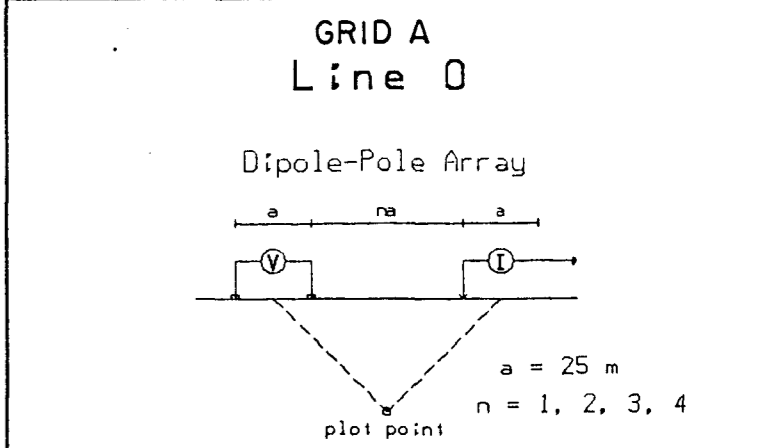
CHARGEABILITY
(MILLIVOLTS PER VOLT)



INTERPRETATION

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																	
n=1	.8	.8	.9	.8	.5	.4	.6	.7	.8	.9	1	1.4	2.1	2.5	2.5	3	3.8	8	5.7	9.3	1.8	.8	.7	.6	.5	.6	.5	.4	.4	.4	.5	.5	.8	.8	n=1
n=2	.7	.9	.9	.3	.3	.3	.5	.6	.7	.9	1.7	2.9	2.6	2.4	3.8	5.6	9.8	4.6	2	7	.6	.8	.4	.5	.6	.4	.4	.4	.4	.5	.5	.6	.5	n=2	
n=3	.8	.8	.9	.3	.3	.3	.5	.6	.7	.9	1.1	2.7	2.7	2.9	2.9	3.5	5.7	7.9	4.3	1.6	.7	.5	.6	.6	.4	.4	.4	.4	.5	.4	.7	.5	n=3		
n=4	.8	.8	.9	.4	.7	1.1	1.3	1.2	.9	.7	1.3	2.8	3.1	2.8	2.3	3.2	4.8	6.8	3.3	1.3	.6	.5	.7	.6	.6	.7	.4	.3	.4	.4	.5	n=4			

METAL FACTOR



GRID A
Line 0

Dipole-Pole Array

$a = 25\text{ m}$
 $n = 1, 2, 3, 4$

Filtered Profiles

Resistivity ——— filter *
Polarization ——— **
Metal Factor - - - - - ***

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

Instrument: EDA RX, HUNTEC 2.5KW TX
Operator: G.M.

INTERPRETATION

Well defined, strong increase in polarization with or without marked decrease in resistivity.

Fairly well defined moderate increase in polarization.

Poorly defined polarization increase.

RT Change in rock type
↓ Resistivity feature.

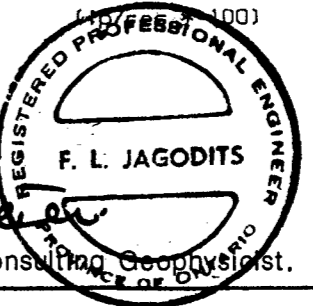
CANADIAN OCCIDENTAL PETROLEUM LTD.

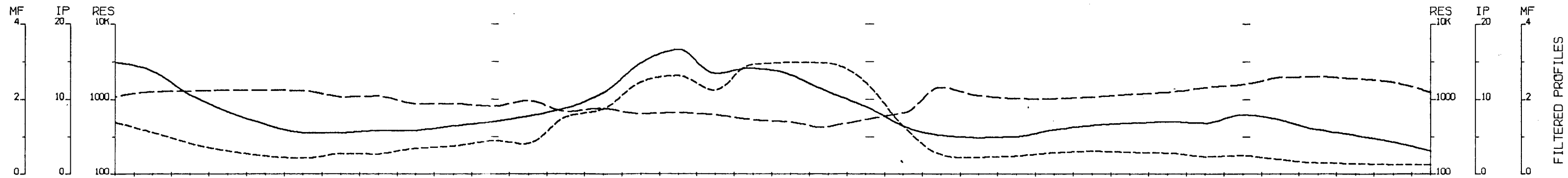
INDUCED POLARIZATION SURVEY
WHIT CLAIMS
VERNON M.D., B.C.

Date: 89/06/24 N.T.S.: 82L/4E
Scale: 1 : 2500 Dwg. No. E.I.C.-2195

PETER E WALCOTT & ASSOC. LTD.

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.





TOPOGRAPHY

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																			
n=1	1084	1255	1288	1331	1387	1301	1075	1103	659	872	805	952	881	756	638	657	617	529	494	429	531	655	1447	1126	1027	1024	1074	1167	1246	1438	1575	1944	1988	1686	1678	1241	
n=2	988	1433	1204	1306	1384	1108	924	1114	879	770	834	881	515	784	624	719	538	488	588	241	714	736	1317	321	1051	878	1138	1180	1413	1500	1572	2284	1880	1908	1521		
n=3	1121	1408	1304	1644	1383	1311	897	1114	992	1194	818	1033	412	613	623	773	989	458	250	287	1088	856	1285	996	1023	1015	1331	1505	1288	1480	1756	2372	1838	1798			
n=4	1143	1552	1588	1629	1541	1200	838	1052	871	1128	847	850	335	584	613	844	576	279	288	338	1193	1076	1124	860	1081	1189	1511	1304	1218	1531	1732	2439	2205				

RESISTIVITY

(ohm-m)

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																			
n=1	15	14	11	8.3	6.6	5.5	5.5	5.8	5.8	6.4	6.9	7.7	8.8	11	15	17	13	14	13	11	9	6.4	5.2	4.9	5	5.9	6.5	6.8	7	6.8	7.9	7.2	5.9	5.2	4.3	3.1	
n=2	16	13	6.3	4.5	4.5	4.8	5.8	5.6	4.8	5.8	5.8	5.1	4.6	6.4	15	24	15	13	11	8.6	6.4	3.5	4.6	4.5	3.5	4.8	6.3	6.4	6.6	6.3	8.9	7.4	5.8	5.8	4.5	2	
n=3	14	13	8.6	5.6	5.6	4.6	5.8	6.3	5.7	6.4	6.3	7.1	7.4	14	20	14	15	16	11	8.6	7.6	4.3	3	4.5	5.8	6.4	6.3	7.7	6.5	7.5	8.7	6.5	4.6	4.1	3.5		
n=4	14	14	9.9	6.3	4.8	4.8	5.8	6.4	6.3	7.3	8.6	10	14	17	12	11	16	16	12	9.4	7.1	4.8	3.6	6.3	6.6	6.3	7.5	7.1	7.5	6.6	8.8	5.8	3.6	4.6			

CHARGEABILITY

(MILLIVOLTS/PERVOLT)



INTERPRETATION

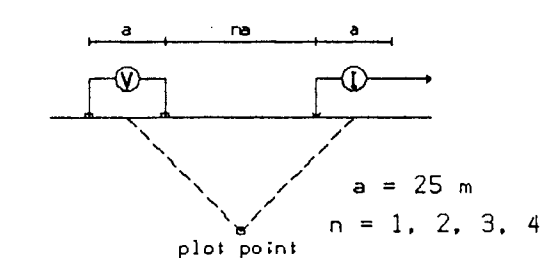
filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																			
n=1	1.4	1.1	.8	.8	.5	.4	.6	.5	.7	.8	.9	.8	1.5	1.8	2.5	2.8	2.9	2.9	9	9	2.4	1.3	.5	.5	.5	.8	.8	.8	.8	.5	.5	.4	.3	.3	.3	.3	
n=2	1.5	.9	.7	.4	.4	.4	.6	.6	.8	.8	.8	1.4	1.8	3.2	1.9	2.8	3.5	2.8	3.5	1.9	3.6	1.1	.8	.2	.5	.6	.7	.6	.7	.5	.5	.6	.3	.2	.3	.2	
n=3	1.3	1	.8	.4	.3	.4	.7	.6	.8	.6	1.1	1	3.3	2.8	1.9	1.5	2.7	3.5	4.6	3.3	.6	.3	.7	.7	.6	.6	.6	.5	.6	.5	.4	.5	.2	.2	.3		
n=4	1.2	.9	.7	.4	.4	.4	.7	.7	.7	.8	1.2	1.8	4.8	1.8	1.6	1.4	2.5	6.5	4	2.6	.7	.5	.4	.7	.6	.6	.6	.4	.6	.5	.4	.5	.2	.2			

METAL FACTOR

(ip/res. * 100)

GRID A
Line 200 N

Dipole-Pole Array



Filtered Profiles

Resistivity	-----	filter
Polarization	=====	**
Metal Factor	-----	***

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

Instrument: EDA RX , HUNTEC 2.5KW TX
Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- RT** Change in rock type
- Resistivity feature.

CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY

WHIT CLAIMS
VERNON M.D., B.C.

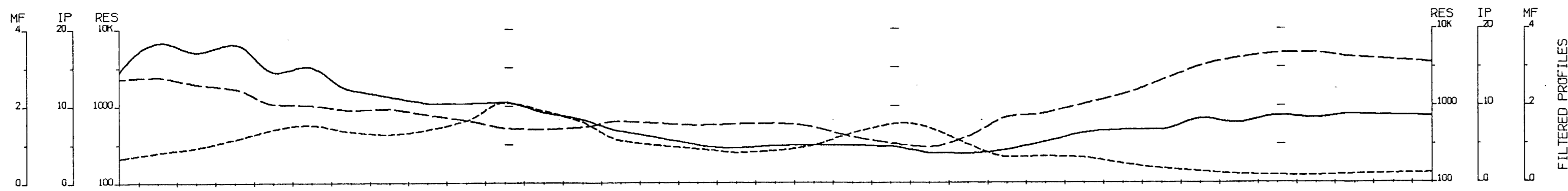
Date: 89/06/26 N.T.S.: 82L/4E

Scale: 1 : 2500 Dwg. No. E.I.C.-2196

PETER E WALCOTT & ASSOC. LTD.

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

19,626 last 2 of 4



FILTERED PROFILES

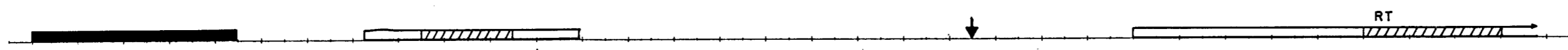
TOPOGRAPHY

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																		
n=1	235	234	1829	1664	1050	1016	879	922	759	645	514	495	532	628	594	550	593	591	526	393	325	292	398	712	799	1054	1405	2117	3281	4178	4794	4899	4277	3940	3625	n=1
n=2	2307	3049	2267	2357	874	736	574	1071	770	635	426	389	414	641	527	457	515	650	613	326	183	123	352	965	830	1028	1662	2789	3628	4047	4633	4156	3018	3250	3427	n=2
n=3	1986	1981	1080	1242	1093	1192	663	795	936	954	495	577	654	652	555	641	627	420	379	348	364	317	537	816	1018	1400	1403	2395	4743	5289	5146	5608	3846	n=3		
n=4	1617	1328	1137	1320	1081	1174	651	665	582	621	539	610	665	665	589	591	621	450	477	519	517	395	519	934	871	1392	1546	2829	5355	6070	5934	5402	n=4			

RESISTIVITY
(ohm-m)

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																		
n=1	14	18	17	18	14	15	12	11	10	10	10	9.1	8.2	6.7	5.8	4.9	4.5	4.8	4.9	4.9	4.7	3.9	3.8	4.3	5.3	6.5	6.9	6.9	8.3	7.8	8.7	8.4	8.9	8.7	8.6	n=1
n=2	14	22	18	22	14	13	4.8	6.4	7.1	9.1	9.2	7.1	7.4	4.8	4.6	3.6	4.1	5.8	5.1	4.1	3.1	2	3	4.1	5.1	7.1	7.6	6.5	8.9	7.1	9.4	8.2	9.4	8	8.1	n=2
n=3	16	20	20	16	12	16	9.1	10	10	11	12	6.5	7.4	6.3	4.8	4.5	4.1	4.8	5.1	4.8	4.5	3.1	3.5	4.6	7.4	7.4	6.4	7.6	8.7	8.1	9.4	8.2	9.2	9.4	n=3	
n=4	13	21	13	17	14	18	13	12	12	9.2	11	12	7.4	7.1	6.3	5.6	4.6	3.5	4.6	5.6	5.8	4.8	3.5	3.5	5.9	6.5	5.9	7.6	7.6	9.3	6.6	9.4	8.7	9.4	n=4	

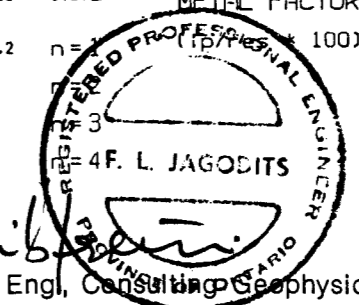
CHARGEABILITY
(MILLIVOLTS/PERVOLT)



INTERPRETATION

filter	0+50 E	1+00 E	1+50 E	2+00 E	2+50 E	3+00 E	3+50 E	4+00 E	4+50 E	5+00 E	5+50 E	6+00 E	6+50 E	7+00 E	7+50 E	8+00 E	8+50 E	filter																			
n=1	.7	.8	.9	1.1	1.4	1.5	1.3	1.3	1.4	1.8	2.1	1.8	1.6	1.1	1	.9	.8	.8	.8	1	1.3	1.5	1.4	1	.7	.7	.7	.5	.4	.9	.2	.2	.2	.2	.2	.3	n=1
n=2	.8	.7	.8	.8	1.6	1.8	.8	.8	.9	1.3	2.2	1.8	1.8	.8	.9	.8	.8	.8	.9	.8	.8	1.3	1.7	1.6	.8	.4	.8	.7	.5	.2	.2	.2	.2	.2	.3	.3	n=2
n=3	.7	.8	.1	1.5	1.4	1.5	1.3	1.1	1.5	2.7	1.3	1.3	.9	.9	.8	.8	.7	.8	.9	1.2	1.7	1.9	1.5	.8	.5	.9	.9	.5	.3	.2	.2	.2	.2	.3	.3	n=3	
n=4	.9	1.1	1.2	1.4	1.3	1.5	1.9	1.5	1.6	2	2.4	1.3	1.1	1	1	.9	1	.8	.7	1.1	1.5	1.7	1.3	1.1	.7	.6	.4	.5	.3	.2	.1	.2	.2	.2	n=4		

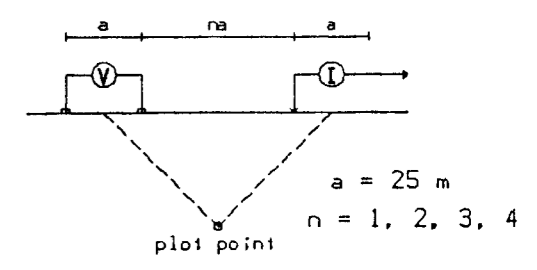
METAL FACTOR
(100)



To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

GRID A
Line 400 N

Dipole-Pole Array



Filtered Profiles

Resistivity	-----	filter
Polarization	=====	**
Metal Factor	-----	***

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

Instrument: EDA RX, HUNTEC 2.5KW TX
Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- Change in rock type
- Resistivity feature.

CANADIAN OCCIDENTAL PETROLEUM LTD.

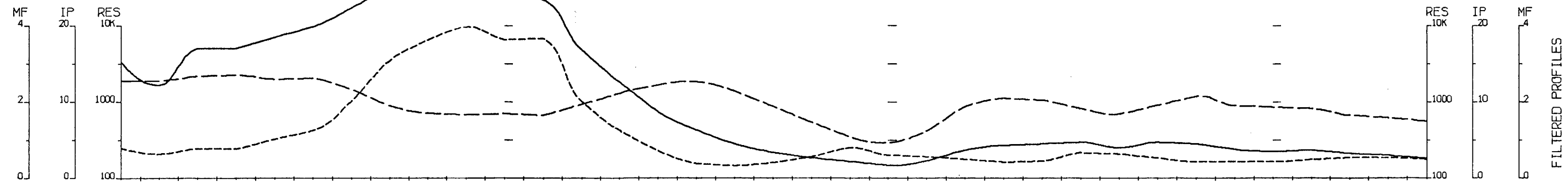
INDUCED POLARIZATION SURVEY

WHIT CLAIMS
VERNON M.D., B.C.

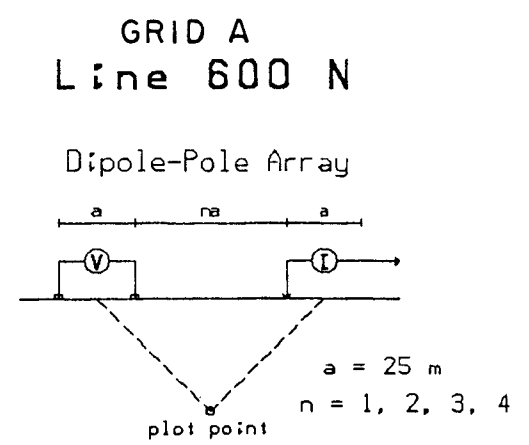
Date: 89/06/26 N.T.S.: 82L/4E

Scale: 1 : 2500 Dwg. No. E.I.C.-2197

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FILTERED PROFILES



filter 1694 1905 2104 2266 1983 2051 1461 884 711 678 702 668 925 1289 1666 1851 1381 875 545 348 291 420 866 1113 1066 823 701 906 1187 882 888 818 676 622 561 filter

n=1 2002 1871 2215 2591 2215 3090 2217 1179 899 723 988 453 1099 1841 1954 2009 1204 866 345 131 157 493 1300 1388 1013 442 367 1295 2204 777 524 636 362 339 353 n=1

n=2 1547 2040 2567 2038 2208 2084 1104 737 574 678 814 656 1150 1518 2514 2111 970 531 287 208 211 531 1158 1145 708 545 548 659 815 847 881 508 526 811 n=2

n=3 1992 2190 2128 2211 1265 1118 669 534 674 732 873 711 947 1548 2288 1984 770 522 433 280 250 584 1161 1181 987 763 648 697 1066 1066 505 754 788 n=3

n=4 2008 1868 2382 1711 945 716 524 627 787 837 887 638 853 1182 1626 1333 787 751 526 338 283 629 1367 1468 1240 913 740 782 1187 1171 1202 988 n=4

TOPOGRAPHY

RESISTIVITY
(ohm-m)

Filtered Profiles

Resistivity ——— filter
Polarization ——— *
Metal Factor - - - - - * * *

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- RT Change in rock type
- ↓ Resistivity feature.

filter 15 12 17 17 18 20 22 25 25 26 25 23 17 13 8.7 6.3 4.5 3.4 2.7 2.2 1.7 2.3 3.7 4.3 4.5 4.7 4 4.7 4.5 3.8 3.5 3.7 3.3 3 2.6 filter

n=1 16 6 16 14 16 16 19 23 23 31 26 22 11 9.2 6.3 4.8 3.1 3.1 2.8 1.8 2.2 1.8 4.5 4.8 4.6 4.5 3 5.8 5.8 3.5 2.8 4.5 2.8 2.3 2 n=1

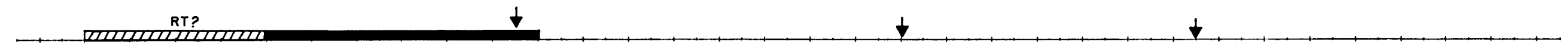
n=2 10 15 18 17 19 20 26 28 26 26 26 22 11 8.2 6.3 5.8 3.1 2.3 2.3 1.8 1.6 3.1 4.8 4.8 4.6 4.6 3.5 4.6 3.3 4.5 2.6 3.1 3.3 2.8 n=2

n=3 18 16 18 19 22 24 27 27 22 26 24 23 11 8.9 6.3 5.1 2.8 2.8 2 1.8 2 3.5 4.5 4.5 4.9 5 3.5 4 3.6 3.5 3.5 3.5 3.5 n=3

n=4 19 17 21 22 24 24 24 22 22 25 24 23 11 8.7 5.6 4.8 3 3 2.3 2 2 3.5 4.3 4 5.1 5.4 3.5 4.6 4.3 3.5 4.3 3.5 n=4

CHARGEABILITY
(MILLIVOLTS/PERVOLT)

INTERPRETATION



filter .6 .8 .8 .8 1 1.3 2 3.1 3.8 4 3.8 3.7 2 1.3 .7 .4 .3 .4 .8 .8 .8 .6 .5 .4 .5 .7 .8 .5 .4 .4 .4 .5 .8 .5 .5 filter

n=1 .8 .9 .7 .5 .7 .5 .8 2 2.8 4.3 4.4 4.7 1 .5 .3 .2 .3 .5 .8 1.4 .5 .4 .3 .3 .5 1 .8 .5 .3 .5 .5 .7 .8 .7 .6 n=1

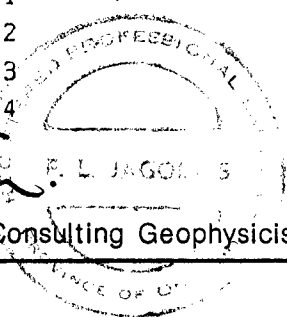
n=2 .7 .8 .7 .8 .9 1 2.4 3.9 4.6 3.8 4.2 3.3 .9 .6 .3 .3 .4 .8 .9 .8 .6 .4 .4 .7 .8 .6 .5 .4 .5 .4 .6 .6 .5 n=2

n=3 .9 .7 .9 .9 1.7 2.2 4 5 3.3 3.5 2.8 3.3 1.1 .6 .3 .3 .4 .5 .5 .6 .8 .6 .4 .4 .5 .7 .5 .6 .3 .3 .4 .5 .4 n=3

n=4 .9 .9 .9 1.3 2.6 3.3 4.6 3.5 2.8 2.6 2.7 3.7 1.1 .7 .3 .4 .4 .4 .4 .6 .7 .8 .3 .3 .4 .6 .5 .6 .4 .3 .3 n=4

METAL FACTOR
(ip/res * 100)

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

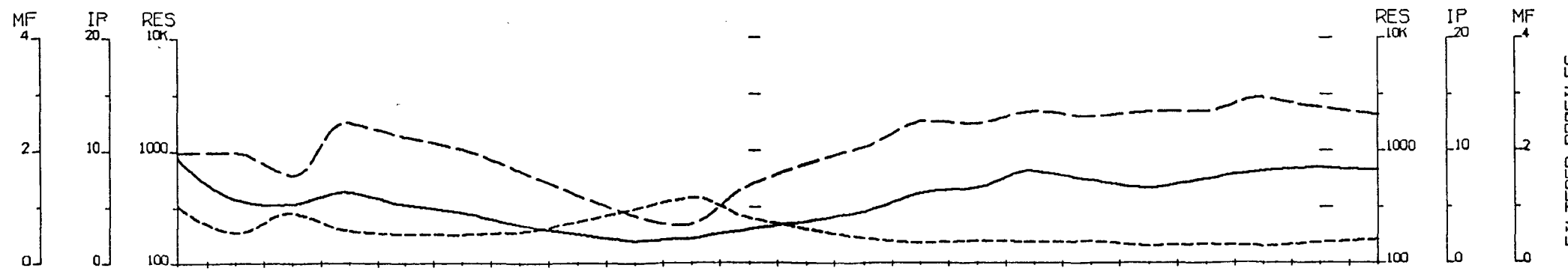


CANADIAN OCCIDENTAL PETROLEUM LTD.

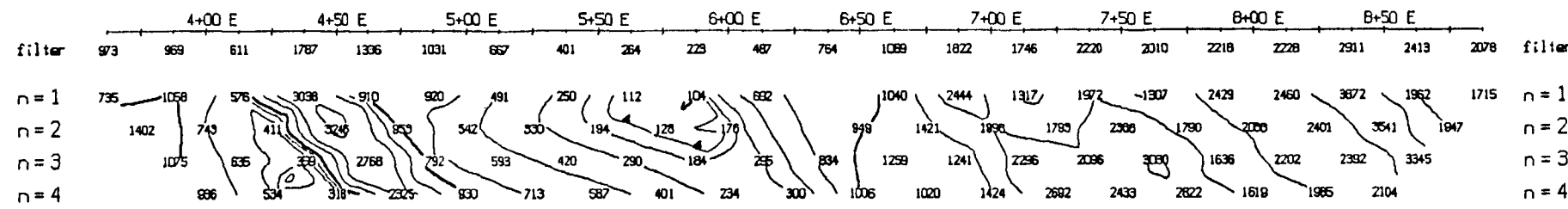
INDUCED POLARIZATION SURVEY
WHIT CLAIMS
VERNON M.D., B.C.

Date: 89/06/26 N.T.S.: 82L/4E
Scale: 1 : 2500 Dwg. No. E.I.C-2198

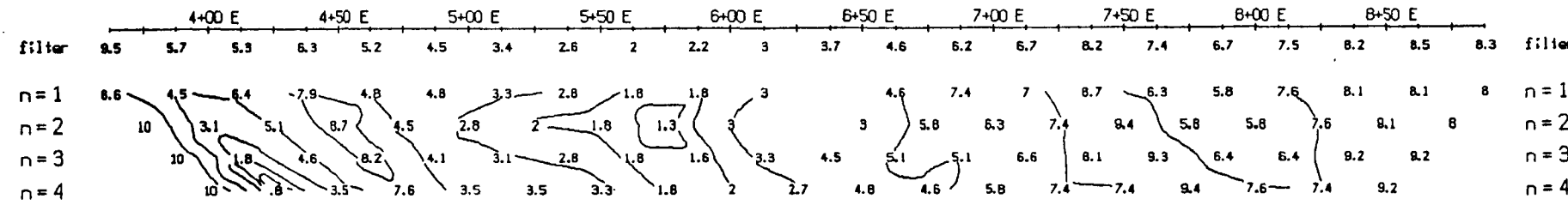
PETER E WALCOTT & ASSOC. LTD.



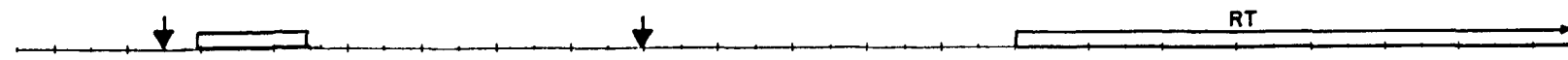
TOPOGRAPHY



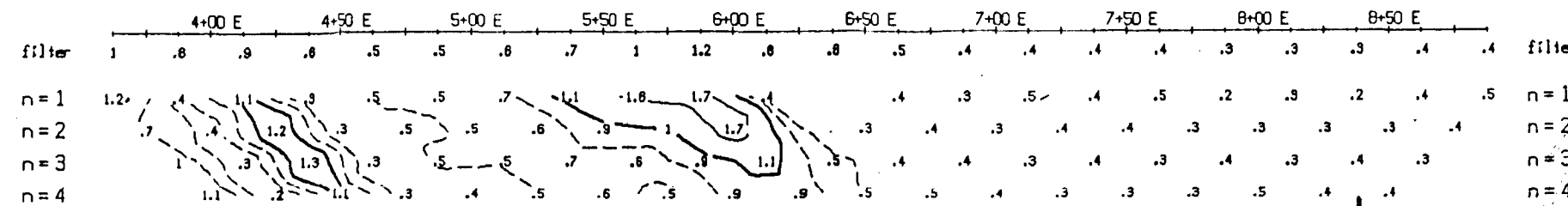
RESISTIVITY
(ohm-m)



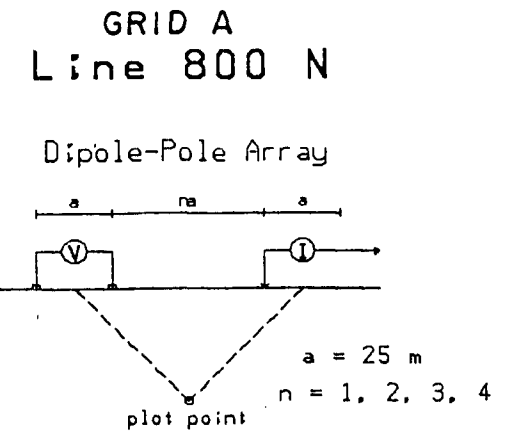
CHARGEABILITY
(MILLIVOLTS PER VOLT)



INTERPRETATION



METAL FACTOR
(ip/res * 100)



Filtered Profiles

Resistivity ----- filter *
Polarization ----- **
Metal Factor ----- ***

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- RT Change in rock type
- ↓ Resistivity feature.

CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY

WHIT CLAIMS
VERNON M.D., B.C.

Date: 89/07/04

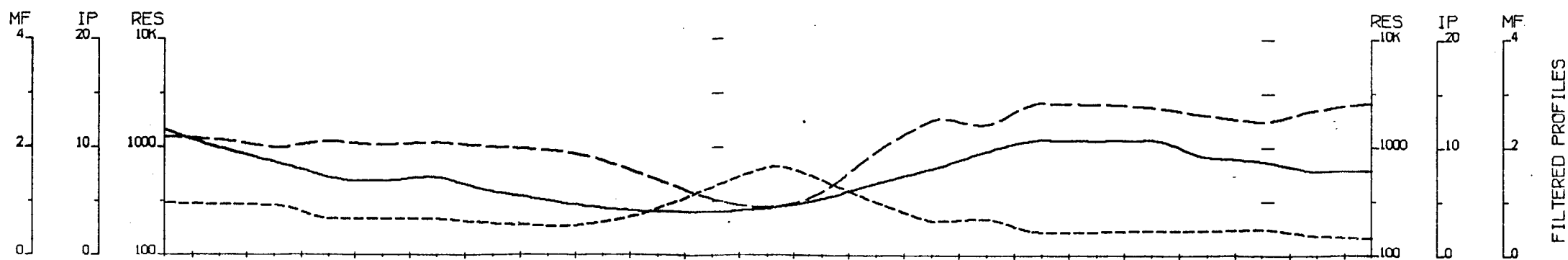
N.T.S.: B2L/4E

Scale: 1 : 2500

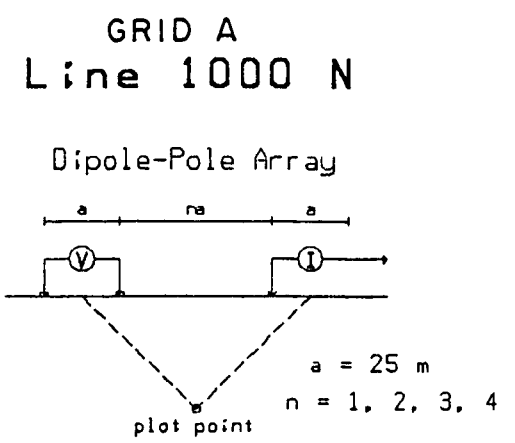
Dwg. No. E.I.C.-2199

PETER E WALCOTT & ASSOC. LTD.

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.



FILTERED PROFILES



Filtered Profiles

Resistivity	-----	filter	*
Polarization	=====		**
Metal Factor	-.-.-.-.-		***

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- RT Change in rock type
- ↓ Resistivity feature.

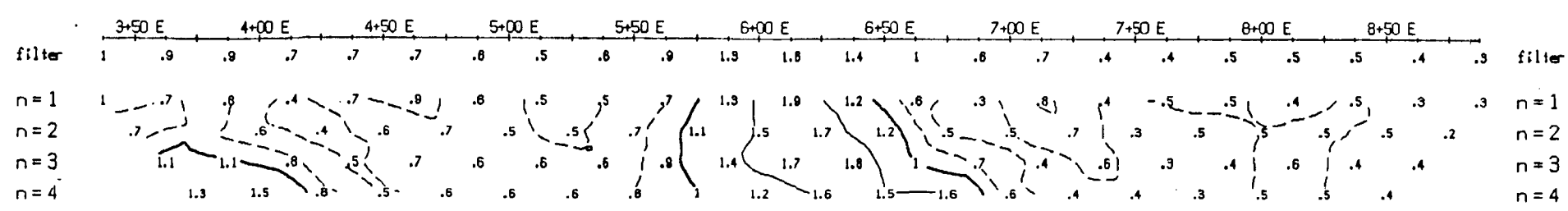
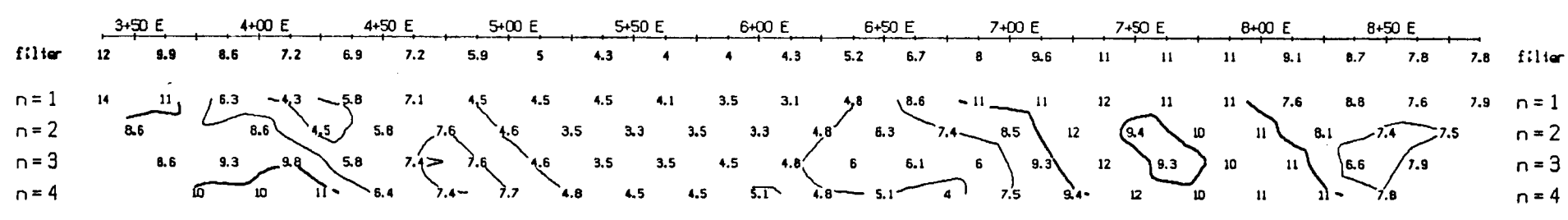
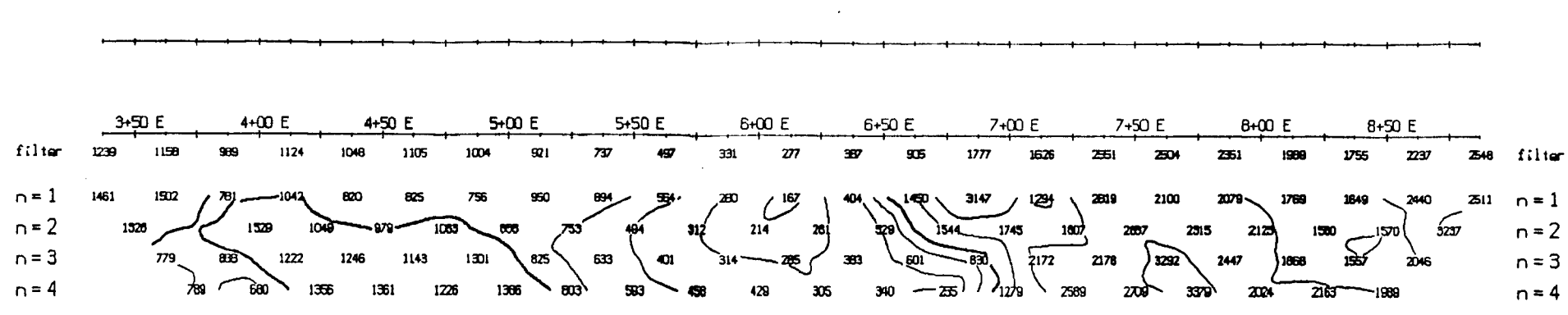
CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY

WHIT CLAIMS
VERNON M.D., B.C.

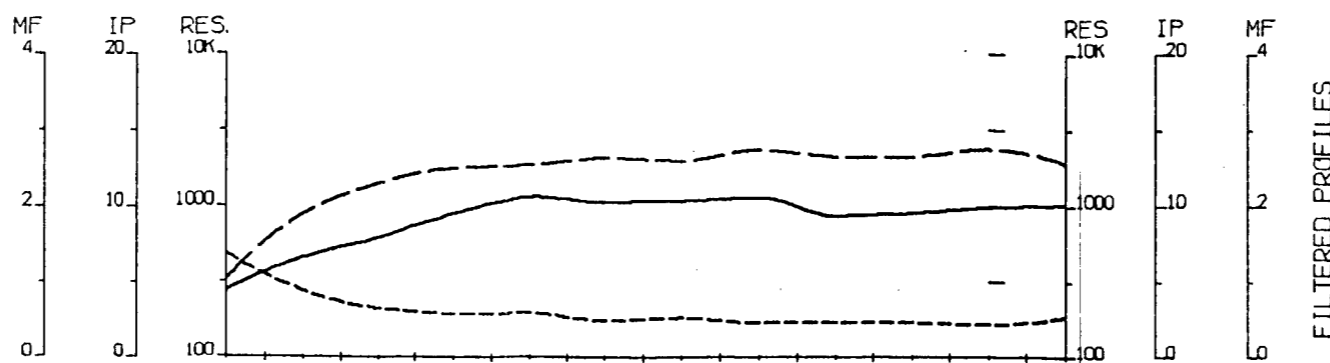
Date: 89/06/21 N.T.S.: 82L/4E
Scale: 1 : 2500 Dwg. No. E.I.C-2200

PETER E WALCOTT & ASSOC. LTD.

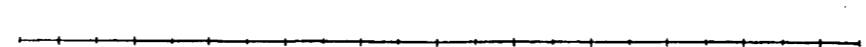


To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

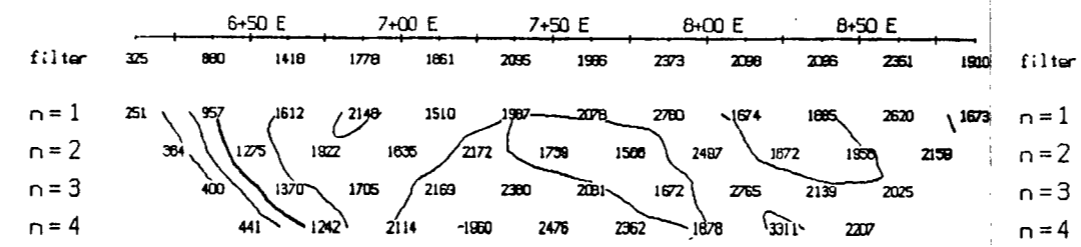
F. L. Jagodits
F. L. JAGODITS



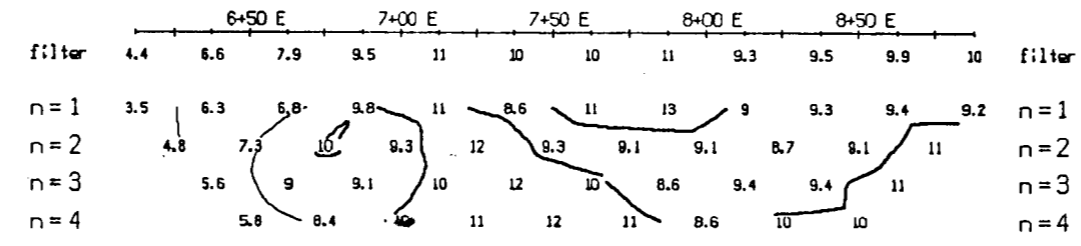
FILTERED PROFILES



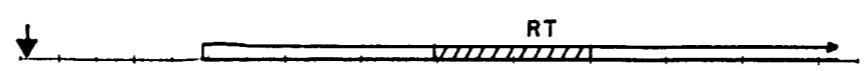
TOPOGRAPHY



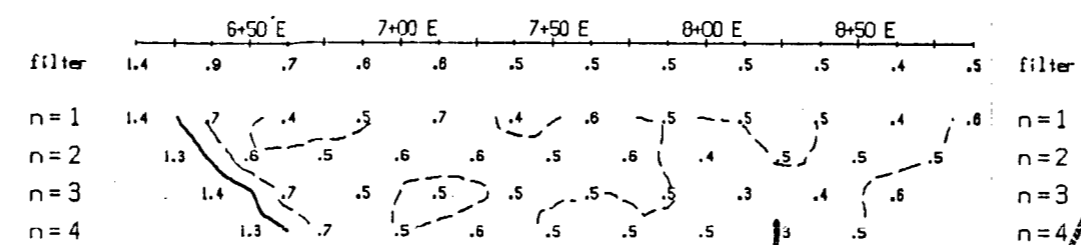
RESISTIVITY
(ohm-m)



CHARGEABILITY
(MILLIVOLTSPELVOLT)



INTERPRETATION

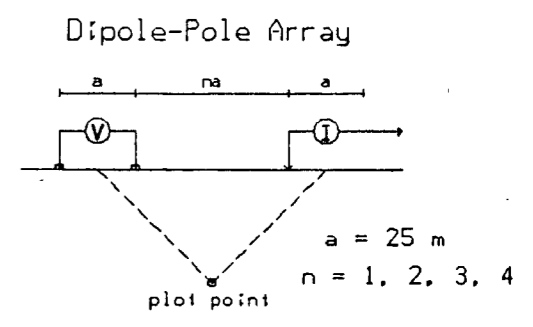


METAL FACTOR
(ip/res * 100)

F. L. Jagodits
REGISTERED PROFESSIONAL ENGINEER
P. L. JAGODITS

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

GRID A
Line 1200 N



Filtered Profiles

Resistivity	-----	filter
Polarization	=====	*
Metal Factor	-----	**

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

Instrument: EDA RX, HUNTEC 2.5KW TX

Operator: G.M.

INTERPRETATION

- Well defined, strong increase in polarization with or without marked decrease in resistivity.
- Fairly well defined moderate increase in polarization.
- Poorly defined polarization increase.
- RT Change in rock type
- ↓ Resistivity feature.

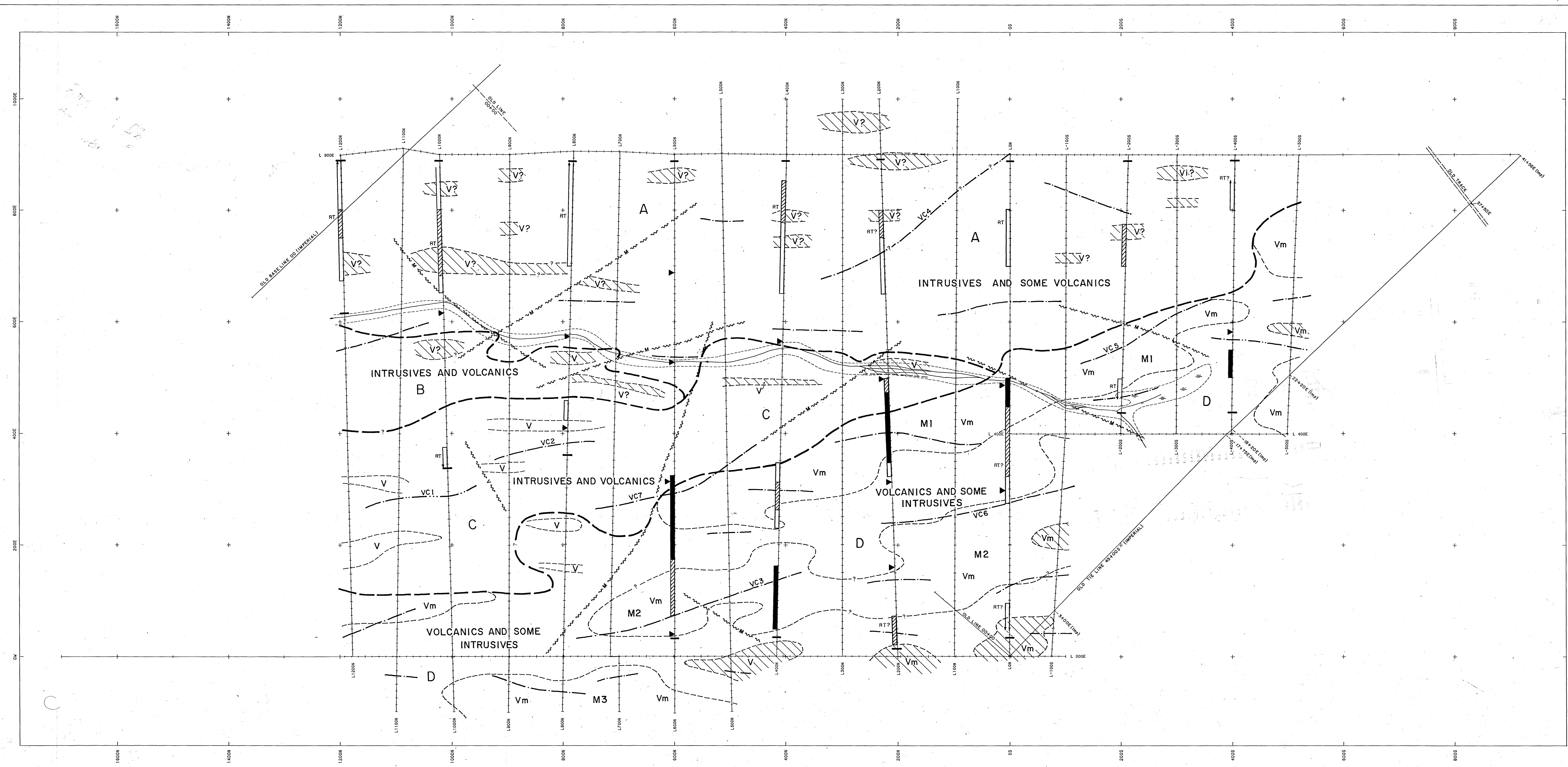
CANADIAN OCCIDENTAL PETROLEUM LTD.

INDUCED POLARIZATION SURVEY
WHIT CLAIMS
VERNON M.D., B.C.

Date: 89/06/22 N.T.S.: 82L/4E

Scale: 1 : 2500 Dwg. No. E.I.C.-2201

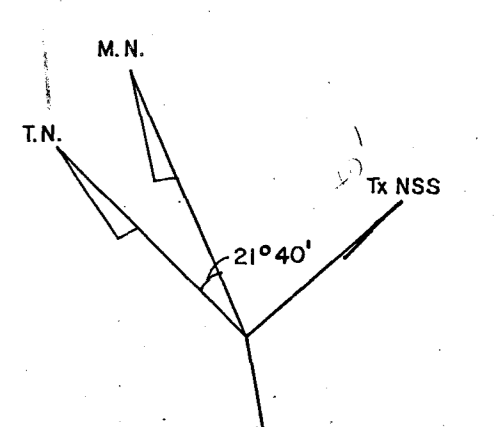
PETER E WALCOTT & ASSOC. LTD.



- LEGEND**
- Approximate limit of magnetic domain and identification **A**
 - Approximate limit of magnetic unit and identification **M1**
 - Approximate outline of magnetic body **V**
 - V - Undifferentiated volcanics
 - Vm - Mafic volcanics
 - Axis of VLF-EM conductor and identification; poor, mediocre, fair **VC2**
 - Interpreted fault and/or shear zone **M**
 - M - Magnetic support
 - V - VLF-EM support
 - Well defined, strong increase in polarization with or without marked decrease in resistivity **VC2**
 - Fairly well defined moderate increase in polarization **VC2**
 - Poorly defined polarization increase **VC2**
 - Change in rock type **RT**
 - Resistivity feature **RT**
 - Extent of induced polarization survey coverage **VC2**

GROUND GEOPHYSICAL SURVEYS BY
 PETER E. WALCOTT & ASSOCIATES LTD.
 Coquitlam, B. C.

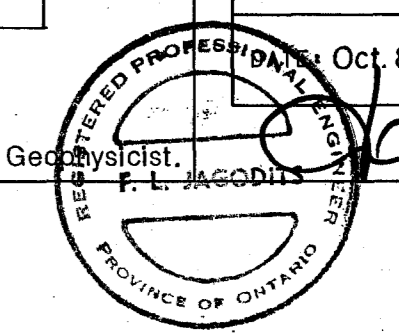
PROCESSED BY
 TESLA - 10 LTD
 Mississauga, Ont.

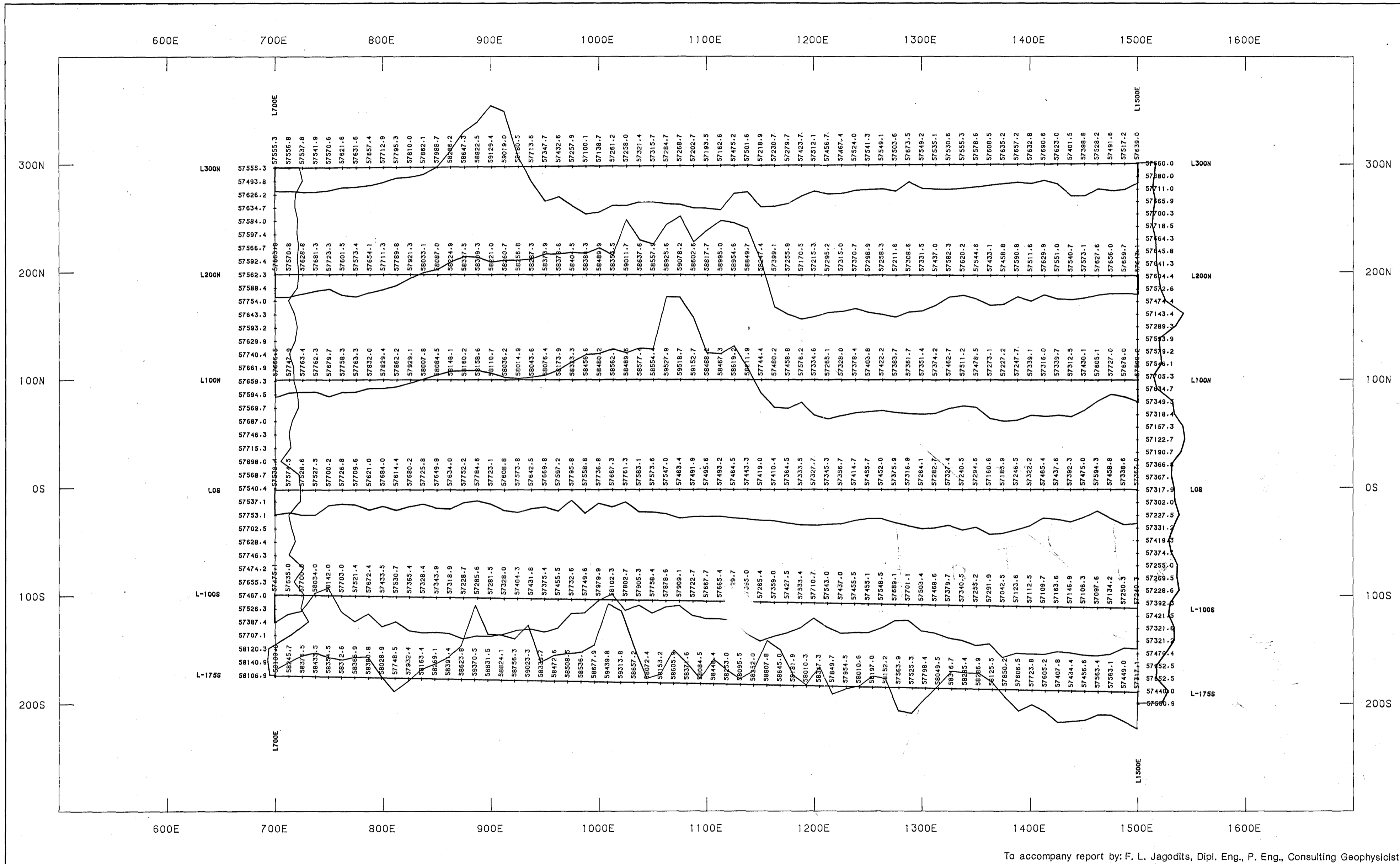


TR-NLK
 GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,626 *Part 2 of 4*
 Scale 1:2500

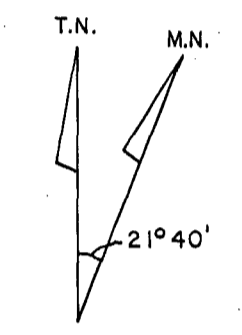
CANADIAN OCCIDENTAL PETROLEUM LTD
 MINERALS
 WHIT CLAIMS
 VERNON MINING DIVISION, BRITISH COLUMBIA
 N.T.S. 82L/4E
 GRID A
 INTERPRETATION MAP





GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,626 Part
2 of 4



CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS

WHIT CLAIMS
VERNON MINING DIVISION, BRITISH COLUMBIA
N.T.S. 82L/4E

GRID B
GROUND MAGNETIC SURVEY
PROFILES OF TOTAL MAGNETIC INTENSITY

DATE: Oct. 89
 GEOLOGIST: N. Sarcooglu
 DRAWN BY: TESLA-10 LTD
 Dwg. No. E.I.C.-2203A

600E 700E 800E 900E 1000E 1100E 1200E 1300E 1400E 1500E 1600E

300N

200N

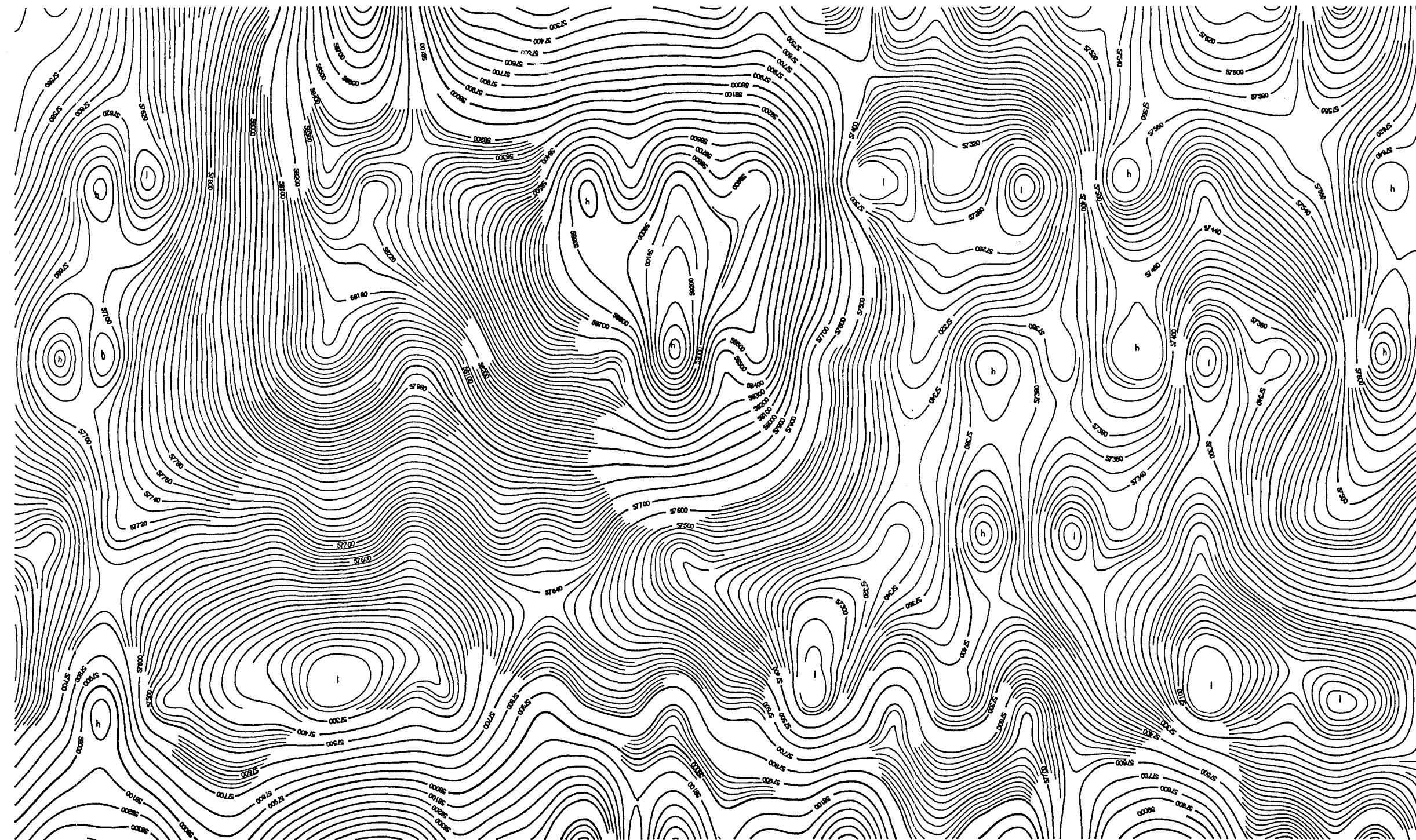
100N

0S

100S

200S

600E 700E 800E 900E 1000E 1100E 1200E 1300E 1400E 1500E 1600E



LEGEND

TOTAL FIELD CONTOURS INTERVALS

1000 nT
 100 nT
 10 nT

INSTRUMENTS : EDA OMNI PLUS
 : EDA BASE STATION SYSTEM

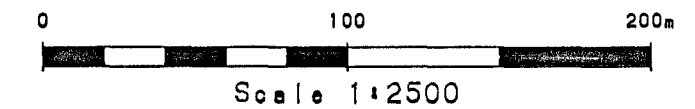
**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

19,626 *Part*
 T.N. MN *2 of 4*

21°40'

PROCESSED BY
 TESLA - 10 LTD
 Mississauga Ont.

GROUND GEOPHYSICAL SURVEYS BY
 PETER WALCOTT & ASSOCIATES LTD
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GRID B
GROUND MAGNETIC SURVEY
 CONTOURS OF TOTAL MAGNETIC INTENSITY

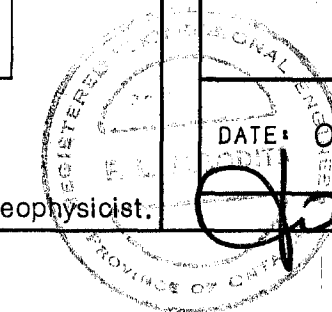
DATE: Oct. 89

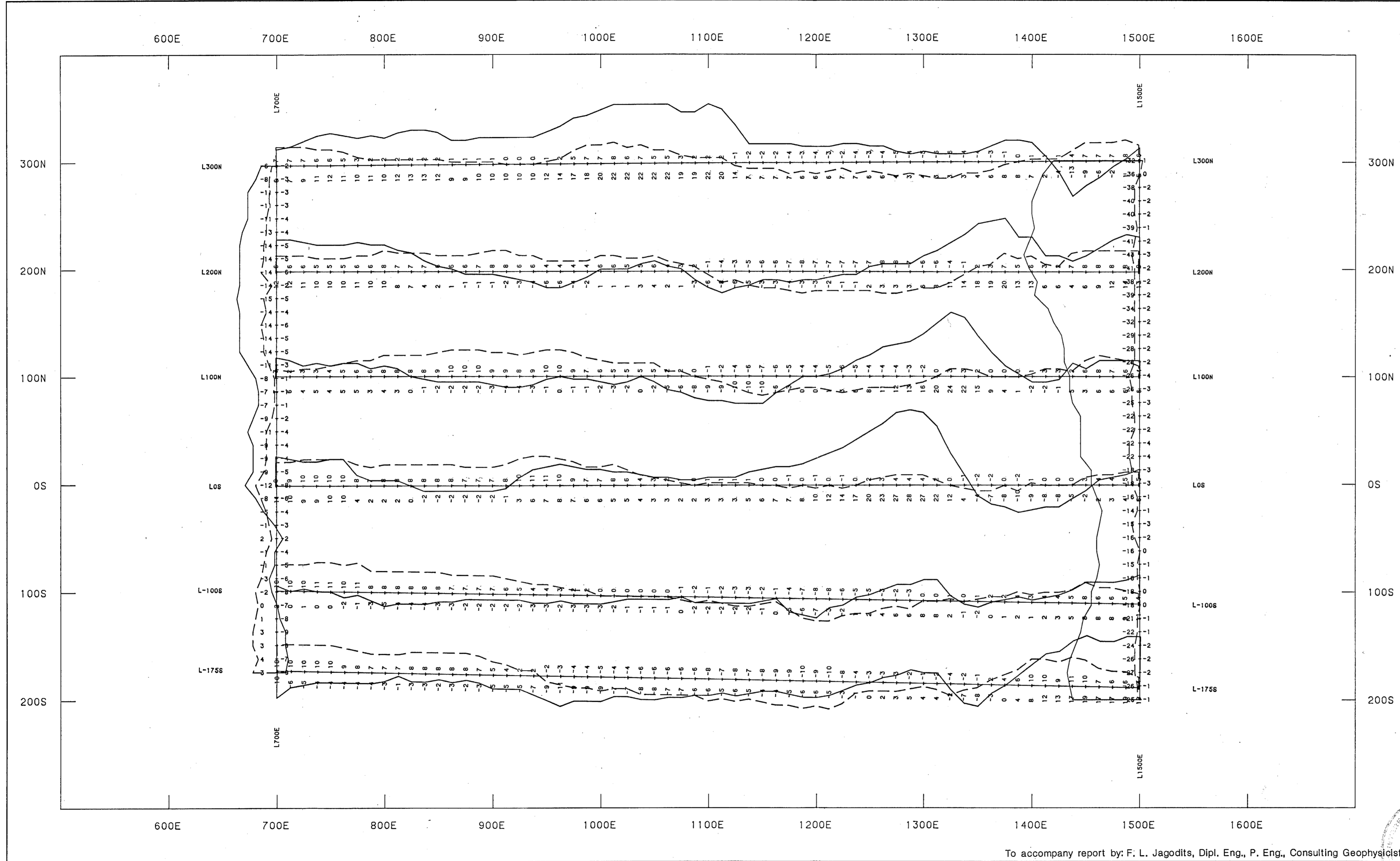
GEOLOGIST:
 N. Saracoglu

DRAWN BY:
 TESLA-10 LTD

Dwg. No.
 E.I.C.-2203B

To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

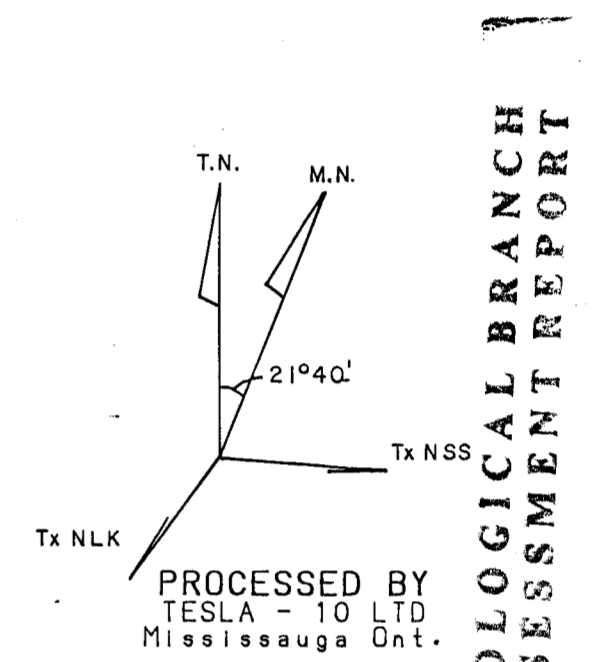




LEGEND

INPHASE COMPONENT
 QUADRATURE PHASE COMPONENT

BASE VALUE : 0 %
 VERTICAL SCALE : 10 %/cm
 TRANSMITTER-LINES : NLK, Seattle, Wash
 FREQUENCY : 24.8 kHz
 AZIMUTH : 217 Degrees
 DISTANCE : 278 Km
 TRANSMITTER-TIE LINES : NSS Annapolis, Md
 FREQUENCY : 21.4 kHz
 AZIMUTH : 94 Degrees
 DISTANCE : 3585 Km
 INSTRUMENT : GEONICS EM-16



GROUND GEOPHYSICAL SURVEYS BY
 PETER WALCOTT & ASSOCIATES LTD
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0 100 200m
 Scale 1:2500

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 N.T.S. 82L/4E

GRID B
GROUND VLF - EM SURVEY
 PROFILES OF IN-PHASE/QUADRATURE COMPONENTS

DATE: 08/89
 GEOLOGIST: N. Saracoglu
 DRAWN BY: TESLA-10 LTD
 Dwg. No. E.I.C.-2204A

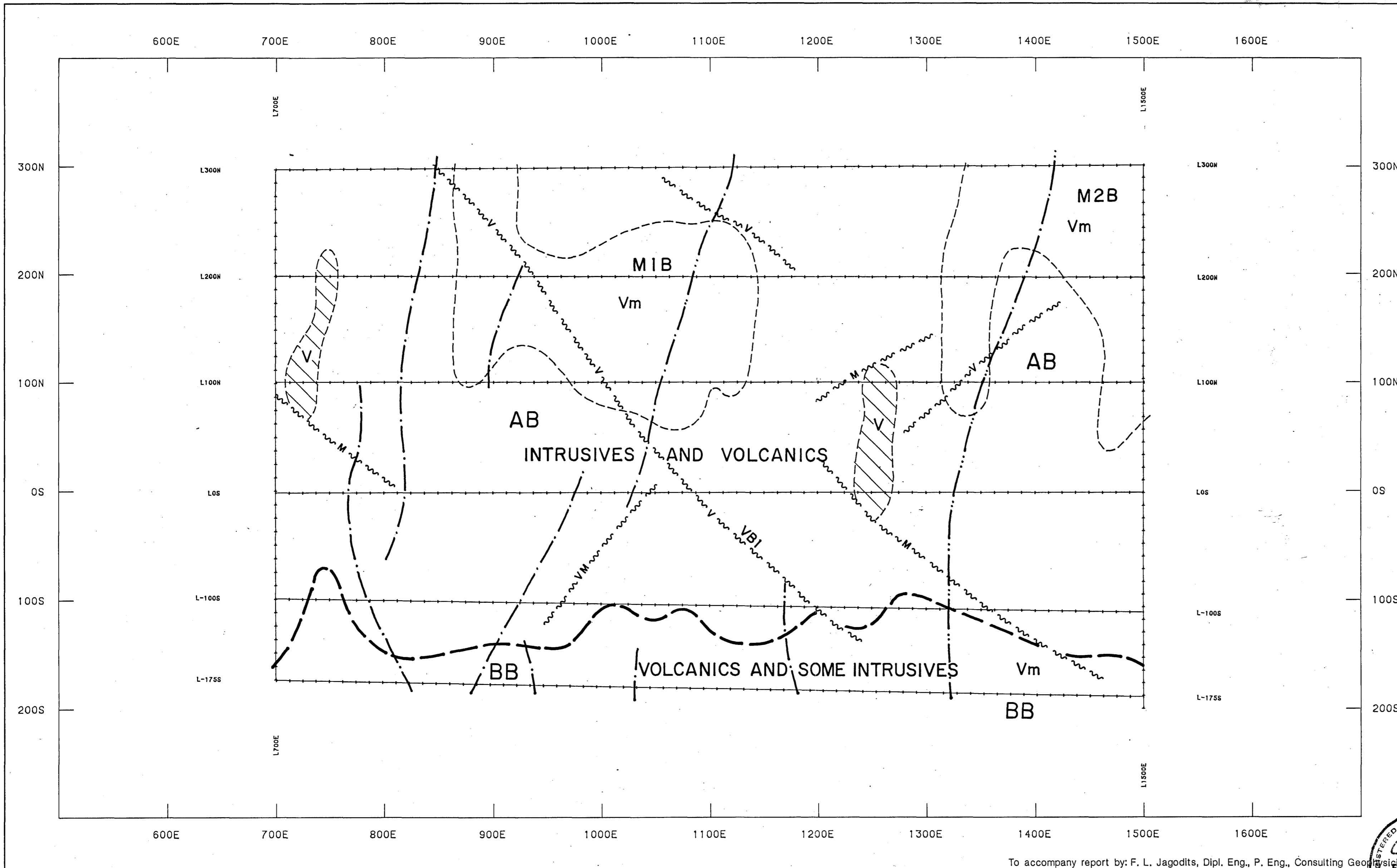
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To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist.

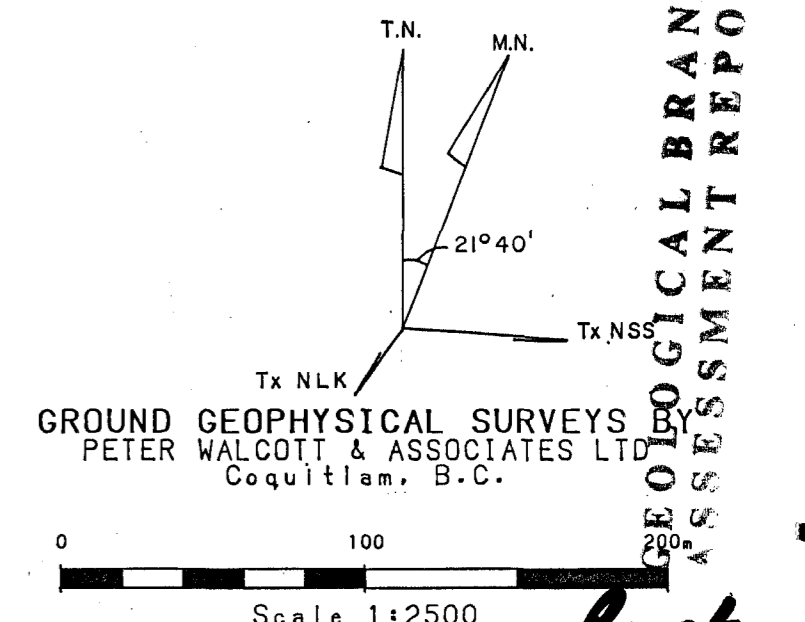
GEOLOGICAL BRANCH
 ASSESSMENT REPORT

19,626

Part 2 of 4



- LEGEND**
- Approximate limit of magnetic domain and identification..... **AB**
 - Approximate limit of magnetic unit and identification..... **MIB**
 - Approximate outline of magnetic body..... **V**
 - V** - Undifferentiated volcanics
 - Vm** - Mafic volcanics
 - Axis of VLF-EM conductor and identification; poor, mediocre, fair..... **VBI**
 - Interpreted fault and/or shear zone..... **M** **V**
 - M** - Magnetic support
 - V** - VLF-EM support



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GRID B

INTERPRETATION MAP

DATE: Oct. 89	GEOLOGIST: N. Saracoglu	DRAWN BY: TESLA-10 LTD	Dwg. No. E.I.C.-2205
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To accompany report by: F. L. Jagodits, Dipl. Eng., P. Eng., Consulting Geophysicist. JAGODITS

[Signature]

GEOLOGICAL BRANCH
ASSESSMENT REPORT
Part 2 of 4
19.626