REPORT ON
GROUND GEOPHYSICAL SURVEYS
ON A PROPERTY IN POWELL TOWNSHIP
LARDER LAKE MINING DIVISION, ONTARIO
FOR
GOLD ACRES MINES LIMITED

BY
BARRINGER RESEARCH LIMITED
304 CARLINGVIEW DRIVE
METROPOLITAN TORONTO
REXDALE, ONTARIO

SEPTEMBER 1974

1. INTRODUCTION

1.1 GENERAL

During the period from June 3, 1974 to June 28, 1974, both dates inclusive, ground geophysical surveys were carried out by Barringer Research Limited on behalf of Gold Acres Mines Limited, covering twelve unpatented mining claims located in Powell Township, Ontario. The geophysical surveys consisted of a ground magnetic survey and an induced polarization survey.

The geophysical surveys were carried out based on the recommendations made in the report prepared by M. L. Halladay, F.G.A.C., P. Eng., Senior Geologist, Barringer Research Limited.

There is known gold occurrence on the Gold Acre property, which has been trenched and drilled. "During the property examination an area of "porphyry-type" disseminated mineralization was found, which confirms the existence of such mineralization within the Gold Acres intrusive. The disseminated mineralization was seen to contain copper." (Ref. 1.)

The purpose of the induced polarization survey was to explore the property at depth for disseminated mineralization.

The magnetometer survey was carried out to help delineate possible zones within the intrusive, geological boundaries, faults and shears.

In the following, the results of the geophysical surveys and the subsequent geologic field checking are discussed.

1.2 PROPERTY

The property consists of 12 contiguous, unpatented mining claims in Powell Township, Larder Lake Mining Division of Ontario. The claims are numbered: L372927-L372938, inclusive. The location of the property is indicated on the Locality Plan (Dwg. No. 8-400-6).

1.3 LOCATION AND ACCESS

The property is located about 4.75 miles northwest of the Town of Matachewan in Northern Ontario. Matachewan can be reached via Highway 66 from Highway 11 (30 miles). It is 35 miles west of Kirkland Lake. The partially paved Highway 566 cuts across the southern two-thirds of the claim group, providing easy convenient access from Matachewan.

Reference: Topographic Map 41P-15.

1.4 PREVIOUS WORK

The following paragraphs are taken from the report by M. L. Halladay.

"In 1947 the northern part of the Gold Acres property was held by Childs Red Gold Mines Limited. Two trenches had previously been put into red syenite porphyry exposing quartz carbonate veins containing pyrite, chalcopyrite, molybdenite and fluorite. A hole drilled by Noranda Exploration undercut the trenches and intersected several zones of quartz stringers containing chalcopyrite, tourmaline and traces of gold (Ref. 2).

Later exploration conducted by Pax International included what are now the southernmost two claims of the Gold Acres property. They carried out geological and geochemical surveys, the latter yielding several areas anomalous in copper and molybdenum. They were not believed to be of a strength attributable to mineable ore and no further work was done (Ref. 1)."

1.5 GEOPHYSICAL SURVEYS

As indicated earlier, magnetic and induced polarization surveys were carried out. The magnetic survey covered nine line miles with 484 readings, including detail stations. The induced polarization survey consisted of 191 readings, covering 8.3 line miles.

9.1

1.6 SURVEY CONTROL

The base line was cut first and a magnetometer survey was carried out along the base line in order to locate the generally north-south striking diabase dikes. The base line has a bearing 90^{o} True.

The survey lines, which run perpendicular to the base line, are located at nominal spacing of 400 feet. A number of the lines were moved in order to avoid intersection with diabase dikes. The combination of rather steep topography and long survey lines, uncontrolled by a sub-base line resulted in a divergence of the lines from the proposed locations in the southwest corner of the property. The maps indicate the idealized locations. The lines were chained and picketed at 100 foot intervals.

In total 9.1 line miles were cut including the base line.

1.7 PERSONNEL

The geophysical survey was carried out by a crew led by Sean McCutcheon, Geophysicist, under the supervision of Frank L. Jagodits, P. Eng., Chief Geophysicist.

2. SURVEY PROCEDURES

2.1 MAGNETIC SURVEY

The magnetic survey was carried out over the survey lines using a Barringer GM122 proton precession magnetometer, measuring the earth's total magnetic field to the nearest one gamma intensity value. The station interval was 100 feet except in areas of rapid change where intermediate stations were read also. Magnetometer base stations were established at suitable intervals and the operator returned to a base station within two hours commencing the survey loop. The magnetic readings were corrected for the diurnal changes of the earth's magnetic field.

2.2 INDUCED POLARIZATION SURVEY

The induced polarization survey utilized a pole-dipole electrode array. The measuring, or potential dipole had a separation of 200 feet, referred to as the 'a' spacing. The current pole was situated to the south of the potential dipole throughout in order to make line to line correlation possible.

The reconnaissance induced polarization work was done with n = 2, for a potential dipole to current pole distance of 400 feet. The station interval was 200 feet.

The potential dipole and the current pole move in unison along the survey lines, while the second or "infinity" current pole is fixed at a distance which is sufficiently large so as not to affect significantly the current distribution of the moving current pole. Commonly this distance is at least 10 times the 'na' spacing from the nearest survey point on the grid.

A 7.5 Kw transmitter-generator unit was employed for this survey.

3. DESCRIPTION OF THE INSTRUMENTATION

3.1 TOTAL FIELD MAGNETOMETER

The proton precession, or nuclear precession, magnetometer measures the total intensity of the earth's magnetic field regardless of direction. For the measurement the magnetic spins of the hydrogen nuclei, protons of the fluid in the sensory head are aligned in one direction by the polarizing current in the sensory coil. The polarizing current is terminated abruptly and the proton spin-axes deviate, precess, from the imposed alignment under the influence of the external, or earth's magnetic field. The precession frequency is directly proportional to the intensity of the external field. The precession frequency is measured and converted to gammas of field strength. The measurement is thus absolute, and no instrumental drift need to be accounted for. The diurnal variations in the earth's field have to be corrected, to bring all measurements to a common point in time and space.

The Barringer GM122 magnetometer is a proton precession instrument measuring the field to the nearest one gamma.

3.2 INDUCED POLARIZATION SYSTEM

The induced polarization system used is the time-domain system. The DC-pulse or time-domain approach to the induced polarization method comprises of the passing of direct current through the ground which builds up charges on the interfaces between metallic minerals and electrolytes. The current is switched off and the redistribution of these charges is measured as a voltage decay (referred to as "overvoltage" or IP effect) at the ground surface. Comparison of this secondary voltage (V_s) with the primary voltage (V_p) when the current is on provides a measure of the chargeability of the sub-surface.

The system consists of a generator set, a transmitter and receiver. The generator set, consisting of an engine driven alternator and voltage regulator, provides the primary power at 120V AC - 400 Hz to the transmitter. The

transmitter also contains switching circuitry for the current. The current is applied to the ground for 2.0 seconds and it is switched off for 2.0 seconds. The polarity of current is reversed after each pulse.

The generator set and the transmitter are manufactured by Huntec Limited of Toronto, and are available as 2.5 or 7.5 Kw units. The receiver is the Newmont designed N IV manufactured by Crone Geophysics Limited, Mississauga, Ontario. The receiver contains its own power supply and has an SP buckout, manual and automatic. After the primary voltage between the potential electrodes has been determined, the receiver automatically integrates the secondary voltage between 0.45 and 0.90 seconds (M) as well as between 0.90 - 1.35 seconds (N) after the termination of each primary current pulse for six consecutive pulses (3 complete cycles), compares the sum to the primary voltage measurement and displays a readout directly in milliseconds on a meter.

The applied current is measured on the transmitter and the apparent resistivity of the given electrode array calculated from the current (Ig) and primary voltage (V_o) and factor applicable to the electrode array employed.

In most environments the measurement of the chargeability can be repeated to an accuracy of 5 - 10% or better, depending on the power rating and ground resistivity.

4. DATA REDUCTION AND PRESENTATION OF THE RESULTS

4.1 MAGNETOMETER SURVEY

The results of the survey are presented in the form of profiles along survey lines. The horizontal scale of the maps is 1 inch equals 200 feet, the vertical scale is 1 inch equals 1000 gammas, (Dwg. No. 5-361-1).

As indicated earlier the magnetic readings are corrected for diurnal variations.

4.2 INDUCED POLARIZATION SURVEY

The induced polarization and resistivity data are presented in the form of profiles. The horizontal scale for the profiles is 1 inch = 200 feet, and the vertical scales, 1 inch = 50 milliseconds for the chargeability and 1 inch = 10,000 ohm-metres for the apparent resistivity. The horizontal scale of the maps is 1 inch = 200 feet, (Dwg. No. 5-361-2).

4.3 INTERPRETATION

The interpretation of the surveys are presented on the Interpretation Map. The IP survey map serves as the base for the presentation of the interpretation (Dwg. No. 5-361-3).

5. KNOWN GEOLOGY

The following sections are taken from the Qualifying Report by M. L. Halladay, (Ref. 1).

The Gold Acres Mines Limited property has for its most prominent features an acid intrusive body or complex of syenite porphyry seemingly identical to the red syenite porphyry seen on the Young-Davidson and Pax properties. The intrusive is bounded on the north and west by Timiskaming-type sediments and on the south by Keewatin volcanics. All rock types are dissected by Matachewan diabase dikes.

The syenite porphyry ranges from fine grained pink non-porphyritic to very coarse grained brick red porphyry. Inter-relationships were not seen in the field but the variety of rock types is suggestive of multiple intrusion. Geological Map 2110 of the Ontario Department of Mines notes the occurrence of gold in trenches west of the top of Log Lake. These trenches were located and found to lie in very dark red syenite, highly altered. Pyrite and chalcopyrite were noted. Molbydenite and fluorite are also reported in these trenches. The trenches were well filled in and no attempt has been made as yet to clean them out and sample them. In 1947, a hole drilled for Childs Red Lake Gold Mines Limited undercut the trench and although assays were not submitted with logs for assessment, the geologist mentions several sections of syenite that were cut by quartz stringers, some of which contained chalcopyrite, tourmaline and traces of gold.

In addition to the old gold occurrences, an area of trenched mineralization was found about one claim to the south at a location 200 feet east along the claim line from Post 3 of Claim 372927. The mineralization was seen at a long, old trench. The rocks are now no longer exposed throughout the trench, which is some 150 feet long before turning at right angles and continuing a further 50 feet. Three types of mineralization were seen: a) extremely fine grains scattered throughout the rock; b) small patches (or vugs?); c) hairline fracture or joint fillings. These are mainly in red porphyry,

highly altered or contaminated red porphyry, and other altered rocks. Mineralization is pyrite and chalcopyrite. Weathered surfaces display occasional malachite straining.

In the Matachewan area production was mostly of precious metals (gold and silver) with associated copper and molybdenum. These were produced by three mines: Young-Davidson, the Matachewan Consolidated and Pax International (Ryan Lake). Nickel is known to be associated with mafic and ultramafic intrusives, and also with contact deposits at the margins of granite. Asbestos is known in the ultramafic rocks. Barium has been processed from veins cutting syenites by Extender Minerals of Canada, using the old mining installations at Pax International (Ryan Lake Mines) to produce barite from the Mistinikon Lake area.

Mineralization in the Young-Davidson and Matachewan Consolidated occurs within and near red syenite porphyry. At the Young-Davidson, about 3 miles to the south of Gold Acres, there are several phases of the syenite but the ore occurs in one phase (called "brick red").

The Matachewan Consolidated Mine, whi-h is adjacent to Young-Davidson on the east, extracted ore from both the syenite and from mineralized schist zones in the adjacent volcanics. Their higher grade ore (0.16 ounces gold/ton) came from the latter occurrences, but is believed to be genetically connected with the porphyry.

Shearing and probably drag folding, are believed to have exerted significant influence on ore deposition in both producers.

At Pax International, about a mile south of Gold Acres, ore occurs with quartz in steeply dipping east-west shears within the Keewatin volcanics and peridotite. The main zone is 4 to 5 feet wide and vertically dipping. It trends east-west straddling the contact between peridotite and porphyry. The less competent peridotite has received more of the quartz veining than the porphyry.

6. INTERPRETATION

6.1 GENERAL

6.1.1 Geological Field Check

After the reconnaissance geophysical surveys were completed, a geological check of anomaly areas was done rather than do further geophysical detail. The latter would have supplied detail of geophysical nature of the outlined anomalies (e.g. more precise outline of anomalous bodies, depth, etc.) but the geological nature of the anomalous zones would have remained lacking. For example, detail may have been obtained concerning a body of disseminated mineral, possibly without providing an ambiguous indication of whether the mineral was within prophyry and conseuqently of possible economic interest, or alternatively within diabase and probably of no economic significance. A detailed geological survey was not done, but a check of rock types was made at anomalous areas. The field check was carried out by M. L. Halladay, Senior Geologist. Her observations are incorporated in the interpretation of the data.

6.1.2 Magnetic Survey

The use of magnetic characteristics of rocks to aid mapping of geology is well established. The general strike of the main geologic units east-west with the exception of the diabase dikes. These strike nearly north-south. Consequently, the magnetic field measured along north-south survey lines does not define the diabase dikes clearly.

6.1.3 Induced Polarization Survey

The induced polarization technique is unique among geophysical methods in that it is able to detect both massive and disseminated sulphide mineralization. It does not depend entirely on the contrast in conductivity between the mineralized zone and the host rock, as the electromagnetic induction methods do. The induced polarization effect comes from the physical phenomenon of build-up of electrical charges at the interfaces between metallic sulphides

and fluids in pore-spaces in the rock under the influence of a current applied to the ground.

When this primary current is interrupted the accumulated charges dissipate and in the process set up secondary currents which can be measured. The ratio between the secondary and primary currents is the chargeability measure. In the practical case the voltages are measured rather than the currents themselves, but the chargeability remains the same. Although initially the induced polarization method was devised to detect low grade dissemination of copper sulphides, it has been found that some metallic oxides, such as magnetite, metals in the native state, and graphite also give IP effects. Due to the nature of crystal arrangement in a massive sulphide body this also gives a measurable chargeability. The amplitude and type of IP anomaly is dependent upon the average mineral content in a volume of rock as well as the size of the mineral grains. Very fine grain mineralization usually gives a higher chargeability value than a coarse-grained deposit of the same average grade. Concentration of the mineralization within a small volume, such as occurs in a massively mineralized zone lower the resistivity to an appreciable degree. The resistivity measurements are obtained at the same time as the chargeabilities (Section 3.2, above). Sulphide concentrations as low as one percent or less can be successfully mapped with IP provided that this mineral content occurs over a volume of rock which is comparable in size with the volume measured. The volume of the subsurface which is used for each reading depends upon the separation between the electrodes, and can therefore be adjusted to fit the exploration problem at hand.

6.2 DETAILED INTERPRETATION

6.2.1 Magnetic Survey

The primary purpose of the magnetic survey was to provide data which can be correlated with the IP survey result. Hence, the magnetic survey and the induced polarization survey was carried out along the same lines.

The geologic features which are expected to produce the strongest magnetic features are the diabase dikes striking north-south. East-west survey lines would have been ideal to map these dikes, however, it would have involved additional line cutting. Magnetic data along north-south lines would sufficiently indicate the diabase dikes, unless they are located within survey lines.

Apart from the diabase dikes, three other rock formations are indicated on the geology map. Timiskaming sediments are located in the north, in contact with acid intrusives to the south occupying the central parts of the property. Keewatin volcanics are located in the south.

The magnetic expression of these three geologic formations are very similar and could not be separated on magnetic evidence alone.

The magnetic response in the northerly four claims is uniform reflecting the underlying sediments. Diabase dikes are indicated on the geology map, however, they may be located between survey lines. Two anomalies, at the northern end of Lines 11, 25W and 16W where the survey lines may have crossed dikes at an oblique angle.

The magnetic field shows considerable variation south and southeast of Strong Lake. These variations, which include large amplitude changes represent the effects of the diabase dikes, traversed at an oblique angle. Since the strike of the dikes are known to be north-south, line to line correlation in an east-west direction should not be attempted.

6.2.2. Induced Polarization Survey

(i) General

One area of anomalous chargeability was observed which will be discussed in detail. The survey data indicate only background chargeabilities in the northern four claims. The background chargeabilities increase towards the south and anomalous chargeabilities are located south of Strong Lake.

Often chargeability anomalies are associated with an increase in resistivity, e.g. on Lines 19W and 16W.

The highest resistivities (64,800 ohm-metres) occur where greenstones were observed along Line 19W centred around Station 30S. Resistivities observed over outcropping diabase dikes range from 9,000 ohm-metres to 15,000 ohm-metres except in one area which will be discussed later.

A change in rock type may be indicated by the lower resistivities on Lines 25+50W, 28+50W and 31W south of Station 47S.

(ii) Detailed Discussion

Anomaly 1

The anomalous zone can be observed on three lines, Lines 25+50W, L8+50W, 31W, centred around Station 40S, extending to Station 45S on the south and 35S on the north on Line 31W. On the two other lines the zone is narrower. It should be noted that the survey lines are closer to each other on the ground than indicated on the maps. The anomalous chargeability responses accompanied by lower resistivities (over 10,000 ohm-metres vs. an average of 2,300 ohm-metres).

The IP anomaly has been found to be located over outcrops of Matachewan diabase occurring on all three lines, which on government maps appear in the form of a dike or dikes. These dikes in the type area (Matachewan) are sometimes pyritiferous and indeed are pyritiferous in places on the Gold Acres property. Although Matachewan diabase dikes have been found to carry small amounts of gold, silver and copper in erratic occurrences, they are not found to be economic targets, and it is therefore not recommended to test this IP feature which may lie some 200 feet below surface. The IP anomaly partially correlates with magnetics. In the area of the IP anomaly along Line 31W magnetic readings could not be obtained due to steep magnetic gradients. This may suggest rapidly varying magnetite and/or pyrrhotite content. Alternatively, the contact between the diabase and the country rock may be sinuous, and when it is traversed at an oblique angle, each crossing may produce steep magnetic gradients.

The diabase at Anomaly 1 if of distinctive resistivity nature: somewhat different from the geophysical expression of diabase seen elsewhere on the property and this can be ascribed to localized disseminated sulphide content, or to a siliceous contact zone with massive pyrite, such as has been found in places in the area.

One other interpretation of consequence may be applied to the difference in geophysical character of the diabase at this location, i.e. if this diabase should, in fact, be part of a basic intrusive, either associated or not associated with the porphyry, then the IP feature might have further importance. However, outcrop is not prolific and the existence of such an intrusive might not come to light even with a detailed geologic survey. At some future date accumulations of regional knowledge may cast light on this possibility.

The geophysical evidence is suggestive of a case, where drilling could be warranted, however, geological evidence downgrades the anomaly and consequently no further work is recommended at this time.

Further south, on Line 31W at Station 48S, there is a one point, one line indication. It is only 10 milliseconds above background and it occurs where lower resistivities are observed indicating a rock type change. This indication is not considered worthy of investigation.

Trenches

The long trenches seen in the initial property examination, which were observed to contain pyrite, chalcopyrite, and malachite staining, were tied-in to the present geophysics. These appear on the map near Line 19W at 16S. No significant response was obtained on survey lines near the trenches, indicating that no significant mineralization exists within the zone of penetration of the particular array used for the IP survey. It must be concluded that even if mineralization at surface in the poorly exposed trenches could be shown to be significant, the mineralization is indicated by geophysics to lack the areal extent and depth requirements to merit further work.

During the geological check some further pyrite mineralization and gossany sulphides on fracture planes were noted on Line 31W about 33S. This was sampled, assayed and found to contain only trace amounts of gold, silver and copper. Its geophysical expression was also very weak, and no work is recommended on it.

7. CONCLUSIONS AND RECOMMENDATIONS

During the month of June 1974 ground geophsyical surveys consisting of a magnetic and an induced polarization survey were carried out on twelve unpatented mining claims in Powell Township, Ontario.

The magnetic survey was carried out to aid the interpretation of the induced polarization survey. The acid intrusives, Temiskaming sediments and the Keewatin volcanics have seemingly similar magnetic expression and geologic formations could not be outlined on the basis of magnetic evidence alone.

The high amplitude magnetic anomalies observed south and southeast of Strong Lake indicate Matachewan diabase dikes. These dikes strike generally north-south, consequently, the north-south survey lines may cross contacts at an oblique angle, resulting in unpredictable anomaly shapes. The induced polarization survey outlined one well defined anomalous zone and a slightly anomalous zone occurring on one line only.

The well defined zone is coupled with lower resistivities but diabase was found outcropping on all three lines in the area of the IP anomaly.

Although the geophysical evidence may be of significance, the observed geology downgrades the anomaly. Matachewan diabase dikes have been found to carry small amounts of gold, silver and copper in erratic occurrences, but they are not found to be economic targets. Considering both, geological and geophysical evidences, further work is not recommended at this time.

The results of the surveys should, however, be reviewed if new geologic or geophysical evidence becomes available in the general area of the property.

BARRINGER RESEARCH LIMITED

F. L. Jagodits, P. Eng.,
Chief Geophysicist.

8. REFERENCES

1. Halladay, M. L. (1974) Report on the Property of Gold Acres Mines Limited on Powell Township, Larder Lake Mining Division, Ontario, by Barringer Research Limited, Toronto.

2. Lovell, H. L. (1967) GR-51, Geological Report, Matachewan, Ontario. Department of Mines.

3. Lovell, H. L. (1965) P. 272 Preliminary Map, Ontario Department of Mines.

4. Assessment Files. Ontario Department of Mines.

BADEN TOWNSHIP

CAIRO TOWNSHIP

80°14'

49°00'

47°48'

West Montreal River

Log L.

Hawley Lake

Pax Int. Mines Ltd.

Ryan Lake

Otisse Lake

Matachewan Consolidated Mines Ltd.

Young Davidson Mines Ltd.

WEST MONTREAL RIVER

L. 372938	L. 372937
L. 372935	L. 372936
L. 372928	L. 372927
L. 372929	L. 372930
L. 372932	L. 372931
L. 327934	L. 327933

N

—A—

Kapuskasing

Lake Abitibi

Timmins

LOCATION

Matachewan

ONTARIO

QUEBEC

49°00'

48°00'

47°00'

Sudbury

North Bay

L. Nipissing

46°00'

GEORGIAN BAY

82°00'

80°00'

Scale 1" = 31 m. (approx)

REGISTERED PROFESSIONAL ENGINEER
F. L. JAGODITS
PROVINCE OF ONTARIO

Work undertaken by
BARRINGER RESEARCH LTD, Toronto, Canada.

GOLD ACRES MINES LIMITED

POWELL TWP., LARDER LAKE M.D., ONT.

LOCALITY PLAN

SEPT. 1973	SCALE 1" = ½ mile	DWG. 8-400-6

BADEN TOWNSHIP

80°41'

47°48'

CAIRO TOWNSHIP

West Montreal R.

Log L.

Hawley Lake

Pax Int. Mines Ltd.

Ryan Lake

WEST MONTREAL RIVER

Otisse Lake

Young Davidson Mines Ltd.

Matachewan Consolidated Mines Ltd.

N

A

LEGEND

- 7 Nipissing diabase
- 6 Cobalt sediments
- 5 Matachewan diabase
- 4 Acid intrusives
- 3 Ultramafic and mafic intrusive (Haileyburian)
- 2 Timiskaming sediments
- 1 Keewatin volcanics

Fault, indicated or assumed

Lineament

Synclinal axis

Mines

Geology from O.D.M. Map 2110

Work undertaken by

BARRINGER RESEARCH LTD, Toronto, Canada.

GOLD ACRES MINES LIMITED

POWELL TWP., LARDER LAKE M.D., ONT.

GEOLOGY

SEPT. 1973	SCALE 1" = ½ mile	DWG. 8-400-7

900

GEOPHYSICAL – GEOLO
TECHNICAL DA

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey Magnetometer

Township or Area Powell Township

Claim holder(s) Clifford Marshall Haynes

Author of Report F. L. Jagodits

Address 304 Carlingview Dr., Rexdale, Ontario M9W 5G2

Covering Dates of Survey May 5 -- June 28, 1974
(linecutting to office)

Total Miles of Line cut 9.2

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

DAYS per claim

Geophysical
--Electromagnetic
--Magnetometer 40
--Radiometric
--Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer ____ Electromagnetic ____ Radiometric ____
(enter days per claim)

DATE: September 16/74 SIGNATURE: F. L. JAGODITS
Author of Report or Agent

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

PROJECTS SECTION

Res. Geol. ____ Qualifications ____

Previous Surveys 63.3124 not for assessment credit 63.A 464, 63E9, 2.739 geochemical

Checked by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

GEOLOGICAL BRANCH

Approved by ____ date ____

OFFICE USE ONLY L.D.

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)		
L372927	1/4 N	?
L372928	1/4	
L372929	1/4	
L372930	✓	?
L372931	✓	?
L372932	1/4	
L372933	✓	
L372934	1/4	
L372935	✓	?
L372936	✓	
L372937	✓	
L372938	✓	?

Area of claims not covered: 1.5

40 x 12 = 480 ÷ (12 + 1.5) = 36 days

TOTAL CLAIMS 12

If space insufficient, attach list

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 462 Number of Readings 484

Station interval 100 foot

Line spacing 400 feet

Profile scale or Contour intervals Profile- 1" = 1000 gammas (base level 59,000)
(specify for each type of survey)

MAGNETIC

Instrument Barringer GM122 proton precession

Accuracy - Scale constant ± 1 gamma

Diurnal correction method base station looping

Base station location

ELECTROMAGNETIC

Instrument

Coil configuration

Coil separation

Accuracy

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency
(specify V.L.F. station)

Parameters measured

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

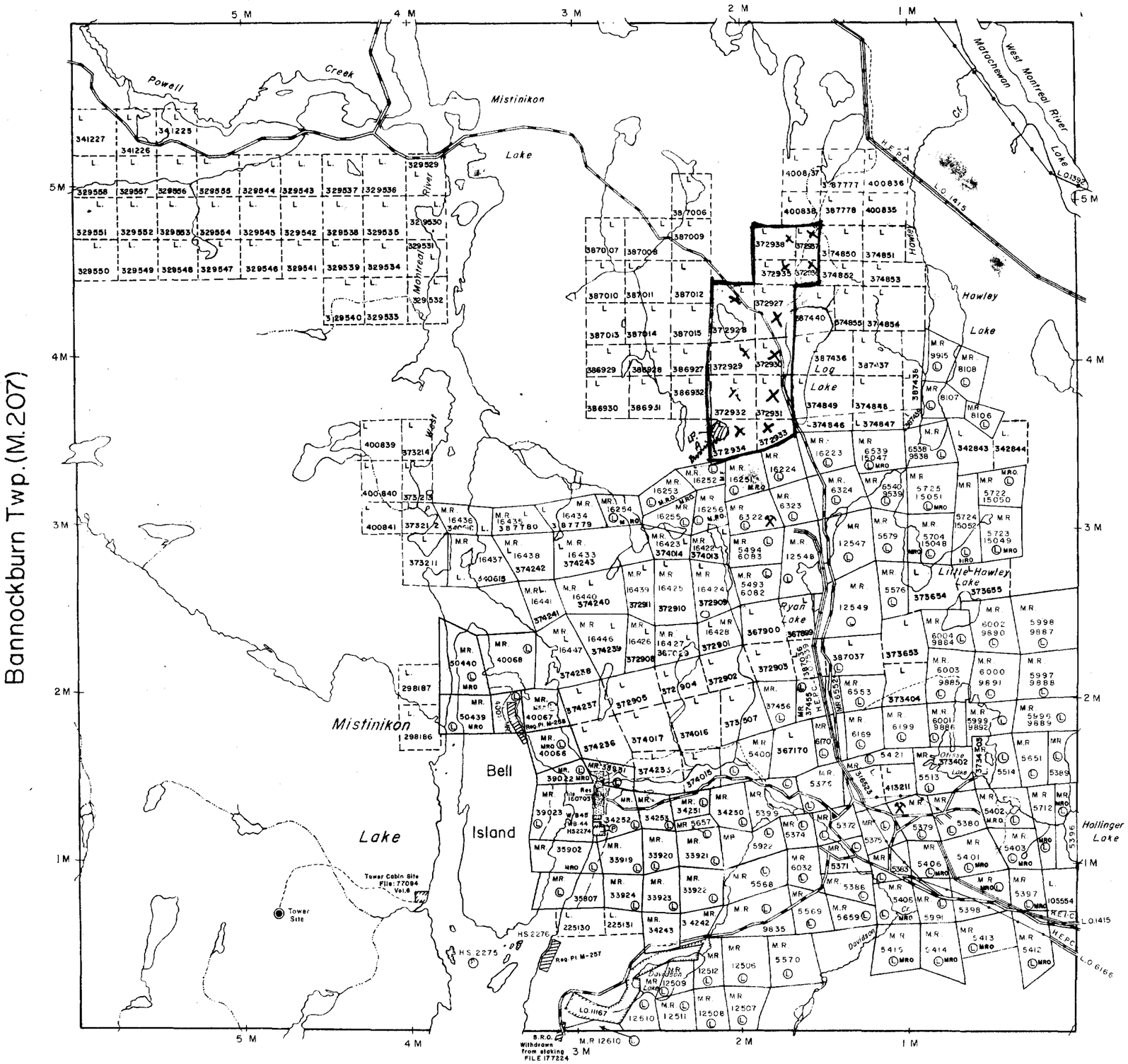
Type of electrode

Baden Twp. (M.205)

Bannockburn Twp.(M.207)

Cairo Twp. (M. 210)

Yarrow Twp.(M.260)



THE TOWNSHIP
OF

POWELL

DISTRICT OF
TIMISKAMING

LARDER LAKE
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' Surface Rights Reservation along the shores of all lakes and rivers.

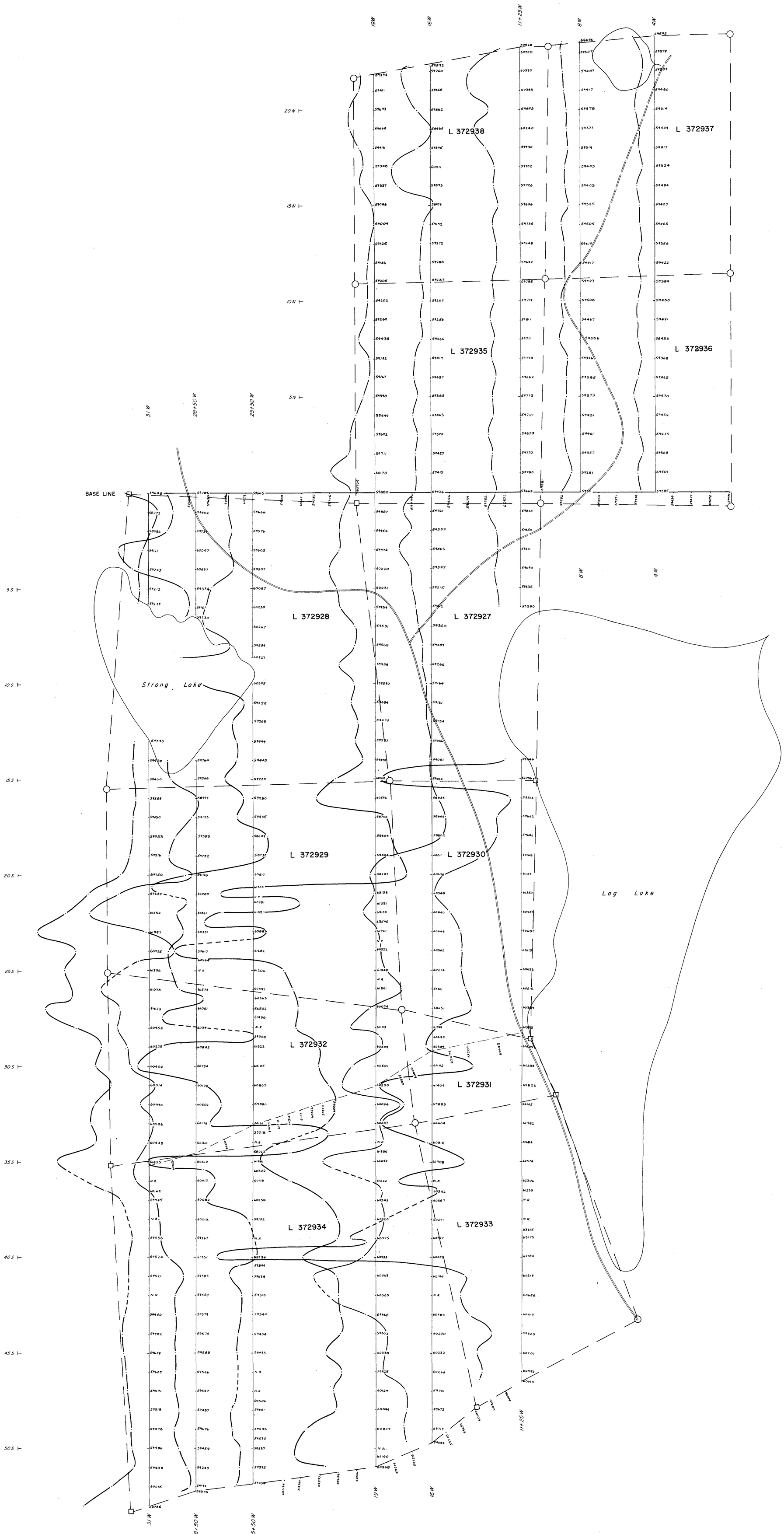
L.O. 7601 Covers Flooding Rights In This Twp To Below Contour 870'.00 To H.E.P.C. File: 12290 Vol 2.

L.O. 11167 Shown thus: ---- File 90970

- MINING LANDS -
DATE OF ISSUE
SEP 19 1974
MINISTRY
OF NATURAL RESOURCES

PLAN NO. M.241

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



N

A

41P15NE8264 2.1573 POWELL

210

LEGEND

Magnetic profile scale 1" = 1000 gammas

Base level 59,000 gammas

REGISTERED PROFESSIONAL ENGINEER F. L. JAGODITS PROVINCE OF ONTARIO

Work undertaken by

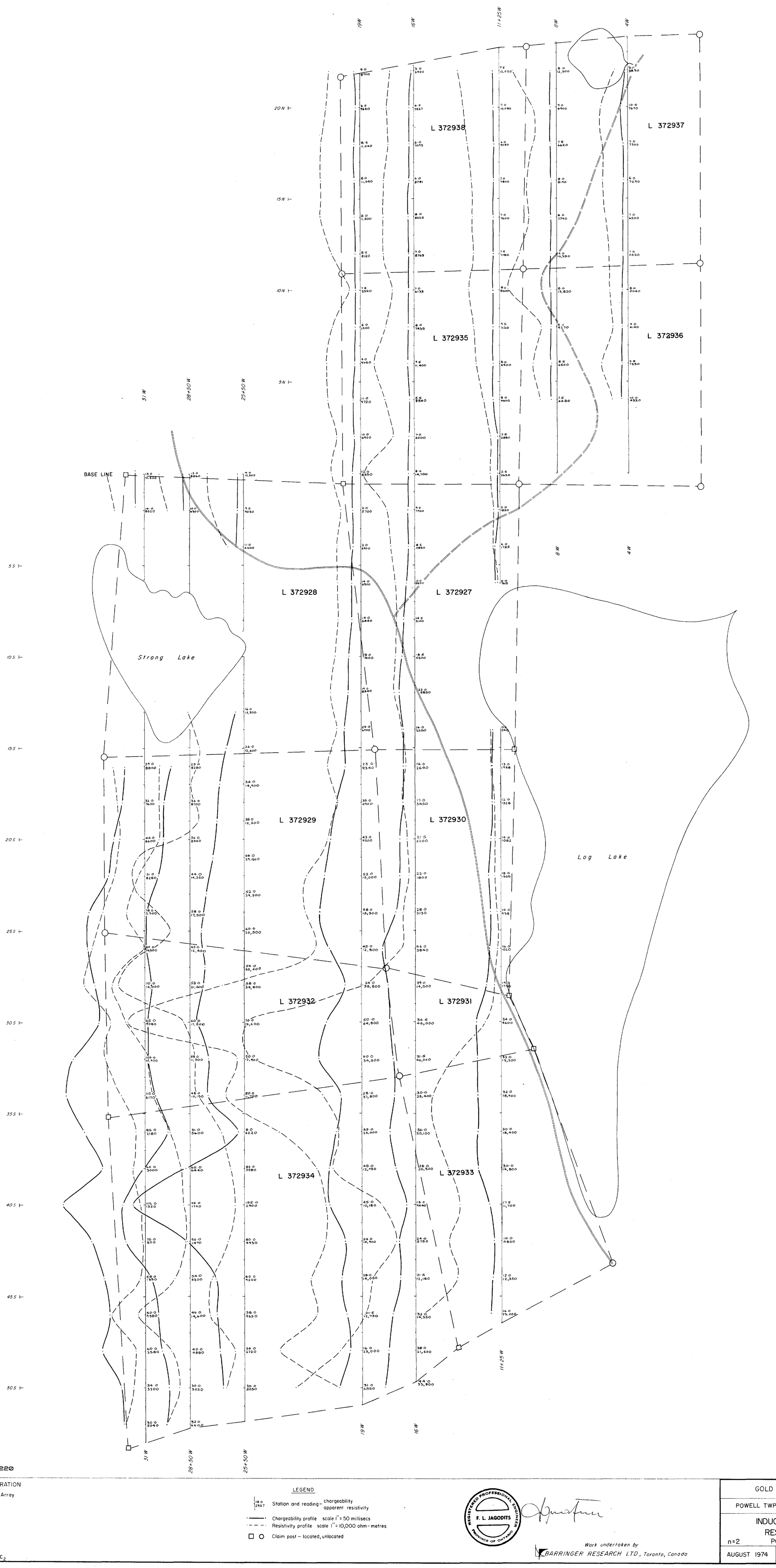
BARRINGER RESEARCH LTD, Toronto, Canada

GOLD ACRES MINES LIMITED

POWELL TWP., LARDER LAKE M.D., ONTARIO

TOTAL INTENSITY MAGNETIC PROFILES

AUGUST 1974 | SCALE 1" = 200' | DWG. 5-361-1



41P15NE8264 2.1573 POWELL

220

N

ELECTRODE CONFIGURATION

Pole-Dipole Array
n=2
a=200'
P_1 plotting point

LEGEND

18.0 / 2857 — Station and reading — chargeability / apparent resistivity

Chargeability profile scale 1" = 50 millisecs

Resistivity profile scale 1" = 10,000 ohm-metres

Claim post — located, unlocated

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PROVINCE OF ONTARIO

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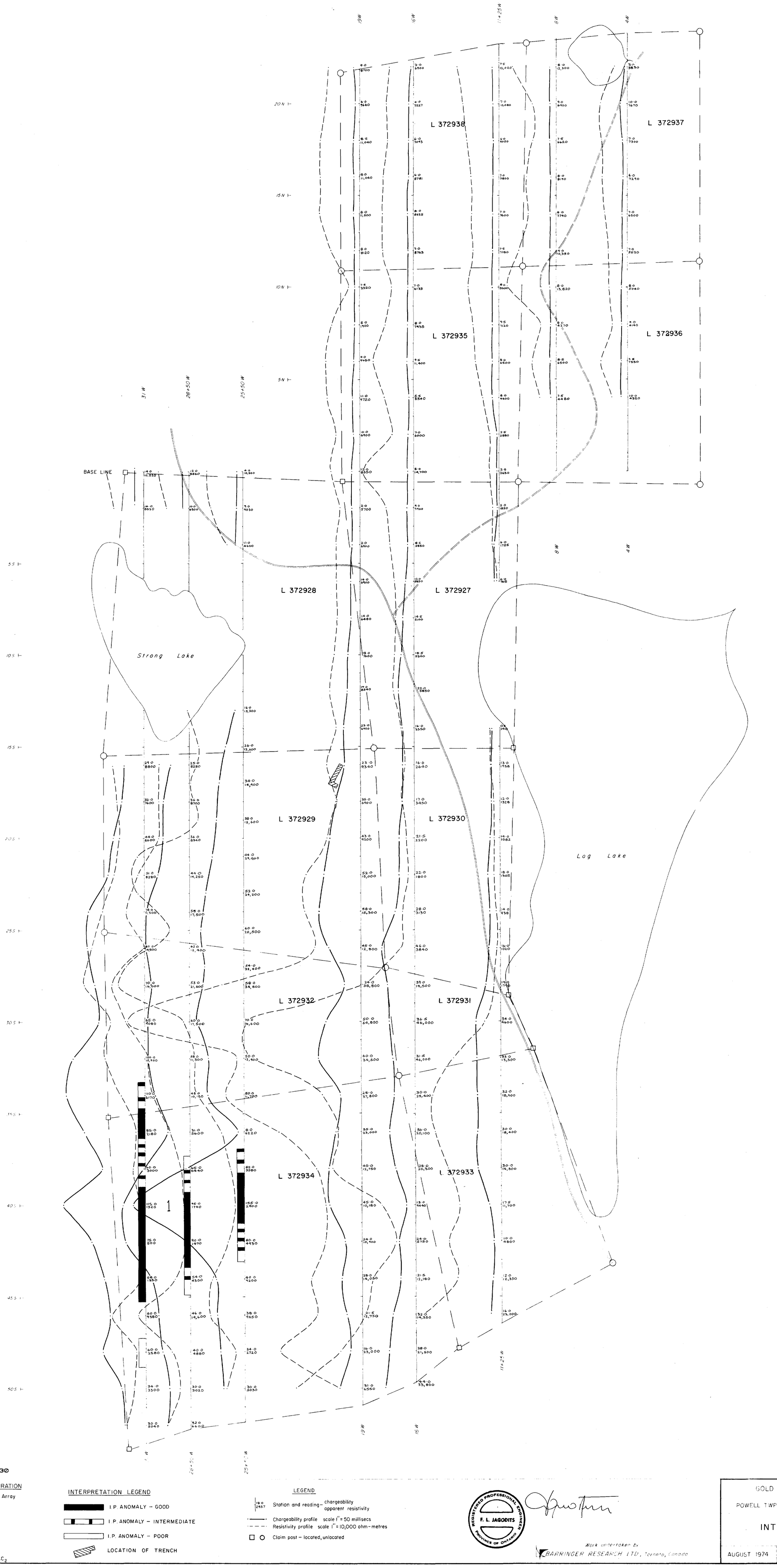
INDUCED POLARIZATION & RESISTIVITY SURVEY

n=2 POLE-DIPOLE ARRAY a=200'

AUGUST 1974 | SCALE 1"=200' | DWG. 5-361-2



41P15NE8264 2.1573 POWELL

230

ELECTRODE CONFIGURATION

Pole-Dipole Array
n=2
a=200'
P_1 plotting point

INTERPRETATION LEGEND

- I.P. ANOMALY – GOOD
- I.P. ANOMALY – INTERMEDIATE
- I.P. ANOMALY – POOR
- LOCATION OF TRENCH

LEGEND

- 18.0 / 2957 Station and reading – chargeability / apparent resistivity
- Chargeability profile scale 1" = 50 millisecs
- Resistivity profile scale 1" = 10,000 ohm-metres
- Claim post – located, unlocated

F. L. JAGODITS
REGISTERED PROFESSIONAL ENGINEER
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INTERPRETATION

AUGUST 1974 | SCALE 1"=200' | DWG 5-361-3