84-1249 - 13306

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,306

REPORT ON

COMBINED GEOPHYSICAL SURVEYS

CARRIED OUT ON THE

"NOV" GROUP OF CLAIMS

NEAR LIKELY, B.C.

(Cariboo Mining Division)

FOR

APEX ENERGY CORP.

BY

INTERPRETEX RESOURCES LTD.

Vancouver, B.C.
December 10, 1984

Project #84619
E.R. Rockel

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
REPORT ON GEOPHYSICAL SURVEYS	$9200.00

AUTHOR(S) E.R. Rockel (Interpretex Resources Ltd.) SIGNATURE(S)

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED November 29, 1984 YEAR OF WORK 1984

PROPERTY NAME(S) NOV Group

COMMODITIES PRESENT silver, gold, copper

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Cariboo NTS 93A/11W & 12E

LATITUDE 52 degrees, 37 minutes LONGITUDE 121 degrees, 30 minutes

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Nov 1 - 20 units - tag #48429,record # 1355. Nov 2 - 20 units, tag #48430, record#1356.
Nov 3 - 16 units, tag #48431, record # 1357. Sun Fr. - 1 unit, tag #78999, record #5106.
TOTAL NO. OF UNITS - 57

OWNER(S)

(1) Apex Energy Corp. (2)

MAILING ADDRESS

501 - 700 W. Pender Street
Vancouver, B.C. V6C 1G8

OPERATOR(S) (that is, Company paying for the work)

(1) same (2)

MAILING ADDRESS

same

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

Glacial debris in the survey area possibly underlain by metasediments or metavolcanics. Induced polarization anomalies, possibly due to graphite, should be tested for economic mineralization by bulldozer, backhoe or drill where appropriate.

REFERENCES TO PREVIOUS WORK R.F. Gerath, Thurber Consultants Ltd., Photogeological Study, June 1, 1984. J.L. Deleen, Geochemical Soil Survey, Nov. 22, 1983

(over)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	3.75 km.	Nov 1, Nov 2, Sun Fraction	
Electromagnetic	5.25 km.	" " "	
Induced Polarization	2.73 km.	" " "	$9200.00
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
		TOTAL COST	$9200.00

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted .... Date	Rept. No.			Information Class

TABLE OF CONTENTS

LIST OF FIGURES

1. SUMMARY

Geophysical survey within Areas 1 and 3 of the "Nov" Group of claims indicates that areas of chargeable material may exist at various depths below surface.

Chargeable material in Area 3 is believed to be graphitic, whereas in Area 1 may be due to graphite or sulphides.

Magnetic survey data available indicate that unless suspected subcropping volcanic rocks are acidic, then either phyllite or some other non-magnetic sediment underlies the surveyed portions of Lines 2+00 N, 0+00 and 2+00 S in Area 1. Magnetic survey on Line 4+00 S hints at more magnetic subcrop, such as volcanics at 1275 W.

Before additional exploration is undertaken, the depth and type of glacial overburden should be determined in order to verify the assumptions of shallow depth to bedrock and hard bouldery non-conductive till. When verification is complete various I.P. anomalies should be tested for economic mineralization.

Although I.P. anomalies in Area 1 coincident with geochemical anomalies are high priority, purely geophysical parameters promote drill holes at Line 2+00 N-station 1175 W, Line 0+00-station 1075 W and Line 2+00 S-stations 1450 W and 1400 W.

Bulldozer or back-hoe work is recommended for testing the shallow anomalous zones in the phyllites within Area 3.

Additional induced polarization survey should be considered if results from subsurface exploration are encouraging. Magnetic coverage to the south of Line 4+00 S is recommended to test for more magnetic rock such as volcanics.

...2

2. INTRODUCTION

2.1 Physiography

The NOV Group of claims is situated approximately 10 km. by road northeast of Likely, British Columbia and about 2 km. east of Poquette Lake. Access to the claims was by four wheel drive trucks on maintained logging roads and on unmaintained old logging roads. It was necessary, due to heavy snow cover, to have an old logging road graded by local contractors before access using four wheel drive truck was possible to "Area 1" of Nov 1 claim. Two four wheel drive trucks were used by survey personnel for the combined geophysical survey.

Topography in Nov 1 claim was gently rolling to flat with cover ranging from logged-off areas with slash and windfall, to forested areas.

Topography in Nov 2 claim survey area was moderate to steep towards Spanish Creek. Some outcrop of phyllites and less glacial overburden are found in Area 2 of Nov 2 claim.

2.2 Geology and Mineralization

A detailed discussion of geology is not within the scope of this geophysical report. Various samples of float found within the area were used to predict possible subcrop rock types. Phyllite metasediments were found in Nov 2 claim and are believed, by this writer, to be widespread. Any volcanic rock overlying the phyllites in the area of geophysical coverage within Nov 1 would have to be acidic and/or thin according to magnetic profiles.

Gold mineralization reported in a similar geologic situation to the south plus gold, silver and copper geochemical anomalies in the NOV Group of claims indicates that the property has economic potential and should be adequately explored below glacial cover.

2.3 Objectives

The objectives of the survey were as follows:
1. - to discover areas of disseminated graphite or sulphides which may be the source of silver, copper and gold geochemical anomalies
2. - to determine if volcanic rocks may subcrop in the survey area as predicted from volcanic float discovered nearby
3. - to outline a suspected volcanic-metasediment contact in the vicinity of stations 300 W to 500 W on most lines
4. - to provide locations for drilling or trenching to test the subsurface for economic mineralization

APEX ENERGY CORP.

LOCATION MAP

TO ACCOMPANY REPORT BY E.R. ROCKEL

INTERPRETEX RESOURCES LTD.	SCALE:	DATE: 1984
	PROJECT	FIGURE NO.: 1
	N.T.S.	DRAWN BY

APEX ENERGY CORP.

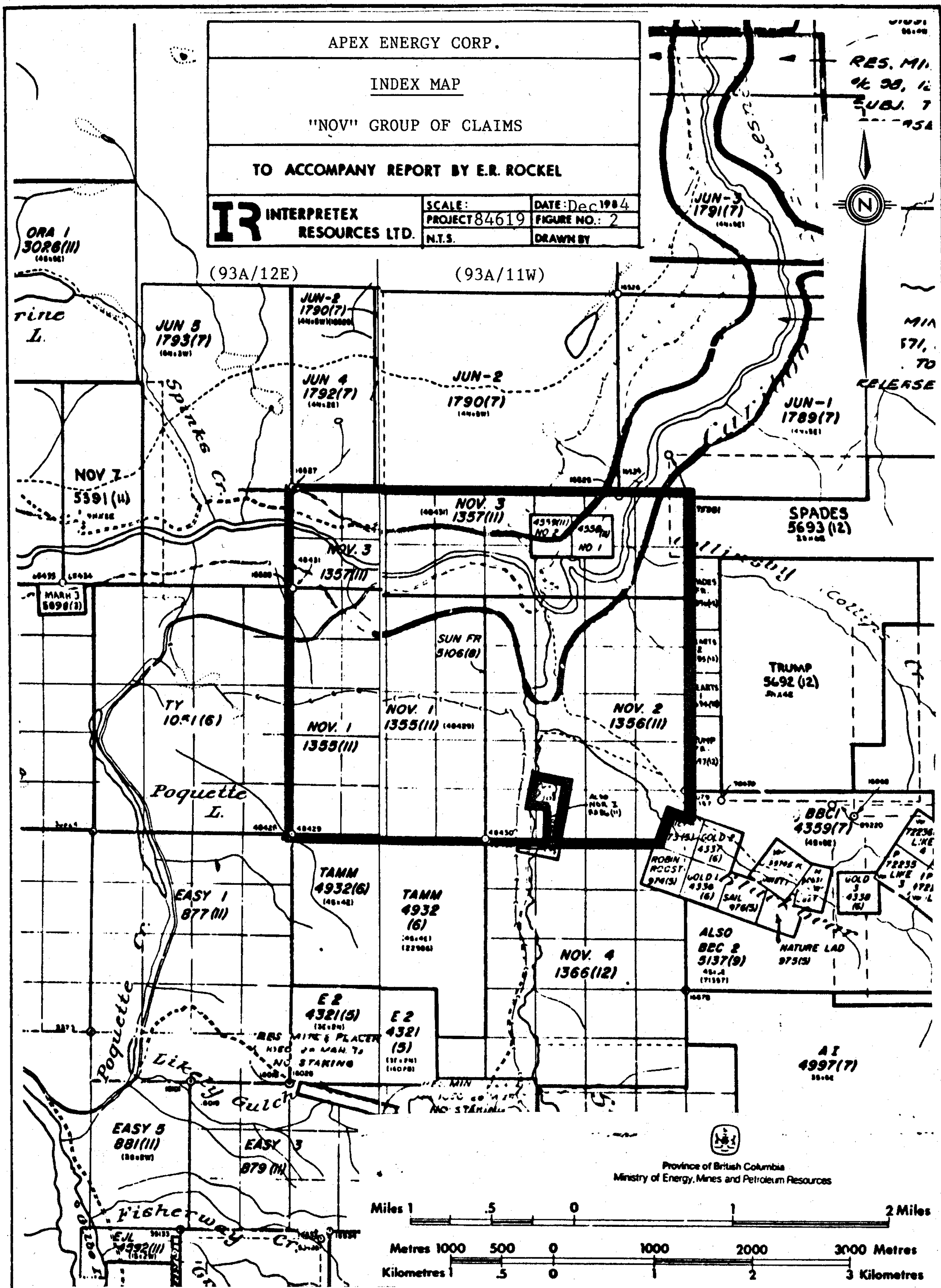
INDEX MAP

"NOV" GROUP OF CLAIMS

TO ACCOMPANY REPORT BY E.R. ROCKEL

INTERPRETEX RESOURCES LTD.

SCALE:	DATE: Dec 1984
PROJECT 84619	FIGURE NO.: 2
N.T.S.	DRAWN BY



2.4 Method

A combined induced polarization, VLF electromagnetic and total field magnetic survey program was undertaken to fulfill the stated objectives.

2.5 Previous Work

A geochemical survey and geological mapping program was carried out during the months of August and September, 1983. The geochemical survey outlined various geochemically anomalous areas. Those pertinent to this report were silver-copper anomalies in Area 1 and gold anomalies in Area 3.

A photogeological study of the region was completed in June 1984 to predict the approximate depth of glacial overburden. The study indicated that glacial debris was probably of the order of 2 to 3 meters deep in the area covered by the present geophysical survey.

3. SURVEY SPECIFICATIONS

3.1 Survey Parameters

Survey lines were cut and chained about one year earlier. Second growth, windfall, missing or buried station tags and deep snow cover slowed survey production. In some cases parts of lines were difficult to follow and had to be re-chained before induced polarization survey.

Survey lines were spaced at 200 meter intervals with data stations located 25 meters apart. Portions of Lines 12+00 S and 14+00 S were surveyed using I.P. and VLF EM methods. Portions of Lines 2+00 N, 0+00 and 2+00 S were surveyed using I.P., VLF EM and magnetic methods. Magnetic measurements were taken on a portion of Line 4+00 S as well.

The following geophysical coverage was obtained during the survey:

Induced Polarization Survey - 2.725 km.
VLF Electromagnetic Survey - 5.25 km.
Total Field Magnetic Survey - 3.75 km.

3.2 Equipment Parameters

Induced Polarization Survey
- frequency mode - 0.3125 Hz and 5.0 Hz
- dipole-dipole array
- electrode spacings a=25 meters, n=1 to 6
- field measurements - Percent Frequency Effect
  - voltage across receiver electrodes

...4

VLF Electromagnetic Survey
- transmitting stations - Seattle, Washington
  - Annapolis, Maryland
- in-phase (dip-angle) and out-of-phase (quadrature) components measured in percent
- direction faced - westerly and southerly

Magnetic Survey
- measured total magnetic field
- magnetic variations controlled by magnetic base station recording every 30 seconds
- instrument accuracy +/- 1 gamma
- station repeatability +/- 3 gammas

3.3 Equipment Specifications

- see Appendix II

4. DATA CALCULATIONS AND PRESENTATION

Induced polarizations readings were used to calculate apparent resistivity and metal factor. These values were then plotted in pseudo-section form (Figures #4 to #7) for interpretation. Anomalous regions were plotted on "Geophysical Interpretation Map", Figure #3.

No calculations or corrections were applied to the VLF EM data. All data were plotted on profile form under I.P. pseudosections and were used as as aide for interpretation.

Total field magnetic readings were individually corrected for variations in the earth's magnetic field using magnetic base station values recorded at the same time. The effects of changes in magnetic content of operator's clothing was controlled by re-occupying operator field base station during the survey.

5. DISCUSSION OF RESULTS

All induced polarization results showed relatively high Percent Frequency Effect (PFE) values and low apparent resistivity values. In some regions noise prevented PFE readings, mainly for larger "n" spacings.

Corrected total field magnetic readings showed, in most cases, little local magnetic relief. A slight increase in total field toward the northeast due to regional magnetic variations with latitude is evident on Lines 0+00 and 2+00 N. Line 4+00 S showed a magnetic low of approximately 40 gammas in the vicinity of station 1275 W.

VLF EM data vary from inactive to very active. In some cases VLF EM conductors coincide with areas of low resistivity and high PFE.

Limited geophysical coverage due to time constraints and widely spaced lines (200 meters) prevents meaningful correlation of data from line to line. Thus interpolation of trends between lines will not be emphasized.

Area 3 was surveyed first. Excessive noise and a limited time to obtain geophysical results prompted a move to the primary area of interest, Area 1, on the second survey day.

6. CONCLUSIONS

6.1 General

A lack of specific knowledge regarding glacial overburden depth and type of subcrop in the regions surveyed plus a limited amount of survey coverage confines the present interpretation to conclusions based on major assumptions.

The overlapping range of resistivity values for glacial sediments, clay, alluvium and consolidated sedimentary rocks such as slates, shales, sandstones, limestones, etc. plus the known presence of glacial debris overlying carbonaceous sedimentary rocks provides for two possible conclusions from geophysical data obtained during the present survey.

The first and simplest conclusion is based on the assumption that the glacial overburden is deep (greater than 75 meters) in all areas and that the anomalous induced polarization and resistivity results represent subsurface areas of chargeable wet clay or clay with sand and silt. This conclusion is supported by the flat magnetic expression on Lines 2+00 N, 0+00 and 2+00 S , which suggests that bedrock may be deeply buried. The clay material would then account for VLF EM anomalies and explain the somewhat active (noisy) VLF EM profiles on some parts of the survey lines.

A second conclusion must be considered when taking into account the photogeological study carried out over the claimed area by Thurber Consultants Ltd. in June, 1984. The study indicates that in areas coverd by the present survey program, the depth of glacial till, described as "probably hard and bouldery", varies from less than 2

...6

meters to locally deeper than 3 meters. Assuming that the glacial sediment depth estimates by Thurber Consultants are of the correct order of magnitude and that the till is rocky and relatively non-conductive, the writer concludes that induced polarization and VLF EM anomalies have been produced mainly by chargeable and conductive material within bedrock. The reported presence of outcropping bedrock in Area 3, combined with similar "active" geophysical data in Area 3, support the conclusion.

Magnetic data lead to an additional conclusion. Since the majority of volcanic rocks generally have high magnetic susceptibilites, whereas most sedimentary rocks show low magnetic susceptibilites, the flat magnetic response observed on Lines 2+00 N, 0+00 and 2+00 S, suggests that on these lines, sedimentary rather than volcanic rocks subcrop in the area covered by the present geophysical surveys. It is concluded that unless suspected volcanic rocks are acidic and thus non-magnetic, then either the same phyllite found in Area 3 continues into Area 1 or some other non-magnetic sediment, such as limestone, underlies the surveyed portions of Lines 2+00 N, 0+00 and 2+00 S.

6.2 Area 3

Phyllite outcrop between lines 12+00 S and 14+00 S and relatively steep topography, indicate probable shallow overburden. Thus the I.P. data are believed to result from the phyllite bedrock. Low resistivity values with corresponding high PFE readings (and therefore high metal factor (MF) values) from within the phyllites (moderate to deep), suggest a concentration of disseminated graphite below most of the limited amount of I.P. coverage obtained. VLF EM activity is also believed to be caused by conductivity within the phyllites. Some overburden masking on Line 12+00 S may have suppressed the VLF EM response in the region of I.P. coverage.

6.3 Area 1

It is probable that in this area also, disseminated graphite within phyllites of other chargeable material such as sulphides within different sedimentary rocks, have produced the low resistivity and high PFE values observed in the I.P. data. VLF EM anomalies are believed, again to reflect near surface bedrock conductivity associated with the chargeable material possibly with some masking and weak anomalies resulting from conductive overburden such as swamp.

Survey Line 2+00 N shows two regions of anomalous Metal Factor (high chargeability along with low resisitivity). The strong wide anomalous zone, from approximately 1300 W to the end of coverage at 1075 W, corresponds with activity on the VLF EM profiles and probably represents a change in rock type from more resistive rock southwest of 1300 W to less resistive rock, possibly containing graphite or

...7

sulphides to the northeast. VLF EM profiles on Line 2+00 N suggest that this less resistive rock could extend to about 400 W where VLF EM activity abruptly ceases.

Survey Line 0+00 shows two regions of anomalous metal factor values. The zone between stations 950 W and 1175 W appears to be deep (greater than 50 meters), whereas the anomalies between 1400 W and 1625 W range from shallow to deep. All are attributed to carbonaceous or other chargeable material such as sulphides within bedrock. Shallow I.P. anomalies are evident on VLF EM profiles, while the deep zone was not detected by the VLF method.

Survey Line 2+00 S again shows I.P. and VLF EM anomalies similar to those on other lines. In this case, VLF EM profiles indicate near surface conductive material throughout most of the geophysical coverage. I.P. anomalies are again believed to be caused by graphitic or sulphide material of various depths.

When applying VLF EM and magnetic data to address objective #3, it appears that a contact of some kind may occur at 400 S on Line 2+00 N. However, magnetic data suggest, as stated earlier, that no volcanic rock exists unless it is acidic and non-magnetic.

Magnetic survey on Line 4+00 S discovered a 45 gamma magnetic low at station 1275 W. This suggests that either a large magnetic boulder or a "finger" of magnetic rock, possibly volcanic, may underly this location. Objectives #2 thus may be partly satisfied, however more magnetic data towards the south is necessary to confirm the presence of more magnetic rock such as volcanics.

7. RECOMMENDATIONS

The depth and type of glacial overburden should be determined in areas of anomalous I.P. response. If overburden is found to be deep (75 meters or more) and contain much clay material, then the conclusions based on major assumptions of shallow and non-conductive overburden must be treated with skeptisism. In that case, when the type and depth of overburden are known, a new exploration approach should be established before any additional exploration money is spent.

If bedrock is reached within the range of depths predicted by Thurber Consultants Ltd., then the I.P. anomalies shown should be tested to confirm their cause and determine if they represent economic mineralization.

Anomalies which fall within geochemically anomalous areas are obviously top priority for follow-up. From a geophysical standpoint,

...8

the writer feels that the priorities for drilling should be at Line 2+00 N station 1175 W (to a depth of approximately 50 meters), Line 0+00 station 1075 W (to a depth of at least 75 meters) and Line 2+00 S stations 1450 W and 1400 W (to depths of about 75 meters and 50 meters respectively).

Exploration of Area 3 should take the form of bulldozer or back-hoe work in areas of the I.P. survey and shallow overburden in order to uncover probable near surface carbonaceous phyllites and test for economic mineralization.

If results from subsurface exploration are encouraging, then additional induced polarization survey should be considered on the property. Additional magnetic coverage is recommended to test for additional magnetic anomalies towards the south of Line 4+00 S in Area 1.

Respectfully submitted

INTERPRETEX RESOURCES LTD.

Vancouver, British Columbia

E.R. ROCKEL

Consulting Geophysicist

THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS and GEOPHYSICISTS OF ALBERTA

PERMIT NUMBER

P 3100

INTERPRETEX RESOURCES LTD.

CERTIFICATE

I, Edwin Ross Rockel, Geophysicist of Vancouver, 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 have been practising my profession since graduation.

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

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

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

Date: Dec 10 /84

Vancouver,
British Columbia

Signed:

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

REFERENCES

1. R.F. Gerath, Thurber Consultants Ltd., Photogeological Study, June 1, 1984

2. J.L. DeLeen, Geochemical Soil Survey, November 22, 1983

APPENDIX I

COST STATEMENT

IR

INTERPRETEX RESOURCES LTD.

BOX 48239 BENTALL P.O.
VANCOUVER, B.C. V7X 1A1
(604) 270-9392

COST STATEMENT

For Geophysical Survey Work Conducted on the "NOV" Group Mineral Claims
(Nov 1, Nov 2, Sun Fraction)

ON BEHALF OF

APEX ENERGY CORP.

1. COST BREAKDOWN

1.1 Contract Survey Cost - $1200.00 per day - includes:
- personnel
- equipment rental
- transportation costs and vehicle rental
- food
- accommodation

1.2 Cost of Survey - 6 survey days x $1200.00 per day -	$7200.00
1.3 Cost of Mobilization-Demobilization - flat rate -	$1000.00
1.4 Cost of Interpretation and Report - flat rate -	$1000.00
TOTAL COST	$9200.00

2. LOGISTICS BREAKDOWN

2.1 Personnel

	Name	Residence	Position
E.R.	Rockel	Richmond, British Columbia	Consulting Geophysicist
T.R.	Matich	Surrey, British Columbia	Geophysicist
R.K.	Nishimura	Edmonton, Alberta	Geophysicist
G.J.	McPherson	Surrey, British Columbia	Geophysical Operator
T.A.	Gustafson	New Denver, British Columbia	Geophysical Operator

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Cost Statement continued

2.2 Equipment

Phoenix IPV-1 frequency induced polarization receiver
Phoenix IPT-1 frequency induced polarization transmitter
Phoenix MG-1 induced polarization motor generator
Geonics EM-16 VLF electromagnetic LORAN receiver
Geometrics (Exploranium) G-816 total field magnetometer
Geometrics (Exploranium) G-856 total field magnetometer base station system
four Radio Shack walkie talkies
two Hewlett Packard 41-CV programable calculators
one Hewlett Packard thermal printer
Chevrolet Blazer 4 wheel drive truck
GMC Suburban 4 wheel drive truck

2.3 Surveys

- Induced Polarization Survey
  - frequency mode
  - dipole dipole array
  - electrode spacing - 25 meters
  - "n" spacings - n=1 to n=6 inclusive

- VLF Electromagnetic Survey
  - stations used - primary - Seattle
    - secondary (test) - Annapolis
  - direction faced - westerly

- Magnetic Survey
  - total field measurements - gammas
  - readings individually corrected for variations in the earth's magnetic field using base station values

2.4 Dates

- Mobilization November 15, 1984
- Survey November 16 to November 21, 1984 inclusive
- Demobilization November 22, 1984
- Interpretation and report - Nov./Dec., 1984 to be submitted within 30 days.

THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS and GEOPHYSICISTS OF ALBERTA
PERMIT NUMBER
P 3100
INTERPRETEX RESOURCES LTD.

APPENDIX II

EQUIPMENT SPECIFICATIONS

PHOENIX INDUCED POLARIZATION

RECEIVER MODEL IPV1

1.1 SPECIFICATIONS

Input Impedance	:	2 Megohms
Sensitivity	:	100 micro-Volt to 10 Volt in 5 ranges. Below 100 micro-Volt the frequency effect and voltage reading accuracy becomes less due to noise and dial error.
Instrument noise	:	± .2% on 100 micro-Volt level ± .1% on higher voltage levels
Operating frequencies	:	± DC; .156 Hz; .313 Hz; 1.25 Hz; 2.5 Hz and 5.0 Hz. ± DC; .125 Hz; .25 Hz; 1.0 Hz; 2.0 Hz and 4.0 Hz optionally available.
Frequency selection	:	Via channel selector switch on front panel to select F1 or F2. F1 and F2 are programmable inside the receiver and have identical selection range.
50-60 Hz Filters	:	-60 dB
3d Harmonic Filter	:	For each operating frequency the attenuation is at least 12 dB per octave.
Telluric Filter	:	12 dB per octave below .125 Hz.
SP Cancelling	:	Manual via a cancelling control which has 3 ranges; approx. ± 5 mV; ± 50 mV; ± 500 mV. On AC the initial SP is cancelled by pushing a button.
Mode of Operating	:	The signal is amplified; The level is manually adjusted by a potentiometer until it is the same amplitude as a reference voltage. The attenuator and the potentiometer indicate the input voltage. The meter used for nulling also indicates the frequency effect.
Meter Dial	:	Graduated -5% to + 20% F.E. The polarity assumed is based on F1 as the low frequency.

1.1 SPECIFICATIONS - (continued)

Damping :	A fast mode for voltage level adjustment and a damped mode for the F.E. reading, which may be augmented by a continuously variable damping.
Reading response :	On the standard damped mode to .2% of 100% signal within 30 sec.
Battery Voltage :	12V to 27V
Battery Drain :	4.5 mA
Battery type :	Not critical. Standard 9V transistor radio batteries are satisfactory in most cases.
Temperature Sensitivity :	Less than .1% per degree C for the voltage level and neglibgible for the frequency effect reading.
Calibration :	An internal .05 ohm $\pm$ 1% resistor allows precise calibration of the system under all conditions.
Temperature Range :	Operation $-40^{\circ}C$ to $+60^{\circ}C$ ambient.
Input Protection :	The input circuits are protected with voltage protection devices. Prolonged exposure to excessive voltage will cause a 10.000 ohm fuse resistor to burn out.
Dimensions :	10 cm x 13 cm x 22 cm. incl. lid.
Weight :	1.1 Kg. (including lid, batteries and carrying strap)
Case :	Non-conductive plastic.

Manufacturer:
PHOENIX GEOPHYSICS LIMITED
200 Yorkland Blvd.
Willowdale, Ontario
M2J 1R5

PHOENIX INDUCED POLARIZATION

TRANSMITTER MODEL IPT - 1

SPECIFICATIONS

Frequency Domain	:	DC, .078, .156, .313, 1.25, 2.5 and 5.0 Hz.
Time Domain	:	1.6 sec+, 1.6 sec off, 1.6 sec–, 1.6 sec off. simultaneous transmission mode; – .313 and 5.0 Hz. standard
Ammeter Ranges	:	30 mA, 100 mA, 300 mA, 1A, 3A and 10A full scale
Meter Display	:	A meter function switch selects the display of current level, regulation status, input frequency, output voltage, control voltage and line voltage.
Current Regulation	:	The change in output current is less than 0.2% for a 10% change in output voltage or electrode impedance.
Protection	:	The current is turned off automatically if it exceeds 150% full scale or if it is less than 5% full scale.
Output Voltage	:	75V, 150V, 300V, 600V and 1200V.
Output Current	:	3 mA to 10A
Output Power	:	2KW with MG-2 motor generator
Input Power	:	Three phase, 400 Hz (350 to 1000 Hz) 60V (50V to 80V) standard
Current Regulation	:	Achieved by feedback to the alternator of the motor generator unit.
Operating Temperature	:	-40 deg. C to +60 deg. C.
Thermal Protection	:	Thermostat turns off at 65 deg. C and turns back on at 55 deg. C internal temperature.
Dimensions	:	20 x 40 x 55 cm.
Weight	:	17 kilograms

PHOENIX INDUCED POLARIZATION

MG - 2 MOTOR GENERATOR

Used with IPT-1 transmitter

Output Power	:	2KVA at 400 Hz.
Engine Type	:	4 cycle Briggs and Stratton
Engine Size	:	5 HP at 3600 rpm.
Dimensions	:	40 x 45 x 60 cm.
Weight	:	34 kilograms

Manufacturer:
PHOENIX GEOPHYSICS LIMITED
200 Yorkland Blvd.
Willowdale, Ontario
M2J 1R5

GEONICS LIMITED
VLF EM 16

Source of Primary Field:	VLF transmitting stations
Transmitting Stations Used:	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.
Operating Frequency Range:	About 15-25 Hz
Parameters Measured:	(1) The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). (2) The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of Reading:	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone.
Scale Range:	In-phase ±150%; quadrature ±40%
Readability:	±1%
Reading Time:	10-40 seconds depending on signal strength
Operating Temperature Range:	-40 to 50° C.
Operating controls:	ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature, dial ±40%, inclinometer dial ±150%
Power Supply:	6 size AA (penlight) alkaline cells. Life about 200 hours
Dimensions:	42 x 14 x 9 cm (16 x 5.5 x 3.5 in)
Weight:	1.6 kg (3.5 lbs)
Instrument Supplied With:	Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional), set of batteries
Shipping Weight:	4.5 kg (10 lbs.)
Name and Address of Manufacturer:	Geonics Limited 1745 Meyerside Drive/Unit 8 Mississauga, Ontario L5T 1C5

MODEL G-816

PORTABLE PROTON MAGNETOMETER

Sensitivity:	±1 gamma throughout range
Range:	20,000 to 90,000 gammas (worldwide)
Tuning:	Multi-position switch with signal amplitude indicator light on display
Gradient Tolerance:	Exceeds 800 gammas/ft
Sampling Rate:	Manual pushbutton, one reading each 6 seconds
Output:	5 digit numeric display with readout directly in gammas
Power Requirements:	Twelve self-contained 1.5 volt "D" cell universally available flashlight-type batteries. Charge state or replacement signified by flashing indicator light on display.
Temperature Range:	Console and sensor: -40° to +85°c Battery pack: 0° to +50°C (limited use to -15°C; lower temperature battery belt operation - optional)
Accuracy (Total Field):	±1 gamma through 0° to ±50°C temperature range
Sensor:	High signal, noise cancelling, interchangeably mounted on separate staff or attached to back pack
Size:	Console: 3.5 x 7 x 11 inches (9 x 18 x 28 cm) Sensor: 3.5 x 5 inches (9 x 13 cm) Staff: 1 inch diameter x 8 ft. length (3 cm x 2.5 m)
Weight:	

Console (w/batteries):	5.5lbs.	2.8kgs.
Sensor and signal cable:	4.0lbs.	1.8kgs.
Aluminum staff:	2.0lbs.	0.9kgs.
Total Weight	11.5lbs.	5.2kgs.

EG & G Canada
Exploranium/Geometrics Division
Unit #1
640 Hardwick Road
Bolton, Ontario LOP 1AO

MODEL G-856

PROTON PRECESSION MEMORY MAGNETOMETER

Display	Six digit display of magnetic field to resolution of 0.1 gamma or time to nearest second. Additional three-digit display of station or day of year.
Resolution	Typically 0.1 gamma in average conditions. May degrade to lower resolution in weak fields, noisy conditions or high gradients.
Accuracy	One gamma, limited by remnant magnetism in sensor and crystal oscillator accuracy.
Clock	Julian clock with stability of 5 seconds per month at room temperature and 5 seconds per day over the temperature range of -20 to +50 degrees Celsius.
Tuning	Push button tuning from keyboard with current value displayed on request. Tuning range 20 to 90 kilogammas.
Gradient Tolerance	Tolerates gradients to 5000 gammas/meter. When high gradients truncate count interval, maintains partial reading to an accuracy consistent with data.
Cycle Time	Complete field measurement in three seconds in normal operation. Internal switch selection for faster cycle (1.5 seconds) at reduced resolution or longer cycles.
Manual Read	Takes reading on command. Will store data in memory on command at operator's discretion.
Self-Cycle	Internal switch will cause the instrument to self-cycle, storing automatically, for time dependent measurements. Available intervals are 5, 10 and 30 seconds, 1,2,5, and 10 minutes depending on switch position.
Memory	Stores 1,000 readings in portable mode, keeping track of time and station number. In base station operation, records last four digits of field at discrete intervals, allowing storage of over 2,500 readings.
Output	Plays data out in standard RS-232 format at selectable baud rates. Also outputs data in byte parallel, character serial BCD for use with digital recorders.
Inputs	Will accept an external sample command.
Special Functions	An internal switch allows adjustment of polarization time and count time to improve performance in marginal area or improve resolutuon or to speed operation.

cont'd

G-856 cont'd

Physical	Instrument console: 7 x 10½ x 3½ inches (18 x 27 x 9 cm) 6 lbs (2.7 kg) Sensor: 3½ x 5 inches (9 x 13 cm) 4 lbs (1.8 kg) Staff: 1 inch x 8 feet (3 cm x 2.5 m) 2 lbs (1 kg)
Environmental	Meets specifications from 0 to 40 degrees Celsius. Operates satisfactorily from -20 to 50 degrees Celsius. Weatherproof.
Power	Operates from 8 D-cell flashlight batteries (or 12 volts external power). May be operated at 18 volts external power to improve resolution. Power failure or replacement of batteries will not cause loss of data stored in memory.
Standard Accessories	Sensor Staff Chest Harnes Two sets of batteries Operating Manual Applications Manual for Portable Magnetometers
Optional Accessories	RS-232 Interface Cable Rechargeable Battery Pack (mounts inside case in place of normal batteries) and Charger Cold weather battery belt Digital Tape Recorder with Interface Cables

EG & G Canada
Exploranium/Geometrics Division
Unit #1
640 Hardwick Road
Bolton, Ontario   LOP 1AO

APPENDIX III

DATA SHEETS & CALCULATION TAPES

INDUCED POLARIZATION DATA SHEETS

LINE NO. 14+00S

Tx @ 50W

△	Electrodes			Voltage		Curr	%
P_1	Dp	N	PP	V_R	V_P	i	PFE
100E	5	1	75	100	2.39	.74	+ off scale
	4	2	75	10	4.97	.50	+ off scale
	3	3	62.5	10	1.24	.32	+ off scale
	2	4	50	1MV	1.75N	.24	16.0 VN
	1	5	37.5	1MV	.79VN	.18	+ off scale
	1W	6	25	NFR			
75E	4	1	62.5	100	3.14	.50	19.0
	3	2	50	10	4.94	.32	18.5
	2	3	37.5	1MV	5.58	.24	16.0N
	1	4	25	1MV	2.34N	.18	+ off scale
50E	3	1	37.5	100	1.46	.32	+ off scale
	2	2	25	10	.91	.24	+ off scale
	1	3	12.5	1MV	3.09	.18	+ off scale
25E	2	1	12.5	100	4.09	.24	15.0
	1	2	0.0	10	2.67	.18	19.0
00	1	1		100	4.67	.18	12.0

JOB NO. 84619 AREA NOV DATE Nov 16/84

INST. TYPE Phoenix IPV-1 SERIAL NO.

OPERATOR TM PAGE NO. 1

IR

LINE NO. 14+00S

Tx @ 50W

△	Electrodes			Voltage		Curr	%
P_1	Dp	N	PP	VR	VP	i	PFE
50W	2	1	-37.5	100	4.96	.24	8.5
	3	2	-25	10	6.50	.32	18.0
	4	3	-12.5	10	3.09	.50	11.0
	5	4	0	1MV	6.56	.80	+ off scale
	6	5	12.5	1MV	5.11	.90	+ off scale
75W	1	1	-62.5	100	3.84	.18	10.0
	2	2	-50	10	1.21	.24	20.0
	3	3	-37.5	1MV	7.75	.32	17.5
	4	4	-25	1MV	4.30	.50	17.5
	5	5	-12.5	1MV	1.56	.90	+ off scale
	6	6	0	1MV	1.14N	.90	+ off scale
100W	1	2	75	10	1.03	.18	15.0
	2	3	62.5	1MV	3.71	.24	14.0
	3	4	50	1MV	3.71	.32	12.0
	4	5	37.5	1MV	2.52	.50	11.0 VN
	5	6	25	1MV	1.07VN	.90	+ off scale
125W	1	3	87.5	NFR			
	2	4	75	1MV	2.21VN	.24	+ off scale
	3	5	62.5	1MV	2.48VN	.32	+ off scale N
	4	6	50	NFR			
150W	1	4	100	NFR	too small potential		
	2	5	87.5	NFR			
	3	6	75	NFR			
175W	1	5	112.5	NFR			
	2	6	100	NFR			
200W	1	6	125	NFR			

JOB NO. 84619 AREA NOV DATE Nov 16/84

INST. TYPE Phoenix IPV-1 SERIAL NO.

OPERATOR RN PAGE NO. 2

IR

Dp 1W N=6 NFR

LINE NO. 12+00S STATION Tx @ 150E

STATION	Electrodes		Voltage		Curr + %		REMARKS
P_1	Dp	N	V_R	V_P	i	PFE	PP
300E	5	1	1V	1.37	.20	11.0	288
	4	2	10	9.86	.20	off scale +	275
	3	3	10	.63 N	.20	offscale −	263
	2	4	1	5.29 VN	.19	NR VN	250
	1	5	10	0.40	.24	NR VN	238
275E	4	1	1V	2.57	.20	8.0	263
	3	2	100	1.36	.20	11.5	250
	2	3	10	0.50	.19	~~NEG~~ 50 N	238
	1	4	10	0.81	.24	OFF − NEG	225
250E	3	1	1V	2.95	.20	5.5	238
	2	2	100	0.28	.19	OFF +TIVE	225
	1	3	10	0.39	.24	OFF +TIVE VN	213
225E	2	1	1V	0.96	.19	7.5	213
	1	2	10	1.46	.24	OFF + TIVE	200
200E	1	1	1V	.92	.24	10.5	188
	Line		12+00S		Tx @ 150	E	
150E	2	1	1V	2.04	.19	10.5	163
	3	2	10	2.44	.20	20+	175
	4	3	10	1.27 N	.20	−5−	188
	5	4	1	9.05 VN	.20	−5−	200
	6	5	1	8.09	.24	−5	213

JOB No.: 84619 AREA: NOV DATE: Nov 17/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: RN PAGE No.: 1
☐ FEET ☑ METRES

IR

LINE NO. 12+00S STATION Tx @ 150E

STATION	Electrodes		Voltage		Curr + %		REMARKS
P_1	Dp	N	V_R	V_P	i	PFE	PP
125E	1	1	100	4.04	.24	13.0	138
	2	2	10	1.23 N	.19	20+	150
	3	3	1	4.75 VN	.20	20 VN	163
	4	4	NR				175
	5	5	NR				188
	6	6	NR				200
100E	1	2	10	.57 VN	.24	20+	125
	2	3	NR				138
	3	4	NR				150
	4	5	NR				163
	5	6	NR				175
75E	1	3	NR				113
	2	4	NR				125
	3	5	NR				138
	4	6	NR				150
50E	1	4	NR		no volt		100
	2	5	NR				113
	3	6	NFR				125
25E	1	5	NR				88
	2	6	NR				100
00	1	6	NR				75

JOB No.: 84619 AREA: NOV DATE: Nov 17/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: RN PAGE No.: 2
☐ FEET ☑ METRES

IR

LINE NO. 0+00 STATION Tx 1450

△	Electrodes		Voltage		Curr. + %		REMARKS
P_1	D_p	N	V_R	V_P	i	PFE	PF
1750W	6	6	10	0.35	.44	20+	1675
1725	6	5	10	0.75	.44	17 N	1662
	5	6	10	0.27	.23	NR	1650
1700W	6	4	10	3.93	.44	10.5	1650
	5	5	10	1.51	.23	15	1637
	4	6	10	0.17	.22	NR	1625
1675W	6	3	100	0.35	.44	20+	1637
	5	4		1.80	.23	16.0	1625
	4	5		2.61	.22	20+ N	1613
	3	6		1.54	.16	20+ N	1600
1650	6	2	100	0.87	.44	15	1625
	5	3		2.57	.23	13.5	1613
	4	4	10	0.27	.22	NR	1600
	3	5	10	0.12	.17	NR	1588
	2	6	10	0.10	.17	NR	1575
1625	6	1	100	2.15	.44	16.0	1613
	5	2	100	0.30	.23	15.5 N	1600
	4	3	10	0.42	.22	NR	1588
	3	4	10	0.24	.17	NR	1575
	2	5	10	0.47	.17	OS –	1563
	1	6	10	0.29	.22	NR	1550
1600W	5	1	100	2.47	.22	17.0	1588
	4	2	10	1.79	.22	19.0	1575
	3	3	10	0.68	.17	NR	1563
	2	4	10	0.82	.14	20+	1550
	1	5	10	0.42	.22	NR	1538
	1E	6	10	0.23	.17	NR	1525

JOB No.: 84619 AREA: NOV DATE: Nov 18/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 1

☐ FEET ☑ METRES

IR

LINE NO. 0+00 STATION Tx 1450

STATION	Electrodes		Voltage		Curr + %		REMARKS
1575	D_p	N	V_R	V_P	i	PFE	PR
1575	4	1	100	1.26	.22	18.5	1563
	3	2	10	3.51	.17	17.0	1550
	2	3	10	1.70	.17	14.0 N	1538
	1	4	10	1.68	.20	14.0 N water Res	1525
1550	3	1	100	2.62	.17	13.0	1538
	2	2	10	2.79	.17	18.0 N	1525
	1	3	10	1.75	.20	17.5	1513
1525	2	1	100	2.72	.17	10.5	1513
	1	2	100	0.22	.20	15.5	1500
1500	1	1	100	3.27	.20	10.0	1488
1425	1	1	100	5.93	.20	13.0	1437.5
	2	2	100	0.40	.17	16.5 N	1450
	3	3	10	0.88	.17	NR	1463
	4	4	1M	4.19	.22	NR	1475
	5	5	1M	7.25	.23	NR	1488
	6	6	10	1.31	.42	NR	1500
1400	1	2	100	1.26	.20	15.5 N	1425
	2	3	10	1.35	.17	NR	1438
	3	4	1M	4.00	.17	NR	1450
	4	5	1M	4.19	.22	NR VP Noise	1463
	5	6	1M	3.99	.23	NR	1475
1375	1	3	10	5.45	.20	15 N	1413
	2	4	10	0.58	.17	NR	1425
	3	5	1M	2.97	.17	NR VP Noise	1438
	4	6	1M	4.46	.22	NR VP Noise	1450

JOB No.: 84619 AREA: NOV DATE: Nov 18/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: EG PAGE No.: 2

☐ FEET ☑ METRES

IR

LINE NO. 0+00 STATION Tx 1450

STATION	Electrodes		Voltage		Curr + %		REMARKS	
P_1	Dp	N	VR	VP	i	PFE		PP
1350	1	4	10	1.43	.20	19.0	N	1400
	2	5	1M	2.00	.17	NR		1413
	3	6	1M	0.78	.17	20+	VP Noisy	1425
1325	1	5	10	0.75	.20	20+		1388
	2	6	1M	1.16	.17	NR		1400
1300	1	6	10	2.19	.20	NR	VP v. Noisy	1375
			↑ Range error? (1M?)					

JOB No.: 84619 AREA: NOV DATE: Nov 18/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: EQ PAGE No.: 3

☐ FEET ☑ METRES

IR

LINE NO. 6+00 STATION Tx 1450

STATION	Electrodes		Voltage		Curr + %		REMARKS	
P_1	Dp	N	VR	Vp	i	PFE		PP
1450N	2	1	100	3.24	.20	9.5		1463
	3	2	10	4.01	.20	13.5		1425
	4	3	10	0.85	.25	15	N	1488
	5	4	10	1.24	.23	12	N	1500
	6	5	10	2.47	.44	5.0		1513
1400W	1	1	100	7.05	.22	9.0		1413
1375	1	2	100	2.16	.22	11.5		1400
	2	1	100	9.33	.22	8.0		1388
1350	1	3	10	5.41	.22	11.5		1388
	2	2	100	1.51	.22	9.5		1375
	3	1	100	7.15	.30	7.0		1363
1325	1	4	10	2.69	.22	12.0		1375
	2	3	10	7.97	.22	10.5		1363
	3	2	100	2.37	.30	8.5		1350
	4	1	1V	2.89	.70	7.5		1338
1300	1	5	10	0.79	.22	NR		1363
	2	4	10	1.97	.22	8	N	1350
	3	3	10	5.93	.30	9.5		1338
	4	2	100	5.04	.70	8.5		1325
	5	1	1V	2.05	.94	8.0		1313
1275	1	6	1M	4.83	.22	NR		1350
	2	5	10	0.91	.22	NR		1338
	3	4	10	2.78	.30	12.5	N	1325
	4	3	100	2.13	.70	9.0		1313
	5	2	100	7.16	.94	9.0		1300
	6	1	1V	3.04	.70	8.0		1288

JOB No.: 84619 AREA: NOV DATE: Nov. 19/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: EQ PAGE No.: 1

☐ FEET ☑ METRES

IR

LINE NO. 0+00 STATION Tx 1450

STATION	Electrodes		Voltage		Current %		REMARKS	
P1	Dp	N	VR	VP	i	PFE		Ph Pt
1250	2	6	10	0.61	.22	NR		1325
	3	5	10	1.71	.30	13	VN	1313
	4	4	100	1.22	.70	10.5		1300
	5	3	100	3.71	.94	9.0		1288
	6	2	1V	1.06	.70	9.0		1275
1225	3	6	10	0.78	.30	NR	Noise	1300
	4	5	10	5.64	.70	11.0		1288
	5	4	100	1.47	.94	9.5		1275
	6	3	100	3.81	.70	8.5		1263
1200	4	6	10	2.22	.70	11.5		1275
	5	5	10	5.77	.94	10.5		1263
	6	4	100	1.25	.70	8.5		1250
1175	5	6	10	2.67	.94	11.5	N	1250
	6	5	10	5.39	.70	10.0		1238
1150	6	6	10	2.74	.70	16.0	N	1225
							Tx 1300W	
1250	1	1	1V	1.91	.40	10.5		1263
1225	1	2	100	4.46	.40	10.0		1250
	2	1	1V	1.29	.36	12.5		1238
1200	1	3	100	1.20	.40	10.5		1238
	2	2	100	2.80	.36	11.0		1225
	3	1	1V	1.35	.36	11.0		1213
1175	1	4	10	4.60	.40	10.5	N	1225
	2	3	10	8.61	.36	13.0		1213
	3	2	100	3.22	.36	10.0		1200
	4	1	1V	3.55	.84	11.0		1188

JOB No.: 84619 AREA: NOV DATE: Nov. 19
INST. TYPE: Phoenix IPU-1 SERIAL No.:
OPERATOR: ER PAGE No.: 2

☐FEET ☑METRES

IR

LINE NO. 0+00 STATION Tx 1300W

STATION	Electrodes		Voltage		Current %		REMARKS	
P1	Dp	N	VR	VP	i	PFE		Ph Pt
1150W	1	5	10	1.96	.40	16.0	N	1213
	2	4	10	3.3[illegible]	.36	11.0	N	1200
	3	3	100	0.96	.36	13.0		1188
	4	2	100	8.53	.84	10.5		1175
	5	1	1V	3.72	.86	19.0		1163
1125W	1	6	10	0.72	.40	18	N	1200
	2	5	10	1.16	.36	NR		1188
	3	4	10	3.38	.36	13	N	1175
	4	3	100	2.35	.84	12.0		1163
	5	2	100	8.40	.86	11.0		1150
	6	1	1V	4.23	.96	10.5		1138
1100W	2	6	1M	3.39	.36	NR		1175
	3	5	10	0.79	.36	14	N	1163
	4	4	10	5.49	.84	13.0		1150
	5	3	100	1.67	.86	11.5		1138
	6	2	100	6.94	.96	11.0		1125
1075	3	6	1M	2.86	.36	NR		1150
	4	5	10	1.53	.84	17	N	1138
	5	4	10	4.53	.86	15.0		1125
	6	3	100	1.62	.96	13.5		1113
1050	4	6	10	0.33	.84	20+		1125
	5	5	10	0.95	.86	17	N	1113
	6	4	10	3.29	.96	15	N	1100
1025	5	6	10	0.40	.86	NR		1100
	6	5	10	1.13	.96	16	N	1088
1000	6	6	1M	4.52	.96	NR		1075

JOB No.: 84619 AREA: NOV DATE: Nov 19
INST. TYPE: Phoenix IPU-1 SERIAL No.:
OPERATOR: ER PAGE No.: 3

☐FEET ☑METRES

IR

LINE NO. 0+00 STATION Tx at 1150 w

STATION	Electrodes		Voltage		Curr't %		REMARKS
P_1	Dp	N	V_R	V_P	I	PFE	Ph.Pt.
1100w	1	1	1V	2.73	.76	12.5	1113
1075	1	2	100	5.50	.76	13.5	1100
	2	1	1V	2.35	.52	10.5	1088
1050	1	3	100	0.82	.76	20+	1088
	2	2	100	3.21	.52	18.0	1075
	3	1	1V	1.72	.60	10.5	1063
1025	1	4	10	2.94	.76	17N	1075
	2	3	10	9.16	.52	13	1063
	3	2	100	4.23	.60	11.0	1050
	4	1	1V	3.08	.62	9.5	1037
1000	1	5	10	0.66	.76	20+	1063
	2	4	10	2.11	.52	18.5N	1050
	3	3	100	0.81	.60	17N	1038
	4	2	100	4.96	.62	12.5	1025
	5	1	1V	1.90	.62	11.0	1013
975	1	6	1M	4.06	.76	NR	1050
	2	5	1M	9.43	.52	15N	1038
	3	4	10	3.63	.60	15.0	1025
	4	3	100	1.75	.62	13.0	1013
	5	2	100	5.47	.62	12.5	1000
	6	1	1V	4.76	.94	8.0	988
950	2	6	1M	2.78	.52	NR	1025
	3	5	10	0.93	.60	NR	1013
	4	4	10	4.85	.62	14.5	1000
	5	3	100	1.22	.62	15.5	988
	6	2	100	8.27	.94	10.5	975

JOB No.: 84619 AREA: NOV DATE: Nov 19/74

INST. TYPE: Phoenix IPV-1 SERIAL No.:

OPERATOR: ER PAGE No.: 4

☐ FEET ☑ METRES

IR

LINE NO. 0+00 STATION Tx 1150w

STATION	Electrodes		Voltage		Curr't %		REMARKS
P_1	Dp	N	V_R	V_P	I	PFE	Ph.Pt.
925	3	6	1M	3.07	.60	15N	1000
	4	5	10	1.29	.62	19.0	988
	5	4	10	3.56	.62	14.5	975
	6	3	100	1.96	.94	14.0	963
900	4	6	1M	3.79	.62	18N	975
	5	5	10	0.82	.62	20+	963
	6	4	10	5.01	.94	14.5	950
875	5	6	10	0.48	.62	20+	950
	6	5	10	2.90	.94	19.5	938
850	6	6	10	1.56	.94	20+	925

JOB No.: 84619 AREA: NOV DATE: Nov. 19

INST. TYPE: Phoenix IPV-1 SERIAL No.:

OPERATOR: ER PAGE No.: 5

☐ FEET ☑ METRES

IR

It #1

LINE NO. 2+00N STATION Tx @ 1300

STATION	Electrodes		Voltage		Curr %		REMARKS
P_1	Dp	N	VR	Vp	i	PFE	
1250	1	1	100	7.16	.80	15.0	1263
1225	1	2	10	1.41	.80	19.0	1250
	2	1	100	2.98	.80	14.5	1238
1200	1	3	1MV	5.31 N	.80	20	N 1238
	2	2	10	2.55	.80	15.0	1225
	3	1	10	8.98	.80	15.0	1213
1175	1	4	10	0.40 VN	.80	OS-	1225
	2	3	10	0.32 N	.80	OS+	1213
	3	2	10	0.43 N	.80	NR	1200
	4	1	10	4.93	.90	OS+	1188
1150	1	5	10	0.51 N	.80	OS+	1213
	2	4	10	0.31 N	.80	NR	1200
	3	3	10	0.25	.80	NR	1188
	4	2	10	0.28	.90	OS+	1175
	5	1	10	7.74	.72	16.5	1163
~~1125~~	1W	6	10	[illegible] N	.70	NR	1225
1125	1	6	10	0.08 N	.80	OS+	1200
	2	5	10	0.41	.80	14.5	1188
	3	4	10	0.35	.80	9.5	1175
	4	3	1MV	2.90	.90	OS+	1163
	5	2	10	4.62	.72	15.0	1150
	6	1	100	2.57	.52	OS+	1138
1100	2	6	1MV	3.15	.80	NR	1175
omit	3	5	1MV	3.20	.80	NR	1163
this	4	4	1MV	1.78	.90	NR	1150
station	5	3	10	1.74	.72	11.0	VN 1138
	6	2	10	3.76	.52	OS+	1125

JOB No.: 84619 AREA: NOV DATE: Nov 20/84

INST. TYPE: Phoenix IPV-1 SERIAL No.:

OPERATOR: TM PAGE No.: 1

☐ FEET ☑ METRES

IR

LINE NO. 2+00N STATION Tx @ 1300

STATION	Electrodes		Voltage		Curr %		REMARKS
~~Hole~~	Dp	N	VR	Vp	i	PFE	P1+P2
1100	2	6	1MV	2.66 N	.80	NR	1175
	3	5	1MV	2.23 N	.80	NR	1163
	4	4	1MV	1.39 N	.90	NR	1150
	5	3	10	1.65	.72	12.0	N 1138
	6	2	10	3.58	.52	OS+	1125
1075	3	6	10	0.23	.80	NR	1150
	4	5	10	0.13	.90	NR	1138
	5	4	10	0.20	.72	NR	1125
	6	3	10	0.30	.52	NR	1113
1050	4	6	10	0.17	.90	OS-	1125
	5	5	10	0.34	.72	NR	1113
	6	4	10	0.42	.52	NR	1100
1025	5	6	1MV	2.24	.72	NR	1100
	6	5	1MV	1.90	.52	NR	1088
1000	6	6	1MV	2.31	.52		1075

JOB No.: 84619 AREA: NOV DATE: Nov 20/84

INST. TYPE: Phoenix IPV-1 SERIAL No.:

OPERATOR: TM PAGE No.: 2

☐ FEET ☑ METRES

IR

LINE NO. 2+00N STATION Tx@1300

STATION	Electrodes		Voltage		Curr't %		REMARKS
P_1	Dp	N	VR	Vp	i	PFE	P1t-Pt
1300	2	1	1V	3.14	.80	10.5	1288
	3	2	100	1.30	.80	15.5	1275
	4	3	10	0.45	.90	NR	1263
	5	4	1M	2.62	.72	NR	1250
	6	5	1M	2.22	.52	NR	1238
1325	1	1	1V	1.57	.80	9.5	1313
	2	2	100	2.27	.80	13.5	1300
	3	3	10	2.78	.80	12.0	1288
	4	4	1M	2.14	.90	05 -	1275
	5	5	1M	2.09	.72	~~NR~~ 0S -	1263
	6	6	1M	1.89	.52	05 -	1250
1350	1	2	100	2.90	.80	11.0	1325
	2	3	10	6.61	.80	15.0	1313
	3	4	10	1.78	.80	13.0	1300
	4	5	1M	1.25	.90	17.5 N	1288
	5	6	1M	1.28	.72	20+	1275
1375	1	3	100	0.73	.80	14.0	1338
	2	4	10	2.46	.80	16.5	1325
	3	5	10	0.94	.80	14.5	1313
	4	6	1M	0.74	.90	18 N	1300
1400	1	4	10	5.12	.80	15.0	1350
	2	5	10	2.20	.80	15 N	1338
	3	6	10	1.06	.80	11 N	1325
1425	1	5	10	1.74	.80	17 N	1363
	2	6	10	0.93	.80	NR	1350
1450	1	6	10	0.56	.80	NR	1375

JOB No.: 84619 AREA: NOV DATE: Nov 20/84
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 3

☐ FEET ☑ METRES

IR

LINE NO. 2 N STATION Tx 1300

STATION	Electrodes		Voltage		Curr't %		REMARKS
P_1	Dp	N	VR	Vp	I	PFE	P1t-Pt
1600	6	6	10	1.50	.80	NR	1525
1575	5	6	10	5.34	.88	16.0	1500
	6	5	10	8.16	.80	13.5	1513
1550	4	6	10	3.18	.72	13.0	1475
	5	5	100	1.06	.88	11.0	1488
	6	4	100	1.72	.80	9.0	1500
1525	3	6	10	2.57	.70	14.0	1450
	4	5	10	3.44	.72	11.5	1463
	5	4	100	1.28	.88	9.5	1475
	6	3	100	2.98	.80	8.0	1488
1500	2	6	10	1.91	.74	18.0 N	1425
	3	5	10	3.64	.70	12.5 N	1438
	4	4	10	5.35	.72	9.5	1450
	5	3	100	2.48	.88	8.0	1463
	6	2	100	8.22	.80	6.5	1475
1475	1	6	10	1.20	.74	NR	1400
	2	5	10	3.39	.74	15 N	1413
	3	4	10	6.73	.70	13.5	1425
	4	3	100	1.05	.72	9.5	1438
	5	2	100	6.23	.88	6.5	1450
	6	1	1V	2.93	.80	6.0	1463
1450	1	5	10	2.40	.74	15.0	1388
	2	4	10	7.01	.74	12.0	1400
	3	3	100	1.46	.70	10.0	1413
	4	2	100	2.71	.72	8.0	1425
	5	1	1V	1.78	.88	6.5	1438

JOB No.: 84619 AREA: NOV DATE: Nov 20
INST. TYPE: PhoenixIPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 4

☐ FEET ☑ METRES

IR

LINE NO. 2 N STATION Tx 1300

STATION	Electrodes		Voltage		Curr+%		REMARKS
P_1	DR	N	VR	VP	i	PFE	P1t. Pt
1425	1	4	100	0.92	.74	11.5	1375
	2	3	100	2.67	.74	10.0	1388
	3	2	100	6.92	.70	5.0	1400
[illegible]	4	1	1V	1.44	.72	6.5	1413
1400	1	3	100	2.72	.74	12.5	1363
	2	2	1V	1.02	.74	9.5	1375
	3	1	1V	4.37	.70	3.0	1388
~~1375~~	~~1~~	~~2~~	~~100~~	~~0.48~~	~~.74~~	~~0.5~~	? OMIT
	~~2~~	~~1~~	~~100~~	~~2.23~~	~~.74~~	~~0.5~~	?
1350	1	1	1V	2.63	.74	8.5	1338
1375	~~1~~	~~2~~	~~1V~~	~~0.36~~	~~.74~~		
	2	1					
1375	1	2	100	5.15	.74	14.0	1350 Repeated
	2	1	1V	2.52	.74	11.0	1363
							Tx 1450
1500	1	1	1V	2.68	.90	10.0	1488
1525	1	2	100	5.88	.90	9.5	1500
	2	1	1V	1.91	.88	6.0	1488
1550	1	3	100	2.49	.90	11.5	1513
	2	2	100	4.75	.88	7.5	1525
	3	1	1V	2.28	.92	6.0	1538

JOB No.: 84619 AREA: NOV DATE: Nov-20
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 5

☐ FEET ☑ METRES

IR

LINE NO. 2 N STATION TX 1450

STATION	Electrodes		Voltage		Curr+%		REMARKS
P_1	Dp	N	VR	VP	i	PFE	P1t. Pt
1575	1	4	100	0.98	.90	13.5	1525
	2	3	100	1.57	.88	10.5	1538
	3	2	100	5.10	.92	6.5	1550
	4	1	1V	2.80	.96	4.5	1563
1600	1	5	10	1.46	.90	14 N	1538
	2	4	10	1.95	.88	14 N	1550
	3	3	10	4.48	.92	11 N	1563 Nov 20
	4	2	100	1.53	.96	8.5	1575
	5	1	100	5.95	.62	3.5	1588 Nov 21
1625	1	6	10	1.38	.90	13.5	1550
	2	5	10	1.54	.88	13.5	1563
	3	4	10	2.63	.92	10.5	1575
	4	3	10	6.16	.96	10.0	1588
	5	2	100	1.31	.62	8.5	1600
	6	1	1V	2.07	.54	2.5	1613
1650	2	6	10	1.01	.88	14.0	1575
	3	5	10	1.53	.92	13.0	1588
	4	4	10	3.08	.96	11.5	1600
	5	3	10	4.42	.62	10.0	1613
	6	2	100	3.05	.54	3.5	1625
1675	3	6	10	1.03	.92	13.5	1600
	4	5	10	1.95	.96	13.0	1613
	5	4	10	2.44	.62	11.5	1625
	6	3	100	1.24	.54	4.5	1637

JOB No.: 84619 AREA: NOV DATE: Nov 20
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 6

☐ FEET ☑ METRES

IR

LINE NO. 2400 N STATION Tx 1450 W

STATION	Electrodes		Voltage		Current %	REMARKS	
P_1	Dp	N	VR	VP	I	PFE	Plt. Pt.
1700W	4	6	10	1.61	.96	13.0	1625
	5	5	10	1.88	.62	12.5	1638
	6	4	10	7.86	.54	7.0	1650
1725	5	6	10	1.23	.62	14.5	1650
	6	5	10	4.38	.54	11.5	1663
1750				EOL			
		Line	2400	S	Tx	1375 W	
	Dp	N	VR	Vp	I	PFE	
1425	1	1	1V	2.63	.72	9.5	1413
1450W	1	2	100	3.57	.72	13.5	1425
	2	1	1V	3.01	.96	10.5	1438
1475	1	3	100	0.90	.72	19.5	1438
	2	2	100	5.30	.96	16.5	1450
	3	1	1V	2.05	.70	12.5	1463
1500	1	4	10	1.24	.72	20+	1450
	2	3	10	5.01	.96	20+	1463
	3	2	100	1.37	.70	19.5	1475
	4	1	100	6.97	.96	20+	1488
1525	1	5	10	1.21	.72	19.5	1463
	2	4	10	4.03	.96	17.5	1475
	3	3	10	9.35	.70	14.5	1488
	4	2	100	3.45	.96	14.5	1500
	5	1	100	7.34	.96	20+	1513
					~~.70~~		
1525	1E	6	10	0.55	.70	20+	1450

JOB No.: 84619 AREA: NOV DATE: Nov. 21
INST. TYPE: Phoenix IPU-1 SERIAL No.:
OPERATOR: ER PAGE No.: 1
☐ FEET ☑ METRES

IR

LINE NO. 2400 S STATION Tx 1375

STATION	Electrodes		Voltage		Current %	REMARKS	
P_1	Dp	N	VR	Vp	I	PFE	Plt. Pt.
1550	1	6	10	1.34	.72	10 N	1475
	2	5	10	4.37	.96	9.0	1488
	3	4	100	1.00	.70	6.5	1500
	4	3	100	3.46	.96	6.5	1513
	5	2	100	6.39	.96	11.5	1525
	6	1	1V	0.88	.44	14.5	1538
1575	2	6	10	1.39	.96	8 N	1500
	3	5	10	2.94	.70	6 N	1513
	4	4	10	7.79	.78	7.5	1525
	5	3	100	1.79	.96	11.5	1538
	6	2	100	1.76	.44	13.5	1550
1600	3	6	10	1.36	.70	11 N	1525
	4	5	10	3.21	.78	11.0	1538
	5	4	10	6.00	.96	16.5	1550
	6	3	10	3.02	.44	19.5	1563
1625	4	6	10	2.87	.78	11.5	1550
	5	5	10	5.10	.96	16.0	1563
	6	4	10	2.21	.44	18.5	1575
1650	5	6	10	2.18	.96	20+	1575
	6	5	10	0.89	.44	20+	1588
1675	6	6	10	0.84	.44	20+	1600
~~1675 1E~~							

JOB No.: 84619 AREA: NOV DATE: Nov 21
INST. TYPE: Phoenix IPU-1 SERIAL No.:
OPERATOR: ER PAGE No.: 2
☐ FEET ☑ METRES

IR

LINE NO. 2700 S STATION Tx 1375

STATION	Electrodes		Voltage		Curr. & %		REMARKS
P1	Dp	N	VR	VP	i	PFE	Plt. Pt
1375	2	1	1V	0.54	.96	18.0	1388
	3	2	100	0.72	.70	20.0	1400
	4	3	100	0.37	.78	20.0	1413
	5	4	10	2.94	.96	20.0	1425
	6	5	10	0.31	.44	20+	1438
1350	1	1	1V	1.15	.72	19.5	1363
	2	2	100	1.67	.96	16.0	1375
	3	3	10	5.07	.70	18.0	1388
	4	4	10	3.52	.78	20 +	1400
	5	5	10	2.95	.96	18 N	1413
	6	6	10	0.37	.44	20 +	1425
1325	1	2	100	2.12	.72	20 +	1350
	2	3	100	0.56	.96	18.5	1363
	3	4	10	2.33	.70	20.0	1375
	4	5	10	1.79	.78	20.0	1388
	5	6	10	1.53	.96	20 +	1400
1300	1	3	100	1.08	.72	18.0	1338
	2	4	10	4.05	.96	14.5	1350
	3	5	10	1.72	.62	15.5	1363
	4	6	10	1.55	.78	14.5	1375
1275	1	4	10	4.00	.72	18.5	1325
	2	5	10	1.66	.96	15.0	1338
	3	6	10	0.76	.62	16.0	1350
1250	1	5	10	1.26	.72	16 N	1313
	2	6	10	0.56	.96	11 N	1325
1225	1	6	10	0.97	.72	19 N	1300

JOB No.: 84619 AREA: NOV DATE: Nov 21
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 3

☐ FEET ☑ METRES

IR

LINE NO. 2700 S STATION Tx 1375

STATION	Electrodes		Voltage		Curr. & %		REMARKS
To	Dp	N	VR	VP	i	PFE	Plt Pt
1075	6	6		N	R —		1150
1100	6	5	10	0.27	.24	14.0	1163
	5	6	10	0.45	.42	15.5	1175
1125	6	4	10	1.03	.24	13.0	1175
	5	5	10	1.58	.42	15 N	1188
	4	6	10	0.70	.70	7 N	1200
1150	6	3	10	2.41	.24	16.0	? 1188
	5	4	10	3.41	.42	15.0	1200
	4	5	10	1.22	.70	12.0	1213
	3	6	1M	3.86	.32	NR	1225
1175	6	2	10	5.30	.24	13.5	1200
	5	3	10	6.04	.42	17.0	1213
	4	4	10	1.55	.70	13.5	1225
	3	5	1M	4.71	.32	16.5	1238
	2	6	1M	4.98	.38	15 N	1250
1200	6	1	100	2.20	.24	16.0	1213
	5	2	100	1.51	.42	20.0	1225
	4	3	10	2.51	.70	16.0	1238
	3	4	10	0.76	.32	17 N	1250 ?
	2	5	10	0.64	.38	18 N	1263
	1	6	1M	3.72	.46	19 N	1275
1225	5	1	1V	3.19	.42	14.5	1238
	4	2	100	1.70	.70	14.0	1250
	3	3	10	2.98	.32	20.0	1263
	2	4	10	2.20	.38	13.5	1275
	1	5	10	1.16	.46	16.5	1288

JOB No.: 84619 AREA: NOV DATE: Nov. 21
INST. TYPE: Phoenix IPV-1 SERIAL No.:
OPERATOR: ER PAGE No.: 4

☐ FEET ☑ METRES

IR

LINE NO. 2+00S STATION Tx 1375

STATION	Electrodes		Voltage		Current		REMARKS
P_1	P_2	N	VR	VP	I	PFE	Pt.Pt
1250	4	1	100	3.05	.70	14.5	1263
	~~5~~ 3	2	100	0.50	.32	20.0	1275
	~~4~~ 2	3	10	3.14	.38	9.5	1288
~~1225~~	~~5~~ 1	4	10	1.57	.46	13.0	1300
1275	3	1	1V	1.45	.32	18.0	1288
~~1300~~	6 2	2	100	1.81	.38	18.5	1300
	1	3	10	6.68	.46	18.0	1313
1300	2	1	100	7.29	.38	18.0	1313
	1	2	100	2.19	.46	17.0	1325
1325	1	1	1V	1.33	.46	14.5	1338

Qtz. Rx Sample picked up at Station 225W

JOB No.: 84619 AREA: NOV DATE: Nov 21

INST. TYPE: Phoenix IPV-1 SERIAL No.:

OPERATOR: ER PAGE No.: 5

☐ FEET ☑ METRES

IR

VLF EM DATA SHEETS

LINE NO. 14 S STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
125E	+33	+2		
100E	+21	-1		
75	+17	+1		
50	+29	+6		
25	+24	+5		
0+00	+28	+4		
	+28	+2		
50	+38	+2		
	+30	0	+6 +2	
100W	+22	-2	+6 0	Wide Directional Null
	+30	0	+9 +1	Very "
50	+50	-3	+9 +4	Seattle direct. reversal
	+35	+7	+6 +1	
200W	+47	-1	+4 0	
225	+33	+4	+10 +2	
50	+23	+3	+10 +1	
	+17	+3	+7 +2	
300W	+27	+3	+6 -1	
	—	—	+18 +5	
50			+22 +1	
			+18 -4	
400W			+8 -2	
			+17 -1	
50			+18 -1	
			+5 -1	
500W			+10 +2	
25			+12 +3	old Road

JOB No.: 84619 AREA: Nov-1 DATE: Nov. 16/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: ER FACING: W PAGE No.: 1

V.L.F. ☐ FEET ☑ METRES IR

LINE NO. 00+00 STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
1775	0	-3		
..	+2	+4		
1750	-2	0		
..	0	+7		
1725	0	-4	Re-done	
1700	+11	-6		
1675	+7	+1		
1650	0	+6		
1625				
	Line 2N			
1700	-1	-1		
1675	-2	0	OK	
1650	-2	+2		
1625	-4	+5		

JOB No.: 84619 AREA: NOV DATE: Nov 16/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 0

V.L.F. ☐ FEET ☑ METRES IR

LINE NO. 00+00 STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
1775	0	-3		
1750	-2	0		
1725	0	-4		
1700	+11	-6		
1675	+7	-1		
1650	0	+6		
1625	-11	+5		
1600	+3	+1		
1575	-3	-4		
1550	-2	+6		
1525	-2	+5		
1500	-12	+2		
1475	-7	-3		
1450	-1	-4		
1425	-4	-4		
1400	-4	-2		
1375	-5	-1		
1350	-5	-2		
1325	-5	0		
1300	-4	0		
1275	-4	+1		
1250	-4	+2		
1225	-5	+2		
1200	-6	0		
1175	-3	-1		
1150	-3	+1		
1125	-6	+4		
1100	-6	+3		

JOB No.: 84619 AREA: NOV DATE: Nov 18/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 1

V.L.F. ☐FEET ☑METRES

IR

LINE NO. 00+00 STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
1075	-4	+1		
1050	-3	0		
1025	[illegible]	-2		
1000	-3	-1		
975	-3	-2		
950	-6	0		
925	[illegible]	+1		
900	-5	-1		
875	-1	-5		
850	+1	-6		
825	+1	-4		
800	0	0		
775	-1	+4		
750	[illegible]	0		
725	+5	-3		
700	+7	-2		
675	-1	-3		
650	-8	-2		
625	-6	-2		
600	-11	+2		
575	-6	-2		
550	+7	0		
525	+9	0		
500	0	0		
475	0	+2		
450	0	+4		
425	+5	-1		
400	+7	-1		

JOB No.: 84619 AREA: NOV DATE: Nov 18/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 2

V.L.F. ☐FEET ☑METRES

IR

LINE NO. 00+00 STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
00	0	-1		
25	-2	-3		
50	-7	0		
100	-10	-1		
125	-2	+1		
150	+3	+2		
175	+2	-2		
200	0	-2	wider	
225	-1	-2	null	
250	-4	-2		
275	-4	0		
300	~~[illegible]~~ +4	~~[illegible]~~ -7		
325	~~[illegible]~~ -6	~~[illegible]~~ -6	VN	null faces north
350	-7	-7	VN	
375	-3	-8	VN	
400	+5	-6		
Line 2+00	N			
00	-5	-2		
25	-2	-4		
~~50~~	-6	-1		
75	-7	-3		
100	-3	-2		
125	-2	-2		
~~[illegible]~~	-4	-3	150	
~~[illegible]~~	-2	-2	175	
~~[illegible]~~	-5	-2	200	
~~250~~				

JOB No.: 84619 AREA: NOV DATE: Nov 19/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 1

V.L.F. ☐ FEET ☑ METRES IR

LINE NO. 2+00 N STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
225	-3	0		
250	+1	+1		uphill
275	0	-1		
300	-5	-2		
325	-3	0	wider	null
350	0	0		
375	-1	0		
400	0	-4		
425	-16	+2	VN null	faces north
450	-10	+6		
475	-15	+6		
500	-19	+15		
525	~~[illegible]~~ -20	+14		
550	-22	+12		
575	-15	+20	very wide	null
600	-5	+16		
625	-11	+14		
650	-16	+8		
675	-19	+10		
700	-32	+2	wide null	
725	~~12~~ -16	+~~[illegible]~~4		
750	-11	+2		level
775	-9	0		
800	-11	-4		
825	-5	+2		
850	-5	+2		
875	-7	0		
900	-9	+1		

JOB No.: 84619 AREA: NOV DATE: Nov 19 1984
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 2

V.L.F. ☐ FEET ☑ METRES IR

LINE NO. 2+00N STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH/NULL WIDTH	REMARKS
925	-26	+6		
950	-20	-1		
975	-12	+3		
1000	-15	+10		
1025	+14	0		
1050	-15	+6		
1075	-15	+10		
1100	+7	+10		
1125	+11	-6		
1150	+5	-4		
1175	-6	0		
1200	+20	-5		
1225	-18	0		
1250	-5	-14	VN	
1275	-7	-10	VN	
1300	0	-4	Wide null	
1325	-3	0		
1350	-5	+3		
1375	-5	+1		
1400	-4	0		
1425	-1	-2		
1450	-2	-2		
1475	-4	-2		
1500	-2	0		
1525	-5	-2		
1550	-3	-4		
1575	-2	-4		
1600	+3	0		

JOB No.: 84619 AREA: NOV DATE: Nov 19/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 3

V.L.F. ☐FEET ☑METRES

IR

LINE NO. 12+00S STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH/NULL WIDTH	REMARKS
325E	+33	-7		
300	+24	-5		
275	+22	-3	uphill	
250	+20	0		
225	+20	+1		
200	+22	0		
175	+25	-2		
150	+22	-3		
125	+20	-4		
100	+23	-3		
75	+20	-2		
50	+21	+2		
25E	+23	+1		
00	+20	0		
25W	+21	0		
50	+23	+1		
75	+22	-2		
100	+19	+1		
125	+18	+2		
150	+17	+3		
175	+17	+2		
200	+13	0		level
225	+20	0		uphill
250	+24	+2		
275	+23	+2		
300	+32	-4		
325	+29	-3		
350	+19	0		

JOB No.: 84619 AREA: NOV1 DATE: Nov 21/84
INST. TYPE: EM-16 SERIAL No.:
OPERATOR: TRM FACING: West PAGE No.: 1

V.L.F. ☐FEET ☑METRES

IR

LINE NO. 12+00S STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
375W	+26	+2	wider	null
400	+24	0		
425	+10	+10		
450	+24	-4		
475	+23	-6		
500	+20	-8		
Line 14+00S				
500	+18	-4		
475	+20	-3		
450	+26	+1		
425	+44	+3		
400	+27	-6		
375	+24	-1		
350	+27	+6		
325	+26	+6		

JOB No.: 84619 AREA: Nov 1 DATE: Nov 21/84

INST. TYPE: EM-16 SERIAL No.:

OPERATOR: TRM FACING: West PAGE No.: 2

V.L.F. ☐ FEET ☑ METRES

IR

LINE NO. 2+00S STATION Seattle

STATION	IN-PHASE	OUT of PHASE	FIELD STRENGTH / NULL WIDTH	REMARKS
1350W	+2	0	Wide	null
1325	-5	-4		
1300	+7	+9		
1275	-11	-5		
1250	+10	-2		
1225	-4	+1		
1200	+2	+2		
1175	+2	-1		
1150	+7	-2		
1125	-4	+4		
1100	[illegible]	[illegible]	-17	+4
1075	-7	+3		
1050	-7	+2		
1025	+14	-11		
1000W	+8	-8		
1375W	-3	-5	wide	null
1400	-18	-4		
1425	-15	+4		
1450	-6	+5		
1475	-2	0		
1500	-5	-5		
1525	-8	+1	very wide	null
1550	-4	-3		
1575	+2	-2		
1600	+3	-3	1675 -3	0
1625	-8	+6	In	out
1650	-5	+4	1700 +2	+3

JOB No.: 84619 AREA: Nov 1 DATE: Nov 21/84

INST. TYPE: EM-16 SERIAL No.:

OPERATOR: TRM FACING: West PAGE No.: 3

V.L.F. ☐ FEET ☑ METRES

IR

MAGNETIC DATA SHEETS

LINE NO. 0m 0+00 OPERATOR ADJUST 935 57808 γ

FIELD BASE 57796 +4 READING 57812 γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
9:40-	17+75W	57810				
41	50	811				
-	25	813				
42	17+00W	805				
-	-	816				
43	50	814				
-	-	802				
944	16+00	813				
945-	-	810				
46	50	814				
-	-	815				
47	1500	818				
-	-	816				
48	50	820				
48-	-	820				
49	1400	826				
-	-	821				
50	50	825				
-	-	824				
952-	1300	830				
953-	-	823				
54	50	819				
955	-	825				
56	1200	820				
57	-	816				
9:58	50	57816				

DATUM LEVELS: BASE STN: 57800 γ FIELD BASE γ

JOB NO. 84619 AREA NOV DATE Nov 20/84

INST. TYPE G-816 SERIAL NO.

OPERATOR RN PAGE NO. 1

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 0+00 OPERATOR ADJUST γ

FIELD BASE READING γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
10:01-	11+25W	57819				
02-	11+00	814				
03-	-	823				
04	50	827				
05	-	832				
06	10+00	828				
07	-	827				
08	50	826				
09	-	830				
10	9+00	831				
11	-	831				
14-	50	833				
15-	-	834				
16-	8+00	833				
17-	-	830				
18-	50	827				
19-	-	824				
21	700	827				
22	-	838				
23	50	839				
24	-	839				
25	600	840				
26-	-	842				
27-	50	837				
28-	-	846				
10 29-	500	57844				

DATUM LEVELS: BASE STN: γ FIELD BASE γ

JOB NO. 84619 AREA NOV DATE Nov 20/84

INST. TYPE G-816 SERIAL NO.

OPERATOR RN PAGE NO. 2

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 0+00 OPERATOR ADJUST ______ γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
1031-	475W	57845				
32-	50	845				
33-	-	852				
34-	400	849				
35-	-	852				
36-	-	854				
37-	-	864				
39	300	861				
40	-	863				
41-	50	871				
43	-	881				
44	200	870				
44-	-	870				
47	50	871				
48	-	870				
49-	100	872				
51	-	871				
52	50	869				
53-	-	873				
1054-	0	57869				

DATUM LEVELS: BASE STN: ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOU DATE NOV 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR R.V PAGE NO. 3

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 2+00N OPERATOR ADJUST ______ γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
11:07-	1+25W	57861				Road
09	50	859				
14	-	858				
15-	2+00	854				
16-	-	857				
17-	50	853				
19-	-	846				
20-	300	845				
21-	-	844				
22-	50	848				
23-	-	847				
24-	400	847				
25-	-	846				
27-	50	843				
29-	-	848				
31	5+00	842				
32	-	837				
33	50	835				
34-	-	848				
36	600	847				
37-	-	840				
39	50	839				
40	-	843				
41	700	840				
42	-	839				
1143-	750W	57841				

DATUM LEVELS: BASE STN: ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOU DATE Nov 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR CN PAGE NO. 4

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 200N OPERATOR ADJUST ______ γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
11:47	7+75W	57837				
48	800	835				
49	–	834				
50	50	835				
51	–	830				
52-	900	830				
53-	–	831				
54-	50	829				
56	–	827				
* 56-	1000	827				
57-	–	828				
58-	50	829				
11.59-	–	833				
1200-	1100	828				
01-	–	821				
02-	50	824				
03-	–	823				
04-	1200	820				
0B-	–	816				
07-	50	815				
08-	–	817				
09-	1300	819				
22	–	814				
23	50	816				
24	–	821				
1225	1400	821				

DATUM LEVELS: BASE STN. ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOU DATE NOV 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR RN PAGE NO. 5

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 2500 N OPERATOR ADJUST 0 γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
1227	1425W	57824				
28	50	826				
29	–	824				
–	1500	826				
30	–	828				
31-	50	831				
32-	–	818				
33-	1600	765				TRUCK 30'
34-	–	818				57817
35-	50	818				12:43-
36-	–	816				100'
37-	1700	816				
38-	–	820				
	~~50~~					
	BASE STATION					
1:00		57818	57807	–7	57811	
	~~LINE 4400 S~~					
~~1:43~~		~~57822~~				
~~1:21~~		~~57825~~				Road
~~22~~		~~827~~				
~~23-~~		~~826~~				

DATUM LEVELS: BASE STN. ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOU DATE Nov 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR RN PAGE NO. 6

MAGNETICS ☑ PROTON ☐ FLUXGATE

IR

LINE NO. 2+00 S OPERATOR ADJUST 0 γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
1:32	1375W	57823	810			
33	50	825	811			
34	–	821	811			
35	1300	821	811			
36	–	825	811			
38	50	825	811			
39 –	–	827	811			
40 –	1200	825	811			
43	–	823	812			
44	50	826	813			
45	–	824	812			
46 –	1100	821	812			
48 –	–	819	812			
49 –	50	827	812			
50 –	–	833	812			
152	1000	57829	811			
		LINE	No	4+00 S		
2:03 –	12 10+00W	57823	808			
04 –	–	825	809			
06	50	825	810			
08	–	823	808			
09 –	1100	821	809			
11	–	824	811			
12	50	824	811			
	–	822	811			

DATUM LEVELS: BASE STN: ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOV DATE Nov 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR R N PAGE NO. 7

MAGNETICS ☐ PROTON ☐ FLUXGATE

IR

LINE NO. L 4+00 S OPERATOR ADJUST ______ γ

FIELD BASE ______ READING ______ γ

TIME	STATION	READING γ	BASE STN. READING	TOTAL CORR.	FINAL VALUE γ	REMARKS
2:15 –	1200W	57825	813			
16 –	–	819	814			
17 –	50	813	815			
19	–	786	815			
20 –	1300	843	815			
22	–	832	815			
23	50	831	814			ROAD
24	–	828	814			
25	1400	827	814			~~ROAD~~
26	–	827	814			
27	50	826	814			
28 –	–	826	816			
29 –	1500	827	817			
33 –	–	833	819			
35 –	50	57831	820			
	–					
	1600					
		LINE	2+00	S		
247		57822				

DATUM LEVELS: BASE STN: ______ γ FIELD BASE ______ γ

JOB NO. 84619 AREA NOV DATE Nov 20/84

INST. TYPE G-816 SERIAL NO. ______

OPERATOR R N PAGE NO. 8

MAGNETICS ☐ PROTON ☐ FLUXGATE

IR

INDUCED POLARIZATION CALCULATION TAPES

RESISTIVITY & METAL FACTOR

"STA" - sub-surface plot point
"N" - electrode spacing multiplier
"M" - percent frequency effect
"Pa" - apparent resistivity
"MF" - metal factor

AREA :NOV
DATE :NOV. 20, 1984
LINE :2+00 N

STA	N	M	Pa	MF
1263	1	15.0	42	356
1250	2	19.0	3	5719
1238	1	14.5	18	826
1238	3	20.0	3	6394
1225	2	15.0	6	2497
1213	1	15.0	5	2836
1225	4	-5.0	5	-1061
1213	3	20.0	2	10610
1200	2	-1.0	1	-987
1188	1	20.0	3	7748
1213	5	20.0	11	1902
1200	4	-1.0	4	-274
1188	3	-1.0	1	-679
1175	2	20.0	1	34105
1163	1	16.5	5	3257
1225	6	-1.0	8	-121
1200	6	20.0	3	7579
1188	5	14.5	8	1715
1175	4	9.5	4	2304
1163	3	20.0	2	13171
1150	2	15.0	12	1240
1138	1	20.0	23	859
1175	6	-1.0	9	-114
1163	5	-1.0	5	-218
1150	4	-1.0	1	-687
1138	3	12.0	11	1111
1125	2	20.0	13	1541
1150	6	-1.0	8	-132
1138	5	-1.0	2	-420
1125	4	-1.0	3.-02	-38
197				
~~1113~~	~~3~~	~~-1.0~~	~~271069~~	~~4~~
~~.-03~~				
1113	3	-1.0	3	-368
1125	6	-5.0	5	-1003
1113	5	-1.0	8	-128
1100	4	-1.0	8	-131
1100	6	-1.0	8	-122
1088	5	-1.0	6	-166
1075	6	-1.0	12	-85
1288	1	10.5	185	57
1275	2	15.5	31	506
1263	3	-1.0	2	-424
1250	4	-1.0	3	-292
1238	5	-1.0	7	-142
1313	1	9.5	92	103
1300	2	13.5	53	252
1288	3	12.0	16	733
1275	4	-5.0	2	-2231
1263	5	-5.0	5	-1044
1250	6	-5.0	10	-521
1325	2	11.0	68	161
1313	3	15.0	39	385
1300	4	13.0	21	620
1288	5	17.5	2	7639
1275	6	20.0	5	4263
1338	3	14.0	43	326
1325	4	16.5	29	569
1313	5	14.5	19	748
1300	6	18.0	2	8296
1350	4	15.0	60	249
1338	5	15.0	45	331
1325	6	11.0	35	315
1363	5	17.0	36	474
1350	6	-1.0	31	-33
1375	6	-1.0	18	-54
1525	6	-1.0	49	-20
1500	6	16.0	160	100
1513	5	13.5	168	80
1475	6	13.0	117	112
1488	5	11.0	199	55
1500	4	9.0	203	44
1450	6	14.0	97	144
1463	5	11.5	79	146
1475	4	9.5	137	69
1488	3	8.0	176	46
1425	6	18.0	68	264
1438	5	12.5	86	146
1450	4	9.5	70	136
1463	3	8.0	133	60
1475	2	6.5	194	34
1400	6	-1.0	43	-23
1413	5	15.0	76	199
1425	4	13.5	91	149
1438	3	9.5	69	138
1450	2	6.5	133	49
1463	1	6.0	173	35
1388	5	15.0	53	280
1400	4	12.0	89	134
1413	3	10.0	98	102
1425	2	8.0	71	113
1438	1	6.5	95	68
1375	4	11.5	117	98
1388	3	10.0	170	59
1400	2	5.0	186	27
1413	1	6.5	94	69
1363	3	12.5	173	72
1375	2	9.5	260	37
1388	1	3.0	294	10
1350	2	14.0	131	107
1363	1	11.0	160	69
1338	1	8.5	167	51
1488	1	10.0	140	71
1500	2	9.5	123	77
1488	1	6.0	102	59
1513	3	11.5	130	88
1525	2	7.5	102	74
1538	1	6.0	117	51
1525	4	13.5	103	132
1538	3	10.5	84	125
1550	2	6.5	104	62
1563	1	4.5	137	33
1538	5	14.0	27	523
1550	4	14.0	21	670
1563	3	11.0	23	479
1575	2	8.5	30	283
1588	1	3.5	45	77
1550	6	13.5	40	334
1563	5	13.5	29	468
1575	4	10.5	27	390
1588	3	10.0	30	331
1600	2	8.5	40	213
1613	1	2.5	175	14
1575	6	14.0	30	462
1588	5	13.0	27	474
1600	4	11.5	30	380
1613	3	10.0	34	298
1625	2	3.5	106	33
1600	6	13.5	30	457
1613	5	13.0	34	388
1625	4	11.5	37	310
1637	3	4.5	108	42
1625	6	13.0	44	294
1638	5	12.5	50	250
1650	4	7.0	137	51
1650	6	14.5	52	277
1663	5	11.5	134	86

AREA :NOV
DATE :NOV 18
LINE :0+00

STA	N	M	Pa	MF
1675	6	20.0	21	953
1588	5	17.0	28	605
1575	6	-1.0	31	-32
1650	4	10.5	84	125
1637	5	15.0	108	139
1625	6	-1.0	20	-49
1637	3	20.0	37	534
1625	4	16.0	74	217
1613	5	20.0	20	1022
1600	6	20.0	25	787
1625	2	15.0	37	402
1613	3	13.5	53	256
1600	4	-1.0	12	-86
1588	5	-1.0	12	-86
1575	6	-1.0	16	-64
1613	1	16.0	23	695
1600	2	15.5	25	630
1588	3	-1.0	9	-111
1575	4	-1.0	13	-75
1563	5	-5.0	46	-110
1550	6	-1.0	35	-29
1588	1	17.0	53	321
1575	2	19.0	15	1239
1563	3	-1.0	19	-53
1550	4	20.0	55	362
1538	5	-1.0	31	-32
1525	6	-1.0	36	-28
1563	1	18.5	27	685
1550	2	17.0	39	437
1538	3	14.0	47	297
1525	4	14.0	79	177
1538	1	13.0	73	179
1525	2	18.0	31	582
1513	3	17.5	41	424
1513	1	10.5	75	139
1500	2	15.5	21	748
1488	1	10.0	77	130
1438	1	13.0	140	93
1450	2	16.5	44	372
1463	3	-1.0	24	-41
1475	4	-1.0	18	-56
1488	5	-1.0	52	-19
1500	6	-1.0	82	-12
1425	2	15.5	119	131
1438	3	-1.0	37	-27
1450	4	-1.0	22	-45
1463	5	-1.0	31	-32
1475	6	-1.0	46	-22
1413	3	15.0	128	117
1425	4	-1.0	32	-31
1438	5	-1.0	29	-35
1450	6	-1.0	53	-19
1400	4	19.0	67	282
1413	5	-1.0	19	-52
1425	6	20.0	12	1652
1388	5	20.0	62	323
1400	6	-1.0	18	-56
1375	6	-1.0	~~289~~ 29	-3 checked
1463	1	9.5	76	124
1475	2	13.5	38	357
1488	3	15.0	16	936
1500	4	12.0	51	236
1513	5	5.0	93	54
1413	1	9.0	151	60
1400	2	11.5	185	62
1388	1	8.0	200	40
1388	3	11.5	116	99
1375	2	9.5	129	73
1363	1	7.0	112	62
1375	4	12.0	115	104
1363	3	10.5	171	62
1350	2	8.5	149	57
1338	1	7.5	195	39
1363	5	-1.0	59	-17
1350	4	8.0	84	95
1338	3	9.5	93	102
1325	2	8.5	136	63
1313	1	8.0	103	78
1350	6	-1.0	58	-17
1338	5	-1.0	68	-15
1325	4	12.5	87	143
1313	3	9.0	143	63
1300	2	9.0	144	63
1288	1	8.0	205	39
1325	6	-1.0	73	-14
1313	5	13.0	94	138
1300	4	10.5	164	64
1288	3	9.0	186	48
1275	2	9.0	285	32
1300	6	-1.0	69	-15
1288	5	11.0	133	83
1275	4	9.5	147	64
1263	3	8.5	256	33
1275	6	11.5	84	137
1263	5	10.5	101	104
1250	4	8.5	168	51
1250	6	11.5	75	153
1238	5	10.0	127	79
1225	6	16.0	103	155

1263	1	10.5	225	47
1250	2	10.0	210	48
1238	1	12.5	169	74
1238	3	10.5	141	74
1225	2	11.0	147	75
1213	1	11.0	177	62
1225	4	10.5	108	97
1213	3	13.0	113	115
1200	2	10.0	169	59
1188	1	11.0	199	55
1213	5	11.0	81	136
1200	4	11.0	87	126
1188	3	13.0	126	103
1175	2	10.5	191	55
1163	1	19.0	204	93
1200	6	18.0	48	379
1188	5	-1.0	53	-19
1175	4	13.0	88	147
1163	3	12.0	132	91
1150	2	11.0	184	60
1138	1	10.5	208	51
1175	6	-1.0	25	-40
1163	5	14.0	36	387
1150	4	13.0	62	211
1138	3	11.5	92	126
1125	2	11.0	136	81
1150	6	-1.0	21	-48
1138	5	17.0	30	566
1125	4	15.0	50	302
1113	3	13.5	80	170
1125	6	20.0	10	1929
1113	5	17.0	18	933
1100	4	15.0	32	464
1100	6	-1.0	12	-81
1088	5	16.0	19	824
1075	6	-1.0	12	-80

1113	1	12.5	169	74
1100	2	13.5	136	99
1088	1	10.5	213	49
1088	3	20.0	51	393
1075	2	18.0	116	155
1063	1	10.5	135	78
1075	4	17.0	36	466
1063	3	13.0	83	157
1050	2	11.0	133	83
1037	1	9.5	234	41
1063	5	20.0	14	1396
1050	4	18.5	38	484
1038	3	17.0	64	267
1025	2	12.5	151	83
1013	1	11.0	144	76
1050	6	-1.0	14	-71
1038	5	15.0	30	502
1025	4	15.0	57	263
1013	3	13.0	133	98
1000	2	12.5	166	75
988	1	8.0	239	34
1025	6	-1.0	14	-71
1013	5	-1.0	26	-39
1000	4	14.5	74	197
988	3	15.5	93	167
975	2	10.5	166	63
1000	6	15.0	14	1111
988	5	19.0	34	554
975	4	14.5	54	268
963	3	14.0	98	142
975	6	18.0	16	1116
963	5	20.0	22	917
950	4	14.5	50	289
950	6	20.0	20	979
938	5	19.5	51	383
925	6	20.0	44	457

AREA :NOV

DATE :NOV. 21, 1984

LINE :2+00 S

STA	N	M	Pa	MF
1413	1	9.5	172	55
1425	2	13.5	93	144
1438	1	10.5	148	71
1438	3	19.5	59	331
1450	2	16.5	104	159
1463	1	12.5	138	91
1450	4	20.0	16	1232
1463	3	20.0	25	813
1475	2	19.5	37	529
1488	1	20.0	34	585
1463	5	19.5	28	704
1475	4	17.5	40	442
1488	3	14.5	63	230
1500	2	14.5	68	214
1513	1	20.0	36	555
1450	6	20.0	21	965
1475	6	10.0	49	204
1488	5	9.0	75	120
1500	4	6.5	135	48
1513	3	6.5	170	38
1525	2	11.5	125	92
1538	1	14.5	94	154
1500	6	8.0	38	209
1513	5	6.0	69	87
1525	4	7.5	97	78
1538	3	11.5	88	131
1550	2	13.5	75	179
1525	6	11.0	51	215
1538	5	11.0	68	162
1550	4	16.5	59	280
1563	3	19.5	32	607
1550	6	11.5	97	118
1563	5	16.0	88	183
1575	4	18.5	47	391
1575	6	20.0	60	334
1588	5	20.0	33	599
1600	6	20.0	50	397
1388	1	18.0	27	679
1400	2	20.0	19	1032
1413	3	20.0	22	895
1425	4	20.0	29	693
1438	5	20.0	12	1721
1363	1	19.5	75	259
1375	2	16.0	33	488
1388	3	18.0	34	527
1400	4	20.0	43	470
1413	5	18.0	51	355
1425	6	20.0	22	901
1350	2	20.0	56	360
1363	3	18.5	27	673
1375	4	20.0	31	638
1388	5	20.0	38	528
1400	6	20.0	42	476
1338	3	18.0	71	255
1350	4	14.5	40	365
1363	5	15.5	46	339
1375	6	14.5	52	277
1325	4	18.5	52	353
1338	5	15.0	29	526
1350	6	16.0	32	495
1313	5	16.0	29	554
1325	6	11.0	15	715
1300	6	19.0	36	534
1150	6	-1.0	+3.-02	-37 894
1163	5	14.0	19	755
1175	6	15.5	28	548
1175	4	13.0	40	321
1188	5	15.0	62	242
1200	6	7.0	26	265
1188	3	16.0	47	338
1200	4	15.0	77	196
1213	5	12.0	29	417
1225	6	-1.0	32	-31
1200	2	13.5	42	324
1213	3	17.0	68	251
1225	4	13.5	21	647
1238	5	16.5	24	680
1250	6	15.0	35	434
1213	1	16.0	43	370
1225	2	20.0	68	295
1238	3	16.0	17	947
1250	4	17.0	22	759
1263	5	18.0	28	648
1275	6	19.0	21	890
1238	1	14.5	358	41
1250	2	14.0	46	306
1263	3	20.0	44	456
1275	4	13.5	55	247
1288	5	16.5	42	397
1263	1	14.5	21	706
1275	2	20.0	29	679
1288	3	9.5	39	244
1300	4	13.0	32	404
1288	1	18.0	214	84
1300	2	18.5	90	206
1313	3	18.0	68	263
1313	1	18.0	90	199
1325	2	17.0	90	189
1338	1	14.5	136	106

AREA :NOV
DATE :NOV 17
LINE :12+00 S

STA	N	M	Pa	MF
~~[illegible]~~				
288	1	11.0	323	34
275	2	20.0	93	215
262	3	-5.0	15	-337
250	4	-1.0	26	-38
238	5	-1.0	27	-36
263	1	8.0	606	13
250	2	11.5	128	90
238	3	-5.0	12	-403
225	4	-5.0	32	-157
238	1	5.5	695	8
225	2	20.0	28	720
213	3	20.0	8	2612
213	1	7.5	238	31
200	2	20.0	11	1744
188	1	10.5	181	58
163	1	10.5	506	21
175	2	20.0	23	870
188	3	-5.0	30	-167
200	4	-5.0	43	-117
213	5	-5.0	56	-90
138	1	13.0	79	164
150	2	20.0	12	1639
163	3	20.0	11	1787
125	2	20.0	4	4468

AREA :NOV 1
DATE :NOV 16
LINE :14+00 S

Ns Loop 7 2763

STA	N	M	Pa	MF
88	1	20.0	15	1314
75	2	20.0	19	1067
63	3	20.0	18	1122
50	4	16.0	7	2328
0	0	0.0	0	0
63	1	19.0	30	642
50	2	18.5	29	636
38	3	16.0	11	1460
25	4	20.0	12	1632
38	1	20.0	22	930
25	2	20.0	7	2798
13	3	20.0	8	2472
13	1	15.0	80	187
0	2	19.0	28	680
-13	1	12.0	122	98
-38	1	8.5	97	87
-25	2	18.0	38	470
-13	3	11.0	29	378
0	4	20.0	8	2588
13	5	20.0	9	2136
~~-63~~	~~1~~	~~10.0~~	~~101~~	~~99~~
~~-50~~	~~2~~	~~10.0~~	~~17~~	~~709~~
~~-50~~	~~2~~	~~24.0~~	~~115~~	~~209~~
-63	1	10.0	101	99
-50	2	20.0	10	2105
-38	3	17.5	11	1533
-25	4	17.5	8	2159
~~-13~~	~~5~~	~~20.0~~	~~3.02~~	~~699~~
582				
~~0~~	~~6~~	~~20.0~~	~~3~~	~~5983~~
~~0~~	~~6~~	~~20.0~~	~~3~~	~~5983~~
-13	5	20.0	3	6996
~~0~~	~~6~~	~~20.0~~	~~3~~	~~4372~~
0	6	20.0	3	5983
-75	2	15.0	11	1391
-63	3	14.0	7	1922
-50	4	12.0	11	1098
~~-38~~	~~1~~	~~1.0~~	~~5.04~~	~~2122~~
066				
-38	5	11.0	8	1323
-25	6	20.0	3	6375
-88	3	0.0	0	0
-75	4	20.0	9	2305
68	5	20.0	13	1565
-50	6	NR		
100	4	NR		
87.5	5	NR		
75	6	NR		
112.5	5	NR		
100	6	NR		
125	6	NR		

MAGNETIC CALCULATION TAPES

LINE= 2+00 N
STA INT= 25
DATUM= 57800 OP ADJ= 0
RANGE 57000

STATN	FIELD	COR	FINAL
125	57861	-5	57856
150	57859	-5	57854
175	57858	-4	57854
200	57854	-4	57850
225	57857	-4	57853
250	57853	-4	57849
275	57846	-4	57842
300	57845	-4	57841
325	57844	-3	57841
350	57848	-3	57845
375	57847	-4	57843
400	57847	-5	57842
425	57846	-6	57840
450	57843	-5	57838
475	57848	-4	57844
500	57842	-4	57838
525	57837	-4	57833
550	57835	-4	57831
575	57848	-4	57844
600	57847	-4	57843
625	57840	-4	57836
650	57839	-4	57835
675	57843	-4	57839
700	57840	-4	57836
725	57839	-3	57836
750	57841	-3	57838
775	57837	-3	57834
800	57835	-3	57832
825	57834	-3	57831
850	57835	-3	57832
875	57830	-3	57827
900	57830	-3	57827
925	57831	-4	57827
950	57829	-4	57825
975	57827	-5	57822
1000	57827	-4	57823
1025	57828	-5	57823
1050	57829	-6	57823
1075	57833	-6	57827
1100	57828	-6	57822
1125	57821	-7	57814
1150	57824	-7	57817
1175	57823	-7	57816
1200	57820	-7	57813
1225	57816	-7	57809
1250	57815	-8	57807
1275	57817	-8	57809
1300	57819	-8	57811
1325	57814	-4	57810
1350	57816	-4	57812
1375	57821	-4	57817
1400	57821	-4	57817
1425	57824	-4	57820
1450	57826	-4	57822
1475	57824	-4	57820
1500	57826	-4	57822
1525	57828	-4	57824
1550	57831	-4	57827
1575	57818	-4	57814
1600			
1625	57818	-4	57814
1650	57818	-3	57815
1675	57816	-3	57813
1700	57816	-3	57813
1725	57820	-3	57817

LINE= 0+00
STA INT= 25
DATUM= 57800 OP ADJ= 0
RANGE 57000

STATN	FIELD	COR	FINAL
1775	57810	3	57813
1750	57811	2	57813
1725	57813	2	57815
1700	57805	2	57807
1675	57816	2	57818
1650	57814	2	57816
1625	57802	2	57804
1600	57813	1	57814
1575	57810	1	57811
1550	57814	0	57814
1525	57815	0	57815
1500	57818	0	57818
1475	57816	0	57816
1450	57820	0	57820
1425	57820	1	57821
1400	57826	1	57827
1375	57821	2	57823
1350	57825	2	57827
1325	57824	2	57826
1300	57830	2	57832
1275	57823	3	57826
1250	57819	3	57822
1225	57825	3	57828
1200	57820	3	57823
1175	57816	3	57819
1150	57816	3	57819
1125	57819	2	57821
1100	57814	3	57817
1075	57823	3	57826
1050	57827	3	57830
1025	57832	2	57834
1000	57828	2	57830
975	57827	2	57829
950	57826	1	57827
925	57830	1	57831
900	57831	0	57831
875	57831	0	57831
850	57833	0	57833
825	57834	0	57834
800	57833	0	57833
775	57830	0	57830
750	57827	-1	57826
725	57824	-2	57822
700	57827	-3	57824
675	57838	-4	57834
650	57839	-5	57834
625	57839	-5	57834
600	57840	-5	57835
575	57842	-6	57836
550	57837	-5	57832
525	57846	-5	57841
500	57844	-5	57839
475	57845	-5	57840
450	57845	-6	57839
425	57852	-7	57845
400	57849	-8	57841
375	57852	-8	57844
350	57854	-8	57846
325	57864	-9	57855
300	57861	-9	57852
275	57863	-9	57854
250	57871	-9	57862
225	57881	-10	57871
200	57870	-9	57861
175	57870	-10	57860
150	57871	-9	57862
125	57870	-10	57860
100	57872	-11	57861
75	57871	-10	57861
50	57869	-10	57859
25	57873	-9	57864
0	57869	-9	57860

LINE= 2+00 S
STA INT= 25
DATUM= 57800 OP ADJ= 0
RANGE 57000

STATN	FIELD	COR	FINAL
✓ 1000	57829	-11	57818
1025	57833	-12	57821
1050	57827	-12	57815
1075	57819	-12	57807
1100	57821	-12	57809
1125	57824	-12	57812
1150	57826	-13	57813
1175	57823	-12	57811
1200	57825	-11	57814
1225	57827	-11	57816
1250	57825	-11	57814
1275	57825	-11	57814
1300	57821	-11	57810
1325	57821	-11	57810
1350	57825	-11	57814
✓ 1375	57823	-10	57813

LINE= 4+00 S
STA INT= 25
DATUM= 57800 OP ADJ= 0
RANGE 57000

STATN	FIELD	COR	FINAL
1000	57823	-8	57815
1025	57825	-9	57816
1050	57825	-10	57815
1075	57823	-8	57815
1100	57821	-9	57812
1125	57824	-11	57813
1150	57824	-11	57813
1175	57822	-11	57811
1200	57825	-13	57812
1225	57819	-14	57805
1250	57813	-15	57798
1275	57786	-15	57771
1300	57813	-15	57798
1325	57832	-15	57817
1350	57831	-14	57817
1375	57828	-14	57814
1400	57827	-14	57813
1425	57827	-14	57813
1450	57826	-14	57812
1475	57826	-16	57810
1500	57827	-17	57810
1525	57833	-19	57814
1550	57831	-20	57811


INTERPRETEX RESOURCES LTD.
DIPOLE - DIPOLE ARRAY PSEUDOSECTIONS
1800W 1700W 1600W 1500W 1400W 1300W 1200W 1100W 1000W 900W 800W 700W 600W 500W 400W 300W 200W 100W 0
M OR PFE
ρa
MF
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
57900 γ -
MAGNETICS
57800 γ -
VLF EM (Seattle) 1 cm. = 10 %
S-D S S D D D D
LINE 0+00
IP SURVEY
NOV CLAIMS
LIKELY B.C.
SCALE: 1:2500 FIGURE: 5
DATE: DEC./84 NTS: 93A/11 & 12
APEX ENERGY CORP.
GEOLOGICAL BRANCH ASSESSMENT REPORT
13,306


INTERPRETEX RESOURCES LTD.
DIPOLE - DIPOLE ARRAY PSEUDOSECTIONS
1700 W
1600 W
1500 W
1400 W
1300 W
1200 W
1100 W
1000 W
M OR PFE
ρa
MF
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
57900 γ -
MAGNETICS
57800 γ -
VLF EM
(Seattle)
1 cm. = 10 %
LINE 2+00 S
IP SURVEY
NOV CLAIMS
LIKELY B.C.
SCALE: 1:2500
FIGURE: 6
DATE: DEC./84
NTS: 93A/11 & 12
APEX ENERGY CORP.
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,306
D
S
D
M
1500 W
1400 W
1300 W
1200 W
1100 W
1000 W
LINE 4+00 S MAGNETIC PROFILE

INTERPRETEX RESOURCES LTD.

DIPOLE - DIPOLE ARRAY PSEUDOSECTIONS

LINE 12+00 S & 14+00 S

I P SURVEY

NOV CLAIMS

LIKELY B.C.

SCALE: 1:2500 | FIGURE: 7

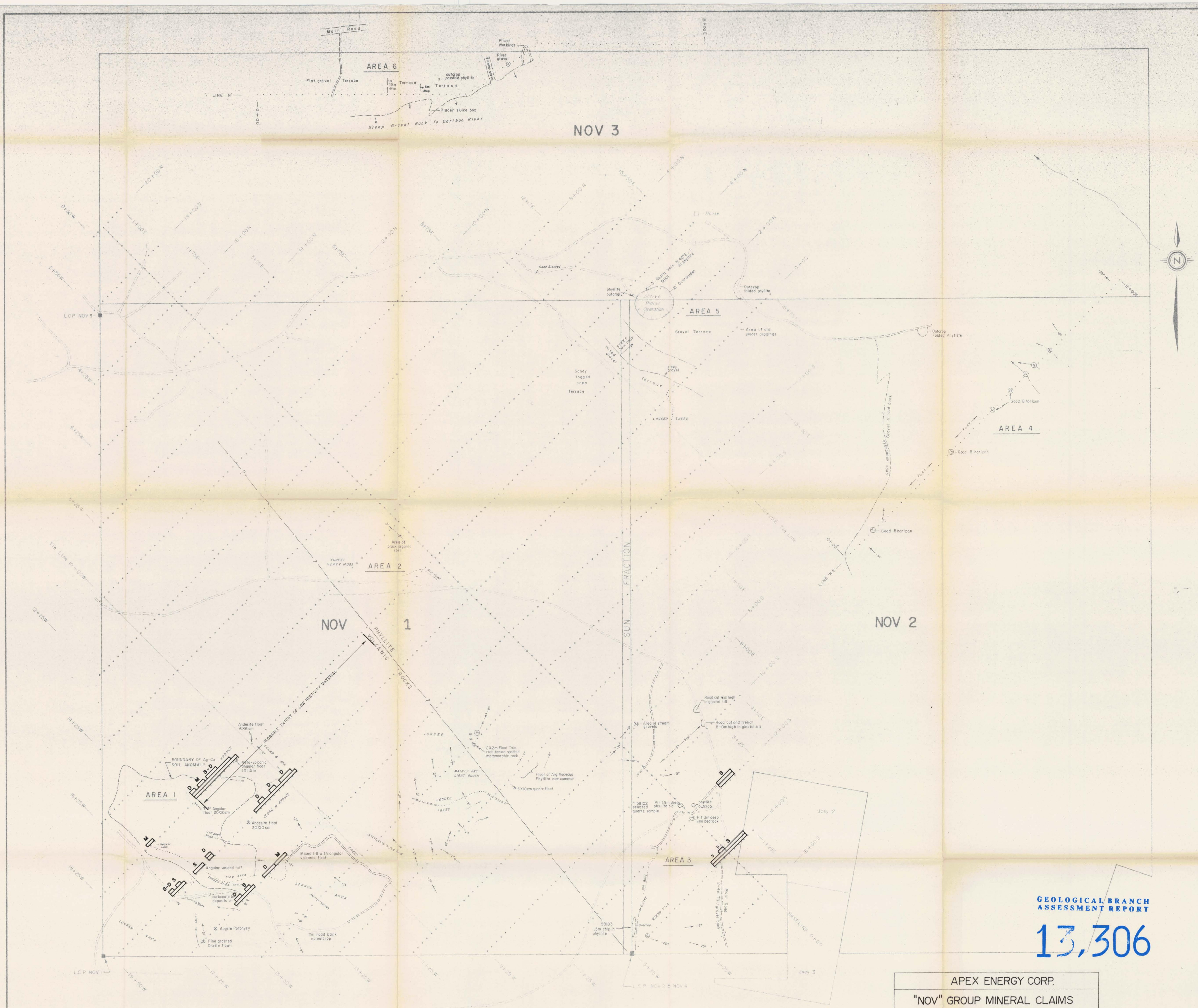
DATE: DEC./84 | NTS: 93A/11 & 12

APEX ENERGY CORP.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,306

INTERPRETEX RESOURCES LTD.
DIPOLE - DIPOLE ARRAY PSEUDOSECTIONS
1800 W
1700 W
1600 W
1500 W
1400 W
1300 W
1200 W
1100 W
1000 W
900 W
800 W
700 W
600 W
500 W
400 W
300 W
200 W
100 W
M OR PFE
ρa
MF
n = 1
n = 2
n = 3
n = 4
n = 5
n = 6
PROBABLE EXTENT OF LOW RESISTIVITY MATERIAL
57900 γ
MAGNETICS
57800 γ
NR
VLF EM (Seattle)
1 cm. = 10 %
D
M
S - D
LINE 2+00N
IP SURVEY
NOV CLAIMS
LIKELY B.C.
SCALE: 1:2500
FIGURE: 4
DATE: DEC./84
NTS: 93A/11 & 12
APEX ENERGY CORP.
GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,306



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,306

APEX ENERGY CORP.

"NOV" GROUP MINERAL CLAIMS
LIKELY, B. C.

GEOPHYSICAL INTERPRETATION MAP

TO ACCOMPANY REPORT BY: E. R. ROCKEL

INTERPRETEX RESOURCES LTD	SCALE: 1:5000	DATE: DEC., 1984
	PROJECT NO. 84619	FIGURE NO.: 3
	N.T.S.: 93A/11W & 12E	DRAWN BY:

LEGEND (GEOPHYSICAL)

METAL FACTOR VALUE 500 - 1000
" " " 1000 - 5000
" " " 5000 +
S DEPTH ESTIMATE 0 - 30 meters
M " " 30 - 60 "
D " " 60 + "

LEGEND

CREEK
3° SLOPE DIRECTION & ANGLE
ROAD
FLOAT
AREA 1-6 = ANOMALOUS GEOCHEMICAL AREAS

APEX ENERGY CORP.

"NOV" GROUP MINERAL CLAIMS
CARIBOO MINING DIVISION LIKELY, B.C.

GEOLOGICAL NOTES

SCALE = 1: 5000
Metreres 100 0 100 200 300 400 500 Metres

MAP 93A/11W & 12E

FIGURE 3 BY: R. HRKAC