63.2139

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REPORT ON GLATZ PROPERTY

VICTORIA ALGOMA MINERAL COMPANY LIMITED

DRYDEN AREA ONTARIO

OCTOBER 9TH, 1966
VANCOUVER, B.C.

ROSS KIDD, P. ENG.
MINING ENGINEER

SUMMARY

SEVERAL MINERALIZED OUTCROPS OF DIORITE OCCUR IN THE CENTRAL SECTION OF THE PROPERTY. ASSAYS IN THE ORDER OF 0.40% COPPER AND 0.20% NICKEL ARE OBTAINED FROM THESE OUTCROPS.

AN ELECTROMAGNETIC SURVEY HAS BEEN COMPLETED ON THE CENTRAL 9 CLAIMS, AND SEVERAL INTERESTING CONDUCTORS HAVE BEEN FOUND NEAR THE MINERALIZED OUTCROPS.

DRILLING OF THE CONDUCTORS IS RECOMMENDED.

LOCATION AND ACCESSIBILITY

THE PROPERTY IS LOCATED ABOUT 30 MILES SOUTH OF DRYDEN, ONTARIO, BETWEEN DINORWIC LAKE AND UPPER MANITOU LAKE. A LOCATION MAP ACCOMPANIES THIS REPORT.

THE SOUTH LIMITS ROAD OF THE DRYDEN PAPER COMPANY PASSES THROUGH THE WESTERLY CLAIMS, AND ROUGH TRACTOR ROADS RUN EASTERLY FROM THIS ROAD THROUGH THE CLAIMS.

PROPERTY DETAILS

THE PROPERTY CONTAINS 56 CONTIGUOUS AND UNPATENTED MINING CLAIMS. THESE CLAIMS ARE NUMBERED AS FOLLOWS:

K 38593 TO 38600

K 38960

K 39408 TO 39454

THE LOCATIONS OF THE INDIVIDUAL CLAIMS IS SHOWN ON ACCOMPANYING MAPS. THE K 39 CLAIMS ARE SHOWN WITH THE K 39 PREFIX OMITTED.

HISTORY of PROPERTY

THERE IS NO EVIDENCE OF PREVIOUS STAKING OR LINECUTTING ON THE CLAIMS, NOR IS THERE ANY RECORD OF WORK DONE OR STAKING IN THE FILES OF THE ONTARIO DEPARTMENT OF MINES. IT IS CONCLUDED THAT NO PREVIOUS WORK HAS BEEN DONE.

GEOLOGY

THE GENERAL GEOLOGY, AS TAKEN FROM MAPS 42c AND 50E OF THE ONTARIO DEPARTMENT OF MINES, IS SHOWN ON AN ACCOMPANYING MAP.

THE PROPERTY LIES LARGELY WITHIN ANDESITIC ROCKS, ACCORDING TO MAP 42c. IT WAS NOTED DURING THE GEOPHYSICAL WORK ON THE CENTRAL NINE CLAIMS THAT THESE CLAIMS ARE LARGELY UNDERLAIN BY DIORITIC INTRUSIVES. A BAND OF DIORITES IS MAPPED ON THE ADJOINING MAP 50E TO THE NORTH, AND THE SOUTHERLY EXTENSION OF THESE ROCKS WOULD PASS THROUGH THE CENTRAL CLAIMS. IT IS CONCLUDED THAT THE PROPERTY COVERS AN ANDESITIC SERIES AND A DIORITIC INTRUSIVE COMPLEX, AND THE DIORITE-GRANITE CONTACT AREA.

A SMALL GRANITE PLUG IS MAPPED BY THE O. D. M. NEAR THE SOUTH BOUNDARY OF THE CENTRAL 9 CLAIM GROUP. A SIMILAR PLUG WAS NOTED AT THE NORTH BOUNDARY OF THESE CLAIMS DURING THE GEOPHYSICAL WORK. IT IS NOT KNOWN YET WHETHER THIS IS ONE AND THE SAME INTRUSIVE.

THE MINERALIZED OUTCROPS, WHOSE LOCATIONS ARE SHOWN ON THE ELECTROMAGNETIC RESULTS MAP, CONTAIN CHALCO-PYRITE, PYRRHOTITE, AND PYRITE IN DISSEMINATED FORM. THE

GEOLOGY (CONT'D)

MINERALIZATION OCCURS WHERE THE ROCK FRACTURING HAS BEEN MORE CLOSELY SPACED(ABOUT 1 FOOT) AND SOME SILICIFICATION USUALLY ACCOMPANIES. THE FRACTURE PATTERNS STRIKE E-W AND N45E. GENERALLY THE ROCKS ARE NOT CLOSELY FRACTURED, SO THAT THE MINERALIZATION IS SOMEWHAT PATCHY.

I TOOK THREE SAMPLES OF THE BETTER MINERALIZED MATERIAL FROM THREE OUTCROPS. THE ASSAYS RANGED FROM 0.30% TO 0.56% COPPER, AND 0.05% TO 0.36% NICKEL.

THE DIORITE HOST ROCK SEEMS TO BE A COMPLEX OF SEVERAL INTRUSIONS OF VARYING TEXTURES BUT SIMILAR COMPOSITION.

GEOPHYSICAL RESULTS

PICKET LINES WERE CUT ACROSS THE 9 CLAIM CENTRAL GROUP AT 200 FOOT SPACING, AND IN THE NORTH-SOUTH DIRECTION. A REMOTE SOURCE MAGNETIC FIELD WAS USED, AND READINGS OF THE DIP ANGLE AND QUADRATURE RESPONSE OF THE RESULTANT FIELD WERE TAKEN AT 100 FOOT INTERVALS ALONG THE PICKET LINES.

THE LOCATIONS OF THE CONDUCTORS FOUND ARE SHOWN ON THE ACCOMPANYING MAP.

CONDUCTORS A, C, AND D ARE STRONGLY CONDUCTIVE FEATURES. CONDUCTORS B AND E ARE WEAKLY CONDUCTIVE. NONE OF THE CONDUCTORS ARE MAGNETIC. CONDUCTOR F IS WEAK AND VAGUE.

CONDUCTORS A AND B LIE NEAR THE MINERALIZED OUTCROPS. THE GEOPHYSICAL EVIDENCE SUGGESTS A FAULT AS SHOWN ON THE MAP, AND THERE IS ALSO A SCARP FEATURE TOPOGRAPHICALLY AT TWO POINTS ALONG THIS FAULT.

CONCLUSIONS

1. THERE IS A REASONABLE CHANCE THAT ONE OR MORE OF THE CONDUCTORS REPRESENTS IMPORTANT SULFIDE MINERALIZATION.

THE KNOWN SURFACE SHOWINGS CONTAIN COPPER AND NICKEL VALUES, AND IT IS QUITE POSSIBLE THAT ONE OF THE CONDUCTORS IS CAUSED BY SIMILAR MINERALIZATION IN MUCH GREATER AMOUNT.

IT IS UNLIKELY THAT THE CONDUCTORS ARE DUE TO GRAPHITE, SINCE GRAPHITE IS VERY RARE IN DIORITIC ROCKS.

2. CONDUCTORS A AND C MAY BE FAULTED SEGMENTS OF THE SAME CONDUCTOR, SIMILARLY CONDUCTORS B AND D MAY ALSO BE THE SAME CONDUCTOR BEFORE FAULTING.

RECOMMENDATIONS

A. CONDUCTORS A AND B SHOULD BE EXPLORED BY DRILLING.

B. IF THE RESULTS ARE ENCOURAGING, THE OTHER CONDUCTORS SHOULD ALSO BE TESTED.

COST ESTIMATES

1000 FEET OF AXT DRILLING @ $6.00 PER FOOT	$ 6,000.00
SUPERVISION, TRANSPORTATION	2,000.00
TOTAL =	$ 8,000.00

Ross Kidd

ROSS KIDD
MINING ENGINEER

VANCOUVER, B.C.
OCTOBER 9TH, 1966

CERTIFICATE

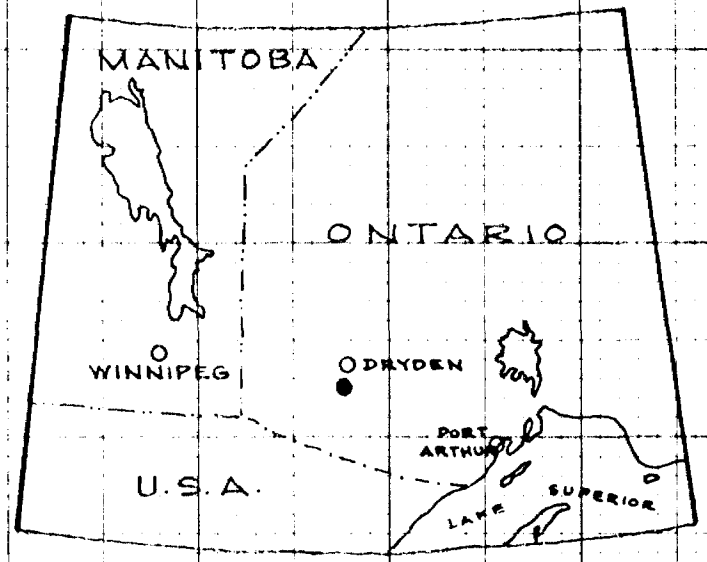
I, ROSS KIDD, OF THE CITY OF VANCOUVER, IN THE PROVINCE OF BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:

1. I AM A CONSULTING MINING ENGINEER LIVING IN WEST VANCOUVER, B.C.
2. I AM A GRADUATE OF THE UNIVERSITY OF TORONTO IN MINING ENGINEERING, 1949.
3. I HAVE BEEN PRACTISING MY PROFESSION SINCE GRADUATION.
4. I HAVE NO INTEREST, DIRECTLY OR INDIRECTLY, NOR DO I EXPECT TO RECEIVE ANY INTEREST, DIRECTLY OR INDIRECTLY, IN THE PROPERTY OR SECURITIES OF VICTORIA ALGOMA MINERAL COMPANY LIMITED.
5. THE STATEMENTS CONTAINED IN THIS REPORT ARE BASED UPON AN EXAMINATION OF THE PROPERTY ON JULY 21ST AND 22ND, 1966, AND UPON A GEOPHYSICAL SURVEY OF THE CENTRAL 9 CLAIMS CONDUCTED BY ME IN AUGUST AND SEPTEMBER, 1966, AND UPON DATA CONTAINED IN MAPS 42c AND 50E OF THE ONTARIO DEPARTMENT OF MINES.

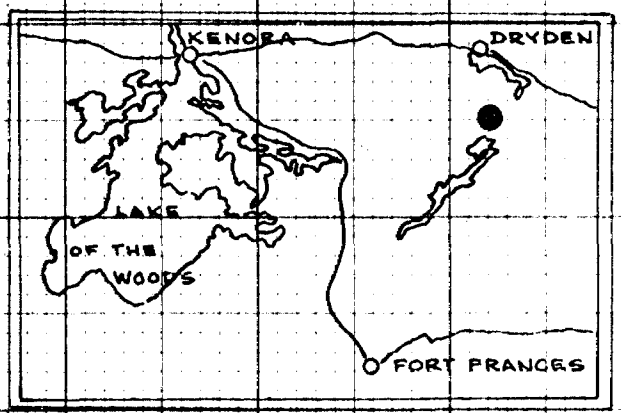
Ross Kidd

ROSS KIDD, P. ENG.
MINING ENGINEER

VANCOUVER, B.C.
OCTOBER 9TH, 1966



INDEX MAP 1 IN. = 200 MILES

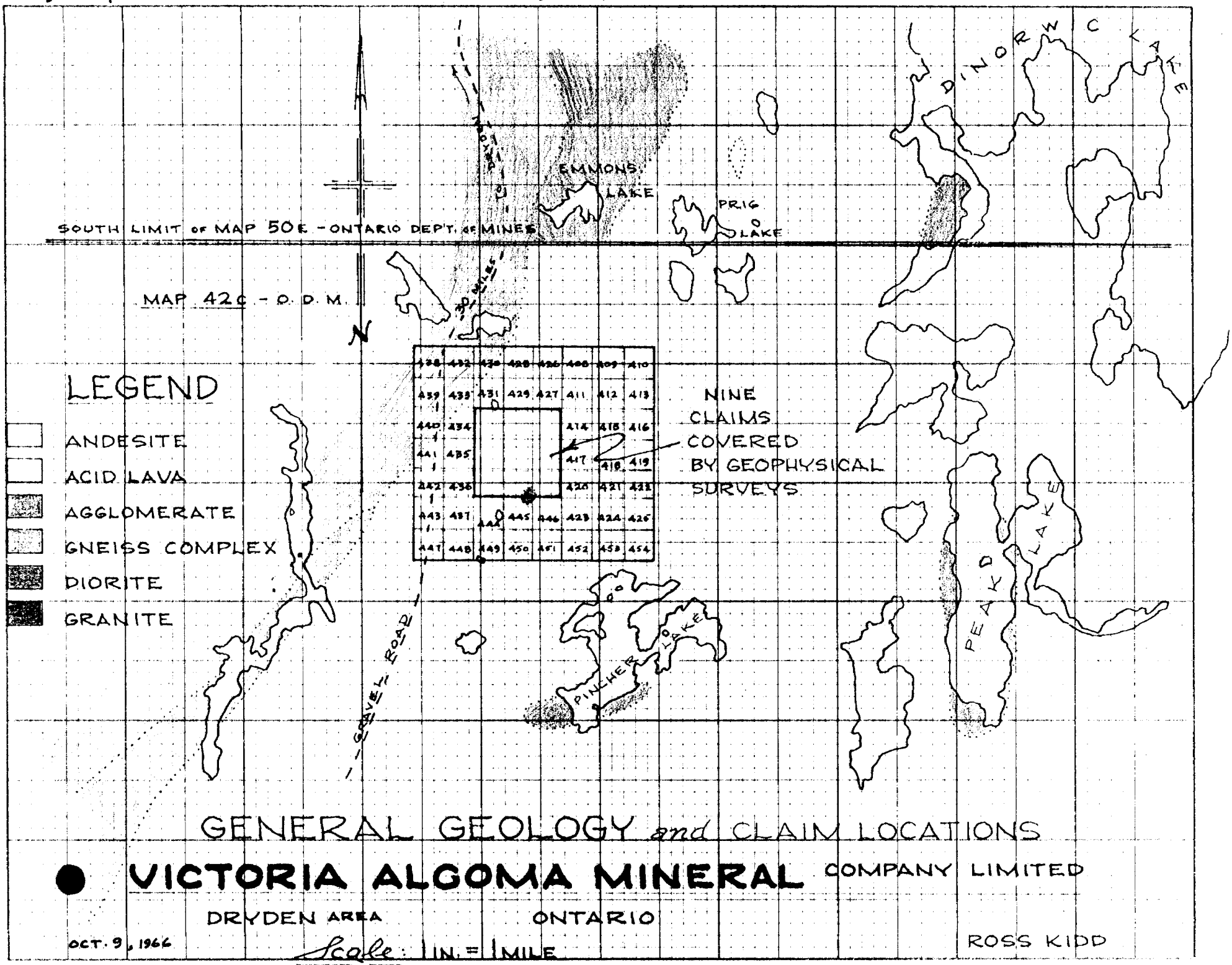


LOCATION MAPS

VICTORIA ALGOMA MINERAL COMPANY LIMITED

DRYDEN AREA ONTARIO

1 INCH = 50 MILES



GENERAL GEOLOGY and CLAIM LOCATIONS

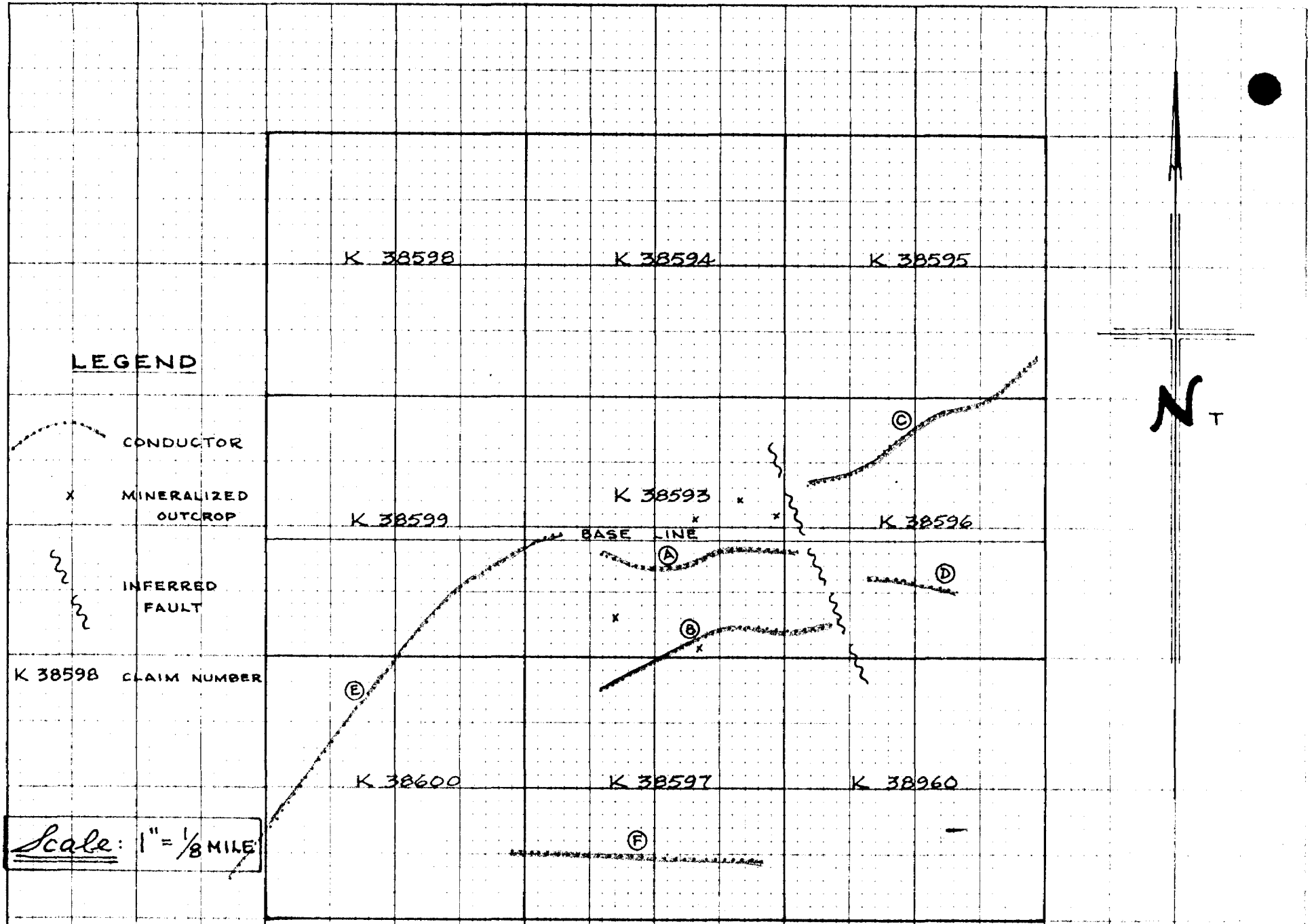
VICTORIA ALGOMA MINERAL COMPANY LIMITED

DRYDEN AREA ONTARIO

OCT. 9, 1966

Scale: 1 IN. = 1 MILE

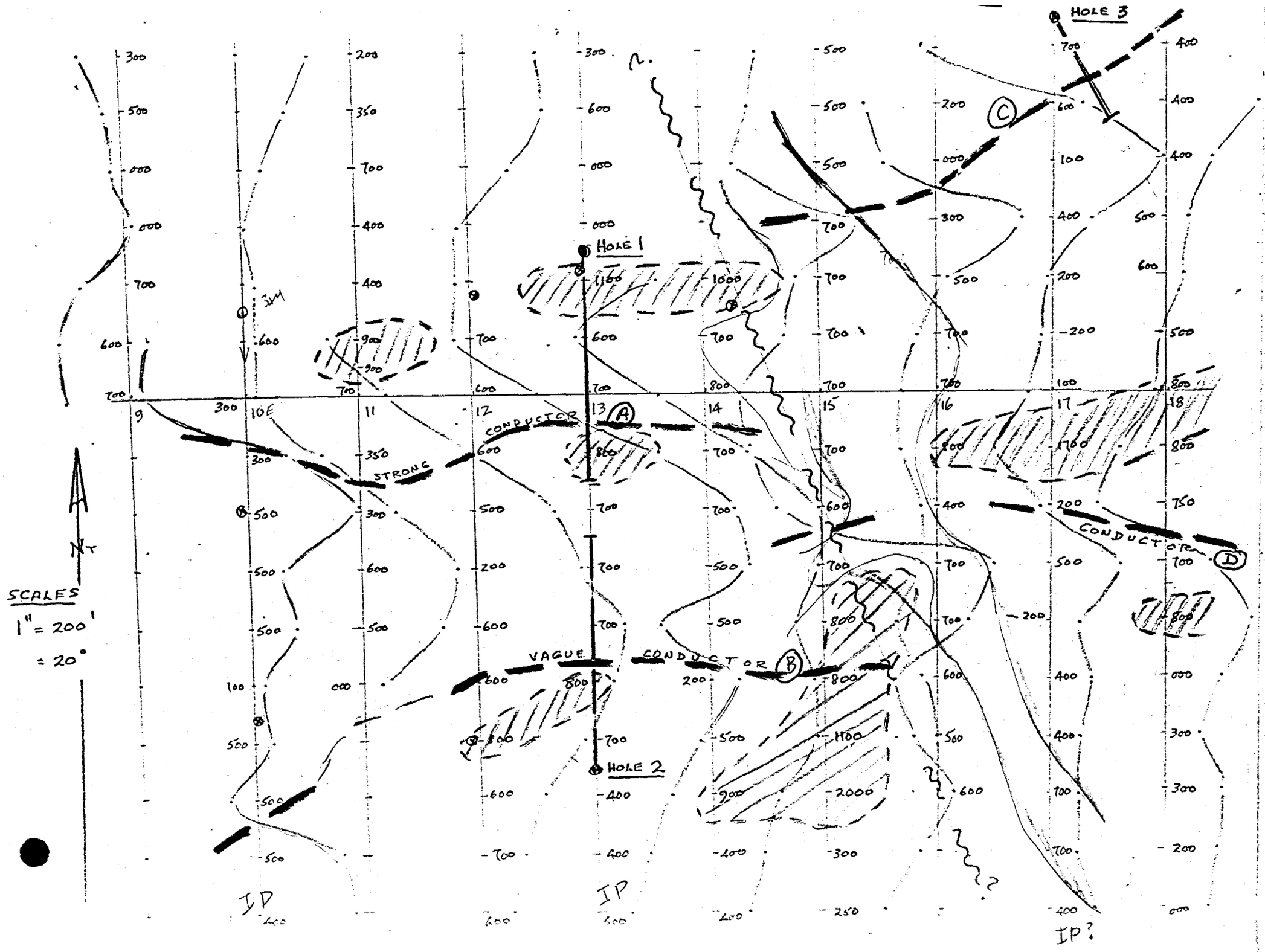
ROSS KIDD



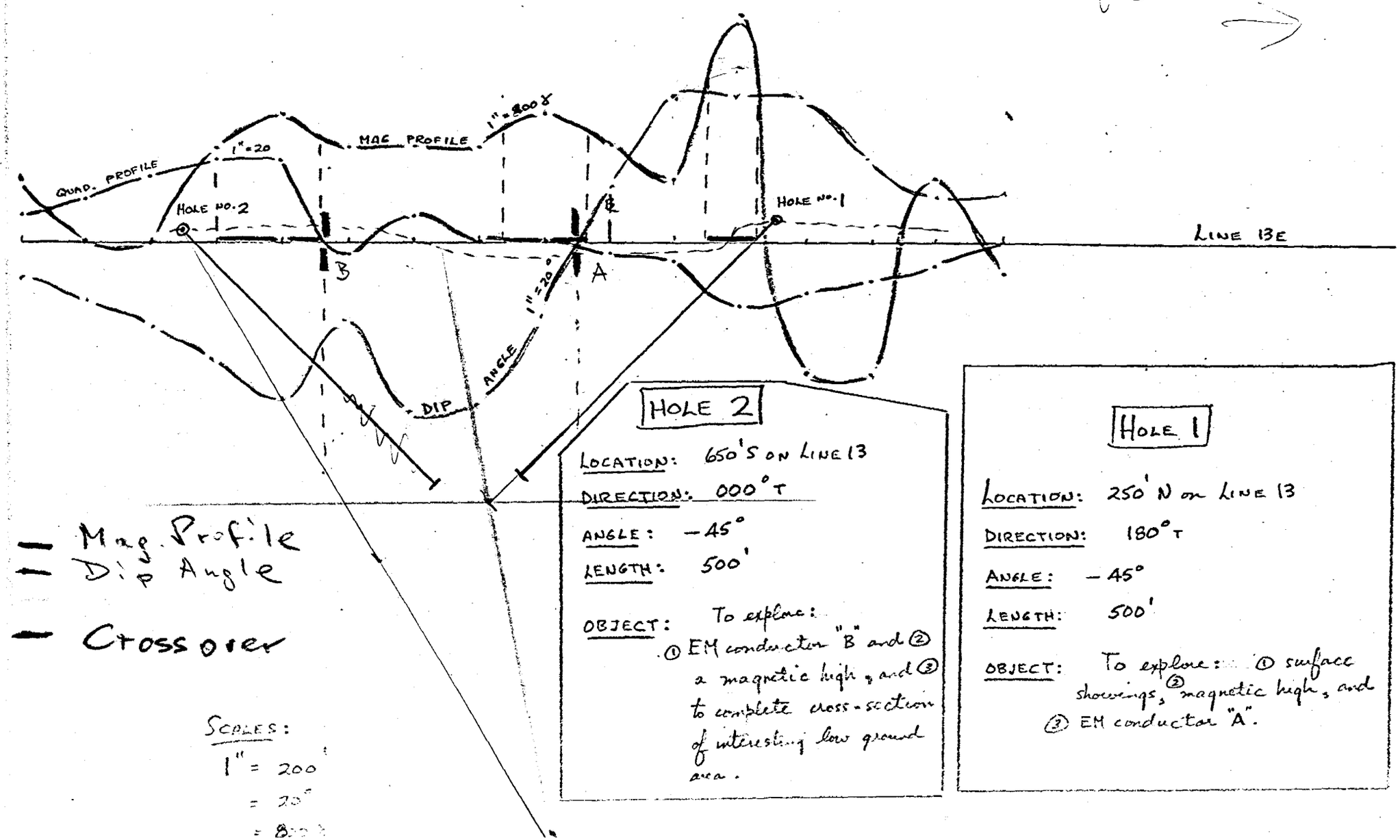
ELECTROMAGNETIC RESULTS - CENTRAL 9 CLAIMS

VICTORIA ALGOMA MINERAL COMPANY LIMITED

OCT. 9, 1966 DRYDEN AREA ONTARIO ROSS KIDD


HOLE 3
HOLE 1
HOLE 2
CONDUCTOR
STRONG
VAGUE
CONDUCTOR
CONDUCTOR
A
B
C
D
9
10E
11
12
13
14
15
16
17
18
SCALES
1" = 200'
= 20°
IP
IP
IP?

PROFILES



— Mag. Profile
— Dip Angle
— Crossover

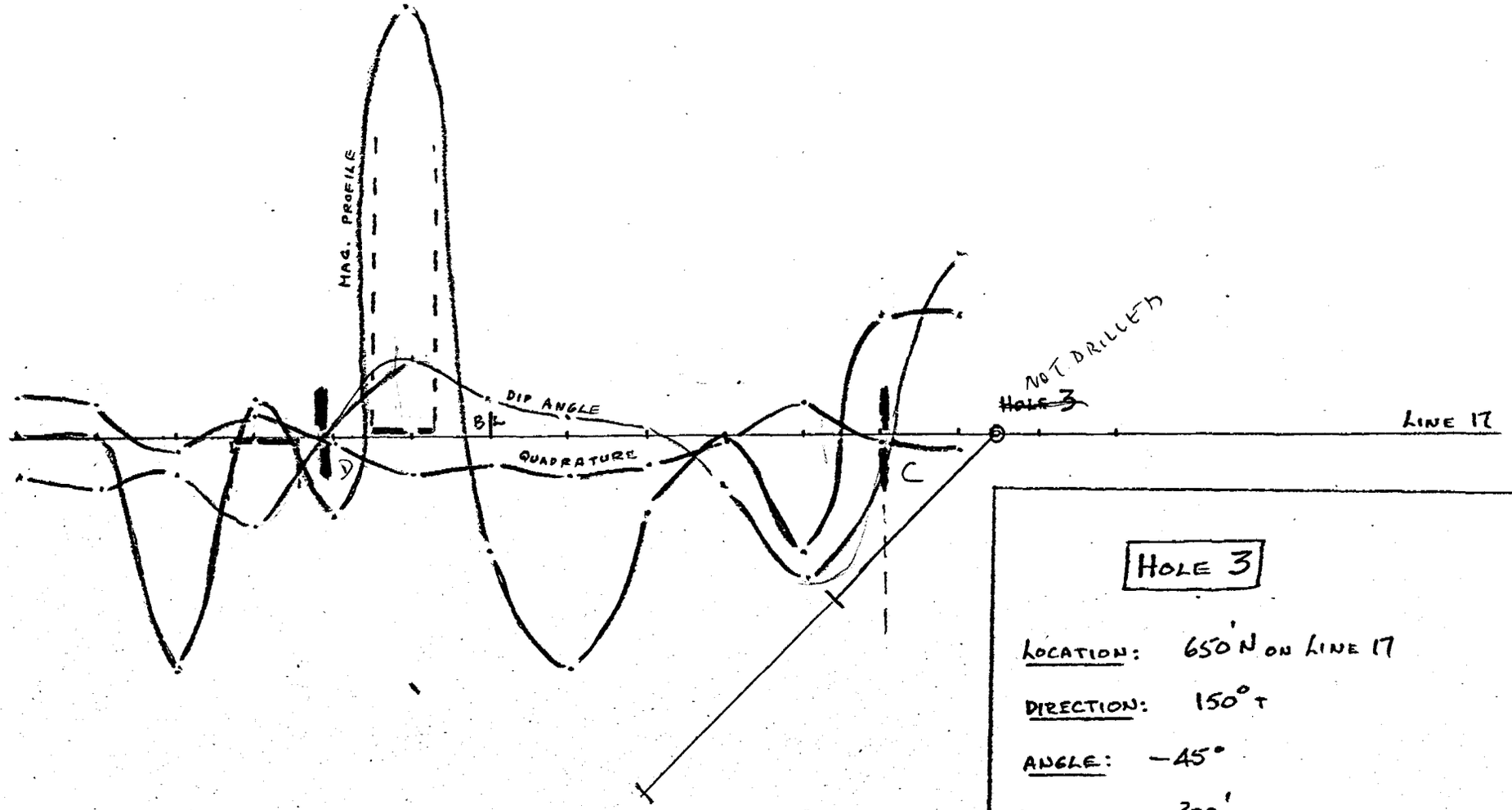
SCALES:
1" = 200'
= 20°
= 800γ

HOLE 2

LOCATION: 650'S ON LINE 13
DIRECTION: 000°T
ANGLE: −45°
LENGTH: 500'
OBJECT: To explore: ① EM conductor "B" and ② a magnetic high, and ③ to complete cross-section of interesting low ground area.

HOLE 1

LOCATION: 250'N on LINE 13
DIRECTION: 180°T
ANGLE: −45°
LENGTH: 500'
OBJECT: To explore: ① surface showings, ② magnetic high, and ③ EM conductor "A".



SCALES

1" = 200'
= 20°
= 800 γ

— Mag. Profile
— Dip Angle
— Cross over

HOLE 3

LOCATION: 650' N ON LINE 17

DIRECTION: 150° T

ANGLE: −45°

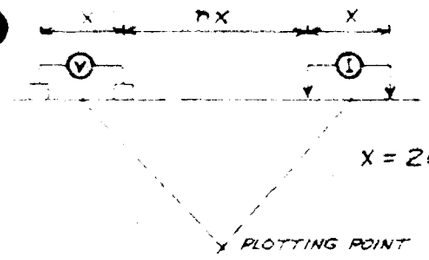
LENGTH: 300'

OBJECT: TO EXPLORE:

① EM CONDUCTOR "C"

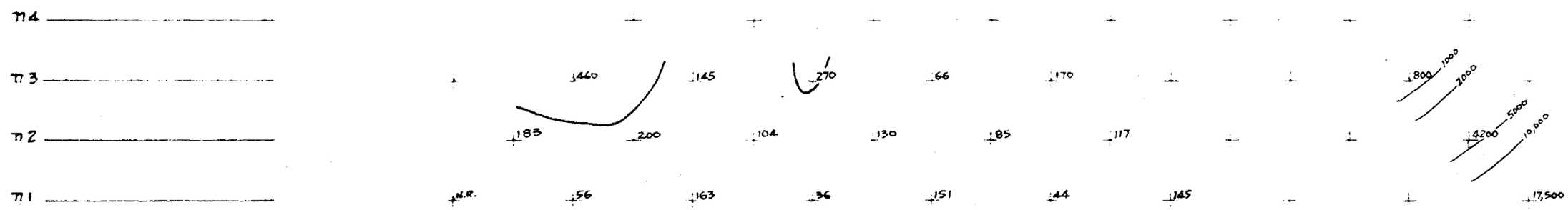
② MAGNETIC HIGH

ELECTRODE CONFIGURATION



MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY



APPARENT RESISTIVITY

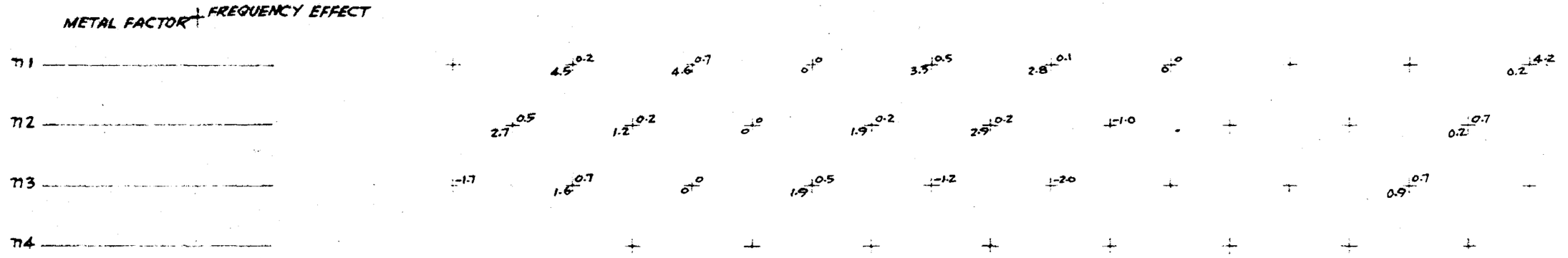
$\rho/2\pi$ OHM-FEET

NO GROUND CONTACT

22N 20N 18N 16N 14N 12N 10N 8N 6N 4N 2N

LINE 4W

METAL FACTOR + FREQUENCY EFFECT



WORLD MINING CONSULTANTS LTD.

TURTLE POND LAKE AREA

SATTERLY TOWNSHIP

ONTARIO

SCALE: 1 INCH = 200 FEET

ANOMALOUS AREA

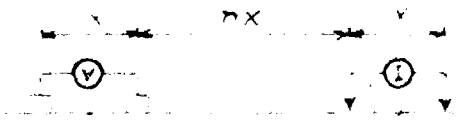
DEFINITE ——————

PROBABLE - - - - -

POSSIBLE ! ! ! ! ! ! !

FREQUENCIES: 0.3 1, 5.0 c p s

ELECTRODE CONFIGURATION



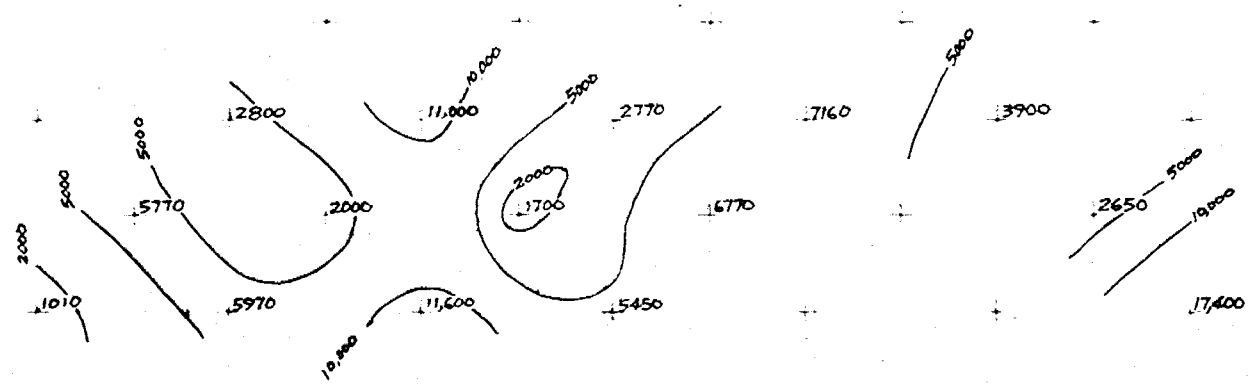
X = 200 FEET

x PLOTTING POINT

MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY

n4
n3
n2
n1



APPARENT RESISTIVITY

$\rho/2\pi$ OHM-FEET

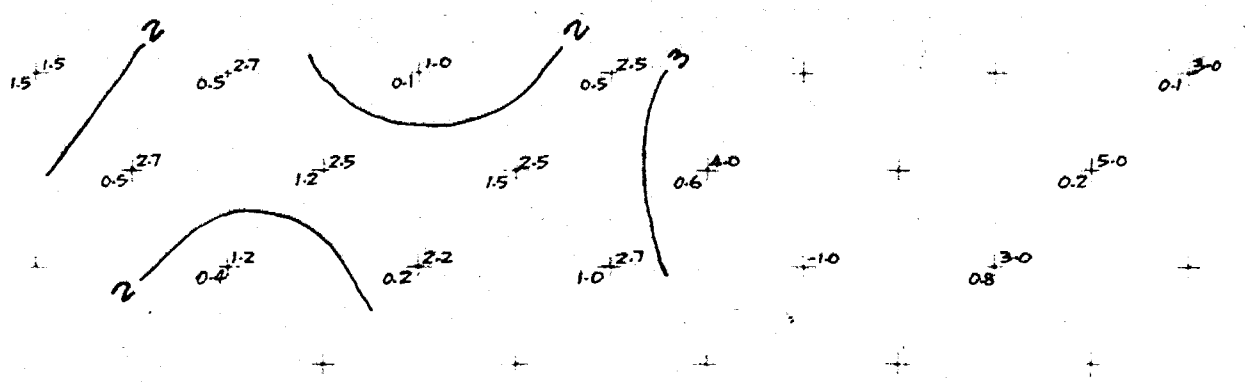
NO GROUND CONTACT

6N 4N 2N 0 2S 4S 6S 8S

insufficient data

METAL FACTOR + FREQUENCY EFFECT

n1
n2
n3
n4



LINE 8E

WORLD MINING CONSULTANTS LTD.

TURTLE POND LAKE AREA
SATTERLY TOWNSHIP
ONTARIO

SCALE: 1 INCH = 200 FEET

ANOMALOUS AREA

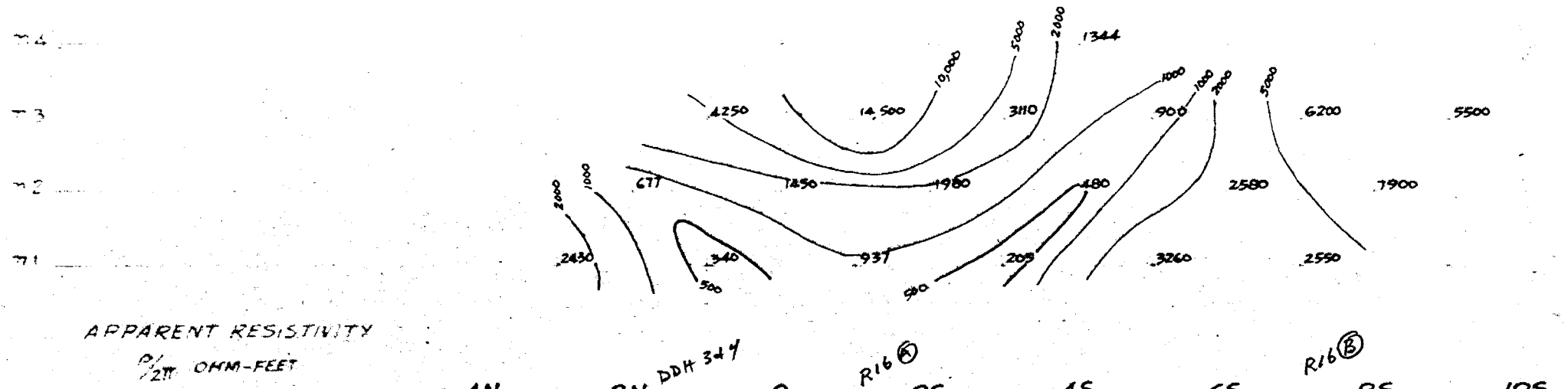
DEFINITE ——————
PROBABLE - - - - -
POSSIBLE . . . . . .

FREQUENCIES: 0.3, 5.0 c.p.s

ELECTRODE CONFIGURATION

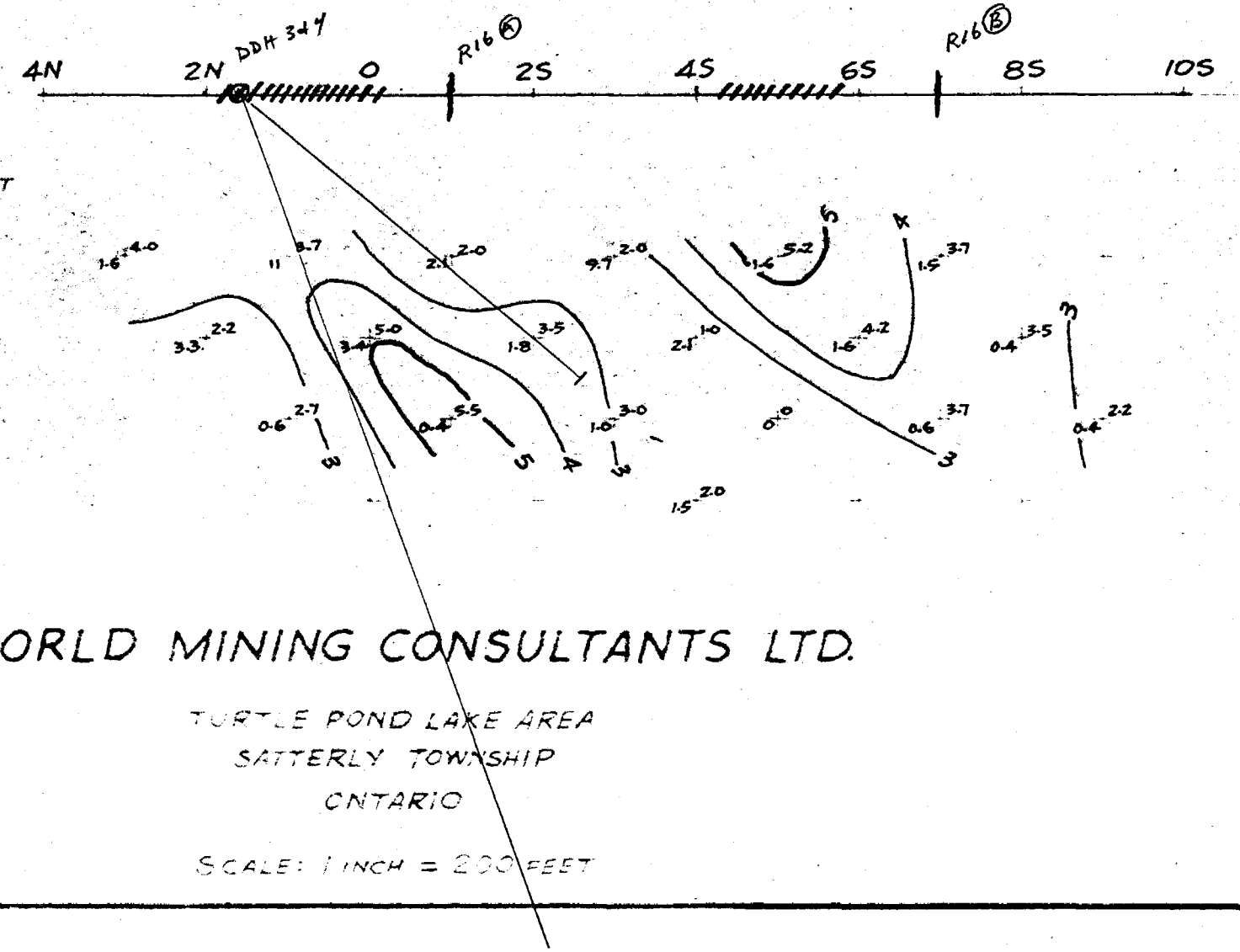
MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY



APPARENT RESISTIVITY

$\rho/2\pi$ OHM-FEET



WORLD MINING CONSULTANTS LTD.

TURTLE POND LAKE AREA

SATTERLY TOWNSHIP

ONTARIO

SCALE: 1 INCH = 200 FEET

ANOMALOUS AREA

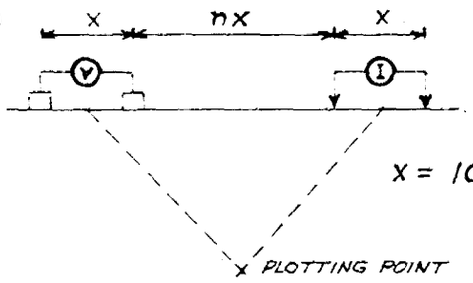
DEFINITE ——————

PROBABLE – – – – –

POSSIBLE ,,,,,,,,,

FREQUENCIES 0.4, 1.5, 4.0 c.p.s.

ELECTRODE CONFIGURATION



MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY

n4 ——————————

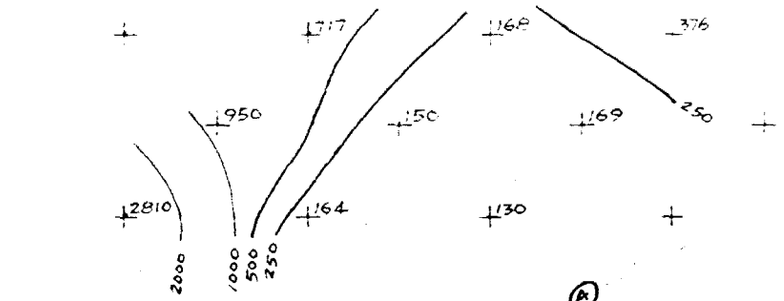
n3 ——————————

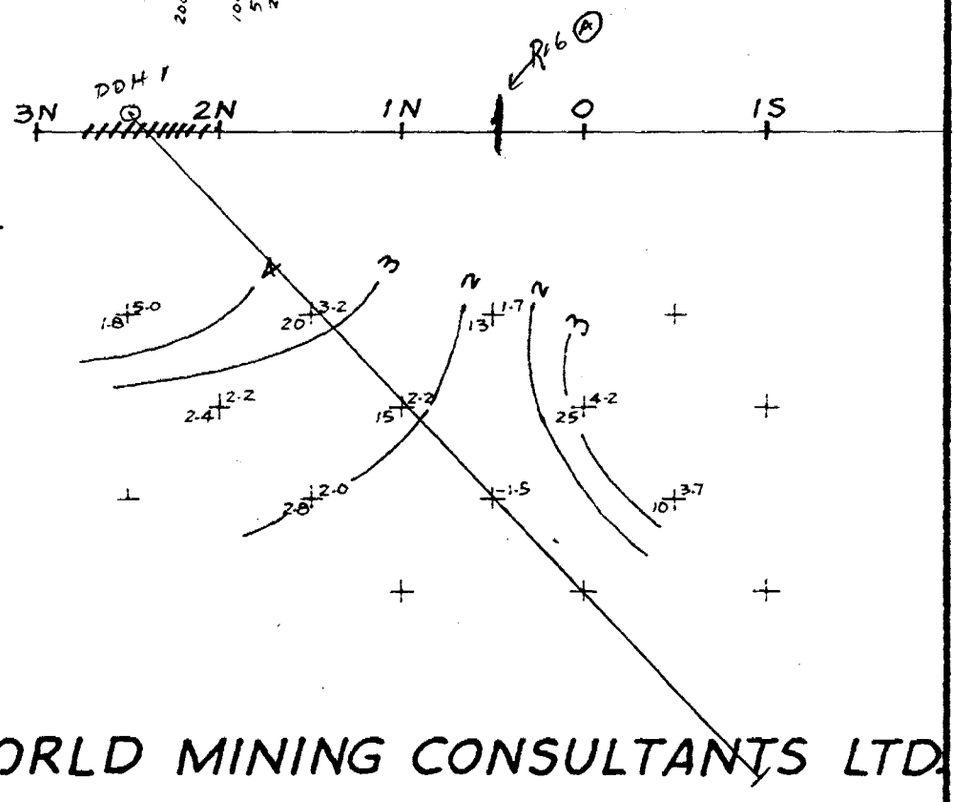
n2 ——————————

n1 ——————————

APPARENT RESISTIVITY

$\rho/2\pi$ OHM-FEET





METAL FACTOR + FREQUENCY EFFECT

n1 ——————————

n2 ——————————

n3 ——————————

n4 ——————————

LINE 13E (X=100')

WORLD MINING CONSULTANTS LTD.

ANOMALOUS AREA

DEFINITE ——————

PROBABLE - - - - -

POSSIBLE ' ' ' ' ' '

FREQUENCIES: 0.31, 5.0 c.p.s.

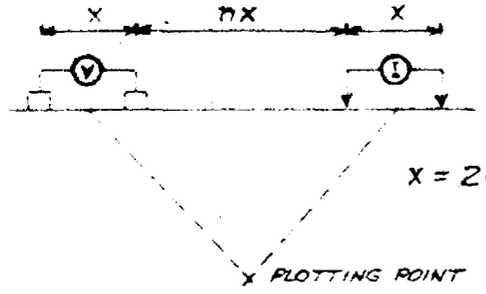
TURTLE POND LAKE AREA

SATTERLY TOWNSHIP

ONTARIO

SCALE: 1 INCH = 100 FEET

ELECTRODE CONFIGURATION



MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY

n4 ——————————

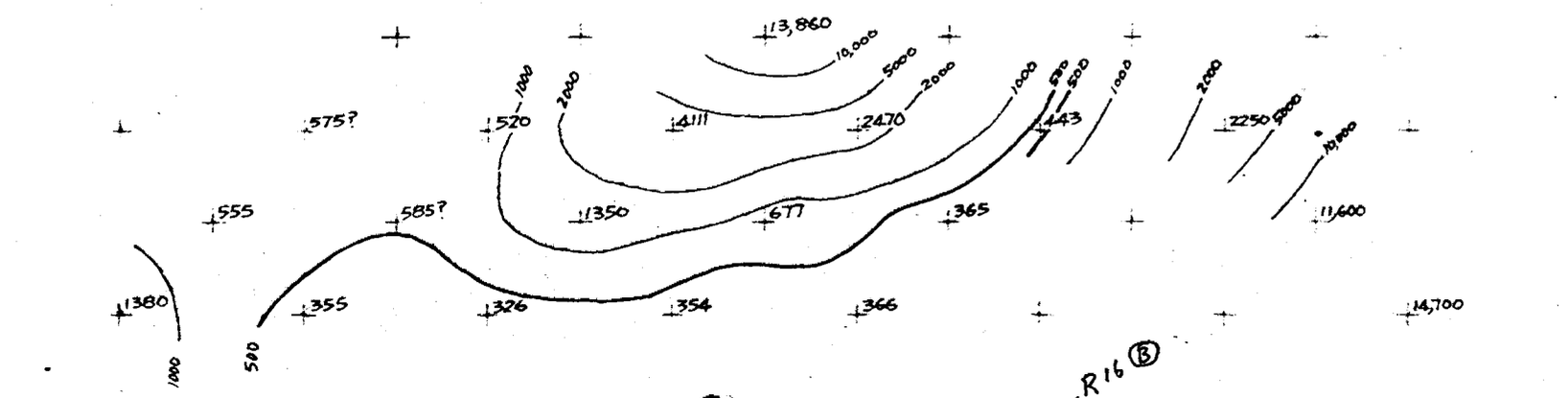
n3 ——————————

n2 ——————————

n1 ——————————

APPARENT RESISTIVITY

$\rho/2\pi$ OHM-FEET



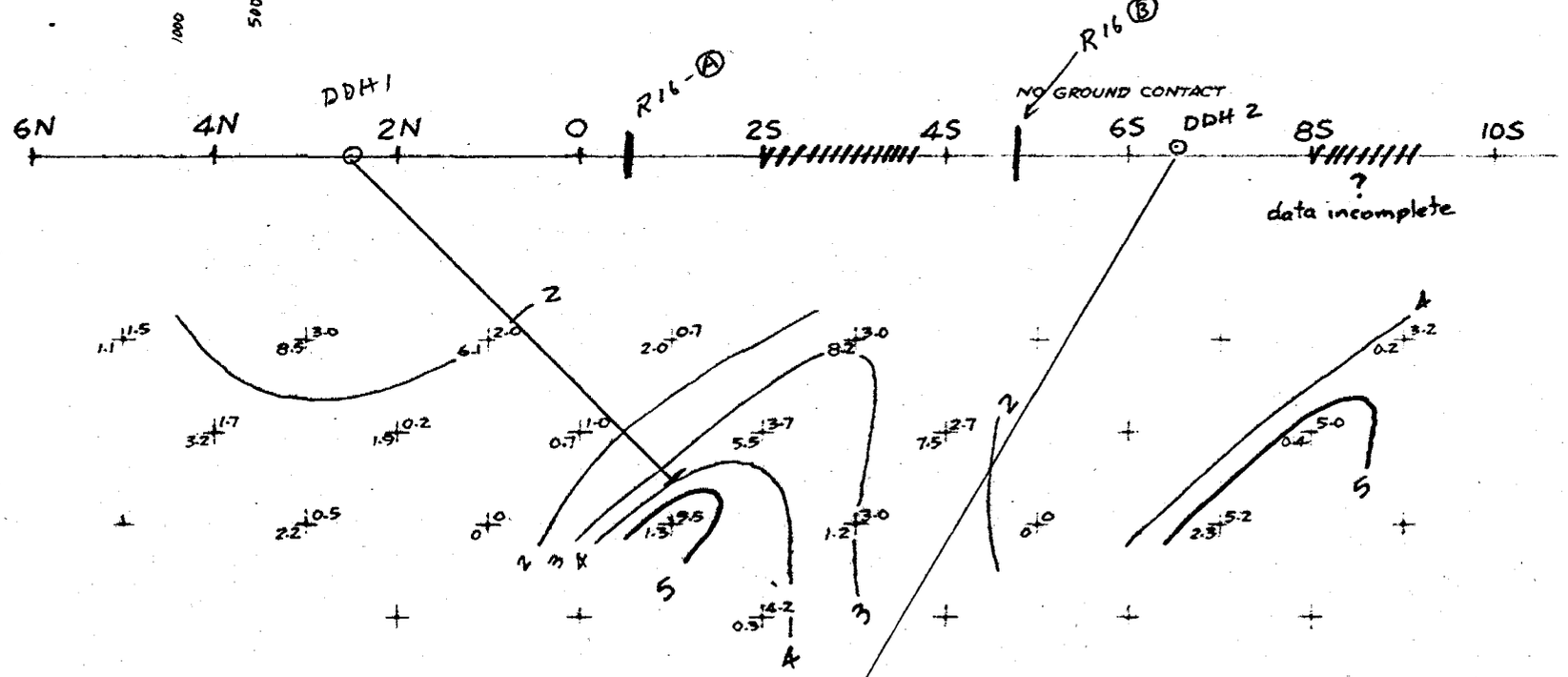
METAL FACTOR | FREQUENCY EFFECT

n1 ——————————

n2 ——————————

n3 ——————————

n4 ——————————



WORLD MINING CONSULTANTS LTD.

ANOMALOUS AREA

DEFINITE ——————

PROBABLE - - - - -

POSSIBLE . . . . . .

FREQUENCIES: 0.3 | 5.0 c.p.s.

TURTLE POND LAKE AREA

SATTERLY TOWNSHIP

ONTARIO

SCALE: 1 INCH = 200 FEET

ELECTRODE CONFIGURATION

X = 400 FEET

X PLOTTING POINT

MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY

n4 ——————————

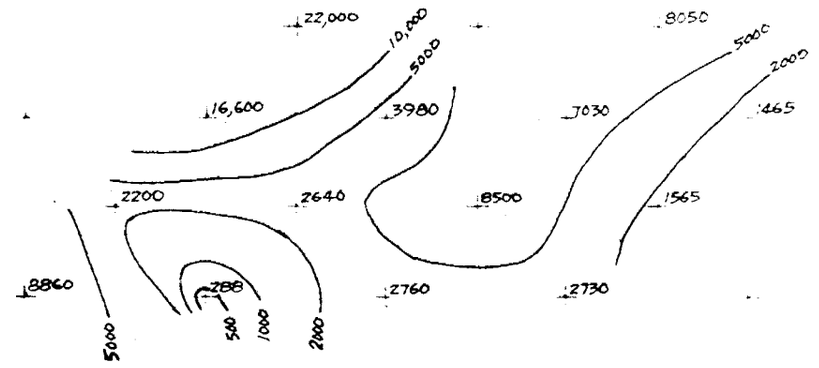
n3 ——————————

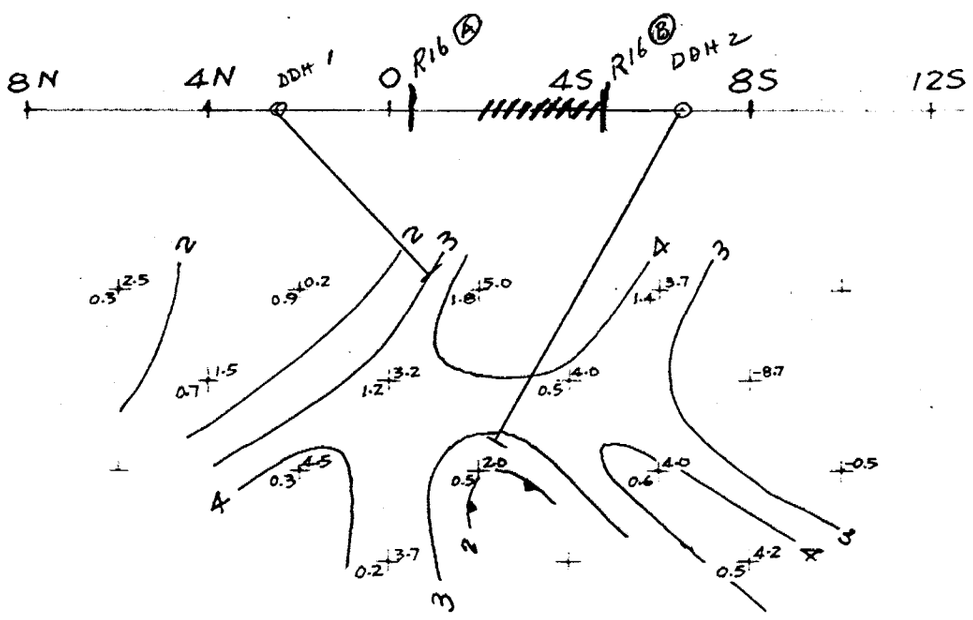
n2 ——————————

n1 ——————————

APPARENT RESISTIVITY

$\rho/2\pi$ OHM-FEET





METAL FACTOR + FREQUENCY EFFECT

n1 ——————————

n2 ——————————

n3 ——————————

n4 ——————————

WORLD MINING CONSULTANTS LTD.

TURTLE POND LAKE AREA

SATTERLY TOWNSHIP

ONTARIO

SCALE: 1 INCH = 400 FEET

ANOMALOUS AREA

DEFINITE ——————

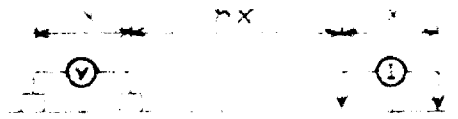
PROBABLE - - - - -

POSSIBLE ////////

FREQUENCIES: 0-31, 5-0 cps

LINE 13E (X=400')

ELECTRODE CONFIGURATION



X = 200 FEET

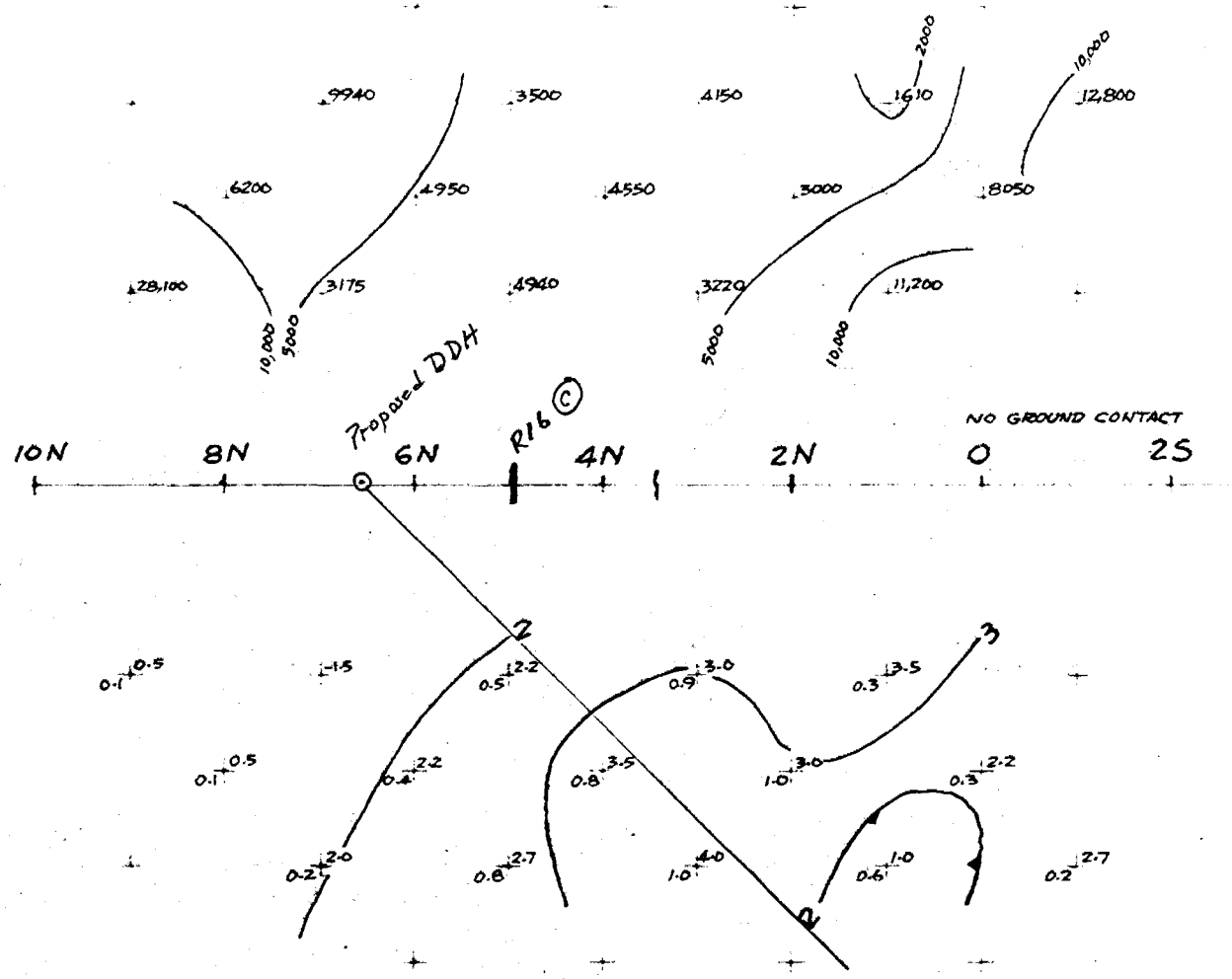
x PLOTTING POINT

MOREAU, WOODARD & CO. LTD.

INDUCED POLARIZATION & RESISTIVITY SURVEY

n4
n3
n2
n1

APPARENT RESISTIVITY
$\rho/2\pi$ OHM-FEET



METAL FACTOR + FREQUENCY EFFECT

n1
n2
n3
n4

WORLD MINING CONSULTANTS LTD.

ANOMALOUS AREA

DEFINITE ——————
PROBABLE – – – – –
POSSIBLE ' ' ' ' ' '

FREQUENCIES: 0.31, 5.0 c.p.s.

TURTLE POND LAKE AREA
SATTERLY TOWNSHIP
ONTARIO

SCALE: 1 INCH = 200 FEET

LINE 17E

November 19, 1966.

Officers and Directors,
Victoria Algoma Mineral Co. Ltd.,
9th Floor,
88 University Ave.,
Toronto.

Gentlemen,

Herewith is a brief report covering your Dryden Area copper-nickel prospect. My examination included a very hurried look at frozen core and a more leisurely study of the geophysical results including magnetometer, Ronka 16, and IP surveys covering only the immediate vicinity of the known mineralization. Thus, at this point, my knowledge of the property is not only general and limited, it is base on a distorted study of the facts that are available today. Therefore my opinions are significant in the strategical rather than the tactical sense.

First, a few general facts.

Drill holes 1, 3, and 4 show widespread, irregular, and disperse sulphide mineralization over core lengths of the order of 10, 50, and 100 plus feet. The sulphides include pyrite, pyrrhotite, and chalcopyrite and are present in amounts that should constitute good IP survey targets. Drill hole 2 collared in barren chloritized gabbro and passed into barren (?) lavas at depth.

The property is an excellent copper-nickel prospect. In the broad sense the geological environment consists of volcanis in contact with a gabbro intrusive and sulphide minerals and sapphire blue quartz are found in the volcanics. This is a favourable environment - one in which producing mines are located. The detailed geology of the sulphide mineralization is quite unknown at present.

Some narrow core sections, a few inches to a few feet in length, have been split and assayed and have returned copper-nickel values of ore grade. However, none of the mineralization I have seen had the dimensions and grade required for economic production. The property is a prospect and is being explored in the hope of finding an orebody.

The Ronka 16 electromagnetic results are most encouraging. They show two crudely parallel conductors some 400 to 600 feet apart over a strike length of about 2000 feet. The conductors look to be deep-seated. Drilling the conductors has located appreciable sulphide mineralization in 3 out of 4 holes. The Ronka 16 is a relatively new geophysical tool and for this, and other considerations, many exploration people are skeptical of Ronka 16 results. On the Victoria Algoma property the Ronka 16 results have led the exploration (perhaps by chance) toward copper-nickel mineralization.

The IP survey results are unbelievably disappointing. One suspects that the survey instrument was out of order. Also, the survey covered too small an area to give a clear picture of the background character of the area and insufficient detail work was done on the lines where some positive indications were found. On no line was an indisputable IP anomalous area indicated. Nowhere do the Ronka 16 conductors coincide with possible IP anomalies. Futther IP work might materially assist in exploring the property, but on the evidence to date, one would prefer to be guided by the Ronka 16 results.

Here follows my opinions and recommendations.

I have no particular opinion for or against the immediate further exploration of the property nor the direction that continuing exploration should take. I recommend that the advice of Mr. Ross Kidd be followed .

The Dryden copper-nickel property is a valuable prospect and the Company should plan on maintaining the property until a very thorough appraisal of the property and the surrounding area can be completed.

The detailed geology of the showing area should be developed by means of cross-sectional and plan geology based on diamond drill logs and their interpretation.

The drill cores should be extensively sampled and assayed. Admittedly, none of the drill cores I have seen approach, in my opinion, ore grade over long core lengths. However, there is a large volume of rock which undoubtedly carries copper and nickel values and the absolute measurement of these values is bound to influence the future exploration of the prospect and several square miles of the surrounding area.

Respectfully submitted,

63.2139

SUMMARY

FOUR INTERESTING CONDUCTORS WERE FOUND IN THE VICINITY OF SEVERAL SURFACE SHOWINGS CONTAINING COPPER-NICKEL SULFIDES.

IT IS SUGGESTED THAT THREE OF THESE CONDUCTORS SHOULD BE DRILLED.

INTRODUCTION

VICTORIA ALGOMA OPTIONED THE GLATZ CLAIMS BECAUSE OF SEVERAL SURFACE SHOWINGS CONTAINING LOW BUT INTRIGUING NICKEL-COPPER VALUES, AND BECAUSE INITIAL ELECTROMAGNETIC PROSPECTING DISCLOSED A STRONG CONDUCTOR NEAR THE SHOWINGS.

PICKET LINES WERE THEN CUT ACROSS THE CLAIMS AND A THOROUGH ELECTROMAGNETIC SURVEY WAS CARRIED OUT. PARTIAL MAGNETIC CHECK WORK WAS ALSO DONE.

THE GEOPHYSICAL RESULTS ARE SHOWN ON THE ACCOMPANYING MAP.

AT THE SAME TIME, RECONNAISSANCE GEOLOGICAL MAPPING OF THE AREA WAS CARRIED OUT BY LORNE B. HALLADAY, AND THE RESULTS IN THE GLATZ CLAIM AREA ARE ALSO SHOWN ON THE MAP.

RESULTS

SEVEN EM CONDUCTORS WERE LOCATED WITHIN THE CLAIMS. FOUR OF THESE, CONDUCTORS A, B, C, AND D, ARE CONSIDERED TO HAVE POSSIBLE ECONOMIC IMPORTANCE. CONDUCTOR E IS THOUGHT TO REPRESENT A CONTACT SHEAR BETWEEN DIORITE AND VOLCANIC ROCKS. CONDUCTORS F AND G ARE THOUGHT TO BE SHEARS ASSOCIATED WITH NEARBY GRANITE STOCKS.

RESULTS (CONT'D)

NONE OF THE CONDUCTORS HAVE MAGNETIC CORRELATION. SINCE THE KNOWN SURFACE SULFIDE MINERALIZATION IS MAGNETICALLY POSITIVE, THIS IS AN UNFAVORABLE FEATURE. THERE IS A POSSIBILITY, HOWEVER, THAT THEY MAY REPRESENT PYRITE AND CHALCOPYRITE, RATHER THAN PYRRHOTITE AND CHALCOPYRITE, IN WHICH CASE THEY WOULD BE NONMAGNETIC BUT STILL OF ECONOMIC INTEREST.

TO TEST THIS POSSIBILITY, DRILLING OF THREE OF THE BETTER CONDUCTORS IS RECOMMENDED.

THE POSITIONING OF THE CONDUCTORS SUGGESTS CROSS-FAULTING WITH MODEST DISPLACEMENTS OF THE CONDUCTORS. THE APPROXIMATE LOCATIONS OF THESE ASSUMED FAULTS ARE SHOWN ON THE MAP.

ALMOST ALL THE GEOPHYSICAL FEATURES ARE CONFINED TO A BODY OF MIXED DIORITE AND GABBRO WHICH OCCUPIES A CENTRAL LOCATION WITHIN THE CLAIMS. SINCE THESE ROCKS ARE THE NORMAL HOSTS TO NICKEL DEPOSITS, THIS IS A FAVORABLE ASPECT AND ADDS TO THE INTEREST OF THE GEOPHYSICAL FEATURES.

THE MAGNETIC HIGHS, WITH THE EXCEPTION OF THE ONE STRETCHING FROM LINE 15 TO LINE 19 NEAR THE BASE LINE, ARE RATHER FORMLESS AND RANDOM IN APPEARANCE. IT IS CONSIDERED THAT THEY ARE DUE TO MAGNETITE AND PYRRHOTITE INCREASE, AND ARE PERHAPS ASSOCIATED WITH ONE OR MORE OF THE ASSUMED FAULTS. THE ONE EXCEPTION LIES ON STRIKE OF CONDUCTOR A. IT IS NON-CONDUCTIVE BUT MAY BE DUE TO DISSEMINATED PYRRHOTITE.

RESULTS (CONT'D)

CONDUCTOR A IS JUDGED TO BE DEEP-SEATED, PERHAPS IN THE ORDER OF 300 FEET BELOW SURFACE.

THE OTHER CONDUCTORS ARE NEAR-SURFACE.

CONCLUSIONS

1. CONDUCTORS A, C, AND D ARE STRONG AND DEFINITE. C OR D MAY BE FAULTED SEGMENTS OF CONDUCTOR A.

2. CONDUCTOR B IS VAGUE AND INDEFINITE, BUT HAS NEARBY MAGNETIC HIGHS.

3. MOST OF THE SURFACE SHOWINGS ARE LOCATED NEAR CONDUCTORS A AND B.

4. EXPLORING OF THE A AND B AREA BY CROSS-SECTIONING DRILL HOLES IS WARRANTED.

5. FURTHER FOLLOW-UP ON CONDUCTOR C WILL BE WARRANTED IF INITIAL DRILL RESULTS ARE FAVORABLE.

RECOMMENDATIONS

1. THREE DRILL HOLES, SHOWN ON THE MAP, ARE RECOMMENDED.
2. THE TOTAL FOOTAGE IS ABOUT 1500 FEET.
3. THE TOTAL COST OF THIS WORK WOULD BE ABOUT $ 10,000.

Ross Kidd

ROSS KIDD
MINING ENGINEER

VANCOUVER, B.C.
JANUARY 9TH, 1967

APPENDIX ONE

METHODS OF SURVEY

THE ELECTROMAGNETIC WORK WAS DONE WITH A RONKA EM 16 UNIT. THIS UNIT USES HORIZONTAL TRANSMISSIONS FROM NAVAL VLF BROADCAST STATIONS AS A PRIMARY FIELD. READINGS ARE MADE OF THE REAL AND QUADRATURE PHASES OF THE VERTICAL COMPONENT OF ANY SECONDARY FIELDS PRESENT.

THE ADVANTAGES OF THE UNIT ARE GREAT DEPTH PENETRATION AND EASE OF OPERATION, WHILE THE DISADVANTAGES ARE TOO MUCH SENSITIVITY GIVING RISE TO OVERBURDEN AND SHEAR ZONE CONDUCTORS, AND SOMETIMES POOR COUPLING BETWEEN THE TRANSMITTER STATION AND THE EXPECTED CONDUCTORS.

IN THIS CASE TRANSMITTER STATIONS AT CUTLER, MAINE AND IN MARYLAND WERE USED, AND THE COUPLING WAS GOOD.

THE QUADRATURE PROFILES ARE NOT SHOWN ON THE MAP, BUT IN EACH CASE THEY CORROBORATED THE POSITION OF THE VARIOUS CONDUCTORS AS SHOWN BY THE DIP ANGLE PROFILES.

THE MAGNETIC RESULTS WERE FROM A SHARPE MF-1 FLUXGATE MAGNETOMETER READING THE VERTICAL COMPONENT OF THE EARTH'S MAGNETIC FIELD. THE MAGNETIC NORMAL IS TAKEN AS ABOUT 500 GAMMAS.

Ronka Horizontal Loop E.M. Survey

Instrument:

Ronka Horizontal Loop E.M. Ser.# 16

Signal frequency, 876 cycles

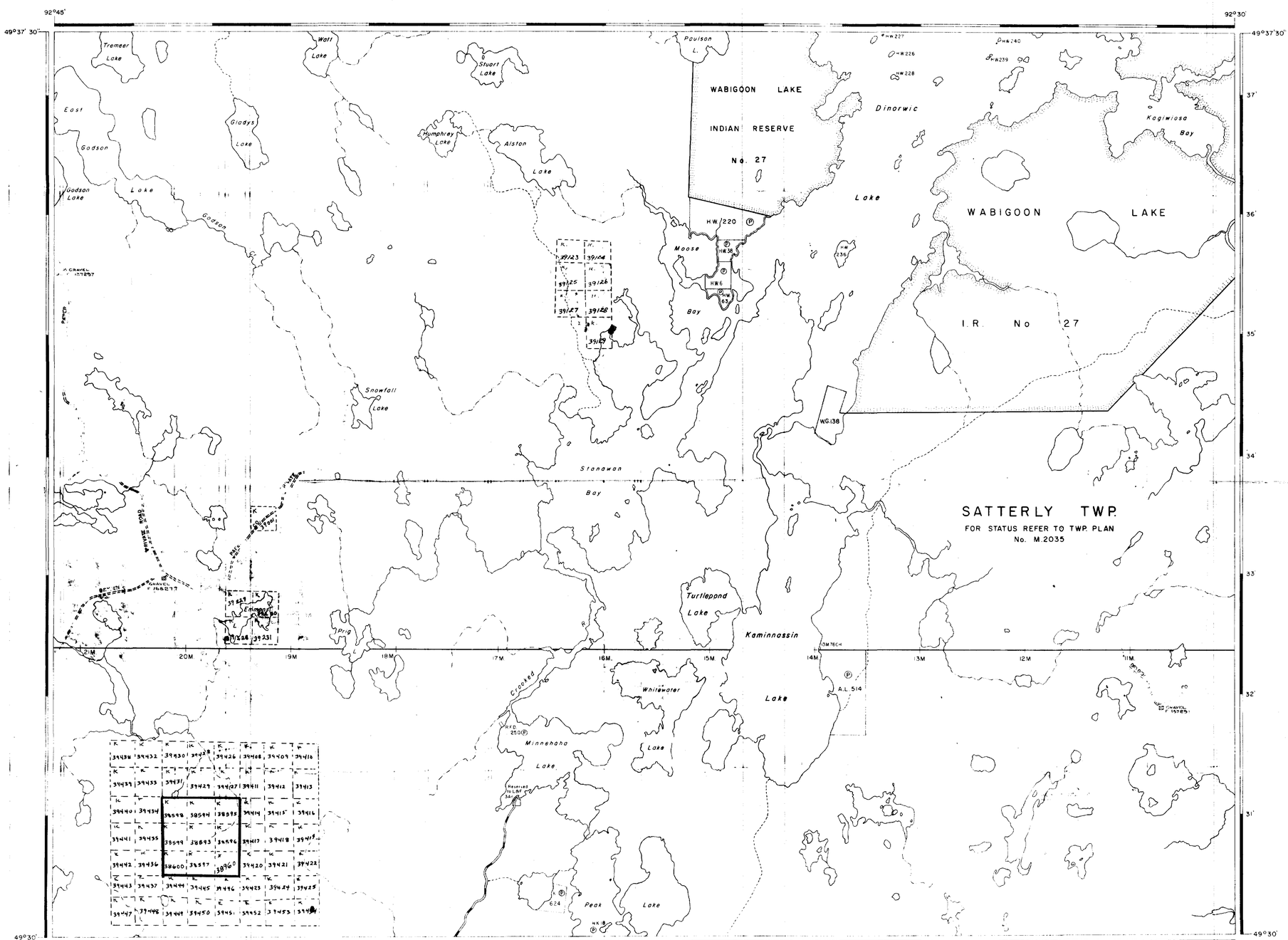
Power output; 1 watt, power source; 81.5 volt cells

The Ronka Horizontal Loop E.M. system detects the presence of conductors in its vicinity by measuring the distorsion of a transmitted signal from normal at a receiver coil. A signal of audible fre-

quency, i.e. 876 cycles is broadcast from a horizontal transmitter coil and received by a similar coil two hundred feet distant. A reference signal which will be exactly in phase with the transmitter signal is transmitted by means of a cable to the transmitter coil location; the use of a cable ensures that this signal will not be affected by secondary E.M. fields. This signal is then compared to the amplified signal received by the receiver coil. If one of the signals is electronically shifted through 180°, the reference and received coil can be balanced so that a null will be heard if ear phones are connected across a "bridge" formed by the signal from the reference cable and that from the receiver coil. In neutral ground for instance, if the earphones were placed across the outputs in the cable from the transmitter coil, a signal could be heard. If the signal received by the receiver coil were adjusted so as to be exactly 180° out of phase, upon suitable amplification, it would nullify the signal from the cable if it were connected to earphones. Secondary currents induced in a conductor in the vicinity of the transmitter would radiate secondary E.M. fields which would tend to distort the signal detected by the receiver coil. The resultant signal would differ in phase and amplitude from that normally received. By means of suitable electronic circuitry the phase and amplitude observed by the receiver coil can be resolved into components in phase and out of phase with the reference signal.

In the instrument described at the beginning of this discussion

the inphase and outof phase indicator dials are set to 0 at a station located where there are no significant secondary E.M. fields from conductors. The instrument is conveyed along a line of a survey grid by two men, one bearing the transmitter, the other bearing the receiver and compensator console. A cable connects the transmitter coil to the receiver console; another short cable connects this console to the receiver coil so that the two signals may be compared and nullified at the console. The two units are separated the length of the scale (usually two hundred feet); a reading is taken and recorded as being at a position midway between the two coils. The reading is subsequently recorded on a plan of the grid at this location. From profiles of the inphase and out of phase components,- which are drawn to a scale of one inch to 10% out of phase shift or 10% of in phase shift,- the location and depth of conductor axes can be determined from generally known theory. For instance, the edges of the conductor would lie under the inflection points of the curves and the depth thereof would be indicated roughly by the distance from the curve maxima to their inflection points.



AREA OF

TURTLEPOND LAKE

DISTRICT OF KENORA

KENORA MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

NOTES

400' Reserve around all lakes & rivers

ROADS SHOWN ARE BELIEVED TO BE PRIVATE ROADS CUT FOR THE USE OF THE PROSPECTOR ONLY. AFTER PERMISSION TO OBTAIN TIMBER ORDER HAS BEEN GIVEN BY THE DEPT. OF MINES

DATE OF ISSUE
JUN 16 1967
ONTARIO DEPT. OF MINES

ONT. DEPT. OF MINES
MINING LANDS BR.
THIS MAP FOR CHECKING PURPOSES ONLY – MUST NOT BE SOLD.

PLAN NO. M.2663

DEPARTMENT OF MINES
— ONTARIO —

495923

POND

POND

SAW SHACK

N T

VARIATION = 35°

K 38598

K 38594

K 38595

K 38599

K 38593

K 38596

K 38600

K 38597

K 38960

BASE LINE

2E 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21E 22

GEOPHYSICAL

ASSUMED

LOG PILE

FAULT

QUICKSAND AND BOG

SAW SHACK

GLATZ OPTION

GEOPHYSICAL RESULTS

and

GENERAL GEOLOGY

GEOLOGY *by* LORNE B. HALLADAY — OCT. 1966

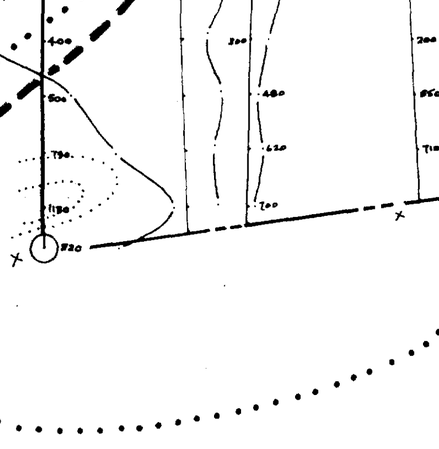
- GRANITE
- DIORITE AND GABBRO
- FINE-GRAINED GABBRO
- VOLCANICS
- X OUTCROP
- TRACTOR ROAD

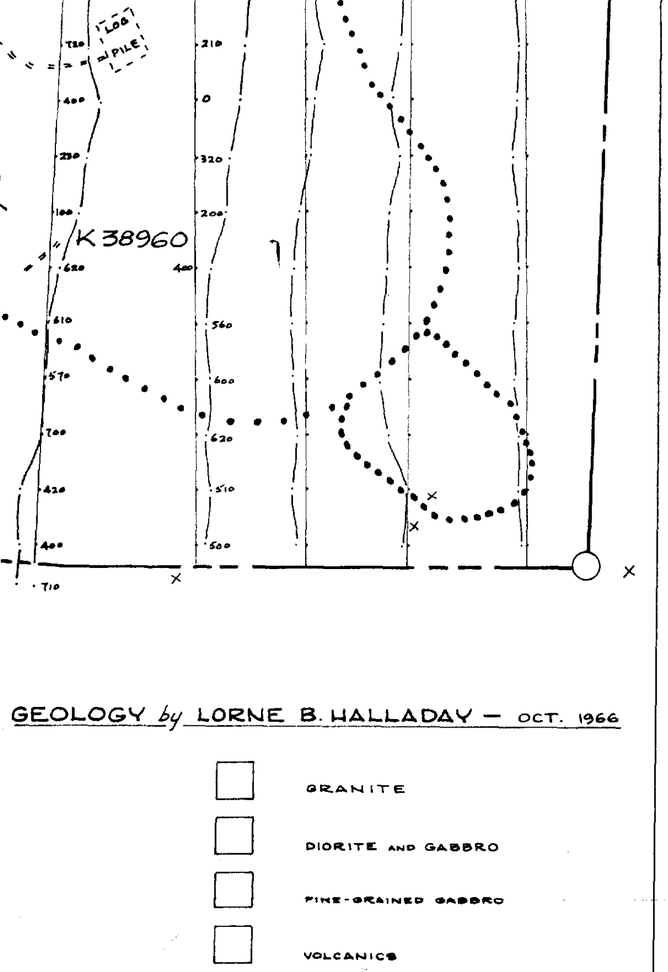
VICTORIA ALGOMA MINERAL COMPANY LIMITED

Scale: 1 INCH = 200 FEET

LEGEND

- CONDUCTOR
- MAGNETIC CONTOURS
- DIP ANGLE PROFILES. 1"=20° (NORTH ANGLES WEST of PICKET LINES)
- INFERRED GEOLOGICAL CONTACT
- SURFACE SULFIDE MINERALIZATION
- PROPOSED DRILL HOLE





OCTOBER, 1966

ROSS KIDD
MINING ENGINEER

LEGEND

6 GRANITE

5 QUARTZ - BIOTITE DIORITE

4 QUARTZ - HORNBLENDE DIORITE

3 A. DIORITE
B. GABBRO

2 FINE GRAINED GABBRO

1 INTERMEDIATE TO BASIC FLOWS, TUFF, AGGLOMERATE

Numerous Outcrops of 4

EMMONS LAKE

HAMPE LAKE

magnetic

N

GEOLOGICAL MAP

GLATZ CLAIMS

DRYDEN AREA

ONTARIO

SCALE: 1" = 1/4 MILE

GEOLOGY BY L.B. HALLADAY

OCT, 1966.