# REPORT ON COMBINED HELICOPTER BORNE MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY GARNET-BENTON TOWNSHIPS AREA PORCUPINE MINING DIVISION ONTARIO



FOR
DOMINION EXPLORERS INC.
BY
AERODAT LIMITED
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# TABLE O

## LIST OF MAPS
## (Scale 1:10,000)

Maps: (As listed under Appendix "B" of the Agreement)

1. **PHOTOMOSAIC BASE MAP;**
   prepared from an uncontrolled photo laydown, showing registration crosses corresponding to NTS co-ordinates on survey maps.

2. **FLIGHT LINES;**
   showing all flight lines, anomalies and fiducials with the photomosaic base map.

3. **AIRBORNE ELECTROMAGNETIC ANOMALY MAP;**
   showing flight lines, fiducials, conductor axes and anomaly peaks along with inphase amplitudes and conductivity thickness ranges for the 4600 Hz coaxial coil system with the photomosaic base map.

4. **TOTAL FIELD MAGNETIC CONTOURS;**
   showing magnetic values contoured at 2 nanoTesla intervals, flight lines and fiducials with the photomosaic base map.

5. **VERTICAL MAGNETIC GRADIENT CONTOURS;**
   showing magnetic gradient values contoured at 0.05 (large area) and 0.1 (small area) nanoTeslas per meter with the photomosaic base map.

6. **APPARENT RESISTIVITY CONTOURS;**
   showing contoured resistivity values, flight lines and fiducials with the photomosaic base map.

7. **VLF-EM TOTAL FIELD CONTOURS;**
   showing VLF-EM values contoured at 2% intervals, flight lines and fiducials with the photomosaic base map.

# 1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Dominion Explorers Inc. by Aerodat Limited. Equipment operated included a three frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a film tracking camera, a radar positioning system, and an altimeter. Electromagnetic, magnetic and altimeter data were recorded both in digital and analog form. Positioning data were stored in digital form and recorded on VHS Video cassette film, as well as being marked on the flight path mosaic by the operator while in flight.

The survey, comprised of two blocks of ground in the Swayze Volcanic Belt, is located approximately 125 kilometres southwest of Timmins, Ontario. A total of eight (8) flights were needed to complete the survey blocks and were flown between November 11 and 18, 1988. Flight lines were oriented at an Azimuth of 030-210 degrees and were flown at a nominal line spacing of 100 metres. Coverage and data quality were considered to be well within the specifications described in the contract.

The survey objective is the detection and location of mineralized zones which can be directly or indirectly related to precious or base metal exploration targets. Of importance, therefore, for precious metals, are poorly mineralized conductors, displaying weak conductivity, which may represent structural features which can sometimes play an essential role in the eventual location of primary minerals. Weak conductors associated with iron formations are also considered primary targets for precious metals. In regard to base metal targets, short, isolated or flanking conductors displaying good conductivity and having either magnetic correlation or no magnetic correlation, are all considered to be areas of extreme interest.

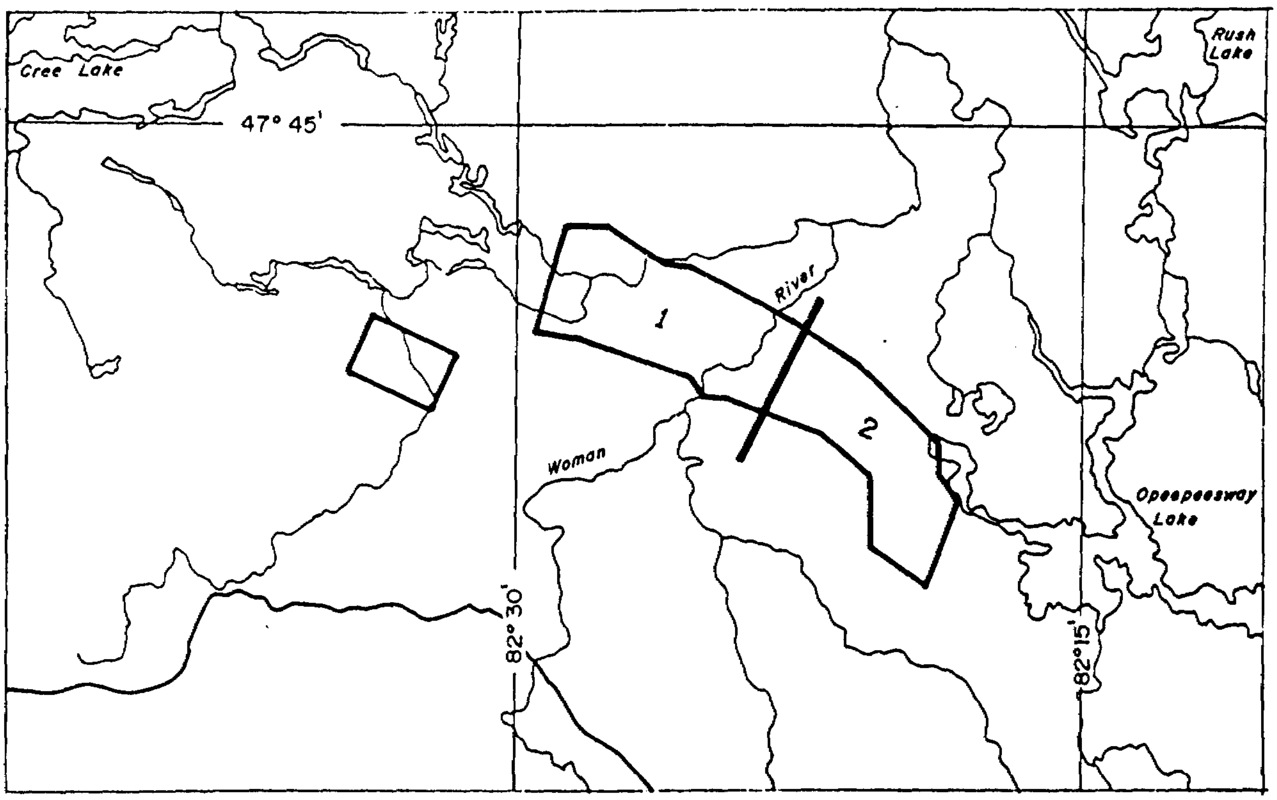
A total of 560 kilometres of the recorded data were compiled in map form and are presented as part of this report according to specifications outlined by Dominion Explorers Inc.

## 2. SURVEY AREA LOCATION

The survey blocks are depicted on the index map as shown. Both blocks are centred at Latitude 47 degrees 40 minutes north, Longitude 82 degrees 30 minutes west. The areas are located approximately 125 kilometres southwest of Timmins, Ontario and approximately 185 kilometres northeast of Sault Ste. Marie. Both are located within the Swayze Volcanic Belt, about 16 kilometres northwest of the former gold producer, Jerome Gold Mines Corporation.

Access to various parts of the survey blocks can be made from two lumber roads which traverse into the area from the south through Fawn and Esther Townships. Smaller haulage roads lead off from both of these main roads. Float plane aircraft transport can also be made from Chapleau, which is approximately 70 kilometres west of the survey blocks or from Foleyet, which is approximately 60 kilometres north of the survey blocks.

The terrain of both survey blocks (N.T.S. Reference Map No. 41-O/ 9, 10) is reasonably flat, perhaps in the order of 50 feet.



Cree Lake
Rush Lake
47° 45'
River
1
2
Woman
Opeepeesway Lake
82° 30'
82° 15'

# 3. AIRCRAFT AND EQUIPMENT

## 3.1 Aircraft

An Aerospatiale A-Star 350D helicopter, (C-GJIX), owned and operated by Questral Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a mean terrain clearance of 60 metres.

## 3.2 Equipment

### 3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat 3-frequency system. Two vertical coaxial coil pairs were operated at 935 Hz and 4600 Hz and the horizontal coplanar coil pair at 4175 Hz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the 3 frequencies with a time constant of 0.1 seconds. The electromagnetic bird was towed 30 metres below the helicopter.

### 3.2.2 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measures the total field and quadrature components of two selected transmitters, preferably oriented at right angles to one another. The sensor was towed in a bird 12 metres below the helicopter. The transmitters monitored were NAA, Cutler, Maine and NSS, Annapolis, Maryland broadcasting at 24.0 kHz and 21.4 kHz respectively for the Line Station and NLK, Jim Creek, Washington broadcasting at 24.8 kHz for the Orthogonal Station.

### 3.2.3 Magnetometer

The magnetometer employed a Scintrex Model VIW-2321 H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument was 0.1 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 12 metres below the helicopter.

### 3.2.4 Magnetic Base Station

An IFG-2 proton precession magnetometer was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

### 3.2.5 Radar Altimeter

A King Air HRA-100 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

### 3.2.6 Tracking Camera

A Panasonic video tracking camera was used to record flight path on VHS video tapes. The camera was operated in continuous mode and the fiducial numbers and time marks for cross reference to the analog and digital data were encoded on the video tape.

### 3.2.7 Analog Recorder

An RMS dot-matrix recorder was used to display the data during the survey. In addition to manual and time fiducials, the following data were recorded:

| Channel | Input | Scale |
|---|---|---|
| CXI1 | Low Frequency Coaxial Inphase | 2.5 ppm/mm |
| CXQ1 | Low Frequency Coaxial Quadrature | 2.5 ppm/mm |
| CXI2 | High Frequency Coaxial Inphase | 2.5 ppm/mm |
| CXQ2 | High Frequency Coaxial Quadrature | 2.5 ppm/mm |
| CPI1 | Low Frequency Coplanar Inphase | 10 ppm/mm |
| CPQ1 | Low Frequency Coplanar Quadrature | 10 ppm/mm |
| PWRL | Power Line | 60 Hz |
| VLT | VLF-EM Total Field, Line | 2.5%/mm |
| VLQ | VLF-EM Quadrature, Line | 2.5%/mm |
| VOT | VLF-EM Total Field, Ortho | 2.5%/mm |
| VOQ | VLF-EM Quadrature, Ortho | 2.5%/mm |

| Channel | Input | Scale |
|---|---|---|
| RALT | Radar Altimeter | 10 ft./mm |
| MAGF | Magnetometer, Fine | 2.5 nT/mm |
| MAGC | Magnetometer, Coarse | 25 nT/mm |

### 3.2.8 Digital Recorder

A DGR 33 data system recorded the survey on magnetic tape. Information recorded was as follows:

| Equipment | Recording Interval |
|---|---|
| EM System | 0.1 seconds |
| VLF-EM | 0.5 seconds |
| Magnetometer | 0.2 seconds |
| Altimeter | 0.5 seconds |

### 3.2.9 Radio Positioning System

A Motorola Mini-Ranger (MRS IV) radar navigation system was used for both navigation and flight path recovery. Transponders sited at fixed locations were interrogated several times per second and the ranges from these points to the helicopter measured to a high degree of accuracy. A navigational computer triangulates the position of the helicopter and provides the pilot with navigation information. The range/range data were recorded on magnetic tape for subsequent flight path determination.

# 4. DATA PRESENTATION

## 4.1 Base Map

A Photomosaic base map at a scale of 1:10,000 were prepared from a photo lay down map supplied by Aerodat, on a screened mylar base.

## 4.2 Flight Path Map

The flight path map was derived from the Mini-Ranger radar positioning system. The distance from the helicopter to two established reference locations was measured several times per second and the position of the helicopter calculated by triangulation. It is estimated that the flight path is generally accurate to about 10 metres with respect to the photomosaic detail of the base map.

The flight path map showing all flight lines, are presented on a Cronaflex copy of the photomosaic base map, with time and navigator's manual fiducials for cross reference to both the analog and digital data.

## 4.3 Airborne Electromagnetic Anomaly Map

The electromagnetic data were recorded digitally at a sample rate of 10 per second with a time constant of 0.1 seconds. A two stage digital filtering process was carried out to reject major sferic events and to reduce system noise.

Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further enhanced by the application of a low pass digital filter. It has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 0.25 seconds. This low effective time constant permits maximum profile shape resolution.

Following the filtering process, a base level correction was made. The correction applied is a linear function of time that ensures the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. The filtered and levelled data were used in the interpretation of the electromagnetics. An interpretation map was prepared showing flight lines, fiducials, peak locations of anomalies and conductor axes. The data have been presented on a Cronaflex copy of the photomosaic base map.

## 4.4 Total Field Magnetic Contours

The aeromagnetic data were corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. No correction for regional variation was applied. The corrected profile data were interpolated onto a regular grid at a 25 metre true scale interval using an Akima spline technique. The grid provided the basis for threading the presented contours at a 2 nanoTesla interval.

The contoured aeromagnetic data have been presented on a Cronaflex copy of the photomosaic base map.

## 4.5 Vertical Magnetic Gradient Contours

The vertical magnetic gradient was calculated from the gridded total field magnetic data. The larger survey block was contoured at a 0.05 nT/m interval while the small block was contoured at a 0.1 nT/m interval. Both sets of gradient data were presented on a Cronaflex clear overlay base map.

## 4.6 Apparent Resistivity Contours

The electromagnetic information was processed to yield a map of the apparent resistivity of the ground.

The approach taken in computing apparent resistivity was to assume a model of a 200 metre thick conductive layer (i.e., effectively a half space) over a resistive bedrock. The computer then generated, from nomograms for this model, the resistivity that would be consistent with the bird elevation and recorded amplitude for the coaxial frequency pair used. The apparent resistivity profile data were interpolated onto a regular grid at a 25 metres true scale interval using a cubic spline technique.

The contoured apparent resistivity data along with flight lines were presented on a Cronaflex clear overlay base map.

## 4.7 VLF-EM Total Field Contours

The Line Station total field signal from NSS, Annapolis, Maryland and NAA, Cutler, Maine was also gridded at a 25 metre interval and presented on a Cronaflex copy of the photomosaic base map along with the flight lines.

# 5. INTERPRETATION

## 5.1 Geology

A northeast-trending belt of Archean metavolcanics and metasediments crosses the map area and extends beyond it to the northwest and to the southeast. Metamorphosed mafic volcanic flows interpreted as high magnesium tholeiitic basalt extend uninterruptedly throughout Benton Township, portions of the airborne survey within Esther Township and Osway Township and to the west in Garnet Township. The mafic metavolcanics are locally pillowed, vesicular and/or amygdaloidal, and have generally undergone greenschist rank metamorphism.

Narrow northwest trending layers of variably sheared felsic metavolcanics are locally interbedded with mafic metavolcanics particularly in western Benton Township. These units which consist of porphyritic and/or tuffaceous rhyolite and calcite are offset by northeast trending faults and by the intrusion of gabbro and diorite.

Iron formation consisting of magnetite bearing chert interbedded with barren chert were mapped in Benton Township. Other similar horizons no doubt exist within the two airborne survey blocks.

Diorite and gabbro intrusives have been noted throughout the survey area. Granitic intrusions are also found in a few localities within the volcanic belt, in particular, to the south of the Garnet Township survey block.

Fault structures are generally oriented normal to the trend of foliation and shearing in the metavolcanics. In this region, they tend to be northerly or northeast.

## 5.2 Magnetics

Referring to the east survey block, the higher intensity magnetic features towards the west-central portion of Benton Township, as well as the areas within Garnet Township, are interpreted as being related to iron formations within metasedimentary rock units. They generally tend to strike in a northwest-southeast direction, with dips seemingly towards the south. It would also seem that thrust faults have displaced the trends, especially towards the northwest corner of the east block, north of the Wakami River. This aspect will be discussed further in the next section. For the most part, these iron formations tend to be 100-200 metres wide.

Mafic intrusive rocks are also present as a few outcrops of gabbro-diorite have been located in northwestern Benton Township. In reference to the magnetics, it would seem that this particular rock type extends across the northern portion of the survey block to an area east of the Wakami River.

It seems that most areas displaying low magnetic susceptibility are areas coinciding with massive to pillowed basalts. In some regions, where the intensity is exceptionally low, diorite or granitic intrusives may be the underlying rock types.

Towards the east central portion of the east survey block, there is quite a large magnetic complex to the west of the Northwest Arm of Opeepeesway Lake. The writer is unaware of a particular source in the immediate area that would give rise to such a large magnetic response. It would appear that arenite wacke, mafic foliated tholeiitic flows, conglomerate are some of the rock types in the vicinity. Iron formation is suspected as being the source. Quartz feldspar porphyry has been noted nearby, with the iron formation seemingly located on the southern contact of the quartz feldspar porphyry. Several north-northwest trending diabase dykes are noted towards the west central portion of Osway Township, as well as into the northeast corner of Esther Township. Another diabase dyke is located in south central Benton Township traversing approximately in an east-west direction, just to the north of Woman River.

The magnetic features within the western survey block, in Garnet and Fawn Townships, are interpreted as being related to iron formation within a mafic metavolcanic complex. Diorite and gabbro intrusions are known to exist within this smaller block as well.

## 5.3 Vertical Magnetic Gradient Contours

The areas of high intensity magnetics have been clearly broken up into unique trends as a result of the computation of the vertical gradient. This interpretation is not as readily obvious when one refers to the magnetic total field maps. These are the areas that have been interpreted to be either iron formation or ultramafic rock types. This is certainly true for the areas in the west central portion of Benton Township and northwest Osway Township.

It should also be noted that the zero contour interval coincides directly or very close to geological contacts. These may also be construed as being magnetically active trends within a much wider geologic horizon as well, besides being associated with a uniquely homogenous lithology. The iron formations, within what has been indicated to be metasediments, are in the order of 100-200 metres wide. Within this span, there may be several, much narrower zones of iron formation that make up the total package, the latter being responsible for the magnetic feature. It is because of this phenomenon that the calculated vertical gradient map can be compared to a pseudo-geological map. This is true for vertical bedding. However, with the bedding dipping at a steep or moderate angle, it will be found that the geological contact will be closer to the magnetic peak by a small distance.

By using known or accurate geological information and combining this data with the vertical gradient data, one can use the presented maps as a pseudo-geological map. Obviously, the more that is known about an area geologically, the closer this type of presentation is to what the rock types are likely to be in the Garnet-Benton Township areas.

This type of presentation is an invaluable tool in helping to define complex geology, especially in drift covered areas. Not only in areas of complex geology but in areas of closely spaced geologic formations, has the calculated vertical gradient computation been of exceptional value. Since portions of both blocks are overlain with Pleistocene till deposits, this particular presentation will be of some assistance in obtaining a complete geological perspective for both survey blocks. It is believed, however, that most areas within both blocks contain an abundance of outcrop.

Much more obvious in this data presentation are the number of diabase dikes, especially towards the eastern portions of the larger east block. There are north-northwest as well as a few east-west trending dikes. There are many more of these diabase dikes than what is generally thought.

The writer has indicated several fault zones on the interpretation maps for both survey blocks. Most are cross cutting faults, some which may be splay type faults from much longer, major structures. The latter type structures or deformation zones are somewhat more difficult to interpret from the magnetics and it is suggested that a further and more comprehensive analysis of the magnetics may reveal the existence of such structures. These are sometimes the important ore forming zones or horizons.

Because of the nature of the computation of the vertical gradient map, magnetic anomalies produced by near surface features are emphasized with respect to those resulting from more deeply buried rock formations. As a result, much more detail is obtained, providing a better opportunity to recognize fault zones. As mentioned, some faults have been interpreted by the writer, however, it will become more apparent to the client as more field geological information is obtained, that other fault zones do exist.

This presentation will also, perhaps, change the client's mind about certain geologic horizons and especially the location of contacts.

## 5.4 Electromagnetics

The electromagnetic data was first checked by a line-by-line examination of the analog records. Record quality was good with minor noise levels on the low frequency coaxial inphase trace. However, instrument noise was well within the specifications. Geologic noise, in the form of surficial conductors, is present on the high frequency coaxial response, as well as on the mid frequency coplanar response.

Anomalies were picked off the analog traces of the low and high frequency coaxial responses and then validated on the coplanar profile data. These selections were then checked with a proprietary computerized selection program which can be adjusted for ambient and instrumental noise. The data were then edited and re-plotted on a copy of the profile map. This procedure ensured that every anomalous response spotted on the analog data was plotted on the final map and allowed for the rejection - or inclusion if warranted - of obvious surficial conductors. Each conductor or group of conductors was evaluated on the basis of magnetic (and lithologic, where applicable) correlations apparent on the analog data and man made or surficial features not obvious on the analog charts.

## RESULTS

As a result of this airborne survey being carried out, it is very clear that a majority of both survey blocks is overlain by a thin, somewhat conductive layer of overburden. Much more evident is the extremely high conductive lake bottom sediments. It is also very apparent that local regions of swamps and in the proximity of creeks and rivers, are also somewhat conductive. The effects from these conductive phenomenon are perhaps more prevalent on the mid frequency coplanar trace.

It is also interesting to note that the inphase responses for all frequencies are negative over horizons which display high intensity magnetic features. This is a reflection of the magnetite content. The higher the magnetite content, the more pronounced would be the negative electromagnetic responses. As can be seen from the results, there are a few ares where electrical conductors are associated with this geological horizon. They are probably attributed to sulphide conductors within either iron formations or ultramafic complexes.

There were several bedrock conductors intercepted within both survey blocks during the course of flying this survey. Most display strong electromagnetic responses but there are several bedrock conductors where the conductivity is rather poor. The much stronger EM responses are thought to be caused by graphite, whereas the weaker anomalies, especially the short strike conductors, are believed to be related to sulphides.

The writer has outlined on the EM maps selected targets which have been assigned a letter and a number beside them, e.g. C1, C2 etc. representing the Chapleau area. It is recommended that each zone be given a thorough investigation in regard to geology and previous work carried out. Because of the number of conductors intercepted within both survey blocks, only a brief comment or two will be given for each zone.

<u>Zone C1</u>

The lone intercept displays a rather weak electromagnetic response but is still considered to be related to a bedrock source. Sulphides within an iron formation is perhaps the source. Basalt has been mapped in close proximity to the conductor, as has diorite-gabbro. If one refers to geology map 2503, it will be noted that ferruginous chert has also been mapped in the area of the conductor. It is suggested that sulphides within an iron formation is the cause. Note how the inphase responses are negative, indicating a magnetite content. There is no extention of the conductor to the east and this could be a result of the interpreted fault zone. Because of the limitation of the survey area, it is not known whether or not there is any western extention. A dip to the southwest is interpreted.

## Zone C2

The lone intercept displays a reasonable electromagnetic response, as well as having good magnetic correlation. It is a rather short trend, perhaps in the order of 100 metres or less. It could be longer. Could it be associated with a similar geological horizon as that for Zone C1? Referring to geology map 51f, it will be seen that the lone intercept correlates with or is very close to a conglomerate (metasediment) - granodiorite contact. This seems to agree reasonably well with geology map 2503. There is no negative response on the inphase traces so one could suspect that there is no magnetite involved. A dip to the southwest is interpreted. A follow-up survey is suggested.

## Zone C3

This area takes in several conductors, each displaying moderate to strong conductivity. For the mostpart, the conductive trends are located to the south of the high intensity magnetic feature, with perhaps one zone being directly associated. Referring to geology map 51f, it will be seen that Timiskaming conglomerate has been mapped just to the north of the Wakami River, interbedded with basalts. An iron formation within a sheared felsic metavolcanic has also been observed just to the east of Zones C3 and C4. A short distance to the west of the survey boundary, along strike from Zone C3, INCO reported a carbonate and graphite shear zone of undefined width. It is suggested that the several conductors within Zone C3 are related to graphite within a metasedimentary geological horizon. A low priority is given to any follow-up for this area.

## Zone C4

This is an extremely poor electromagnetic response and one that may be related to the conductive river bottom silts. Pillowed mafic flows have been indicated as being the rock type, although metasediments are not too far away. A low priority.

## Zone C5

Foliated mafic metavolcanics have been described as being the rock types in the immediate vicinity of this conductor. It displays rather poor conductivity and was picked based on its response on the high frequency coaxial inphase trace. However, it will be noted that there is a creek and a rather large swamp located in close proximity to the conductor. It is perhaps this source that is the cause of the poor conductivity. There is no magnetic association. No further work is warranted.

Zone C6

Much the same description for Zone C5 can be made for this short trend. It seems to correlate with the conductive nature of Fawn Creek. Massive basalt seems to be the underlying host rock. There is no magnetic association. A low priority.

Zone C7

There are three conductors interpreted in this area, each being related to a bedrock source. The central, southern and northern conductors, in this order, display the better conductivity. Referring to the magnetics, it will be noted that there is a weak trend striking obliquely across all three conductors. It is suggested, therefore, that the strike of the conductors may very well be in the same direction. If this was true, then only two conductors may exist. Any ground surveying to be done in this area should be carried out in an east-west direction. A dip to the north is interpreted. A follow-up survey is suggested. Easy access to the conductor can be made from the lumber road which is located approximately 240 metres to the east of the zone.

Zone C8

The outlined conductor axis, it will be noted, is located on the northern edge of what would seem to be a conductive sheet. Just off the west end of the trend is a large pond, while immediately to the south of the conductor, there seems to be a clearing or a swamp. Massive to foliated mafic metavolcanics would appear to be the underlying rock types and as noted on geology map 2504, there are sheared mafic metavolcanics just to the north of the pond. The outlined, poor conductor may have something to do with this shear zone. There is no magnetics at all, associated with this trend, which may reflect the possible silicic or carbonated nature of the shear zone. A low priority.

## Zones C9 and C10

Both conductors, which are dipping to the south, display reasonably good conductivity and seem to be located on or very close to a long, high intensity magnetic feature. It would also seem that the two conductors are perhaps associated with sulphides within or just to the south of an iron formation. Referring to geology map 44g, there is an indication of an iron formation within metasediments just to the east of the Wakami River. There is also indications of shearing. Referring to geology map 2504, it will be noted that a fault zone would appear to have cut off Zone C10 towards the east end. The magnetics continue on to the east, but the conductor does not. Further work is suggested for Zone C10 in the vicinity of the Wakami River, where quartz veining are known to exist. Note that the conductors are dipping to the south.

## Zone C11

This is a rather weak conductor which displays poor conductivity. Note its proximity to the fault zone that has been interpreted by the writer. Perhaps the better conductivity is towards the east end of this zone. It seems that the location of this weak trend is very close to the mafic metavolcanic - metasediment contact. A reconnaissance survey is suggested for an area towards the east end, just west of the Wakami River.

## Zones C12 and C13

Both of these outlined areas display extremely poor electromagnetic responses with only indirect relationships with magnetic features. The weak trends were selected because of their subtle responses on the high frequency coaxial trace. Otherwise, there were no other suggestions of a bedrock related response. Referring to geology map 2504, it will be noted that Zone C12 is located very close to a sheared felsic metavolcanic - mafic metavolcanic contact. The writer suggests that the felsic metavolcanics are actually metasediments, as geology map 44g suggests. It is also on strike with Zone C11, so there may be a similar relationship. Zone C13 is extremely poor and is probably related to the conductive surficial material located nearby. Since Zone C12 is located very close to a lumber road, a reconnaissance survey is suggested for this area. However, Zone C13 does not warrant any further work.

## Zones C14 and C15

The two conductive trends display similar electromagnetic responses, that is, fair to poor. Their location with respect to the Wakami River does make one suspicious of the cause. However, correlating with Zone C14 and just to the west of it, is a mapped iron formation. Zone C14 itself seems to be located just to the south of the magnetic feature which is perhaps the iron formation. Zone C15, on the other hand, does not have any magnetic relationships whatsoever. One suspects then that the two conductors are not related to the same geological horizon. However, one must not forget the conductive nature of the Wakami River. Both conductors should be treated as low priority targets.

## Zone C16

Four separate conductors have been outlined in this area, each displaying reasonably good conductivity, with only three having direct magnetic correlation. The two longer trends display exceptionally good conductivity, as does the shorter trend located to the south. Both areas have good magnetic association. The lone intercept on line 430 does not have magnetic association. Referring to geology map 2504, it will be noted that the rock types in the area of Zone C16 have been described as being felsic breccia, interlayered with metasediments. Also noted on this map is a drill hole put down by Granges Exploration in 1977. It was drilled to the north with reports of 10 to 15 percent graphite and 1 to 5 percent pyrite and/or pyrrhotite up to 6.3 metres. The writer is unaware of which conductor was drilled but it could be the long southern trend. It is recommended that the short trend to the south, on lines 400 to 421, be examined further in the field. It is also suggested that the area in the vicinity of line 430 be looked at further as well. The indication here is that the main trend to the north could be widening at this location or in fact, the response on line 430 is an isolated anomaly. Ground geophysical surveys should and will clarify the picture. It it is possible, a detailed geological reconnaissance should also be implemented.

## Zones C17 and C18

Both of these trends seem to flank a high intensity magnetic feature which is believed to be related to an ultra mafic intrusive. Referring to the geology map 2504, it will be noted that a diamond drill hole has been put down on the intrusive with peridotite and lapilli tuff being intersected. However, in referring to geology map P. 1587, it will also be seen that a diamond drill hole has been put down on a vertical loop EM ground conductor on what appears to be Zone C17. It is not believed that Zone C18 was ever tested. The drilling was done by Noranda Exploration Co. in 1977. In this hole, they intersected ultramafic volcanics, graphitic sediments, felsic and mafic metavolcanic flows. It would appear that Noranda did intercept Zone C18 on the ground with a vertical loop EM system but was never tested with a drill hole.

## Zone C19

This is an exceptionally long conductor which displays fair to good conductivity along its entire strike length. It is believed to be at least 5.6 kilometres long. Referring to geology map P. 1587, it will be noted that Noranda Exploration Co., in

1974, detected this conductor on the ground with a vertical loop EM system. However, it is not believed that any diamond drilling was carried out. Metasediments are believed to be the underlying rock types with graphite being the cause of the conductor. Further work on this trend is not highly recommended.

Zones C20 to C22

Each of these isolated anomalies display rather poor conductivity and were only picked because of their EM response on the high frequency coaxial trace. There are also subtle indications of a bedrock source on the mid frequency coplanar trace as well. There is no magnetic association for Zone C20 although for the next two, there is. However, this may be just a coincidence as it is still questioned whether or not any of these picked EM responses are bedrock related. Referring to geology map P. 1587, it seems that Noranda Exploration Co. may have picked up Zone C22 on the ground with a vertical loop EM system but was never followed up. Perhaps for a good reason as it is not a strong anomaly. Of the three conductors selected here, the writer believes that Zone C22 is probably the best. Mafic metavolcanics could be the host rocks. A reconnaissance survey over Zone C22 is suggested but on a lower priority basis only.

Zones C23 and C24

Both of these trends display reasonably good electromagnetic responses and are correlating with a magnetic feature quite nicely. It is suggested that the conductive trend is associated with an iron formation within metasedimentary rocks. Referring to geology map 2504, it will be noted that there are suggestions of ferruginous chert being located in close proximity to Zone C24, near Woman River. There is also evidence of shearing. According to geology map 44g, there is also indications of a diabase dike in the same area and this would seem to be correct if one refers to the magnetic data. There is definitely a diabase dike striking approximately east-west across this same area. Noranda Exploration Co. seems to have located Zone C24 with a horizontal loop EM system but do not appear to have followed it up on the ground. Anywhere where shearing or faulting have taken place along any portions of either conductors are areas to be investigated further.

## Zone C25

The long conductive trend, which is dipping to the south, displays a reasonably good electromagnetic response. It does not, however, have magnetic correlation. The latter suggests that either graphite and/or pyrite is the cause. The rock types are unknown in this area because of the overlying cover of sand and till. However, geology map 44g seems to indicate metasediments. A ground survey could be carried out, although perhaps as a low priority target.

## Zone C26

This shorter, flanking conductor displays a reasonable electromagnetic response and could be an interesting target because of its stratigraphic location to Zone C25. As with the previous zone, the rock types are not known in the immediate location. There is also an absence of any magnetic correlation, suggesting either pyrite and/or graphite as the source. A reconnaissance survey is warranted.

## Zones C27 and C28

Both of these trends display similar electromagnetic responses, that is, a fair to poor response. As weak as they are however, both are still felt to be related to bedrock sources. It is not believed that Noranda Exploration Co. detected either conductor during their work in this area in the early 1970's. Referring to the magnetic data presentation, it will be noted that Zone C28 is located very close to the interpreted diabase dike and may, in fact, have been affected by it. One wonders if Zone C29 is a continuation of Zone C28 to the east of the dike. Only a ground survey could confirm this interpretation.

## Zones C29 to C31

Each of these outlined conductors display reasonably good electromagnetic responses with essentially no magnetic association. Referring to the magnetic data, it will be noted that all three conductors have been affected by an east-west trending diabase dike which seems to cut them off at the west end near Woman River. As well, Zones C30 and C31 have been cut by other diabase dikes, perhaps four of them. However, the trends do not appear to have been truncated by these dikes. Referring to geology map 2504, it will be noted that an iron formation within ferruginous chert has been mapped in the vicinity of Zone C29. It is perhaps safe to say that Zones C30 and C31 are related to a similar source. Referring to geology map 44g, it will be noted that poorly banded iron formation with pyrite replacements have been mapped in the vicinity of Zones C29 and C30. Noranda Exploration Co. apparently did intercept Zones C29 and C30 on the ground but did not seem to follow them up with diamond drilling. A further look on the ground in the form of a geological reconnaissance survey is suggested.

<u>Zones C32 and C33</u>

Both of these conductors display fair conductivity and do not have any magnetic correlation. It is quite possible that they are associated with a similar geological environment as they would seem to be on strike with each other. Referring to the magnetic data, it is noted that both conductors are located in close proximity to diabase dikes and may have been affected by them. Referring to geology map 2504, it will be noted that sheared intermediate metavolcanics have been indicated just to the south of both conductors. However, in referring to geology map 44g, it would appear that both Zones C32 and C33 are located very close to a mafic metavolcanic-metasedimentary contact. It is suggested by the writer that it is the latter. A dip to the north is suspected. Zone C33 displays the better EM response so that any further work that is contemplated in this area should be carried out on this conductor first.

Zone C34

This is actually a rather poor conductor and was picked only because of its subtle EM response on line 580. Here there is a subtle EM response on the low frequency coaxial inphase trace, as well as a reasonable response on the high frequency coaxial trace. The suggestion here is that it may be a deep source. There is no magnetic association. Note its location to the diabase dike. Massive mafic metavolcanics have been described as being the rock types in the immediate area. A low priority.

Zone C35

The lone conductor displays a somewhat poor electromagnetic response as well as not having any magnetic association. Referring to geology map 44g, it will be noted that the conductor is located very close to a mafic metavolcanic-metasediment contact. Also, note the fault zone indicated just to the west of the conductor. A ground EM survey may be warranted.

Zone C36

The conductor is a rather short trend, perhaps in the order of 100 metres long. It displays fair conductivity, as well as having good magnetic correlation. Although interpreted as a short conductor, the zone may have eastward extention. Note the interpreted fault zone, as well as the diabase dike to the east of Zone C36. Further to the east, there is Zone C49. This is the conductor that may be the continuation of Zone C36. A ground EM survey is suggested.

## Zones C37 and C38

Both conductors are long, linear trends displaying reasonably good conductivity with only Zone C38 having any magnetic association. It is believed that both trends are related to graphitic metasediments as this seems to be referred to in both geology maps 44g and 2504. Both trends are located very close to a possible contact, with gabbro and massive mafic metavolcanics indicated to the south. Note the location of the interpreted fault zones and the indicated diabase dikes. It is suggested that areas of Zone C38 in close proximity to the interpreted fault zones, as well as near the diabase dikes are areas that should be considered in any future ground program.

## Zones C39 to C41

These are poor electromagnetic responses but are still thought to be related to bedrock sources. The dip is interpreted to be to the south, certainly for Zone C41. However, it is not readily apparent for Zones C39 or C40. There is no magnetic association with any of these trends. Referring to geology map 44g, note the fault zone that could very well be cutting Zones C40 and C41 off at the west end, at the same time cutting Zone C39 off at the east end. Massive to pillowed mafic metavolcanics would appear to be the rock types for all three conductors. Further work is suggested for Zone C39 as it seems to present the best conductivity. However, it should only be carried out on a low priority basis.

## Zone C42

This is an isolated anomaly on only one flight line. It displays a reasonable EM response but with no magnetic association. Referring to the magnetic data, it will be noted that the short conductor is located just to the west of an interpreted fault zone, as well as what is believed to be a diabase dike. Referring to geology map 44g, it will be noted that quartz feldspar porphyry has been mapped just to the east of Zone C42. A ground survey is recommended.

## Zone C43

The conductor which displays reasonable conductivity, is interpreted to be dipping to the south. Along with the fair conductivity, there is also good magnetic association. It seems that, after referring to geology map 44g, the trend is located very close to where quartz feldspar porphyry has been mapped. A short, isolated and flanking anomaly just to the south of Zone C43, displays a fair EM response and one that should be looked at further when in the field.

## Zone C44

The short flanking trend is definitely due to a bedrock source as it displays a fair electromagnetic response. It seems that it is located very close to a geological contact, between metasediments to the south and mafic volcanics to the north. It may even be related to a similar geological environment as that of Zone C33. There is no magnetic correlation. The magnetic feature to the east is interpreted as a diabase dike. Because of its possible association with a geological contact, a ground survey is suggested.

## Zones C45 and C46

After referring to both geology maps 44g and 2504, it would appear that both conductors are located within metasediments. They are not strong conductors but do have responses that suggest a bedrock source. Both are considered low priority targets.

## Zone C47

The short flanking conductor displays an exceptionally good electromagnetic response and one that also has excellent magnetic association. It is in an area that has been mapped as ferruginous chert, shale, argillite and slate. It may also be graphite. It is suggested that this particular source may be correlating with the conductor to the south, Zone C19. However, Zone C47 is the type that sometimes is the base metal horizon within the metavolcanic-metasediment package. Note the interpreted fault zone to the west. A ground reconnaissance survey is highly recommended.

Zone C48

This is another isolated anomaly but it is not nearly as good as the previous conductor. The trend is located just to the south of the much longer conductor, Zone C38. Referring to geology map 2504, it will be noted that the isolated anomaly is located in close proximity to a gabbroic complex. However, after referring to geology map 44g, it would appear that the weak trend is situated very close to a metasedimentary-metavolcanic contact.

Zone C49

This conductor seems to be just another trend within the wide metasedimentary horizon. It is interpreted as a steeply dipping conductor and one that is strike limited. Note the interpreted fault zones both to the east, as well as to the west. There also seems to be good magnetic correlation so one suspects that pyrrhotite may be the source.

Zones C50 to C55

The writer grouped all of these conductors together because of their probable association and relationship with a similar geological host environment. The main trend, Zone C52, displays a strong electromagnetic response and one that seems to be representative of a graphitic zone. All other conductors within this group appear to be flanking and somewhat weaker in conductivity. Referring to geology map 2504, it will be noted that all of these trends are located within foliated mafic metavolcanics. Just to the south, there is a gabbro intrusive. In referring to geology map 44g, there are similarities, although the chances are good that the underlying rocks are metasediments. Gabbroic rocks, however, do seem to exist just to the south. Note the location of the interpreted fault zone with respect to the various conductors. It is interesting to note that the Zone C52 seems to be exhibiting a stratigraphic pattern, especially the eastern portion. If such was to be the case and the strike direction of Zone C52 is correct, then it would change the direction of bedding of the underlying rocks as well. Zones C53 and C55 should be considered in any future ground program.

## Zones C56 and C57

Both anomalies display similar profile characteristics as they are rather weak, have similar amplitudes and are dipping to the south. Because of their relationship with different magnetic features, it is believed that the two anomalies are associated with a different underlying bedrock source. After referring to geology map 2504, it will be seen that both anomalies are correlating with or are very close to a mafic intrusive complex. A low priority.

## Zone C58

The conductive trend displays rather poor conductivity and seems to be located on the southern flank of a magnetic feature. The latter obviously suggests a possible relationship with a geological contact. A southerly dip is interpreted. The rock types are unknown in this area but are thought to be mafic metavolcanics. It is also quite possible that Zone C58 is on strike and is associated with the same geological horizon as that for Zone C41. A mafic intrusive is thought to be located just to the north of Zone C58. A low priority.

<u>Zones C59 and C60</u>

Both of these anomalies are extremely poor and would not seem, at this point in time, to warrant any further work. They may, in all probability, be due to conductive overburden as there are swamps in the vicinity.

<u>Zones C61 and C62</u>

It would seem that both of these trends are located within a region of moderately conductive overburden. The latter is believed to be in someway related to the nearby creek bottom silts. The electromagnetic responses for both trends, however, are suggestive of bedrock sources. There is no magnetic association. Note the relationship of Zone C62 with the interpreted fault zone. Referring to geology map P. 2369, it will be seen that Zone C61 is located just to the north of a property known as the Burton Property. The rock types are not known in the vicinity of Zone C61 although further along strike to the east, sheared felsic volcanics have been noted. Zone C62 is located within the two northern claims of the Burton Property where massive tholeiitic flows have been mapped. There were no indications of any conductors being located within this portion of the property. Ground follow-up is suggested for Zone C62 on line 980.

### Zone C63

This is another conductor within the Burton Property. It displays a fair to poor EM response as well as not having any magnetic association. Graphite and/or non-magnetic sulphides is the cause. A dip to the south is interpreted. Referring to geology map P. 2369, it will be noted that foliated tholeiitic flows have been mapped in close proximity to the conductor.

### Zones C64 and C65

It would appear that both of these trends are involved with an iron formation, with sulphides being the cause of the fair to poor conductivity. The two are, however, caused by bedrock sources. It is suggested that both trends are related to the same geological environment but have merely been offset somewhere between lines 1050 and 1060. The negative effect on the inphase traces is an indication of a high magnetite content and this phenomena is no more prevalent than it is on the magnetic map. It is important to note that a dip to the north is interpreted. Referring to geology map 44g, it will be noted that a gabbro-diorite rock unit has been indicated in close proximity to the two conductors. In referring to geology map P. 2369, it will be seen that both Zones C64 and C65 are located within the Burton Property with Zone C64 probably coinciding with the Northern Aerial

Occurrence. "The property is underlain by felsic pyroclastic rocks and conglomerates intruded by a plug of quartz diorite. The main showing occurs in a rusty weathering, heavily carbonatized zone in schistose quartz diorite. The zone trends east and has a width of approximately 40 feet. A quartz lens, 30 feet long and 3 feet in width, strikes N10 degrees W and dips 45 degrees W in the schistose zone. The quartz is coarse grained and glassy, and is heavily mineralized with pyrite and arsenopyrite. A grab sample containing massive arsenopyrite yielded 0.63 oz. An/Ton and 3.46 oz. Ag/Ton". Three important factors in this area is the offsetting fault, sulphides within an iron formation and a dip to the north. There is no question that further work is needed in order to fully evaluate the zone. It should also be noted that M.C. Burton put a drill hole down in an area approximately on east end of Zone C65. Note the drill hole direction was to the north, the same direction as the dip of the conductor.

## Zone C66

This lone intercept displays a very weak EM response but is correlating quite nicely with a magnetic feature. It is believed that minor amounts of sulphides within an iron formation is the cause. There is every possibility that Zone C66 is an extention of Zone C65. A ground reconnaissance survey is warranted.

Zone C67

The conductor displays rather good conductivity and tends not to have any magnetic association. Note its location with respect to the interpreted fault zone. It is also suggested that this conductor may, in fact, be associated with a similar geological environment as that for Zones C58 and C62. Note that the direction of dip is towards the north. A short distance to the east, metasediments have been mapped and these rock types may very well extend further to the west to coincide with Zone C67. Access to the area by lumber road means that a reconnaissance survey should be relatively easy.

Zone C68

This is an extremely poor conductor that seems to be located on the northern edge of what is interpreted as a conductive surfical material. The outlined conductor may be bedrock related and if it is, it is not considered a priority target.

Zone C69

The isolated trend is located on the southern edge of a highly conductive source that is also believed to be surficial material. However, the EM response on line 1080 is definitely due to a bedrock source which is dipping to the north. The rocks are unknown in this area but if one refers to geology map P. 2341, it will be seen that the short trend is situated just to the south of an ultramafic complex. Massive mafic to intermediate metavolcanics have also been noted nearby as well. It is suggested that a reconnaissance survey be carried out on the zone in order to establish the source.

**Zone C70**

This is also a rather weak conductive trend but is still considered to be related to a bedrock source. There is a considerable amount of overburden in the region with only a few outcrops. The broad responses on the quadrature traces of all frequencies suggests perhaps a somewhat conductive overburden. However, the EM response on line 1150 does seem to indicate a bedrock source. A low priority.

**Zones C71 to C73**

Each of these conductors display reasonably good conductivity but with little or no magnetic association. The similarity of the profiles for each of the trends suggests a common source for each of them. In referring to geology map P. 2369, it will be noted that the rocks in close proximity to the conductors are felsic lapilli tuff. However, according to geology map 44g, arkose or metasedimentary rocks have been indicated. It is suggested by the writer that it is perhaps the latter rock unit that is underlying the areas in close proximity to Zones C71 and C73. It is also probable that the same rocks underlie Zones C52 and C53. Because of the isolation and flanking nature of Zone C73, it is suggested that a ground reconnaissance survey be carried out. Easy access to the area should reveal the source rather quickly.

Zone C74

This short conductor displays exceptionally good conductivity as well as having good magnetic association. It has all the characteristics of a base metal bet. Referring to geology map P. 2369, it will be noted that the trend is located very close to a group of rocks indicated as felsic lapilli tuff, massive tholeiitic flows and sheared felsic porphyry. However, referring to geology map 44g, the rocks are indicated to be metasediments. A similar geological background is given on geology map 1949-2. Note the fault zones that have been indicated on both maps within the area of Zone C74. Easy access to the area means that a reconnaissance survey is highly recommended.

Zones C75 to C80

Each of these trends tend to be short and somewhat isolated, not the type that one usually associates with precious metal targets. If the geology or the rock types are ameniable to a base metal target, then these conductors must be looked at while in the field. Zone C75 does not have any magnetic association and neither do Zones C78 or C79. However, note the latter two conductors location to the diabase dikes. Both Zones C76 and C77 have magnetic association, in fact, they seem to be associated with the large, high intensity magnetic feature which could be interpreted as an iron formation. Zone C75 is definitely due to a bedrock source. Zones C76 and C77 are not well defined EM responses, as are Zones C78 and C79. In each of these cases, it was the profile characteristic of the coplanar trace that led to them being picked. Zones C80 is a well defined anomaly and one that should be looked at while in the field. The rock types are not known in the immediate area of Zones C75 and C76, although foliated and massive tholeiitic flows have been mapped not far from Zone C75. Metasediments are located just to the north of Zone C75. Note the negative effect of the inphase responses for Zone C76. This is an indication of a high magnetite content. It would seem then that possibly sulphides within an iron formation is the cause of the weak and poor EM response. Zone C77 is not well defined and seems to be involved with conductive overburden. However, there are sufficient indications on the coplanar traces to suggest a bedrock source. In referring to geology map P. 2369, it will be noted that Noranda Exploration Co. put a drill hole down very close to Zone C77. In it, graphite, sphalerite, chalcopyrite, lead and silver were intersected but in limited amounts. The location of the drill holes seem to be somewhat further to the south than where Zone C77 is located. The client should investigate this aspect further in order to see whether or not the conductor was drilled properly. Zone C80 is perhaps the best conductor of the six within this group. It displays a good electromagnetic response as well as having good magnetic correlation. In referring to geology map P. 2369, it will be seen that Zone C80 is or is located close to what is known as the Cipway Gold Mines showing. The property is believed to be held by James Levac. "Southeast trending isoclinally folded Early Precambrian mafic metavolcanics and metasediments are intruded by dikes of Kenoran quartz-feldspar porphyry. In the vicinity of the main showing, sheared and carbonatized mafic metavolcanics are cut by dikes of quartz feldspar porphyry. The mineralized zone is approximately 10 feet wide and is associated with soft pyritic greenstone and porphyry which are variably carbonatized and silicified. Mineralization consists of quartz veining, pyrite, pyrrhotite, chalcopyrite and a little arsenopyrite." One sample yielded 0.07 ounces of gold per ton. It is suggested that the client take a closer look at this zone in order to verify that a complete and comprehensive evaluation was made on the showing. Zones C78 and C79 are not well defined EM responses and should only be looked at as low priority targets.

## Zones C81 to C84

These four conductors display exceptionally strong EM responses with only Zone C81 seemingly having any magnetic association. The types of EM responses that exist here suggest that they are due to graphite. Zone C81, because of its correlation with a magnetic feature, may be caused by pyrrhotite. In referring to geology map P. 2369, it will be noted that clastic sediments have been mapped nearby. Each of the trends probably continue to the east, but because of the eastern limits of the survey, strike extent is not known. Any of these trends within close proximity to the metasedimentary-metavolcanic contact, and especially if there is any evidence of shearing, should be looked at further while in the field. Because of the lumbering that has taken place in this area, there will be easy access. It is also interesting to note the proximity of these conductors to the Jerome Gold Mines which is located approximately five kilometres to the east.

## Zones C85 and C86

Both of these conductive trends are bedrock related. They exhibit fair to poor electromagnetic responses but are still considered to be caused by a bedrock source. Note the direction of dip for each trend. This is important in any future follow up work. In both areas, it seems that foliated tholeiitic flows are the rock types. However, one should be investigating the possibility of iron formation. One will note that several horizons of iron formation have been located along strike to the southeast.

Within the smaller survey block located in Garnet and Fawn Townships, there were a number of conductive trends intercepted. Many of them have short strike lengths suggesting the possible association with base metal targets. However, it is known that iron formation exists throughout the survey block, indicating another direct association with possible precious metal mineralization. Note on the EM profile map, the negative response on the inphase trace for all frequencies. This is an indication of the high magnetite content.

Towards the northwest corner of the survey block, there are at least four conductors, each displaying good conductivity along with direct magnetic correlation. Iron formation is known to exist in this area, with chert layers interbedded with ironstone and variable magnetite. An isolated situation such as Conductor A should be looked at further. Just to the east-northeast of Conductor A, INCO in 1966, drilled a zone which was reported as a graphitic shear zone about 8 metres wide.

Conductors B to F are somewhat isolated, short strike length trends, each displaying reasonably good conductivity. These would be primarily base metal situations but could certainly be looked at for their precious metal possibilities, certainly if they coincide with iron formation. One should also be looking at those trends that display weak EM responses but are located within iron formation. These are the responses that have positive quadrature coaxial responses with a negative inphase response. Within this block, there are several such trends. Any association of shear zones with any of these conductors make them extra attractive zones. Note that general direction of dip is towards the southwest.

## 5.5 Apparent Resistivity

It is very clear from this data presentation that there is widespread conductivity related to the overlying overburden. Swamps, creek bottoms, as well as lake bottoms, all display some semblance of variable conductivity.

Most of the previously outlined targets on the EM interpretation map have been outlined with this data presentation. However, in areas where there are multiple, parallel conductors, it seems that only one broad horizon has been mapped. It would seem, therefore, that this data presentation does not have the same resolution as the EM profile data. In areas where the apparent resistivity data has not outlined a particular pre-selected target, it is possible that the conductor has conductivity in the same order as that for the overlying overburden. The two geophysical signatures would be difficult to resolve at the best of times.

It will be noted that, in some instances, the apparent resistivity presentation has extended known conductive trends giving them greater strike lengths. As well, new conductive horizons have also been outlined. It may also be used to delineate folds in geological structures as well. Structurally, it may be found that this data can be used to assist in the delineating of fault zones.

## 5.6 VLF-EM Total Field

There is a reasonable similarity between the VLF-EM and the magnetics suggesting a relationship with the underlying basement rock types. The strike direction of the VLF anomalies tend to be northwest-southeast, similar to the magnetics.

It is also very clear that the VLF-EM data has good correlation with the Apparent Resistivity data. It would seem that the VLF is very sensitive to the conductive lake bottom sediments, as well as to the conductive nature of the swamps and creek bottoms. Highly resistive areas are producing VLF lows while conversely, highly conductive areas are producing VLF highs. This is to be expected, of course. It is obvious that the transmitter station utilized for this survey is energizing the overburden in order that optimum EM coupling is made.

As for the 3 frequency conductors intercepted within the survey blocks, there is reasonable correlation with the VLF. The VLF system does not, however, have the same resolution as the frequency system. Areas where there are at least two or three parallel conductors, these areas only show up as a single trend on the VLF data. As well, isolated flanking conductors do not show up at all. In some cases, intercepted ground conductors have been extended with the VLF data.

Basically, the VLF system should and will respond to most bedrock conductors, within these two survey blocks, when surveyed on the ground. There may be some problems in areas where there is an extensive amount of conductive overburden.
It would seem that sulphide enviroments within the iron formations should respond with positive results.

The VLF data should also render some additional structural information as well.

## 5.7 Conclusions and Recommendations

There were a great number of conductors intercepted within both survey blocks as a result of this airborne survey. As a result, follow up work is recommended for several of the selected targets as outlined on the interpretation maps. A number of these zones would be primarily base metal targets because of their shorter strike lengths. Some of the longer conductors will be of interest with respect to their possible precious metal content, especially in the vicinity of or in close proximity to magnetic features.

The nature or the cause of most of the conductors intercepted can be attributed to pyrite, pyrrhotite or graphite in varying amounts. There are known prospects where galena and sphalerite have been found but any interception of these two minerals would have to include one or a mixture of the above two previously mentioned sulphides and/or graphite. It is speculated then that each of the intercepted conductors within the two survey blocks are attributed to either pyrite, pyrrhotite, graphite or a mixture of all three.

In reference to the interpretation maps, it will be noted that several fault zones have been interpreted, most of which are considered cross cutting faults. A few have been identified as strike slip faults but, in general, these are sometimes difficult to interpret, without the assistance of some ground truth. In a few locations, splay type faults have also been interpreted. Note the relationship then, between the interpreted fault zones and the intercepted conductors. These phenomena can be quite important in the structural understanding of an area with respect to ore deposit controls.

There seems to be several types of host environments for the accummulation of sulphide mineralization. In each situation, one must not overlook the precious metal economics or for that matter, the base metal outlook. "The presence in the area of bands of iron formation led to the first interest in the economic possibilities of the minerals and rocks of the area. These bodies of iron formation are much too low in iron content to be of value at the present time for iron. They consist almost entirely of chert with little or no magnetite content. Locally, there are lenses of pyrite, which because of their banded appearance seem to be replacements of the iron formation. Interest in the iron formation was revived when it was discovered that there were veins of sphalerite and galena intruding them." The iron formations scattered throughout the region are magnetite rich lamine interbedded with ferruginous or brecciated chert. These horizons can be in contact with greenstone belt or with porphyry-diorite intrusives.

"In general, it may be said that the most favourable zones for prospecting appear to be the contacts between the sediments and greenstone and between the sediments and large porphyry intrusives. Geological experience in the great gold belts of Ontario and Quebec has shown that elongated belts of structurally disturbed Keewatin greenstones with infolded Timiskamian sediments and Algoman intrusives are the most favourable areas in which to search for gold deposits. In general, the Opeepeesway Lake area possesses these geological conditions. The apparent lack of small masses of porphyry of the type usually observed in close relationship with gold bearing quartz veins should not be taken too seriously. Not that porphyry intrusives are unimportant, but there is reason to believe that porphyry masses underlie the greenstones and sediments at probably no very great depth. This assumption is based on the occurrence of many porphyry dikes and the strong alteration of country rocks in many parts of the area."

Some of the areas mapped as quartz feldspar porphyry are towards the south-central boundary of Garnet Township, east-central boundary of Garnet Township, an area towards the west-central portion of Benton Township near the Wakami River, and an area in southeast Benton Township, just east of the Woman River. A small dike of porphyry has also been identified west of the Northwest Arm of Opeepeesway Lake in Osway Township. To the south of Cipway Point, there is also widespread quartz feldspar porphyry which seems to be, to a degree, on strike with a similar package of rocks as those in close proximity to the Jermone Gold Mine. The latter is located approximately 5.5 kilometres east of the larger east survey block.

Any of the 3 frequency EM conductors or VLF-EM conductors in close proximity to the quartz feldspar porphyry-sediment contacts, should be investigated further. It is not without mentioning that a similar horizon exists in the Jerome Gold Mine area. One should also pursue further, horizons involving sediment-quartz diorite contacts. Any conductors, whether they be strong or weak, that are correlating with this contact could be interesting targets.

Iron formations is an easy geological marker to identify and whether they exist within or near greenstones, quartz feldspar porphyry or quart diorite does not seem to matter. They should always be considered while in the field. Referring to the magnetic data, a number of these horizons have and will be interpreted. If such horizons contain lean amounts of magnetite, it may be difficult to follow such trends. In regards to conductivity, the larger the negative inphase responses on the 3 frequency system, the higher the magnetite content. Within these features, there are often positive quadrature and sometimes inphase responses. These have been identified as probable sulphide bearing replacements within the iron formation. They are definite horizons to be pursued further.

One should also be looking at conductive trends that are correlating with magnetic lows. These are often indications of conductive horizons associated with fault zones or shear zones, or perhaps areas of high carbonatization and silicification. Precious metal content is sometimes associated with these environments.

The geological picture for both survey areas is not completely known to the writer so that a detailed geological-geophysical synopsis is not possible. It is suggested that a geological reconnaissance survey be carried out, if not already done so, where possible, in order to establish a relationship between each of the intercepted bedrock conductors and the basement rocks. There is a thin layer of conductive till over most regions of both survey blocks, but for the most part, most areas contain an abundance of outcrops.

It is strongly recommended to the client that a complete and comprehensive evaluation be made of the magnetic data and especially the calculated vertical gradient magnetic data. All available geological information should be obtained, including existing geology maps, diamond drill hole information and through the assessment files. Once such information is obtained, a broad scale geolgical map should be compiled and then, in reference to the calculated vertical gradient map, a reasonable pseudo-geological map can then be prepared. It is felt that during the course of this compilation, some important geological environments should be evaluated. They are iron formations, quartz feldspar porphyries, quartz diorite, shear zones, ferruginous and brecciated chert and major fault zones.

Further structural information should be obtained through a more comprehensive evaluation of both the VLF-EM and magnetic data. Cross cutting faults are evident throughout the survey areas and these too will play an important role in any future ground program. The interpretation of major strike slip faults, under any circumstances, most often is quite difficult to do from the magnetics. It is sometimes these geological features that indicate or suggest the existence of deformation or alteration zones which can often times be associated with gold bearing zones.

It is also suggested that the assessment of the magnetics be made before any serious follow up of the electrical conductors is made. This will certainly make things easier, once a pseudo-geological map has been established.

Prospecting and soil geochemical sampling should be carried out in areas of the selected targets, and they do not necessarily have to have magnetic association. Any subsequent anomalous areas with intercepted bedrock conductors are prime targets for diamond drilling.

In regards to a follow up geophysical system, any of the horizontal loop EM systems can be used. It would seem that detectability should be easy for any of the types of conductors intercepted, however, a high frequency is recommended. In fact, a VLF-EM system could be used although primarily as a reconnaissance tool. An induced polarization (IP) survey could also be carried out in areas where anomalous gold values have been obtained but EM systems have not responded. As well, the latter may also be used in areas where ground EM methods have not defined the conductors fully or if disseminated sulphides are suspected.

In summary, each of the outlined zones must be further evaluated in the field, some having higher priorities than others. They must be evaluated with regard to their possible association with iron formation, geological contacts or perhaps, as massive base metal zones within volcanics. Their relationships with the iron formation or the contacts between the quartz feldspar porphyry and sediments is extremely important for their precious metal implications. Some conductors have been previously explored and it is based on this previous work and experience that the future work will follow.

The writer has attempted to outline the importance between the mineralization and the geology for most of the selected targets within both survey blocks. It is within Section 5.4 of the report where the client will establish some feeling for the types of conductors referred to. It is a matter of using all resources, including geophysics, drill information and the compilation of a pseudo-geological map that will lead to an exciting exploration program.

**Respectfully submitted,**

R.J. de Carle

**Robert J. de Carle**

**Consulting Geophysicist**

**For**

**AERODAT LIMITED**

**J8880** **January 4, 1989**

# APPENDIX I

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## APPENDIX II

PERSONNEL

| | |
|---|---|
| FIELD | |
| Flown | November 1988 |
| Pilot | R. Morrow |
| Operator | J. Langille |
| OFFICE | |
| Processing | D. Bradley, B. Sc. |
| Report | R. J. De Carle |

## APPENDIX III

CERTIFICATE OF QUALIFICATIONS

I, ROBERT J. DE CARLE, certify that: -

1. I hold a B. A. Sc. in Applied Geophysics with a minor in geology from Michigan Technological University, having graduated in 1970.

2. I reside at 28 Westview Crescent in the town of Palgrave, Ontario.

3. I have been continuously engaged in both professional and managerial roles in the minerals industry in Canada and abroad for the past eighteen years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and hold memberships on other professional societies involved in the minerals extraction and exploration industry.

5. The accompanying report was prepared from information published by government agencies, materials supplied by Dominion Explorers Inc. and from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Dominion Explorers Inc. I have not personally visited the property.

6. I have no interest, direct or indirect, in the property described nor do I hold securities in Dominion Explorers Inc.

Signed

R. J. de Carle

Robert J. de Carle
Consulting Geophysicist

Palgrave, Ontario
January 4, 1989

# APPENDIX IV

## GENERAL INTERPRETIVE CONSIDERATIONS

### Electromagnetic

The Aerodat three frequency system utilizesd two different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at two widely separated frequencies and the horizontal coplanar coil pair is operated at a frequency approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its electrical conductivity, magnetic susceptibility and its size and shape; the "geometrical" property of the response is largely a function of the conductor's shape and orientation with respect to the measuring transmitter and receiver.

### Electrical Considerations

For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large inphase to quadrature ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a non-magnetic vertical half-plane model on the accompanying phasor diagram. Other physical models will show the same trend but different quantitative relationships.

The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in parts per million (ppm) of the primary field as measured at the response peak over the conductor. · To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in table form in Appendix II and the conductance and inphase amplitude are presented in symbolized form on the map presentation.

The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, may be strongly magnetic, its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than is the depth estimate, but both should be considered as relative rather than absolute guides to the anomaly's properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab-like bodies is the product of electrical conductivity and thickness.

Most overburden will have an indicated conductance of less than 2 mhos; however, more conductive clays may have an apparent conductance of say 2 to 4 mhos. Also in the low conductance range will be electrolytic conductors in faults and shears.

The higher ranges of conductance, greater than 4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater, are generally limited to sulphide or graphite bearing rocks.

Sulphide minerals, with the exception of such ore minerals as sphalerite, cinnabar and stibnite, are good conductors; sulphides may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously under-rate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant consideration in association with minor conductive sulphides, and the electromagnetic response only relate to the minor associated mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive, it would not be expected to exist in sufficient quantity to create a recognizable anomaly, but minor accessory sulphide mineralization could provide a useful indirect indication.

In summary, the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization; however, a moderate to low conductance value does not rule out the possibility of significant economic mineralization.

## Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The chance in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver.

In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand, the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes. As the dip of the conductor decreased from vertical, the coaxial anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side.

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible. As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar:coaxial) of about 4:1*.

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8* times greater than that of the coaxial pair.

In summary, a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor; a pronounced null indicates a relatively thin conductor. The dip of such a conductor can be inferred from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ration between the coplanar to coaxial response amplitudes as high as 8*.

Overburden anomalies often produce broad poorly defined anomaly profiles. In most cases, the response of the coplanar coils closely follows that of the coaxial coils with a relative amplitude ration of 4*.

Occasionally, if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak.

* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

## Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

## VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X, Y, Z configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF (15-25) kHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measurable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground to depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically, it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet-like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.

# APPENDIX V

# ANOMALY LIST

J8880 AREA A

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 7 | 2010 | A | 0 | 5.1 | 11.0 | 0.2 | 3 | 41 |
| 7 | 2010 | B | 0 | 8.7 | 17.0 | 0.3 | 0 | 55 |
| 7 | 2010 | C | 0 | 20.4 | 28.3 | 0.8 | 0 | 48 |
| 7 | 2010 | D | 0 | 9.1 | 10.7 | 0.7 | 8 | 42 |
| 7 | 2010 | E | 0 | 11.4 | 12.5 | 0.9 | 4 | 43 |
| 7 | 2010 | F | 0 | 10.2 | 10.9 | 0.9 | 11 | 40 |
| 7 | 2010 | G | 1 | 23.0 | 17.9 | 1.9 | 0 | 49 |
| 7 | 2020 | A | 0 | 8.8 | 28.9 | 0.1 | 0 | 41 |
| 7 | 2020 | B | 2 | 44.7 | 28.2 | 3.1 | 0 | 37 |
| 7 | 2020 | C | 1 | 10.4 | 8.6 | 1.3 | 10 | 46 |
| 7 | 2020 | D | 0 | 4.3 | 8.1 | 0.2 | 1 | 49 |
| 7 | 2020 | E | 0 | 8.0 | 18.2 | 0.2 | 0 | 36 |
| 7 | 2020 | F | 0 | 6.5 | 15.9 | 0.2 | 0 | 39 |
| 7 | 2020 | G | 0 | 5.2 | 14.8 | 0.1 | 1 | 35 |
| 7 | 2020 | H | 0 | 5.3 | 8.1 | 0.4 | 22 | 31 |
| 7 | 2030 | A | 0 | 4.7 | 8.2 | 0.3 | 0 | 69 |
| 7 | 2030 | B | 0 | 6.0 | 17.2 | 0.1 | 0 | 53 |
| 7 | 2030 | C | 1 | 13.3 | 9.7 | 1.7 | 13 | 41 |
| 7 | 2030 | D | 1 | 7.1 | 5.7 | 1.1 | 21 | 44 |
| 7 | 2030 | E | 1 | 15.9 | 15.0 | 1.3 | 1 | 45 |
| 7 | 2030 | F | 1 | 20.5 | 15.3 | 1.9 | 0 | 64 |
| 7 | 2040 | A | 3 | 80.7 | 47.9 | 4.1 | 0 | 40 |
| 7 | 2040 | B | 2 | 54.4 | 36.7 | 3.0 | 0 | 37 |
| 7 | 2040 | C | 1 | 26.3 | 22.0 | 1.8 | 0 | 41 |
| 7 | 2040 | D | 0 | 3.9 | 3.2 | 0.9 | 45 | 34 |
| 7 | 2040 | E | 1 | 9.4 | 8.5 | 1.1 | 18 | 38 |
| 7 | 2040 | F | 0 | 6.2 | 17.8 | 0.1 | 0 | 35 |
| 7 | 2050 | A | 0 | 4.8 | 13.2 | 0.1 | 0 | 39 |
| 7 | 2050 | B | 0 | 2.9 | 9.5 | 0.1 | 0 | 41 |
| 7 | 2050 | C | 0 | 3.6 | 5.4 | 0.3 | 24 | 36 |
| 7 | 2050 | D | 0 | 4.0 | 5.7 | 0.4 | 24 | 37 |
| 7 | 2050 | E | 0 | -2.9 | 17.9 | 0.0 | 0 | 53 |
| 7 | 2050 | F | 0 | 5.3 | 13.8 | 0.1 | 0 | 47 |
| 7 | 2050 | G | 2 | 23.0 | 17.0 | 2.0 | 0 | 53 |
| 7 | 2050 | H | 2 | 12.4 | 6.6 | 2.5 | 9 | 51 |
| 7 | 2060 | A | 3 | 44.0 | 17.3 | 5.8 | 0 | 44 |
| 7 | 2060 | B | 2 | 26.0 | 16.6 | 2.6 | 1 | 42 |
| 7 | 2060 | C | 2 | 32.4 | 21.8 | 2.6 | 0 | 43 |
| 7 | 2060 | D | 0 | -18.5 | 11.4 | 0.0 | 0 | 37 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 7 | 2060 | E | 0 | 1.6 | 5.7 | 0.0 | 2 | 45 |
| 7 | 2060 | F | 0 | 7.1 | 10.1 | 0.5 | 8 | 42 |
| 7 | 2070 | A | 3 | 33.0 | 13.6 | 5.0 | 0 | 45 |
| 7 | 2070 | B | 0 | 9.0 | 9.0 | 0.9 | 8 | 47 |
| 7 | 2070 | C | 0 | 13.7 | 18.9 | 0.7 | 1 | 39 |
| 7 | 2070 | D | 0 | 9.3 | 20.0 | 0.3 | 0 | 44 |
| 7 | 2070 | E | 1 | 22.0 | 17.2 | 1.8 | 0 | 55 |
| 7 | 2070 | F | 3 | 34.5 | 16.3 | 4.2 | 0 | 47 |
| 7 | 2080 | A | 4 | 47.2 | 12.5 | 9.9 | 0 | 53 |
| 7 | 2080 | B | 2 | 37.6 | 19.7 | 3.8 | 0 | 40 |
| 7 | 2080 | C | 0 | 12.3 | 22.1 | 0.4 | 0 | 51 |
| 7 | 2080 | D | 1 | 19.8 | 20.7 | 1.2 | 0 | 41 |
| 7 | 2080 | E | 2 | 33.4 | 18.3 | 3.4 | 0 | 41 |
| 7 | 2080 | F | 0 | 4.1 | 11.3 | 0.1 | 8 | 32 |
| 7 | 2090 | A | 0 | 11.8 | 14.2 | 0.8 | 0 | 46 |
| 7 | 2090 | B | 0 | 13.9 | 15.5 | 0.9 | 0 | 45 |
| 7 | 2090 | C | 2 | 18.6 | 9.7 | 3.0 | 0 | 55 |
| 7 | 2090 | D | 0 | -9.5 | 24.4 | 0.0 | 0 | 40 |
| 7 | 2090 | E | 0 | 16.1 | 21.0 | 0.8 | 0 | 48 |
| 7 | 2090 | F | 2 | 12.2 | 7.1 | 2.2 | 14 | 45 |
| 7 | 2090 | G | 2 | 18.2 | 7.8 | 3.9 | 13 | 40 |
| 7 | 2090 | H | 3 | 43.1 | 13.3 | 7.9 | 0 | 46 |
| 7 | 2090 | J | 4 | 51.6 | 13.8 | 10.1 | 0 | 47 |
| 7 | 2100 | A | 4 | 38.8 | 10.9 | 8.7 | 0 | 45 |
| 7 | 2100 | B | 3 | 31.7 | 13.1 | 4.9 | 0 | 48 |
| 7 | 2100 | C | 1 | 23.6 | 22.8 | 1.4 | 0 | 41 |
| 7 | 2100 | D | 0 | -35.7 | 14.5 | 0.0 | 0 | 39 |
| 7 | 2100 | E | 0 | -2.8 | 11.1 | 0.0 | 0 | 55 |
| 7 | 2100 | F | 1 | 24.3 | 19.0 | 1.9 | 5 | 37 |
| 7 | 2100 | G | 0 | 4.8 | 4.0 | 0.9 | 30 | 43 |
| 7 | 2100 | H | 2 | 11.8 | 7.1 | 2.1 | 15 | 44 |
| 7 | 2110 | A | 1 | 11.3 | 8.3 | 1.6 | 0 | 70 |
| 7 | 2110 | B | 3 | 14.1 | 3.9 | 6.5 | 7 | 54 |
| 7 | 2110 | C | 3 | 26.1 | 9.5 | 5.4 | 1 | 48 |
| 7 | 2110 | D | 4 | 40.8 | 9.8 | 10.8 | 0 | 49 |
| 7 | 2120 | A | 3 | 47.8 | 17.5 | 6.5 | 0 | 57 |
| 7 | 2120 | B | 3 | 28.9 | 10.5 | 5.6 | 2 | 45 |
| 7 | 2120 | C | 0 | 8.4 | 14.2 | 0.4 | 0 | 50 |
| 7 | 2120 | D | 1 | 20.0 | 15.6 | 1.8 | 0 | 48 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 7 | 2120 | E | 0 | 1.5 | 11.9 | 0.0 | 0 | 44 |
| 7 | 2120 | F | 0 | 0.1 | 10.2 | 0.0 | 0 | 52 |
| 7 | 2130 | A | 3 | 20.4 | 7.9 | 4.6 | 11 | 41 |
| 7 | 2130 | B | 0 | 4.3 | 13.9 | 0.1 | 0 | 41 |
| 7 | 2130 | C | 2 | 20.4 | 11.5 | 2.8 | 1 | 48 |
| 7 | 2130 | D | 4 | 75.7 | 18.7 | 12.5 | 0 | 47 |
| 7 | 2140 | A | 4 | 41.5 | 12.4 | 8.1 | 0 | 57 |
| 7 | 2140 | B | 3 | 37.2 | 14.4 | 5.6 | 0 | 58 |
| 7 | 2140 | C | 0 | 10.4 | 13.3 | 0.7 | 0 | 49 |
| 7 | 2140 | D | 1 | 12.9 | 13.9 | 1.0 | 3 | 43 |
| 7 | 2140 | E | 0 | -16.3 | 7.8 | 0.0 | 0 | 43 |
| 7 | 2140 | F | 1 | 11.4 | 11.7 | 1.0 | 10 | 39 |
| 7 | 2150 | A | 0 | -0.8 | 16.1 | 0.0 | 0 | 45 |
| 7 | 2150 | B | 0 | 7.0 | 7.0 | 0.8 | 9 | 51 |
| 7 | 2150 | C | 0 | 8.9 | 12.0 | 0.6 | 0 | 51 |
| 7 | 2150 | D | 2 | 38.5 | 21.2 | 3.5 | 0 | 45 |
| 7 | 2150 | E | 2 | 35.1 | 19.1 | 3.5 | 0 | 44 |
| 7 | 2160 | A | 1 | 22.5 | 18.9 | 1.7 | 0 | 42 |
| 7 | 2160 | B | 1 | 23.5 | 20.5 | 1.6 | 3 | 38 |
| 7 | 2160 | C | 1 | 20.8 | 20.2 | 1.3 | 0 | 48 |
| 7 | 2160 | D | 0 | 3.7 | 14.4 | 0.0 | 0 | 42 |
| 7 | 2160 | E | 0 | 5.2 | 15.9 | 0.1 | 0 | 50 |
| 7 | 2170 | A | 2 | 19.1 | 11.1 | 2.6 | 0 | 58 |
| 7 | 2170 | B | 0 | 4.0 | 13.6 | 0.1 | 0 | 48 |
| 7 | 2170 | C | 0 | -0.7 | 10.5 | 0.0 | 0 | 45 |
| 7 | 2170 | D | 1 | 18.0 | 16.8 | 1.3 | 0 | 46 |
| 7 | 2180 | A | 1 | 19.5 | 21.3 | 1.1 | 0 | 43 |
| 7 | 2180 | B | 0 | 15.7 | 19.1 | 0.9 | 0 | 41 |
| 7 | 2180 | C | 0 | 6.6 | 15.9 | 0.2 | 0 | 45 |
| 7 | 2180 | D | 0 | -12.3 | 9.1 | 0.0 | 0 | 39 |
| 7 | 2180 | E | 0 | 0.1 | 7.2 | 0.0 | 0 | 42 |
| 7 | 2180 | F | 1 | 14.2 | 14.0 | 1.1 | 0 | 56 |
| 7 | 2180 | G | 0 | 9.3 | 12.2 | 0.6 | 0 | 51 |
| 7 | 2190 | A | 0 | 7.3 | 9.4 | 0.6 | 1 | 51 |
| 7 | 2190 | B | 0 | 8.9 | 11.2 | 0.7 | 0 | 56 |
| 7 | 2190 | C | 0 | 9.7 | 16.8 | 0.4 | 0 | 45 |
| 7 | 2190 | D | 1 | 16.9 | 18.8 | 1.0 | 0 | 43 |
| 7 | 2190 | E | 1 | 21.3 | 20.2 | 1.4 | 1 | 40 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 7 | 2201 | A | 0 | 3.9 | 12.6 | 0.1 | 0 | 38 |
| 7 | 2201 | B | 0 | 7.1 | 16.0 | 0.2 | 0 | 43 |
| 7 | 2201 | C | 0 | 7.4 | 28.9 | 0.1 | 0 | 46 |
| 7 | 2201 | D | 0 | 16.7 | 21.1 | 0.9 | 0 | 40 |
| 7 | 2201 | E | 0 | 13.6 | 20.4 | 0.6 | 0 | 39 |
| 7 | 2201 | F | 0 | 10.6 | 18.6 | 0.4 | 0 | 42 |
| 7 | 2210 | A | 0 | 4.5 | 19.7 | 0.0 | 0 | 41 |
| 7 | 2210 | B | 0 | 9.7 | 17.8 | 0.4 | 1 | 37 |
| 7 | 2210 | C | 0 | 11.6 | 16.6 | 0.6 | 0 | 53 |
| 7 | 2210 | D | 0 | 1.5 | 7.8 | 0.0 | 0 | 50 |
| 7 | 2220 | A | 0 | -2.1 | 5.2 | 0.0 | 0 | 51 |
| 7 | 2220 | B | 0 | 18.4 | 28.0 | 0.7 | 0 | 43 |
| 7 | 2230 | A | 1 | 27.8 | 32.5 | 1.2 | 0 | 44 |
| 7 | 2230 | B | 0 | 2.5 | 21.3 | 0.0 | 0 | 40 |
| 7 | 2240 | A | 0 | 8.1 | 11.9 | 0.5 | 0 | 54 |
| 7 | 2240 | B | 0 | 7.3 | 21.8 | 0.1 | 0 | 48 |
| 7 | 2240 | C | 1 | 36.8 | 39.6 | 1.4 | 0 | 40 |
| 7 | 2250 | A | 1 | 43.2 | 39.8 | 1.9 | 0 | 38 |
| 7 | 2250 | B | 0 | 16.2 | 39.0 | 0.3 | 0 | 44 |
| 7 | 2250 | C | 0 | 14.9 | 18.6 | 0.8 | 0 | 48 |
| 7 | 2250 | D | 0 | 8.8 | 14.4 | 0.4 | 4 | 38 |
| 7 | 2260 | A | 0 | 3.4 | 6.0 | 0.2 | 5 | 52 |
| 7 | 2260 | B | 0 | 7.5 | 19.9 | 0.2 | 0 | 47 |
| 7 | 2260 | C | 0 | 1.9 | 16.4 | 0.0 | 0 | 46 |
| 7 | 2260 | D | 2 | 35.9 | 27.4 | 2.3 | 0 | 45 |
| 7 | 2260 | E | 2 | 39.8 | 32.7 | 2.1 | 0 | 41 |
| 7 | 2270 | A | 0 | 6.9 | 27.5 | 0.1 | 0 | 45 |
| 7 | 2270 | B | 2 | 32.1 | 22.1 | 2.5 | 0 | 45 |
| 7 | 2270 | C | 2 | 20.5 | 11.4 | 2.8 | 2 | 47 |
| 7 | 2270 | D | 0 | 2.4 | 6.7 | 0.1 | 9 | 39 |
| 7 | 2280 | A | 2 | 23.6 | 17.3 | 2.1 | 0 | 57 |
| 7 | 2280 | B | 2 | 9.9 | 4.9 | 2.6 | 14 | 52 |
| 7 | 2280 | C | 0 | 6.2 | 6.1 | 0.8 | 0 | 81 |
| 7 | 2290 | A | 1 | 5.5 | 3.7 | 1.3 | 21 | 54 |
| 7 | 2290 | B | 0 | 7.1 | 8.7 | 0.6 | 11 | 42 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 7 | 2290 | C | 1 | 7.8 | 7.3 | 1.0 | 6 | 53 |
| 7 | 2290 | D | 3 | 60.9 | 22.1 | 7.1 | 0 | 39 |
| 7 | 2290 | E | 2 | 13.5 | 6.7 | 2.9 | 10 | 48 |
| 7 | 2300 | A | 4 | 64.4 | 20.9 | 8.3 | 0 | 52 |
| 7 | 2300 | B | 2 | 29.7 | 16.0 | 3.4 | 0 | 45 |
| 7 | 2300 | C | 2 | 32.1 | 17.4 | 3.4 | 0 | 43 |
| 7 | 2300 | D | 2 | 11.8 | 7.3 | 2.0 | 0 | 60 |
| 7 | 2300 | E | 1 | 11.1 | 11.1 | 1.0 | 0 | 54 |
| 7 | 2300 | F | 0 | 12.7 | 14.4 | 0.9 | 0 | 52 |
| 7 | 2300 | G | 0 | 7.5 | 15.3 | 0.3 | 0 | 56 |
| 7 | 2310 | A | 0 | 13.7 | 21.9 | 0.6 | 0 | 43 |
| 7 | 2310 | B | 0 | 4.4 | 13.9 | 0.1 | 0 | 44 |
| 7 | 2310 | C | 0 | 5.2 | 12.7 | 0.2 | 0 | 47 |
| 7 | 2310 | D | 0 | -0.4 | 9.8 | 0.0 | 0 | 47 |
| 7 | 2310 | E | 2 | 21.7 | 10.6 | 3.5 | 8 | 41 |
| 7 | 2310 | F | 1 | 14.4 | 10.3 | 1.8 | 6 | 47 |
| 7 | 2320 | A | 2 | 48.8 | 26.4 | 3.9 | 0 | 38 |
| 7 | 2320 | B | 1 | 15.8 | 12.1 | 1.7 | 8 | 42 |
| 7 | 2320 | C | 0 | -9.9 | 13.4 | 0.0 | 0 | 46 |
| 7 | 2320 | D | 0 | 9.7 | 16.3 | 0.4 | 0 | 55 |
| 7 | 2330 | A | 0 | 10.9 | 27.9 | 0.2 | 0 | 45 |
| 7 | 2330 | B | 0 | 11.0 | 23.3 | 0.3 | 0 | 43 |
| 7 | 2330 | C | 0 | -9.6 | 16.5 | 0.0 | 0 | 47 |
| 7 | 2330 | D | 1 | 21.5 | 16.1 | 1.9 | 7 | 37 |
| 7 | 2330 | E | 3 | 48.0 | 24.7 | 4.2 | 0 | 40 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880 AREA B

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 1 | 10 | A | 0 | 1.6 | 16.8 | 0.0 | 0 | 42 |
| 1 | 10 | B | 0 | 5.0 | 21.5 | 0.0 | 0 | 49 |
| 1 | 10 | C | 0 | 23.0 | 30.6 | 0.9 | 0 | 45 |
| 1 | 10 | D | 0 | 5.5 | 11.3 | 0.2 | 0 | 52 |
| 1 | 10 | E | 0 | 24.2 | 31.8 | 0.9 | 0 | 47 |
| 1 | 10 | F | 0 | 7.1 | 29.3 | 0.1 | 0 | 47 |
| 1 | 10 | G | 0 | 15.7 | 34.0 | 0.4 | 0 | 46 |
| 1 | 20 | A | 0 | 18.1 | 25.3 | 0.8 | 0 | 46 |
| 1 | 20 | B | 0 | 7.3 | 23.5 | 0.1 | 0 | 43 |
| 1 | 20 | C | 1 | 31.5 | 38.5 | 1.1 | 0 | 45 |
| 1 | 20 | D | 0 | 25.2 | 55.0 | 0.5 | 0 | 41 |
| 1 | 20 | E | 0 | 16.6 | 51.5 | 0.2 | 0 | 41 |
| 1 | 20 | F | 0 | 17.8 | 36.7 | 0.4 | 0 | 43 |
| 1 | 20 | G | 1 | 27.0 | 28.4 | 1.3 | 0 | 44 |
| 1 | 30 | A | 0 | 14.9 | 27.1 | 0.5 | 0 | 42 |
| 1 | 30 | B | 0 | 23.2 | 37.8 | 0.7 | 0 | 49 |
| 1 | 30 | C | 0 | 21.8 | 55.8 | 0.3 | 0 | 43 |
| 1 | 30 | D | 1 | 46.5 | 44.3 | 1.8 | 0 | 44 |
| 1 | 30 | E | 0 | 9.4 | 19.2 | 0.3 | 0 | 45 |
| 1 | 40 | A | 1 | 27.7 | 25.6 | 1.6 | 0 | 55 |
| 1 | 40 | B | 0 | 16.9 | 34.8 | 0.4 | 0 | 56 |
| 1 | 50 | A | 0 | 16.3 | 33.2 | 0.4 | 0 | 50 |
| 1 | 50 | B | 2 | 47.5 | 39.7 | 2.2 | 0 | 45 |
| 1 | 60 | A | 2 | 31.3 | 24.9 | 2.0 | 0 | 53 |
| 1 | 60 | B | 0 | 9.5 | 18.6 | 0.3 | 0 | 42 |
| 1 | 70 | A | 1 | 8.7 | 8.0 | 1.0 | 14 | 43 |
| 1 | 70 | B | 0 | 9.2 | 19.4 | 0.3 | 0 | 44 |
| 1 | 70 | C | 1 | 29.2 | 25.3 | 1.8 | 0 | 48 |
| 1 | 80 | A | 2 | 26.5 | 19.6 | 2.1 | 0 | 53 |
| 1 | 80 | B | 0 | 4.0 | 12.1 | 0.1 | 0 | 45 |
| 1 | 90 | A | 2 | 32.1 | 20.8 | 2.7 | 0 | 51 |
| 1 | 100 | A | 1 | 20.6 | 23.4 | 1.1 | 0 | 46 |
| 1 | 110 | A | 0 | 17.7 | 28.1 | 0.6 | 0 | 43 |
| 1 | 122 | A | 0 | 12.4 | 20.3 | 0.5 | 0 | 45 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 1 | 122 | B | 0 | 4.6 | 13.1 | 0.1 | 0 | 49 |
| 1 | 122 | C | 0 | 3.7 | 21.6 | 0.0 | 0 | 42 |
| 1 | 130 | A | 0 | 4.4 | 16.0 | 0.1 | 0 | 50 |
| 1 | 130 | B | 0 | 4.8 | 12.1 | 0.1 | 0 | 48 |
| 1 | 130 | C | 1 | 16.8 | 13.3 | 1.6 | 4 | 43 |
| 2 | 140 | A | 0 | 3.0 | 7.4 | 0.1 | 7 | 41 |
| 2 | 140 | B | 0 | 3.5 | 20.6 | 0.0 | 0 | 42 |
| 2 | 150 | A | 0 | 3.8 | 17.9 | 0.0 | 0 | 46 |
| 2 | 160 | A | 0 | 2.2 | 16.4 | 0.0 | 0 | 42 |
| 2 | 190 | A | 0 | -0.4 | 13.3 | 0.0 | 0 | 48 |
| 2 | 200 | A | 0 | 3.0 | 18.3 | 0.0 | 0 | 42 |
| 2 | 200 | B | 0 | -0.8 | 13.3 | 0.0 | 0 | 34 |
| 2 | 200 | C | 0 | 19.6 | 31.7 | 0.6 | 0 | 46 |
| 2 | 200 | D | 0 | 2.6 | 16.7 | 0.0 | 0 | 39 |
| 2 | 210 | A | 0 | 1.9 | 11.1 | 0.0 | 0 | 55 |
| 2 | 210 | B | 0 | 15.7 | 25.7 | 0.6 | 0 | 51 |
| 2 | 210 | C | 0 | 5.0 | 20.3 | 0.1 | 0 | 36 |
| 2 | 210 | D | 0 | 3.8 | 13.0 | 0.1 | 0 | 41 |
| 2 | 220 | A | 0 | 4.6 | 11.5 | 0.1 | 0 | 43 |
| 2 | 220 | B | 0 | 12.0 | 26.7 | 0.3 | 0 | 49 |
| 2 | 220 | C | 0 | 5.0 | 18.9 | 0.1 | 0 | 43 |
| 2 | 231 | A | 0 | 6.5 | 21.2 | 0.1 | 0 | 56 |
| 2 | 231 | B | 0 | 6.6 | 20.1 | 0.1 | 0 | 54 |
| 2 | 231 | C | 0 | 6.2 | 9.6 | 0.4 | 0 | 69 |
| 2 | 231 | D | 0 | 8.0 | 8.8 | 0.8 | 12 | 42 |
| 2 | 240 | A | 1 | 17.2 | 15.2 | 1.4 | 5 | 40 |
| 2 | 240 | B | 0 | 6.7 | 11.0 | 0.4 | 4 | 42 |
| 2 | 240 | C | 0 | 4.5 | 19.2 | 0.0 | 0 | 55 |
| 2 | 240 | D | 0 | 3.5 | 16.0 | 0.0 | 0 | 56 |
| 2 | 240 | E | 0 | 8.6 | 29.6 | 0.1 | 0 | 39 |
| 2 | 250 | A | 0 | 8.7 | 19.5 | 0.3 | 0 | 44 |
| 2 | 250 | B | 0 | 4.1 | 10.4 | 0.1 | 0 | 63 |
| 2 | 250 | C | 0 | 6.0 | 14.3 | 0.2 | 0 | 40 |
| 2 | 250 | D | 0 | 13.2 | 15.4 | 0.9 | 3 | 41 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 2 | 260 | A | 0 | 13.1 | 17.5 | 0.7 | 1 | 40 |
| 2 | 260 | B | 0 | 3.8 | 13.3 | 0.1 | 0 | 42 |
| 2 | 260 | C | 0 | 5.1 | 15.9 | 0.1 | 0 | 53 |
| 2 | 260 | D | 0 | 7.1 | 10.8 | 0.4 | 7 | 41 |
| 2 | 270 | A | 0 | 1.7 | 3.9 | 0.1 | 21 | 40 |
| 2 | 270 | B | 0 | 3.4 | 10.6 | 0.1 | 0 | 60 |
| 2 | 270 | C | 0 | 3.4 | 10.7 | 0.1 | 0 | 51 |
| 2 | 270 | D | 0 | 4.7 | 12.2 | 0.1 | 0 | 41 |
| 2 | 280 | A | 0 | 9.5 | 20.1 | 0.3 | 0 | 42 |
| 2 | 280 | B | 0 | 4.4 | 23.0 | 0.0 | 0 | 38 |
| 2 | 280 | C | 0 | 4.0 | 22.4 | 0.0 | 0 | 46 |
| 2 | 291 | A | 0 | 8.5 | 11.7 | 0.6 | 0 | 51 |
| 2 | 291 | B | 0 | 1.1 | 14.4 | 0.0 | 0 | 40 |
| 2 | 291 | C | 0 | 4.1 | 18.1 | 0.0 | 0 | 47 |
| 2 | 300 | A | 0 | 3.0 | 12.7 | 0.0 | 0 | 53 |
| 2 | 300 | B | 0 | 3.8 | 10.4 | 0.1 | 0 | 41 |
| 2 | 310 | A | 0 | 9.4 | 22.7 | 0.2 | 0 | 43 |
| 2 | 310 | B | 0 | 3.4 | 15.4 | 0.0 | 0 | 43 |
| 2 | 320 | A | 0 | 1.3 | 8.3 | 0.0 | 0 | 52 |
| 2 | 320 | B | 0 | 7.8 | 13.2 | 0.4 | 0 | 54 |
| 3 | 332 | A | 0 | 18.4 | 31.1 | 0.6 | 0 | 41 |
| 2 | 340 | A | 0 | -1.2 | 16.1 | 0.0 | 0 | 37 |
| 2 | 340 | B | 0 | -0.3 | 7.8 | 0.0 | 0 | 41 |
| 2 | 340 | C | 0 | 1.5 | 5.4 | 0.0 | 0 | 50 |
| 3 | 351 | A | 0 | -3.5 | 9.2 | 0.0 | 0 | 40 |
| 3 | 351 | B | 1 | 8.6 | 6.8 | 1.3 | 2 | 59 |
| 3 | 360 | A | 3 | 34.3 | 10.4 | 7.5 | 7 | 38 |
| 3 | 360 | B | 3 | 42.2 | 13.8 | 7.3 | 0 | 41 |
| 3 | 360 | C | 0 | 0.9 | 14.1 | 0.0 | 0 | 47 |
| 3 | 370 | A | 3 | 40.7 | 18.9 | 4.5 | 0 | 40 |
| 3 | 370 | B | 3 | 34.8 | 11.2 | 7.0 | 0 | 44 |
| 3 | 380 | A | 2 | 30.6 | 15.1 | 3.8 | 6 | 38 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 380 | B | 2 | 39.5 | 20.9 | 3.8 | 2 | 37 |
| 3 | 390 | A | 0 | 4.0 | 16.7 | 0.0 | 0 | 40 |
| 3 | 390 | B | 2 | 38.8 | 20.9 | 3.7 | 0 | 42 |
| 3 | 390 | C | 4 | 55.6 | 15.3 | 9.9 | 1 | 37 |
| 3 | 400 | A | 2 | 16.2 | 7.0 | 3.7 | 1 | 55 |
| 3 | 400 | B | 4 | 35.2 | 9.1 | 9.4 | 0 | 55 |
| 3 | 400 | C | 2 | 27.5 | 15.2 | 3.2 | 0 | 54 |
| 3 | 400 | D | 0 | 8.6 | 22.7 | 0.2 | 0 | 40 |
| 3 | 410 | A | 0 | 25.0 | 40.5 | 0.7 | 0 | 38 |
| 3 | 410 | B | 1 | 22.3 | 20.5 | 1.5 | 0 | 50 |
| 3 | 410 | C | 3 | 33.3 | 13.6 | 5.0 | 0 | 45 |
| 3 | 410 | D | 3 | 47.8 | 16.3 | 7.1 | 3 | 37 |
| 3 | 421 | A | 1 | 18.9 | 14.4 | 1.8 | 11 | 36 |
| 3 | 421 | B | 1 | 16.6 | 13.4 | 1.6 | 3 | 45 |
| 3 | 421 | C | 1 | 26.5 | 29.0 | 1.2 | 0 | 41 |
| 3 | 430 | A | 0 | 15.5 | 43.3 | 0.3 | 0 | 43 |
| 3 | 430 | B | 0 | 7.8 | 32.2 | 0.1 | 0 | 40 |
| 3 | 430 | C | 0 | 11.4 | 23.6 | 0.3 | 0 | 44 |
| 3 | 430 | D | 0 | 13.8 | 36.8 | 0.3 | 0 | 41 |
| 3 | 430 | E | 3 | 35.0 | 13.8 | 5.4 | 10 | 34 |
| 3 | 430 | F | 2 | 17.4 | 10.1 | 2.5 | 16 | 36 |
| 3 | 440 | A | 3 | 27.2 | 9.7 | 5.7 | 0 | 47 |
| 3 | 440 | B | 0 | 25.9 | 39.5 | 0.8 | 0 | 42 |
| 3 | 440 | C | 0 | 21.4 | 34.3 | 0.7 | 0 | 43 |
| 3 | 440 | D | 1 | 40.4 | 50.1 | 1.2 | 0 | 44 |
| 3 | 450 | A | 0 | 11.8 | 53.9 | 0.1 | 0 | 41 |
| 3 | 450 | B | 0 | 23.4 | 61.6 | 0.3 | 0 | 36 |
| 3 | 450 | C | 0 | 4.6 | 31.0 | 0.0 | 0 | 39 |
| 3 | 450 | D | 1 | 42.5 | 52.1 | 1.3 | 0 | 38 |
| 3 | 450 | E | 1 | 11.9 | 8.6 | 1.6 | 20 | 36 |
| 3 | 460 | A | 0 | 2.7 | 3.9 | 0.3 | 24 | 45 |
| 3 | 460 | B | 1 | 54.5 | 56.0 | 1.8 | 0 | 40 |
| 3 | 460 | C | 0 | 5.9 | 36.0 | 0.0 | 0 | 42 |
| 3 | 460 | D | 0 | -3.4 | 15.2 | 0.0 | 0 | 43 |
| 3 | 470 | A | 0 | 10.3 | 49.3 | 0.1 | 0 | 40 |
| 3 | 470 | B | 1 | 51.4 | 50.7 | 1.8 | 0 | 42 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 3 | 480 | A | 0 | 34.2 | 50.8 | 0.9 | 0 | 43 |
| 3 | 490 | A | 0 | 31.9 | 53.8 | 0.7 | 0 | 38 |
| 3 | 500 | A | 0 | 31.3 | 50.7 | 0.8 | 0 | 41 |
| 3 | 510 | A | 0 | 10.6 | 38.2 | 0.1 | 0 | 44 |
| 3 | 510 | B | 0 | 27.9 | 57.5 | 0.5 | 0 | 39 |
| 3 | 520 | A | 0 | 23.9 | 41.2 | 0.6 | 0 | 47 |
| 3 | 530 | A | 0 | 24.4 | 42.7 | 0.6 | 0 | 46 |
| 3 | 540 | A | 1 | 19.1 | 23.0 | 1.0 | 0 | 55 |
| 3 | 550 | A | 0 | 21.7 | 61.7 | 0.3 | 0 | 40 |
| 3 | 550 | B | 0 | 15.0 | 26.1 | 0.5 | 6 | 28 |
| 3 | 560 | A | 0 | 16.6 | 28.4 | 0.6 | 0 | 46 |
| 4 | 570 | A | 0 | 8.5 | 39.1 | 0.1 | 0 | 43 |
| 4 | 570 | B | 0 | 22.0 | 62.6 | 0.3 | 0 | 37 |
| 4 | 580 | A | 0 | 13.8 | 58.0 | 0.1 | 0 | 38 |
| 4 | 580 | B | 0 | 27.7 | 54.7 | 0.6 | 0 | 44 |
| 4 | 580 | C | 0 | 22.7 | 51.4 | 0.4 | 0 | 41 |
| 4 | 590 | A | 0 | 26.2 | 50.9 | 0.6 | 0 | 43 |
| 4 | 590 | B | 0 | 33.3 | 51.9 | 0.8 | 0 | 42 |
| 4 | 590 | C | 0 | 11.8 | 45.4 | 0.1 | 0 | 43 |
| 4 | 600 | A | 0 | 13.9 | 47.0 | 0.2 | 0 | 39 |
| 4 | 600 | B | 0 | 25.6 | 49.3 | 0.6 | 0 | 45 |
| 4 | 600 | C | 0 | 25.3 | 37.5 | 0.8 | 0 | 43 |
| 4 | 600 | D | 0 | 3.2 | 21.1 | 0.0 | 0 | 46 |
| 4 | 610 | A | 0 | 6.0 | 32.9 | 0.0 | 0 | 43 |
| 4 | 610 | B | 1 | 30.6 | 34.1 | 1.3 | 0 | 46 |
| 4 | 610 | C | 0 | 10.1 | 36.3 | 0.1 | 0 | 47 |
| 4 | 610 | D | 0 | 15.1 | 39.2 | 0.3 | 0 | 49 |
| 4 | 610 | E | 0 | 26.7 | 49.0 | 0.6 | 0 | 46 |
| 4 | 610 | F | 0 | 14.4 | 46.3 | 0.2 | 0 | 42 |
| 4 | 620 | A | 0 | 17.3 | 66.0 | 0.2 | 0 | 39 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 4 | 620 | B | 0 | 22.2 | 69.8 | 0.3 | 0 | 41 |
| 4 | 620 | C | 1 | 32.1 | 35.2 | 1.3 | 0 | 46 |
| 4 | 620 | D | 0 | 1.7 | 19.6 | 0.0 | 0 | 44 |
| 4 | 630 | A | 1 | 36.5 | 41.5 | 1.3 | 0 | 43 |
| 4 | 630 | B | 0 | 20.9 | 35.1 | 0.6 | 0 | 39 |
| 4 | 630 | C | 0 | 24.8 | 71.4 | 0.3 | 0 | 39 |
| 4 | 630 | D | 0 | 26.3 | 81.9 | 0.3 | 0 | 38 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 640 | A | 0 | 23.8 | 47.7 | 0.5 | 0 | 45 |
| 5 | 640 | B | 0 | 25.9 | 47.5 | 0.6 | 0 | 44 |
| 5 | 640 | C | 0 | 33.5 | 95.1 | 0.4 | 0 | 36 |
| 5 | 640 | D | 0 | 28.7 | 99.7 | 0.3 | 0 | 35 |
| 5 | 650 | A | 0 | 36.6 | 103.2 | 0.4 | 0 | 34 |
| 5 | 650 | B | 0 | 35.2 | 101.9 | 0.4 | 0 | 35 |
| 5 | 650 | C | 1 | 38.4 | 52.2 | 1.1 | 0 | 47 |
| 5 | 650 | D | 0 | 18.9 | 37.1 | 0.5 | 0 | 45 |
| 5 | 650 | E | 0 | 0.2 | 17.1 | 0.0 | 0 | 39 |
| 5 | 660 | A | 0 | 1.7 | 7.5 | 0.0 | 0 | 56 |
| 5 | 660 | B | 0 | 16.7 | 36.1 | 0.4 | 0 | 43 |
| 5 | 660 | C | 0 | 21.5 | 68.8 | 0.2 | 0 | 41 |
| 5 | 660 | D | 0 | 11.2 | 18.4 | 0.5 | 0 | 46 |
| 5 | 670 | A | 0 | 11.7 | 23.7 | 0.4 | 0 | 43 |
| 5 | 670 | B | 0 | 18.2 | 57.5 | 0.2 | 0 | 41 |
| 5 | 670 | C | 0 | 4.8 | 17.5 | 0.1 | 0 | 48 |
| 5 | 670 | D | 0 | 0.4 | 8.5 | 0.0 | 0 | 46 |
| 5 | 680 | A | 0 | 2.5 | 11.7 | 0.0 | 0 | 45 |
| 5 | 680 | B | 0 | 6.7 | 28.6 | 0.1 | 0 | 45 |
| 5 | 680 | C | 0 | 23.3 | 47.3 | 0.5 | 0 | 46 |
| 5 | 680 | D | 0 | 10.5 | 20.8 | 0.4 | 0 | 46 |
| 5 | 690 | A | 0 | 11.9 | 26.9 | 0.3 | 0 | 36 |
| 5 | 690 | B | 0 | 14.2 | 51.7 | 0.2 | 0 | 40 |
| 5 | 690 | C | 0 | 5.4 | 23.7 | 0.0 | 0 | 44 |
| 5 | 690 | D | 0 | 4.8 | 27.4 | 0.0 | 0 | 44 |
| 5 | 700 | A | 0 | 13.2 | 40.5 | 0.2 | 0 | 45 |
| 5 | 700 | B | 0 | 7.7 | 30.2 | 0.1 | 0 | 46 |
| 5 | 700 | C | 0 | 9.0 | 24.0 | 0.2 | 0 | 52 |
| 5 | 700 | D | 0 | 13.5 | 58.0 | 0.1 | 0 | 40 |
| 5 | 700 | E | 0 | 23.5 | 68.9 | 0.3 | 0 | 42 |
| 5 | 700 | F | 0 | 14.1 | 44.2 | 0.2 | 0 | 44 |
| 5 | 700 | G | 0 | 7.1 | 19.9 | 0.2 | 0 | 47 |
| 5 | 700 | H | 0 | 16.8 | 23.6 | 0.7 | 0 | 39 |
| 5 | 700 | J | 0 | 12.9 | 24.0 | 0.4 | 0 | 53 |
| 5 | 710 | A | 0 | 14.7 | 25.8 | 0.5 | 0 | 44 |
| 5 | 710 | B | 0 | 15.2 | 51.6 | 0.2 | 0 | 42 |
| 5 | 710 | C | 0 | 18.2 | 70.9 | 0.2 | 0 | 39 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 710 | D | 0 | 17.4 | 73.2 | 0.1 | 0 | 39 |
| 5 | 710 | E | 0 | 8.9 | 23.6 | 0.2 | 0 | 53 |
| 5 | 710 | F | 0 | 16.9 | 30.9 | 0.5 | 0 | 48 |
| 5 | 720 | A | 1 | 25.9 | 31.4 | 1.1 | 0 | 39 |
| 5 | 720 | B | 0 | 6.5 | 19.6 | 0.1 | 0 | 44 |
| 5 | 720 | C | 0 | 19.4 | 34.8 | 0.6 | 0 | 46 |
| 5 | 720 | D | 0 | 13.7 | 45.1 | 0.2 | 0 | 44 |
| 5 | 720 | E | 0 | 10.3 | 41.1 | 0.1 | 0 | 41 |
| 5 | 720 | F | 0 | 16.2 | 43.1 | 0.3 | 0 | 42 |
| 5 | 720 | G | 0 | 9.4 | 20.3 | 0.3 | 0 | 62 |
| 5 | 730 | A | 0 | 11.9 | 32.4 | 0.2 | 0 | 55 |
| 5 | 730 | B | 0 | 10.3 | 30.3 | 0.2 | 0 | 51 |
| 5 | 730 | C | 0 | 22.2 | 29.8 | 0.9 | 0 | 48 |
| 5 | 730 | D | 0 | 7.1 | 23.9 | 0.1 | 0 | 50 |
| 5 | 730 | E | 0 | 5.5 | 26.5 | 0.0 | 0 | 47 |
| 5 | 730 | F | 1 | 39.7 | 39.6 | 1.6 | 0 | 43 |
| 5 | 740 | A | 1 | 35.9 | 42.6 | 1.3 | 0 | 48 |
| 5 | 740 | B | 0 | 3.5 | 13.0 | 0.0 | 0 | 40 |
| 5 | 740 | C | 0 | 23.0 | 30.8 | 0.9 | 0 | 51 |
| 5 | 740 | D | 0 | 15.1 | 34.7 | 0.3 | 0 | 51 |
| 5 | 740 | E | 0 | 18.7 | 45.5 | 0.3 | 0 | 41 |
| 5 | 750 | A | 0 | 12.2 | 25.2 | 0.4 | 0 | 45 |
| 5 | 750 | B | 0 | 18.0 | 36.2 | 0.5 | 0 | 49 |
| 5 | 750 | C | 1 | 31.6 | 33.1 | 1.4 | 0 | 51 |
| 5 | 750 | D | 0 | 4.6 | 17.7 | 0.1 | 0 | 50 |
| 5 | 750 | E | 0 | 26.1 | 48.6 | 0.6 | 0 | 43 |
| 5 | 750 | F | 1 | 39.7 | 55.6 | 1.0 | 0 | 42 |
| 5 | 750 | G | 1 | 51.3 | 56.9 | 1.6 | 0 | 33 |
| 5 | 760 | A | 2 | 74.6 | 59.8 | 2.7 | 0 | 41 |
| 5 | 760 | B | 0 | 35.4 | 62.8 | 0.7 | 0 | 44 |
| 5 | 760 | C | 2 | 98.5 | 85.6 | 2.7 | 0 | 43 |
| 5 | 760 | D | 1 | 58.2 | 61.3 | 1.7 | 0 | 46 |
| 5 | 760 | E | 0 | 19.4 | 30.9 | 0.7 | 0 | 34 |
| 5 | 760 | F | 0 | 6.0 | 13.5 | 0.2 | 0 | 40 |
| 5 | 760 | G | 1 | 23.9 | 20.3 | 1.7 | 0 | 64 |
| 5 | 760 | H | 1 | 17.7 | 20.9 | 1.0 | 0 | 49 |
| 5 | 760 | J | 0 | 7.1 | 17.0 | 0.2 | 0 | 44 |
| 5 | 770 | A | 1 | 25.1 | 20.9 | 1.8 | 0 | 40 |
| 5 | 770 | B | 3 | 36.2 | 18.0 | 4.0 | 0 | 50 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 770 | C | 2 | 12.5 | 6.8 | 2.5 | 21 | 37 |
| 5 | 770 | D | 0 | 5.0 | 10.1 | 0.2 | 0 | 47 |
| 5 | 770 | E | 2 | 44.8 | 26.1 | 3.5 | 0 | 61 |
| 5 | 770 | F | 2 | 49.6 | 31.6 | 3.2 | 0 | 58 |
| 5 | 770 | G | 1 | 34.8 | 44.6 | 1.1 | 0 | 52 |
| 5 | 770 | H | 1 | 49.8 | 52.2 | 1.7 | 0 | 48 |
| 5 | 780 | A | 0 | 24.8 | 33.8 | 0.9 | 0 | 45 |
| 5 | 780 | B | 3 | 82.6 | 46.6 | 4.4 | 0 | 34 |
| 5 | 780 | C | 0 | 21.9 | 29.2 | 0.9 | 0 | 40 |
| 5 | 780 | D | 0 | 2.4 | 12.8 | 0.0 | 0 | 38 |
| 5 | 780 | E | 1 | 12.2 | 7.9 | 1.9 | 12 | 45 |
| 5 | 780 | F | 2 | 30.9 | 17.6 | 3.2 | 0 | 48 |
| 5 | 780 | G | 3 | 37.9 | 18.6 | 4.1 | 0 | 41 |
| 5 | 780 | H | 2 | 48.6 | 32.3 | 3.0 | 0 | 45 |
| 5 | 780 | J | 0 | 11.3 | 16.6 | 0.6 | 0 | 51 |
| 5 | 790 | A | 0 | 11.8 | 25.5 | 0.3 | 0 | 45 |
| 5 | 790 | B | 2 | 46.6 | 28.8 | 3.2 | 0 | 40 |
| 5 | 790 | C | 1 | 30.8 | 28.9 | 1.6 | 0 | 57 |
| 5 | 790 | D | 0 | 0.9 | 6.7 | 0.0 | 0 | 36 |
| 5 | 790 | E | 0 | 4.5 | 11.5 | 0.1 | 5 | 35 |
| 5 | 790 | F | 0 | 14.6 | 21.8 | 0.6 | 0 | 41 |
| 5 | 790 | G | 2 | 68.9 | 41.8 | 3.8 | 0 | 36 |
| 5 | 800 | A | 1 | 25.1 | 27.9 | 1.2 | 0 | 41 |
| 5 | 800 | B | 1 | 29.4 | 40.3 | 1.0 | 0 | 31 |
| 5 | 800 | C | 0 | 8.2 | 21.8 | 0.2 | 0 | 36 |
| 5 | 800 | D | 0 | 3.9 | 7.8 | 0.2 | 7 | 43 |
| 5 | 800 | E | 0 | 13.1 | 17.0 | 0.7 | 0 | 60 |
| 5 | 800 | F | 2 | 31.6 | 19.0 | 3.0 | 0 | 45 |
| 5 | 800 | G | 0 | 7.4 | 18.8 | 0.2 | 0 | 41 |
| 5 | 800 | H | 0 | 12.0 | 31.2 | 0.2 | 0 | 42 |
| 5 | 810 | A | 0 | 7.5 | 22.8 | 0.1 | 0 | 41 |
| 5 | 810 | B | 0 | 13.4 | 28.3 | 0.4 | 0 | 50 |
| 5 | 810 | C | 0 | 9.5 | 10.2 | 0.8 | 9 | 43 |
| 5 | 810 | D | 0 | 9.3 | 16.4 | 0.4 | 0 | 56 |
| 5 | 810 | E | 0 | 8.4 | 13.0 | 0.5 | 0 | 48 |
| 5 | 810 | F | 0 | 5.9 | 15.9 | 0.2 | 5 | 31 |
| 5 | 810 | G | 1 | 24.3 | 27.8 | 1.1 | 0 | 48 |
| 5 | 810 | H | 0 | 17.9 | 32.5 | 0.5 | 0 | 35 |
| 5 | 820 | A | 0 | 26.3 | 37.8 | 0.9 | 0 | 40 |
| 5 | 820 | B | 0 | 23.0 | 36.9 | 0.7 | 0 | 41 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 5 | 820 | C | 1 | 19.0 | 19.8 | 1.2 | 0 | 43 |
| 5 | 820 | D | 0 | 6.6 | 14.4 | 0.2 | 0 | 51 |
| 5 | 820 | E | 0 | 11.9 | 15.8 | 0.7 | 0 | 52 |
| 5 | 820 | F | 0 | 8.8 | 14.1 | 0.5 | 0 | 56 |
| 5 | 820 | G | 0 | 17.4 | 37.0 | 0.4 | 0 | 44 |
| 5 | 830 | A | 0 | 9.7 | 27.3 | 0.2 | 0 | 54 |
| 5 | 830 | B | 0 | 7.8 | 16.4 | 0.3 | 0 | 40 |
| 5 | 830 | C | 0 | 8.6 | 16.6 | 0.3 | 0 | 45 |
| 5 | 830 | D | 0 | 10.2 | 20.9 | 0.3 | 0 | 52 |
| 5 | 830 | E | 0 | 11.7 | 20.2 | 0.5 | 0 | 55 |
| 5 | 830 | F | 2 | 33.5 | 25.3 | 2.2 | 0 | 53 |
| 5 | 830 | G | 0 | 18.3 | 29.9 | 0.6 | 0 | 38 |
| 5 | 830 | H | 0 | 15.2 | 22.3 | 0.7 | 0 | 57 |
| 5 | 830 | J | 0 | 2.9 | 14.9 | 0.0 | 0 | 56 |
| 5 | 840 | A | 0 | 8.6 | 14.1 | 0.4 | 0 | 49 |
| 5 | 840 | B | 0 | 18.5 | 30.6 | 0.6 | 0 | 49 |
| 5 | 840 | C | 0 | 7.7 | 15.5 | 0.3 | 0 | 45 |
| 5 | 840 | D | 1 | 29.8 | 33.2 | 1.3 | 0 | 54 |
| 5 | 840 | E | 0 | 18.0 | 33.3 | 0.5 | 0 | 42 |
| 5 | 840 | F | 0 | 23.8 | 45.5 | 0.6 | 0 | 42 |
| 5 | 840 | G | 0 | 10.8 | 28.8 | 0.2 | 0 | 41 |
| 5 | 840 | H | 0 | 6.0 | 26.2 | 0.1 | 0 | 49 |
| 6 | 850 | A | 0 | 4.9 | 19.1 | 0.1 | 0 | 44 |
| 6 | 850 | B | 0 | 11.3 | 21.4 | 0.4 | 0 | 54 |
| 6 | 850 | C | 0 | 10.6 | 23.4 | 0.3 | 0 | 55 |
| 6 | 850 | D | 0 | 12.8 | 18.7 | 0.6 | 0 | 49 |
| 6 | 850 | E | 0 | 13.8 | 21.1 | 0.6 | 0 | 64 |
| 6 | 850 | F | 0 | 12.7 | 25.7 | 0.4 | 0 | 57 |
| 6 | 850 | G | 1 | 26.0 | 32.8 | 1.0 | 0 | 48 |
| 6 | 861 | A | 0 | 17.8 | 23.7 | 0.8 | 0 | 45 |
| 6 | 861 | B | 0 | 9.2 | 22.5 | 0.2 | 0 | 38 |
| 6 | 861 | C | 0 | 14.3 | 23.6 | 0.5 | 0 | 51 |
| 6 | 861 | D | 0 | 9.5 | 14.8 | 0.5 | 7 | 36 |
| 6 | 861 | E | 0 | 7.2 | 13.1 | 0.3 | 0 | 54 |
| 6 | 861 | F | 0 | 9.0 | 17.2 | 0.3 | 0 | 48 |
| 6 | 861 | G | 0 | 5.9 | 23.7 | 0.1 | 0 | 53 |
| 6 | 870 | A | 0 | 5.0 | 10.2 | 0.2 | 0 | 58 |
| 6 | 870 | B | 0 | 6.4 | 8.6 | 0.5 | 3 | 49 |
| 6 | 870 | C | 0 | 4.0 | 12.4 | 0.1 | 0 | 54 |
| 6 | 870 | D | 0 | 14.7 | 25.6 | 0.5 | 0 | 59 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 6 | 870 | E | 0 | 7.1 | 15.9 | 0.2 | 0 | 45 |
| 6 | 881 | A | 0 | 6.6 | 28.6 | 0.1 | 0 | 45 |
| 6 | 881 | B | 0 | 3.4 | 17.9 | 0.0 | 0 | 37 |
| 6 | 881 | C | 0 | 4.4 | 17.3 | 0.0 | 0 | 54 |
| 6 | 881 | D | 0 | 18.5 | 40.3 | 0.4 | 0 | 49 |
| 6 | 881 | E | 0 | 6.4 | 15.6 | 0.2 | 0 | 44 |
| 6 | 881 | F | 0 | 8.7 | 18.9 | 0.3 | 0 | 38 |
| 6 | 881 | G | 0 | 1.6 | 4.2 | 0.0 | 12 | 45 |
| 6 | 890 | A | 0 | 8.5 | 15.7 | 0.4 | 0 | 52 |
| 6 | 890 | B | 0 | 10.4 | 17.0 | 0.5 | 0 | 52 |
| 6 | 890 | C | 0 | 21.7 | 36.0 | 0.6 | 0 | 50 |
| 6 | 890 | D | 1 | 43.5 | 50.5 | 1.4 | 0 | 41 |
| 6 | 890 | E | 0 | 8.6 | 33.9 | 0.1 | 0 | 30 |
| 6 | 890 | F | 0 | 4.1 | 24.8 | 0.0 | 0 | 46 |
| 6 | 890 | G | 0 | 9.1 | 30.0 | 0.1 | 0 | 42 |
| 6 | 900 | A | 0 | 14.1 | 36.2 | 0.3 | 0 | 45 |
| 6 | 900 | B | 0 | 4.6 | 18.7 | 0.0 | 0 | 44 |
| 6 | 900 | C | 0 | 5.5 | 26.7 | 0.0 | 0 | 50 |
| 6 | 900 | D | 1 | 37.0 | 40.6 | 1.4 | 0 | 54 |
| 6 | 900 | E | 1 | 26.7 | 22.6 | 1.8 | 0 | 55 |
| 6 | 900 | F | 0 | 16.0 | 23.7 | 0.7 | 0 | 42 |
| 6 | 900 | G | 1 | 17.4 | 19.4 | 1.0 | 0 | 41 |
| 6 | 910 | A | 1 | 23.8 | 23.8 | 1.4 | 0 | 54 |
| 6 | 910 | B | 1 | 25.3 | 33.1 | 1.0 | 0 | 51 |
| 6 | 910 | C | 0 | 4.8 | 19.1 | 0.1 | 0 | 52 |
| 6 | 920 | A | 0 | 12.2 | 19.9 | 0.5 | 0 | 61 |
| 6 | 920 | B | 1 | 23.2 | 18.9 | 1.8 | 0 | 65 |
| 6 | 920 | C | 1 | 24.6 | 28.8 | 1.1 | 0 | 53 |
| 6 | 920 | D | 0 | 16.5 | 22.7 | 0.8 | 0 | 46 |
| 6 | 920 | E | 0 | 4.8 | 7.3 | 0.4 | 10 | 45 |
| 6 | 930 | A | 0 | 8.9 | 9.2 | 0.9 | 9 | 44 |
| 6 | 930 | B | 0 | 7.0 | 18.8 | 0.2 | 0 | 55 |
| 6 | 930 | C | 0 | 16.8 | 25.6 | 0.7 | 0 | 50 |
| 6 | 930 | D | 1 | 27.9 | 28.8 | 1.4 | 0 | 47 |
| 6 | 930 | E | 0 | 9.8 | 23.1 | 0.3 | 0 | 45 |
| 6 | 930 | F | 0 | 7.0 | 13.7 | 0.3 | 7 | 34 |
| 6 | 930 | G | 1 | 21.5 | 24.9 | 1.1 | 0 | 50 |
| 6 | 940 | A | 0 | 25.7 | 38.8 | 0.8 | 0 | 52 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 6 | 940 | B | 0 | 22.8 | 37.3 | 0.7 | 0 | 46 |
| 6 | 940 | C | 0 | 1.4 | 10.0 | 0.0 | 0 | 40 |
| 6 | 940 | D | 0 | 10.4 | 43.3 | 0.1 | 0 | 47 |
| 6 | 940 | E | 0 | 16.2 | 37.3 | 0.4 | 0 | 36 |
| 6 | 940 | F | 0 | 27.7 | 43.9 | 0.8 | 0 | 41 |
| 6 | 940 | G | 0 | 26.3 | 44.0 | 0.7 | 0 | 38 |
| 6 | 940 | H | 0 | 6.7 | 21.9 | 0.1 | 0 | 47 |
| 6 | 940 | J | 0 | 10.9 | 14.0 | 0.7 | 0 | 49 |
| 6 | 950 | A | 0 | 7.9 | 17.8 | 0.2 | 0 | 48 |
| 6 | 950 | B | 0 | 12.4 | 41.1 | 0.2 | 0 | 45 |
| 6 | 950 | C | 1 | 39.1 | 57.0 | 1.0 | 0 | 42 |
| 6 | 950 | D | 0 | 18.0 | 50.1 | 0.3 | 0 | 42 |
| 6 | 950 | E | 0 | 14.5 | 53.0 | 0.2 | 0 | 45 |
| 6 | 950 | F | 1 | 31.1 | 37.0 | 1.2 | 0 | 51 |
| 6 | 960 | A | 0 | 19.6 | 27.8 | 0.8 | 0 | 44 |
| 6 | 960 | B | 0 | 11.7 | 31.2 | 0.2 | 0 | 46 |
| 6 | 960 | C | 0 | 11.4 | 29.7 | 0.2 | 0 | 48 |
| 6 | 960 | D | 0 | 6.2 | 25.9 | 0.1 | 0 | 43 |
| 6 | 960 | E | 0 | 4.6 | 16.2 | 0.1 | 0 | 43 |
| 6 | 960 | F | 0 | 8.2 | 15.5 | 0.3 | 3 | 37 |
| 6 | 970 | A | 0 | 5.2 | 11.0 | 0.2 | 8 | 36 |
| 6 | 970 | B | 0 | 4.5 | 9.2 | 0.2 | 0 | 52 |
| 6 | 970 | C | 0 | 7.6 | 28.1 | 0.1 | 0 | 48 |
| 6 | 970 | D | 0 | 6.5 | 18.8 | 0.1 | 0 | 54 |
| 6 | 970 | E | 0 | 12.6 | 34.6 | 0.2 | 0 | 41 |
| 6 | 980 | A | 0 | 9.5 | 39.6 | 0.1 | 0 | 44 |
| 6 | 980 | B | 0 | 5.5 | 15.5 | 0.1 | 0 | 50 |
| 6 | 980 | C | 0 | 10.6 | 34.2 | 0.2 | 0 | 41 |
| 6 | 980 | D | 0 | 5.1 | 10.1 | 0.2 | 3 | 42 |
| 6 | 990 | A | 0 | 7.8 | 31.6 | 0.1 | 0 | 43 |
| 6 | 990 | B | 0 | 5.8 | 21.6 | 0.1 | 0 | 39 |
| 6 | 1000 | A | 0 | 6.2 | 21.4 | 0.1 | 0 | 37 |
| 6 | 1000 | B | 0 | 11.2 | 35.6 | 0.2 | 0 | 45 |
| 6 | 1010 | A | 0 | 20.2 | 64.3 | 0.2 | 0 | 42 |
| 6 | 1010 | B | 0 | 16.9 | 21.9 | 0.8 | 1 | 37 |
| 6 | 1020 | A | 1 | 19.1 | 18.6 | 1.3 | 6 | 36 |
| 6 | 1030 | A | 0 | 16.2 | 27.9 | 0.5 | 0 | 42 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 6 | 1030 | B | 0 | 11.2 | 12.8 | 0.8 | 7 | 41 |
| 6 | 1040 | A | 0 | 8.3 | 14.0 | 0.4 | 0 | 46 |
| 6 | 1040 | B | 2 | 31.1 | 22.7 | 2.3 | 0 | 52 |
| 6 | 1040 | C | 0 | 14.8 | 31.5 | 0.4 | 0 | 47 |
| 6 | 1050 | A | 0 | -3.7 | 10.4 | 0.0 | 0 | 44 |
| 6 | 1050 | B | 2 | 11.3 | 6.5 | 2.2 | 22 | 38 |
| 6 | 1050 | C | 0 | 16.6 | 19.7 | 0.9 | 5 | 36 |
| 6 | 1050 | D | 1 | 19.3 | 21.7 | 1.1 | 0 | 50 |
| 6 | 1060 | A | 1 | 29.2 | 24.4 | 1.9 | 0 | 43 |
| 6 | 1060 | B | 2 | 18.2 | 10.7 | 2.5 | 15 | 36 |
| 6 | 1060 | C | 0 | -2.4 | 3.2 | 0.0 | 0 | 52 |
| 6 | 1070 | A | 0 | 1.2 | 18.6 | 0.0 | 0 | 43 |
| 6 | 1070 | B | 0 | 4.7 | 4.8 | 0.7 | 13 | 55 |
| 6 | 1070 | C | 3 | 29.9 | 11.1 | 5.5 | 0 | 49 |
| 6 | 1080 | A | 4 | 43.6 | 13.3 | 8.0 | 0 | 46 |
| 6 | 1080 | B | 0 | 14.6 | 40.1 | 0.3 | 0 | 49 |
| 6 | 1080 | C | 0 | 1.6 | 5.3 | 0.0 | 7 | 42 |
| 6 | 1080 | D | 0 | 5.2 | 28.7 | 0.0 | 0 | 38 |
| 6 | 1090 | A | 0 | -0.1 | 11.5 | 0.0 | 0 | 40 |
| 6 | 1090 | B | 0 | 9.7 | 13.0 | 0.6 | 0 | 47 |
| 6 | 1090 | C | 0 | 5.5 | 26.3 | 0.0 | 0 | 53 |
| 6 | 1090 | D | 3 | 29.9 | 14.2 | 4.0 | 0 | 56 |
| 6 | 1100 | A | 1 | 23.5 | 23.9 | 1.3 | 0 | 48 |
| 6 | 1100 | B | 0 | 5.0 | 11.9 | 0.2 | 12 | 29 |
| 6 | 1100 | C | 0 | -4.5 | 4.3 | 0.0 | 0 | 40 |
| 6 | 1110 | A | 0 | 19.9 | 33.3 | 0.6 | 0 | 48 |
| 6 | 1110 | B | 0 | 18.9 | 41.8 | 0.4 | 0 | 47 |
| 6 | 1120 | A | 0 | 19.8 | 47.5 | 0.4 | 0 | 46 |
| 6 | 1120 | B | 0 | 14.5 | 36.6 | 0.3 | 0 | 50 |
| 6 | 1120 | C | 0 | 5.0 | 10.1 | 0.2 | 0 | 49 |
| 6 | 1130 | A | 0 | -10.3 | 4.6 | 0.0 | 0 | 37 |
| 6 | 1130 | B | 0 | 6.2 | 11.2 | 0.3 | 3 | 42 |
| 6 | 1140 | A | 0 | 8.3 | 23.5 | 0.2 | 0 | 41 |
| 6 | 1140 | B | 0 | 4.2 | 6.6 | 0.3 | 10 | 47 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

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| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 6 | 1150 | A | 0 | 11.6 | 18.6 | 0.5 | 0 | 55 |
| 6 | 1150 | B | 0 | 18.0 | 41.7 | 0.4 | 0 | 48 |
| 6 | 1160 | A | 0 | 22.7 | 48.7 | 0.5 | 0 | 38 |
| 6 | 1170 | A | 0 | 3.2 | 13.0 | 0.0 | 0 | 43 |
| 6 | 1170 | B | 0 | 4.2 | 14.4 | 0.1 | 0 | 41 |
| 6 | 1180 | A | 0 | 6.2 | 29.7 | 0.0 | 0 | 39 |
| 6 | 1180 | B | 0 | 1.2 | 7.8 | 0.0 | 0 | 42 |
| 6 | 1190 | A | 0 | 3.4 | 19.9 | 0.0 | 0 | 47 |
| 8 | 1200 | A | 0 | 9.4 | 43.0 | 0.1 | 0 | 45 |
| 8 | 1200 | B | 0 | 6.7 | 23.3 | 0.1 | 0 | 48 |
| 8 | 1210 | A | 0 | 13.4 | 36.0 | 0.2 | 0 | 45 |
| 8 | 1220 | A | 0 | 21.3 | 38.4 | 0.6 | 0 | 48 |
| 8 | 1231 | A | 1 | 28.0 | 31.6 | 1.2 | 0 | 47 |
| 8 | 1240 | A | 0 | 4.0 | 12.6 | 0.1 | 0 | 53 |
| 8 | 1250 | A | 1 | 32.1 | 27.6 | 1.8 | 0 | 51 |
| 8 | 1250 | B | 0 | 8.1 | 16.8 | 0.3 | 0 | 50 |
| 8 | 1250 | C | 0 | 3.9 | 8.7 | 0.2 | 3 | 44 |
| 8 | 1260 | A | 0 | 12.8 | 13.9 | 0.9 | 5 | 41 |
| 8 | 1260 | B | 0 | 5.4 | 6.3 | 0.6 | 13 | 48 |
| 8 | 1260 | C | 0 | 12.3 | 18.8 | 0.6 | 0 | 59 |
| 8 | 1270 | A | 0 | 6.1 | 24.3 | 0.1 | 0 | 46 |
| 8 | 1270 | B | 0 | 20.9 | 28.7 | 0.8 | 0 | 48 |
| 8 | 1270 | C | 0 | 0.8 | 3.7 | 0.0 | 0 | 53 |
| 8 | 1270 | D | 0 | 7.0 | 12.5 | 0.3 | 4 | 40 |
| 8 | 1280 | A | 1 | 15.4 | 15.2 | 1.2 | 0 | 52 |
| 8 | 1290 | A | 0 | 10.5 | 17.1 | 0.5 | 0 | 47 |
| 8 | 1290 | B | 2 | 35.0 | 23.4 | 2.7 | 0 | 44 |
| 8 | 1290 | C | 0 | -1.2 | 8.9 | 0.0 | 0 | 40 |
| 8 | 1300 | A | 0 | 0.1 | 11.8 | 0.0 | 0 | 39 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 8 | 1360 | A | 0 | -0.7 | 8.9 | 0.0 | 0 | 40 |
| 8 | 1370 | A | 0 | -2.0 | 3.8 | 0.0 | 0 | 40 |
| 8 | 1380 | A | 0 | 2.2 | 3.1 | 0.3 | 19 | 56 |
| 8 | 1390 | A | 0 | 5.9 | 7.4 | 0.5 | 14 | 43 |
| 8 | 1401 | A | 0 | 14.1 | 17.6 | 0.8 | 0 | 45 |
| 8 | 1410 | A | 0 | 8.5 | 12.0 | 0.5 | 0 | 49 |
| 8 | 1420 | A | 0 | 12.6 | 15.7 | 0.8 | 2 | 42 |
| 8 | 1430 | A | 0 | 3.0 | 11.4 | 0.0 | 0 | 39 |
| 8 | 1440 | A | 0 | 2.1 | 6.2 | 0.0 | 10 | 39 |
| 8 | 1450 | A | 0 | 2.7 | 5.5 | 0.1 | 16 | 40 |
| 8 | 1460 | A | 0 | 6.9 | 26.3 | 0.1 | 0 | 52 |
| 8 | 1460 | B | 0 | 6.1 | 7.2 | 0.6 | 22 | 36 |
| 8 | 1470 | A | 0 | 9.6 | 37.5 | 0.1 | 0 | 45 |
| 8 | 1470 | B | 0 | 17.6 | 43.4 | 0.3 | 0 | 45 |
| 8 | 1480 | A | 0 | 5.8 | 24.8 | 0.1 | 0 | 51 |
| 8 | 1480 | B | 0 | 5.9 | 21.5 | 0.1 | 0 | 47 |
| 8 | 1480 | C | 0 | 17.0 | 31.5 | 0.5 | 0 | 45 |
| 8 | 1490 | A | 0 | 4.6 | 10.9 | 0.2 | 2 | 41 |
| 8 | 1490 | B | 0 | 28.2 | 44.8 | 0.8 | 0 | 41 |
| 8 | 1490 | C | 0 | 14.0 | 39.1 | 0.2 | 0 | 45 |
| 8 | 1500 | A | 0 | 5.1 | 8.2 | 0.3 | 15 | 37 |
| 8 | 1500 | B | 0 | 22.2 | 58.3 | 0.3 | 0 | 41 |
| 8 | 1500 | C | 2 | 27.0 | 21.1 | 2.0 | 0 | 44 |
| 8 | 1500 | D | 0 | 27.9 | 39.7 | 0.9 | 0 | 46 |
| 8 | 1500 | E | 0 | 3.6 | 18.9 | 0.0 | 0 | 39 |
| 8 | 1500 | F | 0 | -1.6 | 2.9 | 0.0 | 0 | 46 |
| 8 | 1510 | A | 0 | -1.1 | 2.1 | 0.0 | 0 | 55 |
| 8 | 1510 | B | 0 | 2.8 | 15.8 | 0.0 | 0 | 48 |
| 8 | 1510 | C | 0 | 18.4 | 32.4 | 0.6 | 0 | 45 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

J8880

| FLIGHT | LINE | ANOMALY | CATEGORY | AMPLITUDE (PPM) INPHASE | QUAD. | CONDUCTOR CTP MHOS | DEPTH MTRS | BIRD HEIGHT MTRS |
|---|---|---|---|---|---|---|---|---|
| 8 | 1510 | D | 4 | 41.4 | 12.2 | 8.3 | 1 | 41 |
| 8 | 1510 | E | 2 | 54.1 | 38.9 | 2.8 | 0 | 42 |
| 8 | 1510 | F | 0 | 7.3 | 26.4 | 0.1 | 0 | 47 |
| 8 | 1520 | A | 3 | 69.3 | 29.9 | 5.9 | 0 | 39 |
| 8 | 1520 | B | 3 | 42.3 | 19.6 | 4.6 | 0 | 42 |
| 8 | 1520 | C | 1 | 20.7 | 17.5 | 1.6 | 0 | 49 |
| 8 | 1520 | D | 0 | 10.3 | 33.7 | 0.2 | 0 | 45 |
| 8 | 1530 | A | 0 | 13.5 | 44.0 | 0.2 | 0 | 46 |
| 8 | 1530 | B | 3 | 75.1 | 31.0 | 6.4 | 0 | 37 |
| 8 | 1530 | C | 2 | 28.9 | 22.7 | 2.0 | 1 | 38 |
| 8 | 1530 | D | 1 | 20.2 | 16.2 | 1.7 | 5 | 40 |

Estimated depth may be unreliable because the stronger part of the conductor may be deeper or to one side of the flight line, or because of a shallow dip or overburden effects.

900

SUITE 916
111 RICHMOND STREET WEST
TORONTO, ONTARIO M5H 2G4
TELEPHONE (416) 364-3182
TELECOPIER (416) 364-5265

NOBLE MINES & OILS LTD.

October 25, 1989

**RECEIVED**
OCT 26 1989
**MINING LANDS SECTION**

Mr. G. White
Mining Recorder
Porcupine Mining Division
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Mr. White

This airborne electromagnetic survey (W8906.185) covering a total of 218 claims was originally submitted in March of this year. Claims P 1087971 - 1087985 inclusive were included but because of discrepancies between survey dates and recording dates could not be accepted in the original form of application.

Please find enclosed the revised Report of Work for these 15 claims. The airborne survey (Report 2.12291) has been filed with the Mining Lands Section and covers the entire 218 claims (of which these 15 are part of and were flown after being recorded).

Yours very truly

**DOMINION EXPLORERS INC.**
**FOR CENTRAL CRUDE LIMITED**

U. Abolins
Vice-President, Exploration

UA:nj
Encl.

cc: Mr. Larry Stoliker
Mining Lands Section

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone: (416) 965-488

March 4, 1990

Your File: W8906-513
Our File: 2.12291

Mining Recorder
Ministry of Northern Development and Mines
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Re: Notice of Intent dated February 2, 1990 for Geophysical survey submitted on Mining Claims P 1087976 et al in Benton and Osway Township.

---

the assessment work credits, as listed with the above-mentioned Notice Intent have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

AJS
LS:pt
Enclosure

cc: Mr. G.H. Ferguson
Mining and Lands Commissioner
Toronto, Ontario

Central Crude Limited
Toronto, Ontario

Resident Geologist
Timmins, Ontario

Ministry of Northern Development and Mines
Ontario

# Technical Assessment Work Credits

| File |
|---|
| 2.12291 |

| Date | Mining Recorder's Report of Work No. |
|---|---|
| Feb 2, 1990 | W8906.513 |

**Recorded Holder**
Central Crude Limited

**Township or Area**
Benton and Osway Twp.

| Type of survey and number of Assessment days credit per claim | Mining Claims Assessed |
|---|---|
| Geophysical | P-1087976 to 985 incl. |
| Electromagnetic 27 days | |
| Magnetometer 27 days | |
| Radiometric 26 days | |
| Induced polarization ___ days | |
| Other ___ days | |
| Section 77 (19) See "Mining Claims Assessed" column | |
| Geological ___ days | |
| Geochemical ___ days | |
| Man days ☐ Airborne ☒ | |
| Special provision ☐ Ground ☐ | |
| ☐ Credits have been reduced because of partial coverage of claims. | |
| ☐ Credits have been reduced because of corrections to work dates and figures of applicant. | |

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☒ not sufficiently covered by the survey ☐ insufficient technical data filed

P 1087971 to 975 incl.

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

828 (85/12)

Ministry of Northern Development and Mines

Ontario

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

DOCUMENT NO. W 8906·185

2.12291

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Airborne Electromagnetic, Magnetic & VLF-EM

Township or Area: OSWAY TWP.

Claim Holder(s): Central Crude Ltd.

Prospector's Licence No.: *T-1361

Address: 436 Adelaide St. W. Toronto M5V 1S7

Survey Company: Aerodat Limited

Date of Survey (from & to): *11 11 88 – 18 11 88 (Day Mo. Yr. – Day Mo. Yr.)

Total Miles of line Cut:

*AS PER AMENDMENT ATTACHED

Name and Address of Author (of Geo-Technical report): Mr. B. DeCarle c/o Aerodat Ltd. 3883 Nashua Drive, Mississauga, Ontario L4V 1R3

## Credits Requested per Each Claim in Columns at right

**Special Provisions**

For first survey: Enter 40 days. (This includes line cutting)

For each additional survey: using the same grid: Enter 20 days (for each)

| | Days per Claim |
|---|---|
| Geophysical – Electromagnetic | |
| – Magnetometer | |
| – Radiometric | |
| – Other | |
| Geological | |
| Geochemical | |

**Man Days**

Complete reverse side and enter total(s) here

| | Days per Claim |
|---|---|
| Geophysical – Electromagnetic | |
| – Magnetometer | |
| – Radiometric | |
| – Other | |
| Geological | |
| Geochemical | |

**Airborne Credits**

Note: Special provisions credits do not apply to Airborne Surveys.

| | Days per Claim |
|---|---|
| Electromagnetic | 27 |
| Magnetometer | 27 |
| Radiometric | 26 |

RECEIVED MINING DIVISION MAR 15 1989 9:45am

RECORDED MAR 15 1989

RECEIVED MAR 28 1989 MINING LANDS SECTION

ONTARIO GEOLOGICAL SURVEY ASSESSMENT FILES OFFICE APR 20 … RECEIVED

**Expenditures** (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ______ ÷ 15 = Total Days Credits ______

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

## Mining Claims Traversed (List in numerical sequence)

| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1034802 | | P | 1045924 | |
| | 1034803 | | | 1045925 | |
| | 1045892 | | | 1045926 | |
| | 1045893 | | | 1045927 | |
| | 1045894 | | | 1045928 | |
| | 1045895 | | | 1045929 | |
| | 1045896 | | | 1045930 | |
| | 1045897 | | | 1045931 | |
| | 1045898 | | | 1045932 | |
| | 1045899 | | | 1045933 | |
| | 1045900 | | | 1045934 | |
| | 1045901 | | | 1045935 | |
| | 1045902 | | | 1045998 | |
| | 1045903 | | | 1045999 | |
| | 1045904 | | | 1046000 | |
| | 1045905 | | | 1046002 | |
| | 1045906 | | | 1046003 | |
| | 1045907 | | | 1046004 | |
| | 1045908 | | | 1046005 | |
| | 1045909 | | | 1046006 | |
| | 1045910 | | | 1046007 | |
| | 1045922 | | | 1046008 | |
| | 1045923 | | | 1046009 | |

Total number of mining claims covered by this report of work: ~~218~~ 205

**For Office Use Only**

| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
|---|---|---|
| 16,400 | MAR. 15/89 | |
| | Date Approved as Recorded | Branch Director |
| | 14 April 89 | |

Date: March 13/89 Recorded Holder or Agent (Signature): U. Abolins

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Mr. U. Abolins v.p. exploration Dominion Explorers Inc. Ste 916 - 111 Richmond St. W. Toronto M5H-2G2

Date Certified: March 13/89 Certified by (Signature): U. Abolins P.Eng.

1362 (85/12)

Osway Twp

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1046014 | | | | |
| | 1046015 | | | | |
| | 1046016 | | | | |
| | 1046019 | | | | |
| | ~~1087977~~ ✓ | | | | |
| | ~~1087982~~ ✓ | | | | |
| | ~~1087983~~ ✓ | | | | |
| | ~~1087985~~ ✓ | | | | |
| | ~~1087936~~ | | | | |
| | ~~1087937~~ | | | | |
| | 1087938 | | | | |
| | ~~1087939~~ | | | | |
| | ~~1087940~~ | | | | |

These 5 claims are on a on file only basis, and have not yet been inspected

✓ NOT ALLOWED - RECORDED AFTER SURVEY COMMENCED

Total number of mining claims covered by this report of work. 218

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Note claims 1087971 to 76 and claim 1087984 were not covered by the survey and have not been included.

Ontario — Ministry of Northern Development and Mines

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

**Mining Act**

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Airborne Electromagnetic, Magnetic, VLF - EM

Township or Area: Esther Twp

Claim Holder(s): Central Crude Ltd.

Prospector's Licence No.: T 1361

Address: 436 Adelaide St. W. Toronto M5V 1S7

Survey Company: Aerodat Limited

Date of Survey (from & to): Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut: 44V1R3

Name and Address of Author (of Geo-Technical report): Mr. B. DeCarle % Aerodat Ltd. 3883 Nashua Drive, Mississauga, Ont.

## Credits Requested per Each Claim in Columns at right

| Special Provisions | | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | Geophysical | |
| | · Electromagnetic | |
| | · Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |
| **Man Days** | | **Days per Claim** |
| Complete reverse side and enter total(s) here | Geophysical | |
| | · Electromagnetic | |
| | · Magnetometer | |
| | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |
| **Airborne Credits** | | **Days per Claim** |
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | 27 |
| | Magnetometer | 27 |
| | Radiometric | 26 |

## Mining Claims Traversed (List in numerical sequence)

| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | ~~1046000~~ | | | | |
| | ~~1046016~~ | | | | |
| | 1037206 | | | | |
| | 1046020 | | | | |
| | 1046021 | | | | |
| | 1046023 | | | | |
| | 1046024 | | | | |
| | 1046025 | | | | |
| | 1046026 | | | | |
| | 1046027 | | | | |
| | 1046028 | | | | |

## Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ______ ÷ 15 = ______ Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 218

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Date: March 13/87 — Recorded Holder or Agent (Signature): [signature]

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Mr. V. Abolins V.P. Exploration Dominion Explorers Inc. Suite 916 - 111 Richmond St. W. Toronto

Date Certified: March 13/87

Certified by (Signature): V. Abolins P. Eng

1362 (85/12)

Ministry of Northern Development and Mines
Ontario

# Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

**Mining Act**

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

| | |
|---|---|
| Type of Survey(s): Airborne Electromagnetic, Magnetic + VLF-EM | Township or Area: Benton |
| Claim Holder(s): Central Crude Ltd. | Prospector's Licence No.: T 1361 |
| Address: 436 Adelaide St. W. Toronto M5V 1S7 | |
| Survey Company: Aerodat Limited | Date of Survey (from & to): Day / Mo. / Yr. / Day / Mo. / Yr. — Total Miles of line Cut: |
| Name and Address of Author (of Geo-Technical report): Mr B. DeCarle c/o Aerodat Ltd. 3883 Nashua Drive, Mississauga Ontario L4V 1R3 | |

## Credits Requested per Each Claim in Columns at right

| Special Provisions | Geophysical | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | · Electromagnetic | |
| | · Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Man Days | Geophysical | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | · Electromagnetic | |
| | · Magnetometer | |
| | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | 27 |
| | Magnetometer | 27 |
| | Radiometric | 26 |

## Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

## Mining Claims Traversed (List in numerical sequence)

| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1045950 | | P | 1045973 | |
| | 1045951 | | | 1045974 | |
| | 1045952 | | | 1045975 | |
| | 1045953 | | | 1045976 | |
| | 1045954 | | | 1045977 | |
| | 1045955 | | | 1045978 | |
| | 1045956 | | | 1045982 | |
| | 1045957 | | | 1045983 | |
| | 1045958 | | | 1045984 | |
| | 1045959 | | | 1045985 | |
| | 1045960 | | | 1045986 | |
| | 1045961 | | | 1045987 | |
| | 1045962 | | | 1045988 | |
| | 1045963 | | | 1045989 | |
| | 1045964 | | | 1045990 | |
| | 1045965 | | | 1045991 | |
| | 1045966 | | | 1045992 | |
| | 1045967 | | | 1045993 | |
| | 1045968 | | | 1045994 | |
| | 1045969 | | | 1045995 | |
| | 1045970 | | | 1058837 | |
| | 1045971 | | | 1058838 | |
| | 1045972 | | | 1058839 | |

Total number of mining claims covered by this report of work: 218

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Date: March 13/89 — Recorded Holder or Agent (Signature): U. Abolins

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Mr. U. Abolins V.P. exploration Dominion Explorers Inc. Ste. 916 - 111 Richmond St. W. Toronto

Date Certified: March 13/89 — Certified by (Signature): U. Abolins

1362 (85/12)

Bent[illegible] Twp.

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1058840 | | P | 1058863 | |
| | 1058841 | | | 1058864 | |
| | 1058842 | | | 1058865 | |
| | 1058843 | | | 1058866 | |
| | 1058844 | | | 1058867 | |
| | 1058845 | | | 1058868 | |
| | 1058846 | | | 1058869 | |
| | 1058847 | | | 1058870 | |
| | 1058848 | | | 1058871 | |
| | 1058849 | | | 1058872 | |
| | 1058850 | | | 1058873 | |
| | 1058851 | | | 1058874 | |
| | 1058852 | | | 1058875 | |
| | 1058853 | | | 1058876 | |
| | 1058854 | | | 1058877 | |
| | 1058855 | | | 1058878 | |
| | 1058856 | | | 1058879 | |
| | 1058857 | | | 1058880 | |
| | 1058858 | | | 1058881 | |
| | 1058859 | | | 1058882 | |
| | 1058860 | | | 1058883 | |
| | 1058861 | | | 1058884 | |
| | 1058862 | | | 1058885 | |

Total number of mining claims covered by this report of work. **218**

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Benton Twp

Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. | Mining Claim Prefix | Mining Claim Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1058886 | | P | ~~1057975~~ | ✓ |
| | 1058887 | | | ~~1057979~~ | ✓ |
| | 1058888 | | | ~~1057980~~ | ✓ |
| | 1058889 | | | ~~1057981~~ | ✓ |
| | 1058890 | | | | |
| | 1058891 | | | | |
| | 1058892 | | | | |
| | 1058893 | | | | |
| | 1058894 | | | | |
| | 1058895 | | | | |
| | 1058896 | | | | |
| | 1058897 | | | | |
| | 1058898 | | | | |
| | 1058899 | | | | |
| | 1058900 | | | | |
| | 1058901 | | | | |
| | 1058902 | | | | |
| | 1058903 | | | | |
| | 1058904 | | | | |

✓ NOT ALLOWED - RECORDED AFTER SURVEY COMMENCED.

Total number of mining claims covered by this report of work. **218**

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Ministry of Northern Development and Mines

Ontario

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): Airborne Electromagnetic, Magnetic & VLF-EM

Township or Area: Garnet

Claim Holder(s): Central Crude Ltd.

Prospector's Licence No.: T1361

Address: 436 Adelaide St. W. Toronto M5V 1S7

Survey Company: Aerodat Limited

Date of Survey (from & to): Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): Mr. B. De Carle c/o Aerodat Ltd. 3883 Nashua Drive, Mississauga, Ontario L4V 1R3

## Credits Requested per Each Claim in Columns at right

| Special Provisions | Geophysical | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | · Electromagnetic | |
| | · Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Man Days | Geophysical | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | · Electromagnetic | |
| | · Magnetometer | |
| | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | 27 |
| | Magnetometer | 27 |
| | Radiometric | 26 |

## Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

## Mining Claims Traversed (List in numerical sequence)

| Prefix | Number | Expend. Days Cr. | Prefix | Number | Expend. Days Cr. |
|---|---|---|---|---|---|
| P | 1045911 | | P | 1046010 | |
| | 1045914 | | | 1046011 | |
| | 1045915 | | | 1046029 | |
| | 1045916 | | | 1046030 | |
| | 1045917 | | | 1046031 | |
| | 1045918 | | | 1046032 | |
| | 1045919 | | | 1046033 | |
| | 1045920 | | | 1046034 | |
| | 1045921 | | | 1046035 | |
| | 1045941 | | | 1046036 | |
| | 1045942 | | | 1046037 | |
| | 1045943 | | | 1046038 | |
| | 1045944 | | | 1046039 | |
| | 1045945 | | | 1046040 | |
| | 1045946 | | | 1046041 | |
| | 1045947 | | | | |
| | 1045948 | | | | |
| | 1045949 | | | | |

Total number of mining claims covered by this report of work: 218

| For Office Use Only | | |
|---|---|---|
| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
| | Date Approved as Recorded | Branch Director |

Date: March 13/87

Recorded Holder or Agent (Signature): [signature]

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Mr. U. Abolins V.P. exploration Dominion Explorers Inc. Ste. 916- 111 Richmond St W. Toronto

Date Certified: March 13/87

Certified by (Signature): [signature] P.Eng.

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

# Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

Instructions: — Please type or print.
— If number of mining claims traversed exceeds space on this form, attach a list.

Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
— Do not use shaded areas below.

Type of Survey(s): Airborne Electromagnetic, Magnetic + VLF-EM

Township or Area: Fawn

Claim Holder(s): Central Crude Ltd.

Prospector's Licence No.: T1361

Address: 436 Adelaide St. W. Toronto M5V 1S7

Survey Company: Aerodat Limited

Date of Survey (from & to): Day | Mo. | Yr. | Day | Mo. | Yr.

Total Miles of line Cut:

Name and Address of Author (of Geo-Technical report): Mr. B. DeCarle c/o Aerodat Ltd., 3883 Nashua Drive, Mississauga Ontario L4V 1R3

## Credits Requested per Each Claim in Columns at right

| Special Provisions | Geophysical | Days per Claim |
|---|---|---|
| For first survey: Enter 40 days. (This includes line cutting) | · Electromagnetic | |
| | · Magnetometer | |
| For each additional survey: using the same grid: Enter 20 days (for each) | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Man Days | Geophysical | Days per Claim |
|---|---|---|
| Complete reverse side and enter total(s) here | · Electromagnetic | |
| | · Magnetometer | |
| | · Radiometric | |
| | · Other | |
| | Geological | |
| | Geochemical | |

| Airborne Credits | | Days per Claim |
|---|---|---|
| Note: Special provisions credits do not apply to Airborne Surveys. | Electromagnetic | 27 |
| | Magnetometer | 27 |
| | Radiometric | 26 |

## Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

## Mining Claims Traversed (List in numerical sequence)

| Mining Claim Prefix | Number | Expend. Days Cr. |
|---|---|---|
| P | 1045912 | |
| | 1045913 | |

Total number of mining claims covered by this report of work: 218

| Date | Recorded Holder or Agent (Signature) |
|---|---|
| March 13/89 | U. Abolins |

### For Office Use Only

| Total Days Cr. Recorded | Date Recorded | Mining Recorder |
|---|---|---|
| | Date Approved as Recorded | Branch Director |

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Mr. U. Abolins v.p. exploration Dominion Explorers Inc. Ste. 916 - 111 Richmond St. W. Toronto

Date Certified: ~~March~~ 13/89

Certified by (Signature): U. Abolins P.Eng.

1362 (85/12)

M.804

ONTARIO
MINISTRY OF NATURAL RESOURCE
SURVEYS AND MAPPING BRANCH

# FAWN

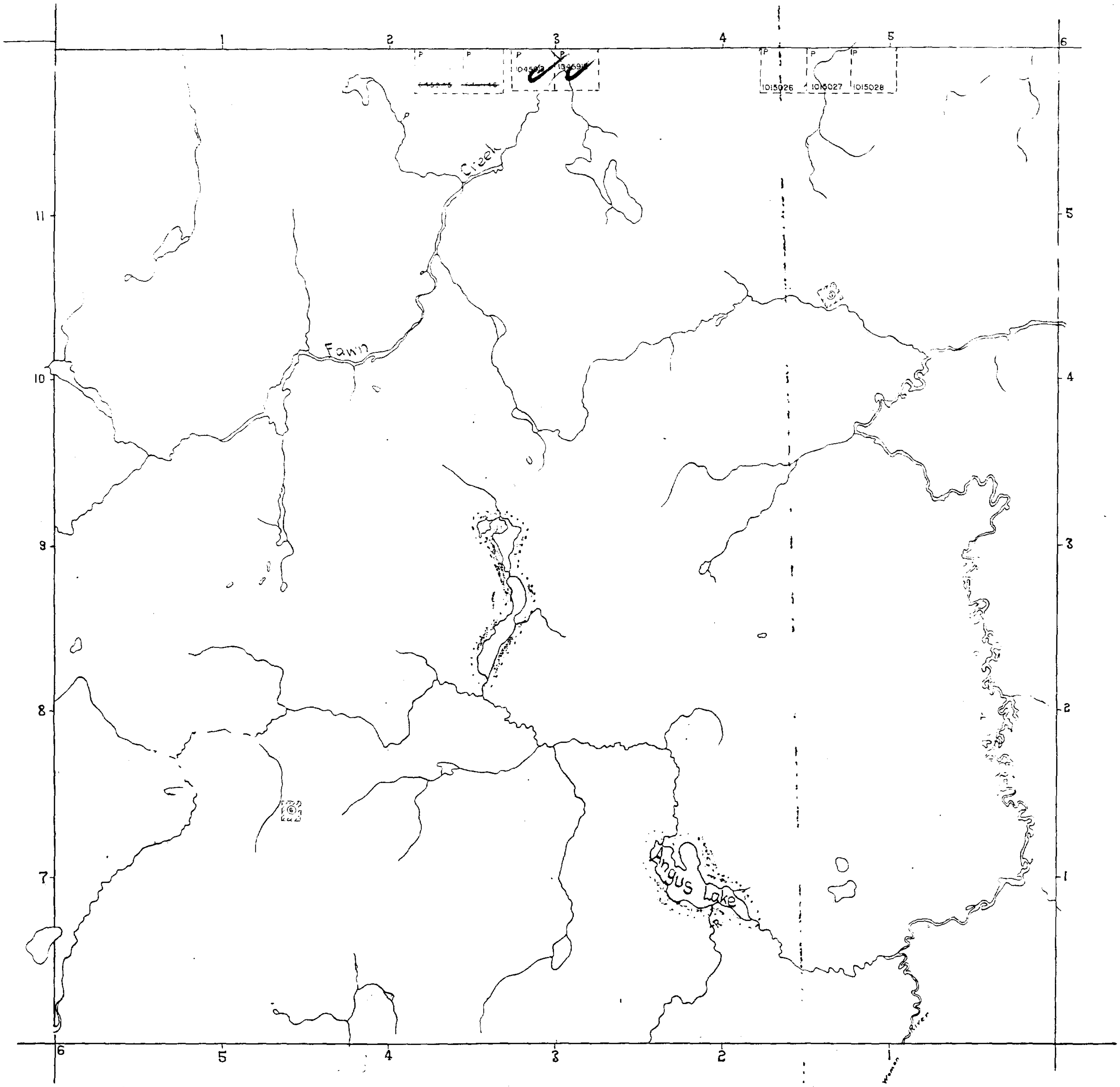
## DISTRICT OF SUDBURY

PORCUPINE MINING DIVISION

*Scale - 40 Chains 1 = Inch*

NOTE
400' Surface Rights Reservation around all Lakes and Rivers.
⑥ QUARRY PERMIT

GARNET




TWP. 21

ESTHER

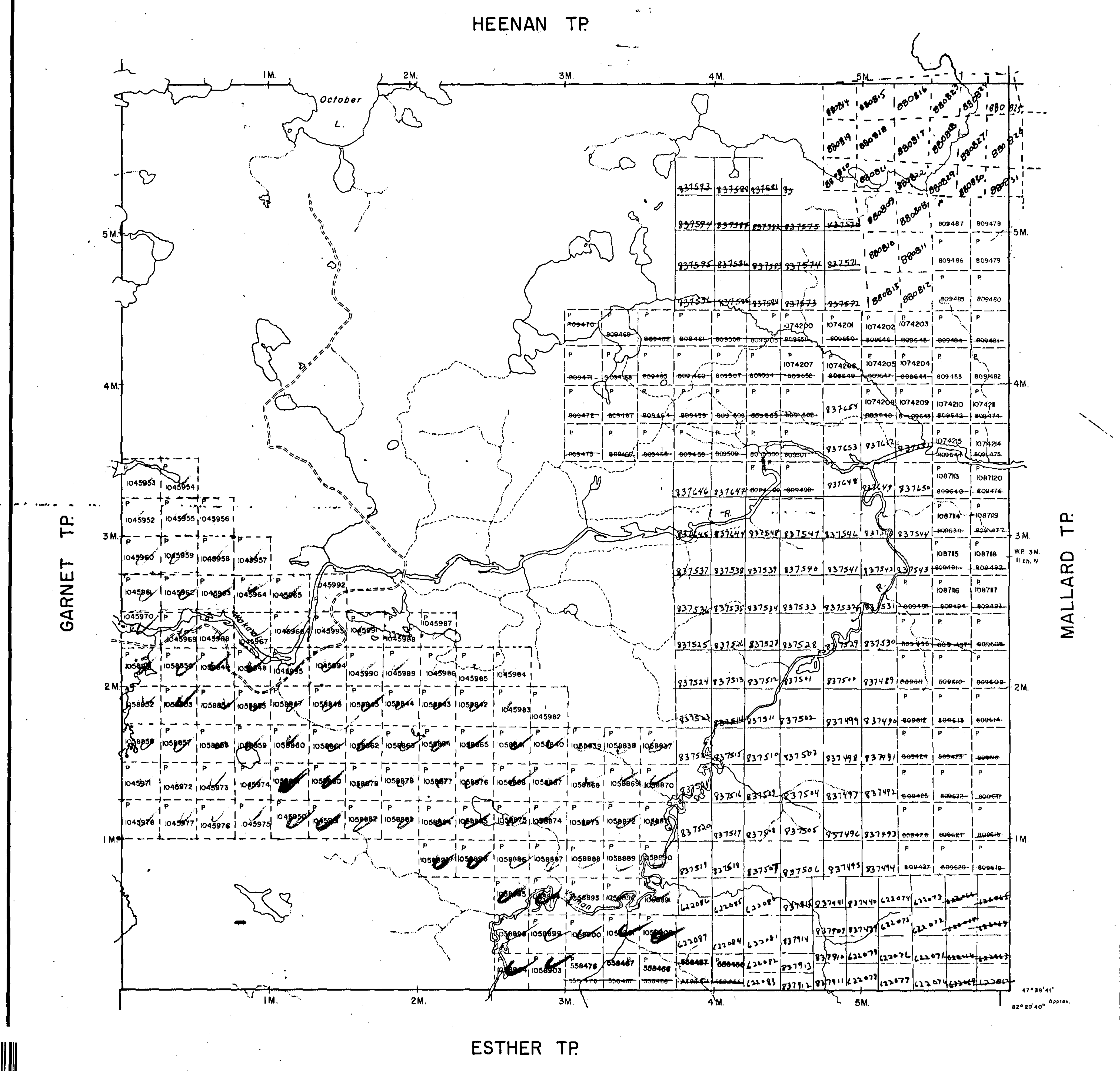
TWP. 18

# REFERENCES

**AREAS WITHDRAWN FROM DISPOSITION**

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
| --- | --- | --- | --- | --- |




220

## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
| --- | --- |
| PATENT, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LEASE, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | |
| CANCELLED | |
| SAND & GRAVEL | |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

# BENTON

M.N.R. ADMINISTRATIVE DISTRICT

## CHAPLEAU

MINING DIVISION

## PORCUPINE

LAND TITLES / REGISTRY DIVISION

## SUDBURY

Ontario Ministry of Natural Resources — Land Management Branch

NOV 4 1993

Date MARCH, 1985

Number G-3233

41009NW0112 2.12291 FAWN

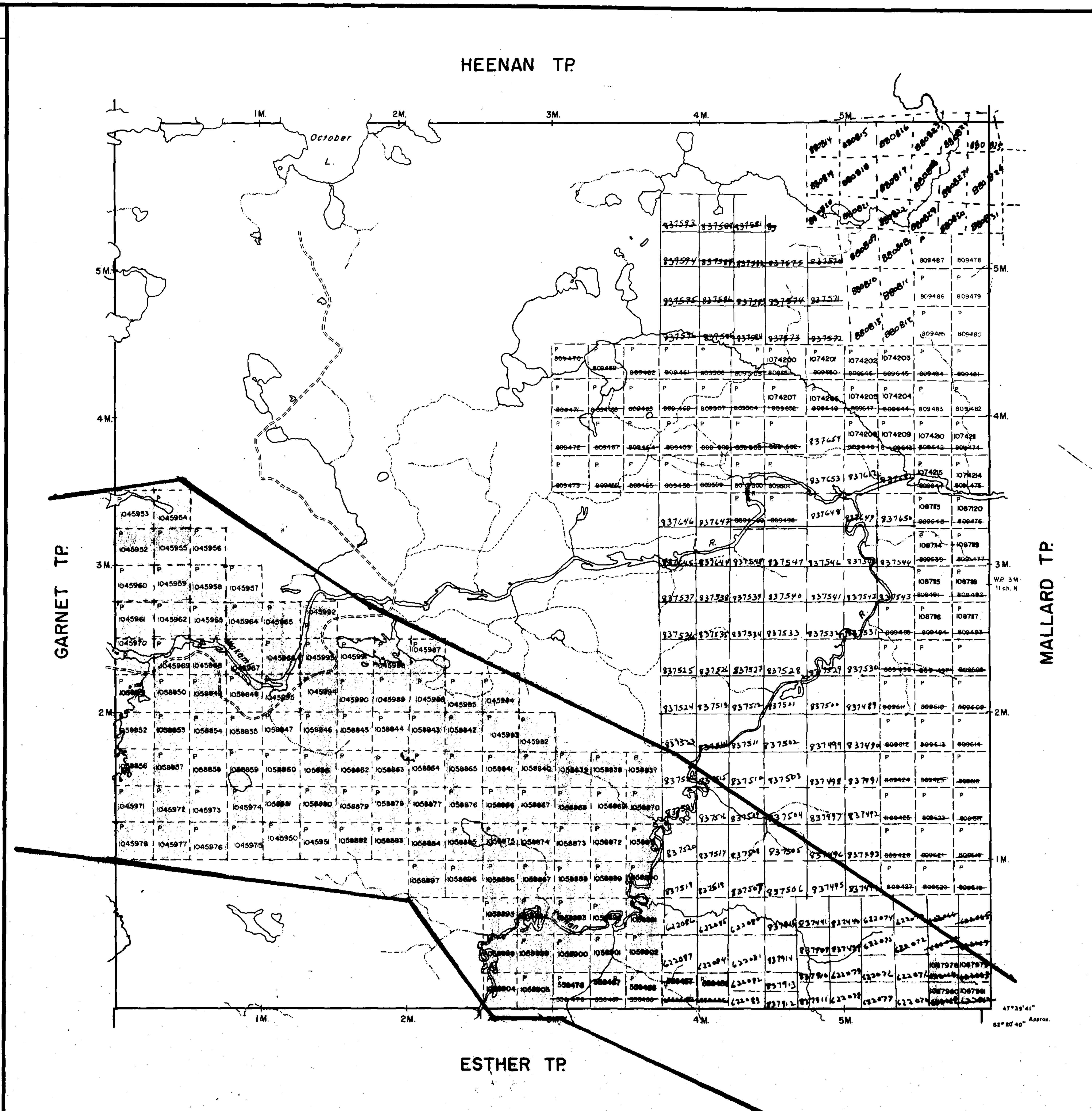
## REFERENCES

**AREAS WITHDRAWN FROM DISPOSITION**

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|






## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | ◒ |
| " , MINING RIGHTS ONLY | ◓ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| " , SURFACE RIGHTS ONLY | ⬒ |
| " , MINING RIGHTS ONLY | ⬓ |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | Ⓡ |
| CANCELLED | ⊗ |
| SAND & GRAVEL | Ⓢ |

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SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

# BENTON

M.N.R. ADMINISTRATIVE DISTRICT

**CHAPLEAU**

MINING DIVISION

**PORCUPINE**

LAND TITLES / REGISTRY DIVISION

**SUDBURY**

Ministry of Natural Resources
Ontario
Land Management Branch

2.12291

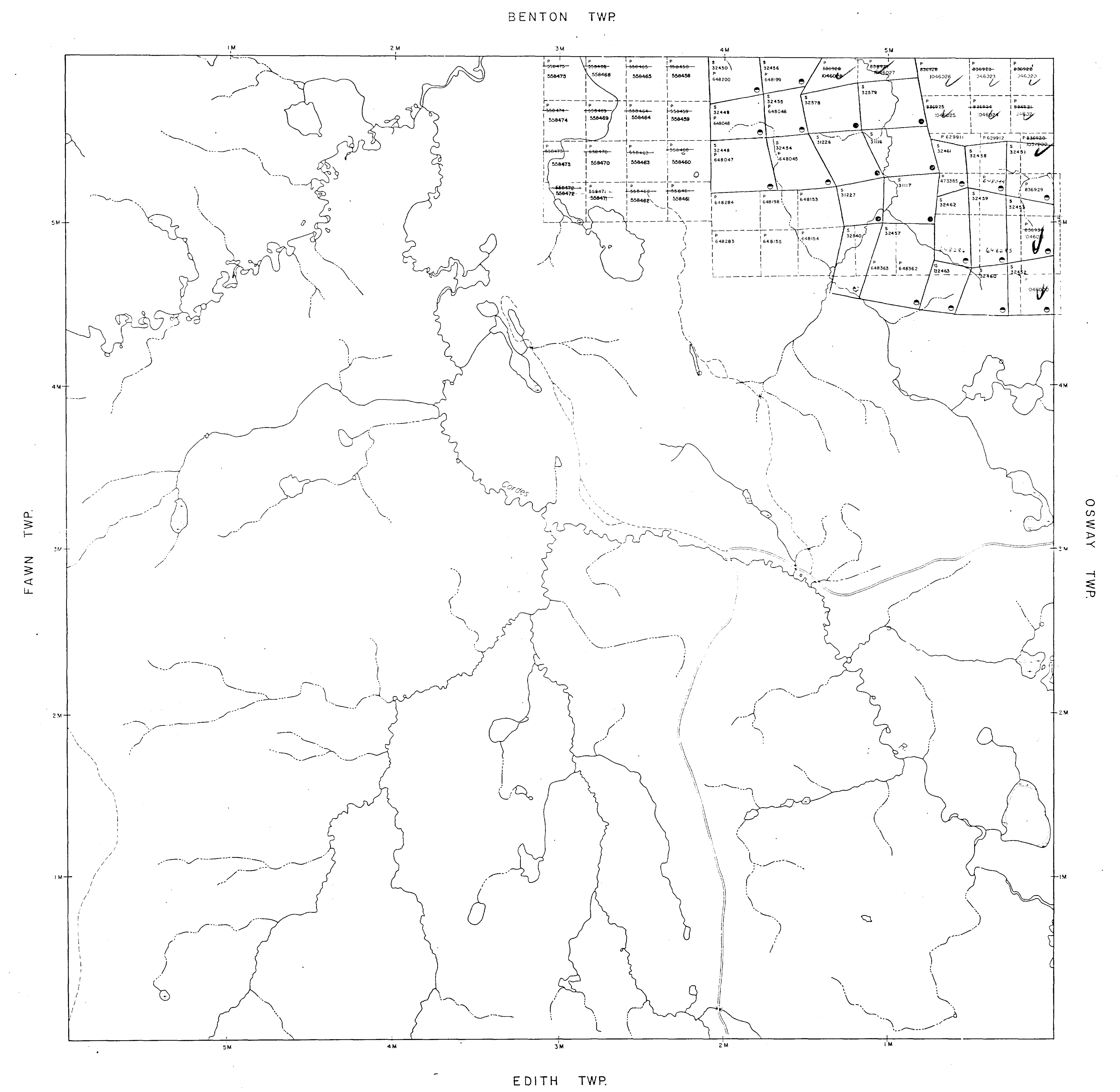
Date MARCH, 1985

Number G-3233

**AREAS WITHDRAWN FROM DISPOSITION**

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

| Description | Order No. | Date | Disposition | File |
|---|---|---|---|---|




## LEGEND

HIGHWAY AND ROUTE No
OTHER ROADS
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LEASE, SURFACE & MINING RIGHTS | |
| " , SURFACE RIGHTS ONLY | |
| " , MINING RIGHTS ONLY | |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | |
| CANCELLED | |
| SAND & GRAVEL | |

**NOTE:** MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE 1:20 000

RECEIVED JUL 11 1988

TOWNSHIP
# ESTHER

M.N.R. ADMINISTRATIVE DISTRICT
CHAPLEAU
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
SUDBURY

Ministry of Natural Resources
Ministry of Northern Development and Mines
Ontario

Date AUGUST, 1986.
Number G-1'

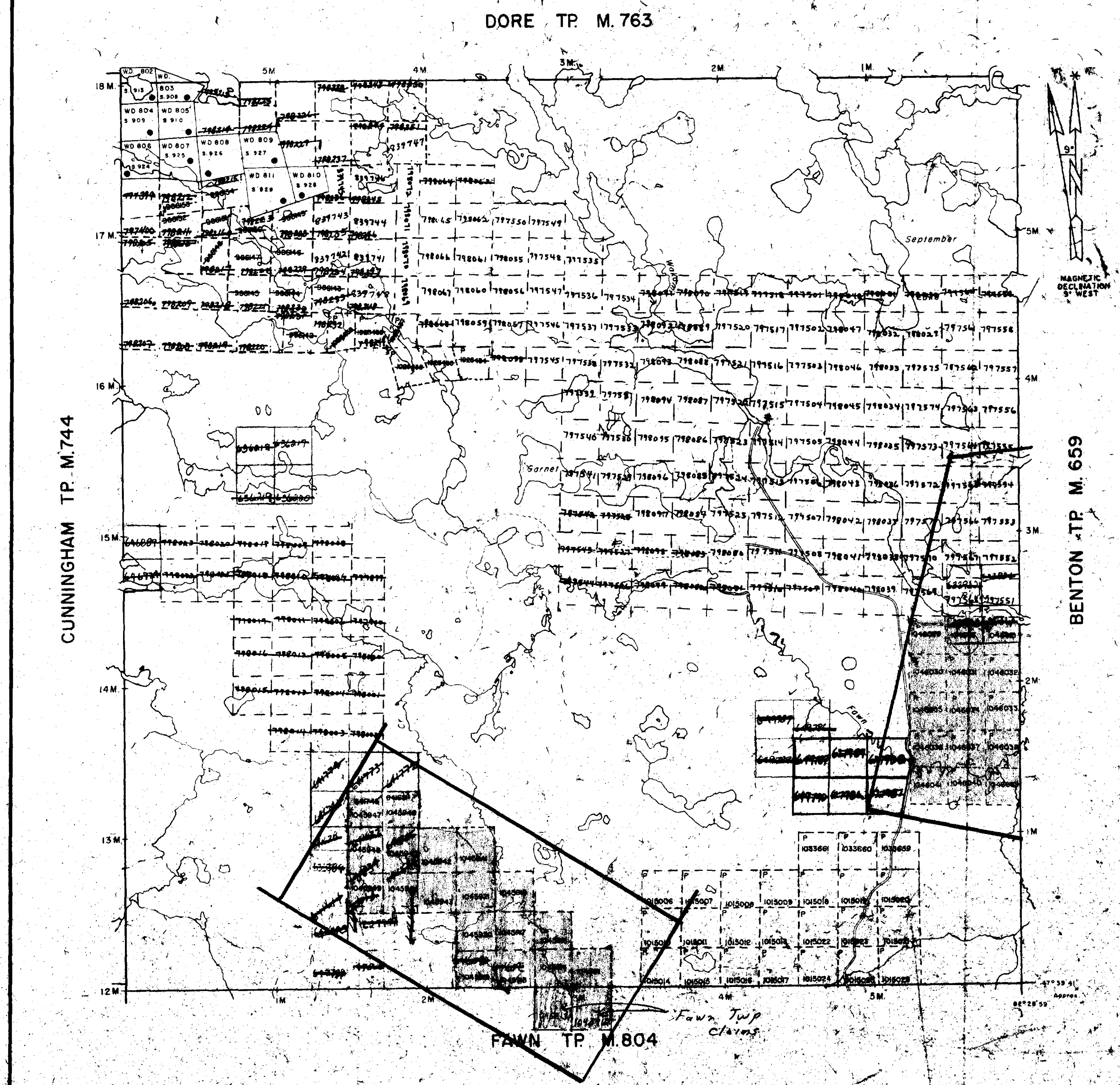


230

## NOTES

400' surface rights reservation along the shores of all lakes and rivers.

(F.O.I) Filed Only Application (File 839742)




## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
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LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES

F.O.I — Filed Only – see file

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
| --- | --- |
| PATENT, SURFACE & MINING RIGHTS | ● |
| SURFACE RIGHTS ONLY | ◐ |
| MINING RIGHTS ONLY | ◑ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| SURFACE RIGHTS ONLY | ◧ |
| MINING RIGHTS ONLY | ◨ |
| LICENCE OF OCCUPATION | ▼ |
| CROWN LAND SALE | C.S. |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | ⓡ |
| CANCELLED | ⊗ |
| SAND & GRAVEL | ⓢ |

RECEIVED FEB 20 1989

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 2000 1 KM 2 KM

ACRES 40 HECTARES 16

TOWNSHIP

# GARNET

DISTRICT SUDBURY

MINING DIVISION PORCUPINE

Received Jan 4/80

Ministry of Natural Resources
Ontario Surveys and Mapping Branch

Date April 27th, 1973 Whitney Block Queen's Park, Toronto

Plan No. M.829

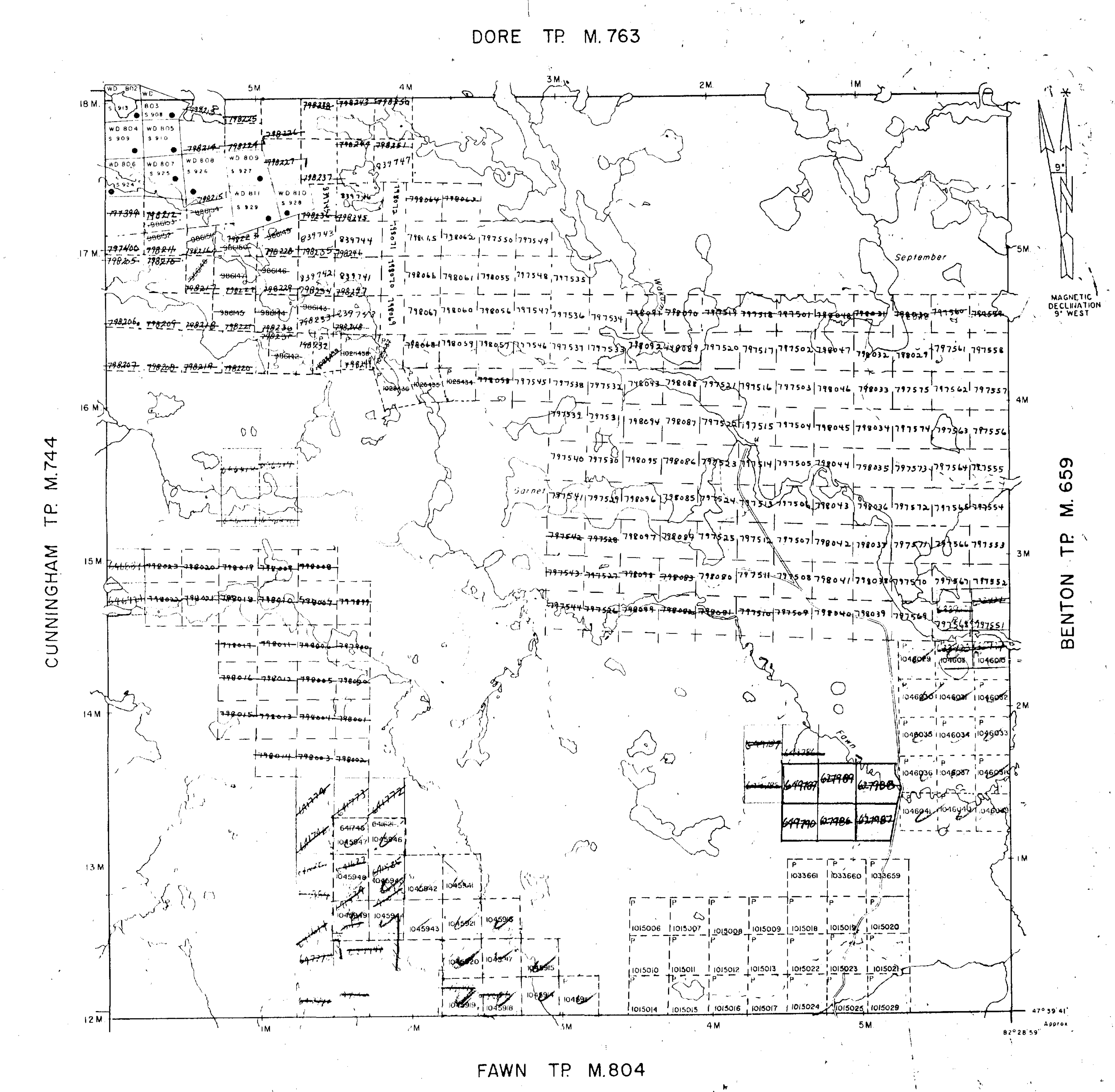
2.12291

41O09NW0112 2.12291 FAWN 240

## NOTES

... surface rights reservation along the shores of all lakes and rivers.

(FO1) Filed Only Application (File 839742)




## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES

F.O.1 – "Filed ONLY – see file P-839742 No. 19/85"

## DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT — SYMBOL

PATENT, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LICENCE OF OCCUPATION
CROWN LAND SALE — CS
ORDER-IN-COUNCIL — OC
RESERVATION
CANCELLED
SAND & GRAVEL

PORCUPINE MINING DIVISION
RECEIVED
JAN 24 1989

SCALE: 1 INCH = 40 CHAINS

ACRES 40 — HECTARES 16

TOWNSHIP

# GARNET

DISTRICT
SUDBURY

MINING DIVISION
PORCUPINE

Received Jan 4/80

Ministry of Natural Resources
Ontario — Surveys and Mapping Branch

Date: April 27th, 1973
Whitney Block, Queen's Park, Toronto

Plan No. M.829

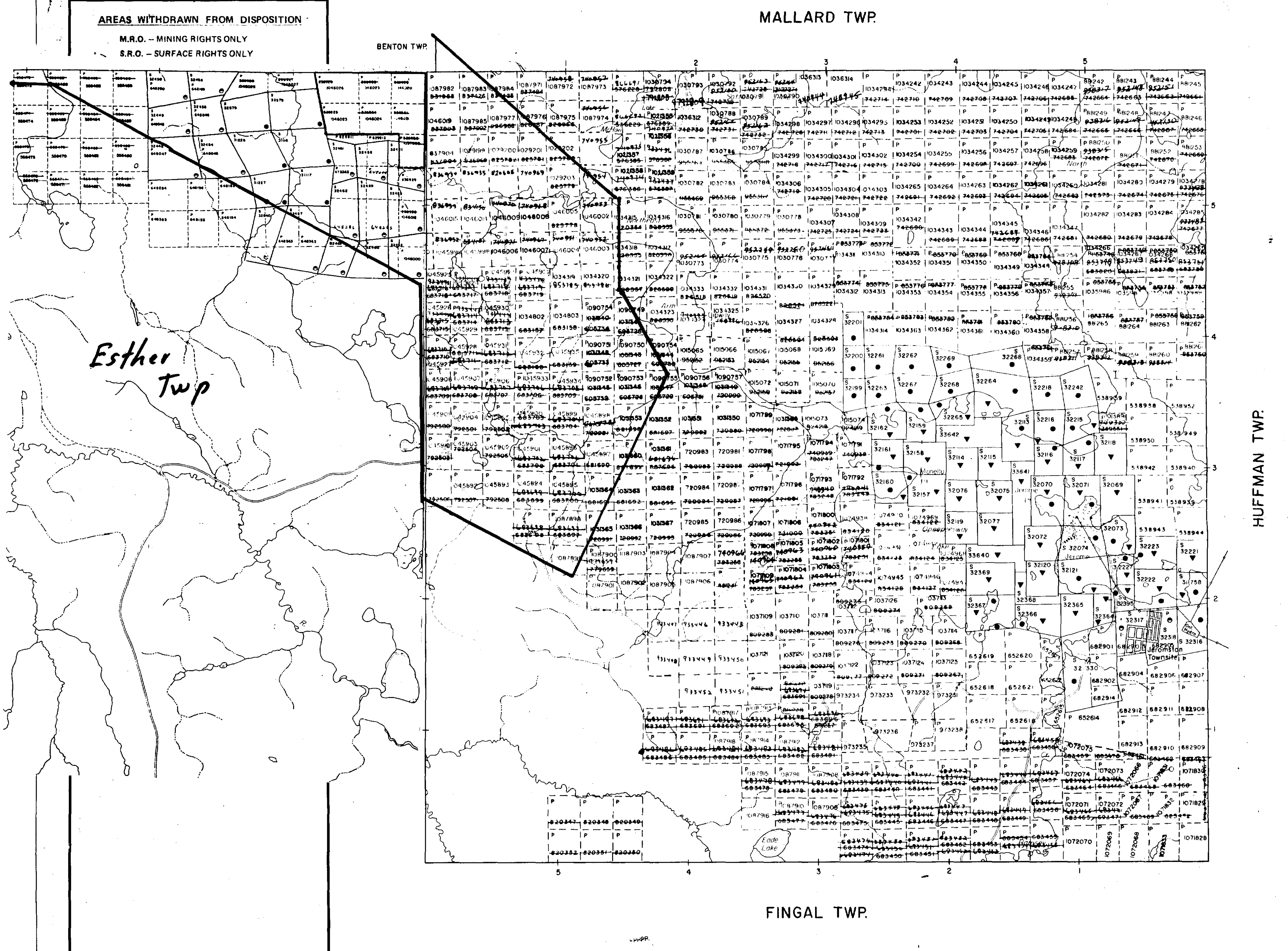
41009NW0112 2.12291 FAWN

250

## REFERENCES

**AREAS WITHDRAWN FROM DISPOSITION**

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY




## LEGEND

| | |
|---|---|
| HIGHWAY AND ROUTE No. | |
| OTHER ROADS | |
| TRAILS | |
| SURVEYED LINES: | |
| TOWNSHIPS, BASE LINES, ETC. | |
| LOTS, MINING CLAIMS, PARCELS, ETC. | |
| UNSURVEYED LINES: | |
| LOT LINES | |
| PARCEL BOUNDARY | |
| MINING CLAIMS ETC. | |
| RAILWAY AND RIGHT OF WAY | |
| UTILITY LINES | |
| NON-PERENNIAL STREAM | |
| FLOODING OR FLOODING RIGHTS | |
| SUBDIVISION OR COMPOSITE PLAN | |
| RESERVATIONS | |
| ORIGINAL SHORELINE | |
| MARSH OR MUSKEG | |
| MINES | ⚒ |
| TRAVERSE MONUMENT | |

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | ◓ |
| " , MINING RIGHTS ONLY | ◒ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| " , SURFACE RIGHTS ONLY | ⬒ |
| " , MINING RIGHTS ONLY | ⬓ |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | ® |
| CANCELLED | ⊗ |
| SAND & GRAVEL | Ⓢ |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

# OSWAY

RECEIVED MAR 3 1989

M.N.R. ADMINISTRATIVE DISTRICT

**CHAPLEAU**

MINING DIVISION

**PORCUPINE**

LAND TITLES / REGISTRY DIVISION

**SUDBURY**

Ministry of Natural Resources Ontario — Land Management Branch

Date MARCH, 1985

cj June 6/85

Number G-3243

260

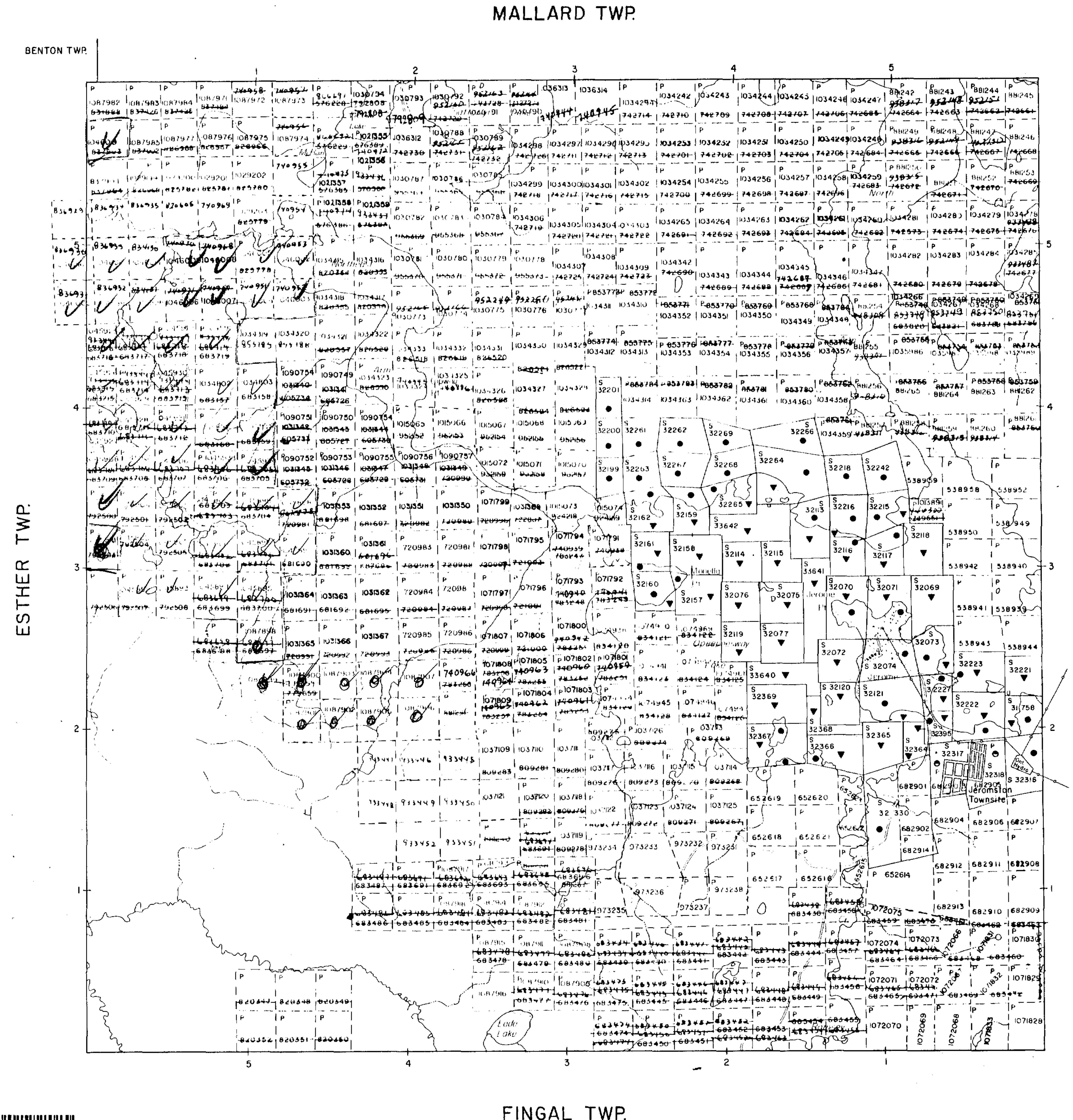
2.12291

## REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
" " MINING AND SURFACE RIGHTS

| Des | Order No. | Date | Disposition | File |
|---|---|---|---|---|




## LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

## DISPOSITION OF CROWN LANDS

| TYPE OF DOCUMENT | SYMBOL |
|---|---|
| PATENT, SURFACE & MINING RIGHTS | ● |
| " , SURFACE RIGHTS ONLY | ⊖ |
| " , MINING RIGHTS ONLY | ⊖ |
| LEASE, SURFACE & MINING RIGHTS | ■ |
| " , SURFACE RIGHTS ONLY | ⊟ |
| " , MINING RIGHTS ONLY | ⊟ |
| LICENCE OF OCCUPATION | ▼ |
| ORDER-IN-COUNCIL | OC |
| RESERVATION | ® |
| CANCELLED | ⊗ |
| SAND & GRAVEL | ◷ |

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

# OSWAY

PORCUPINE MINING DIVISION RECEIVED MAR 3 1989

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

SUDBURY

Ministry of Natural Resources Ontario — Land Management Branch

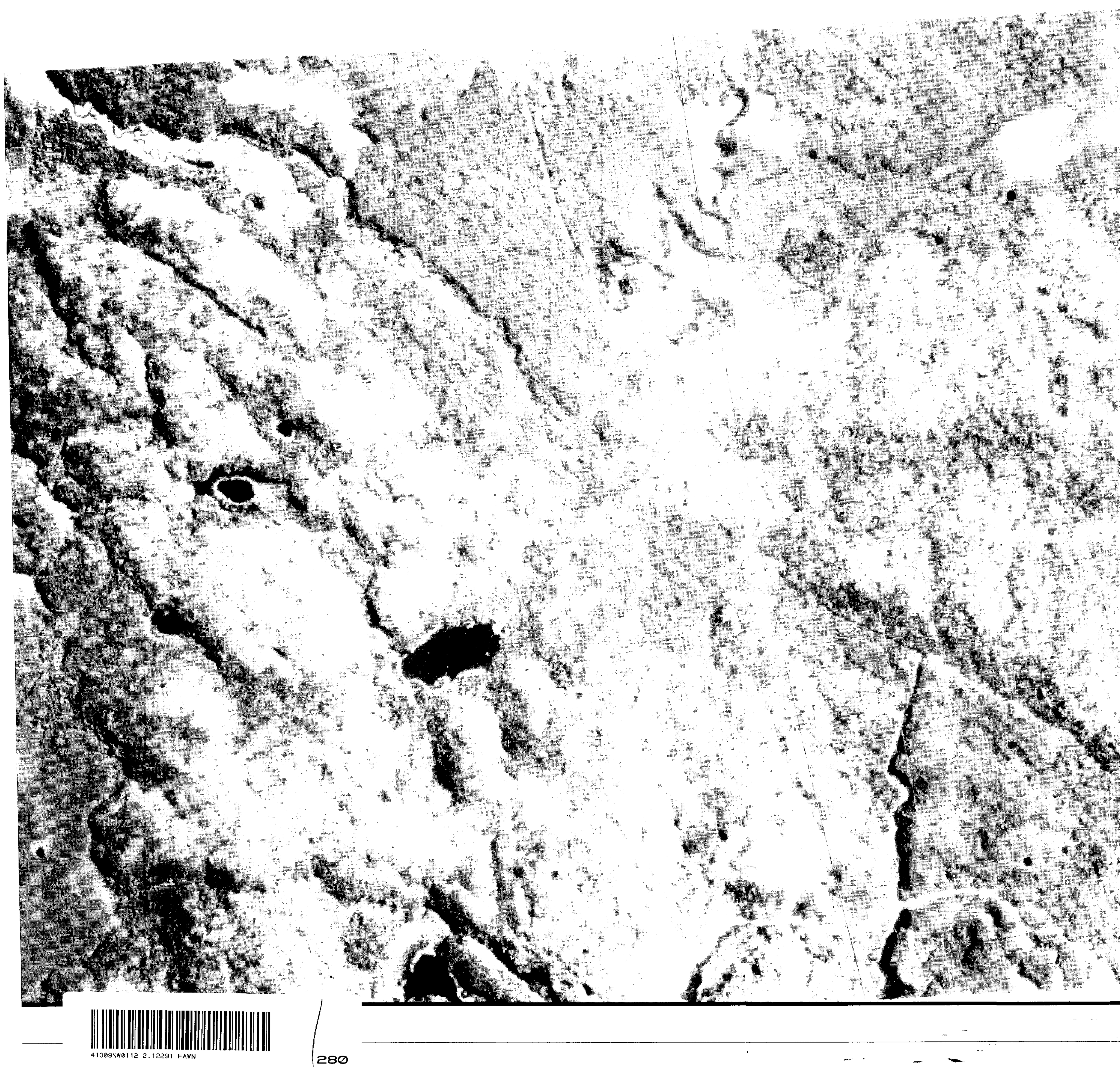
Date MARCH, 1985

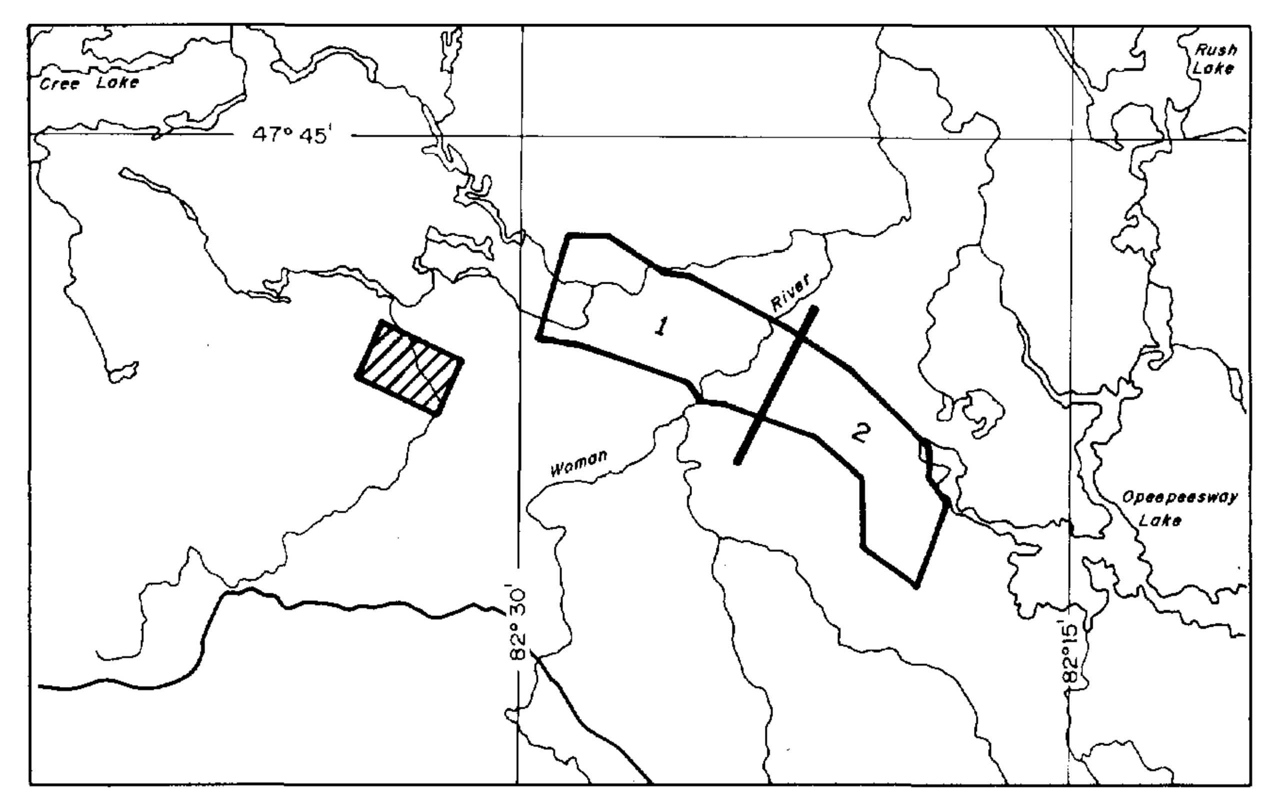
Number G-3243

cj June 6/85

41089NW0112 2.12291 FAWN

270






# DOMINION EXPLORERS INC.

**BASE MAP**

2.12291

CHAPLEAU

ONTARIO

SCALE 1:10,000

0 330 660 1320 1/2 MILE

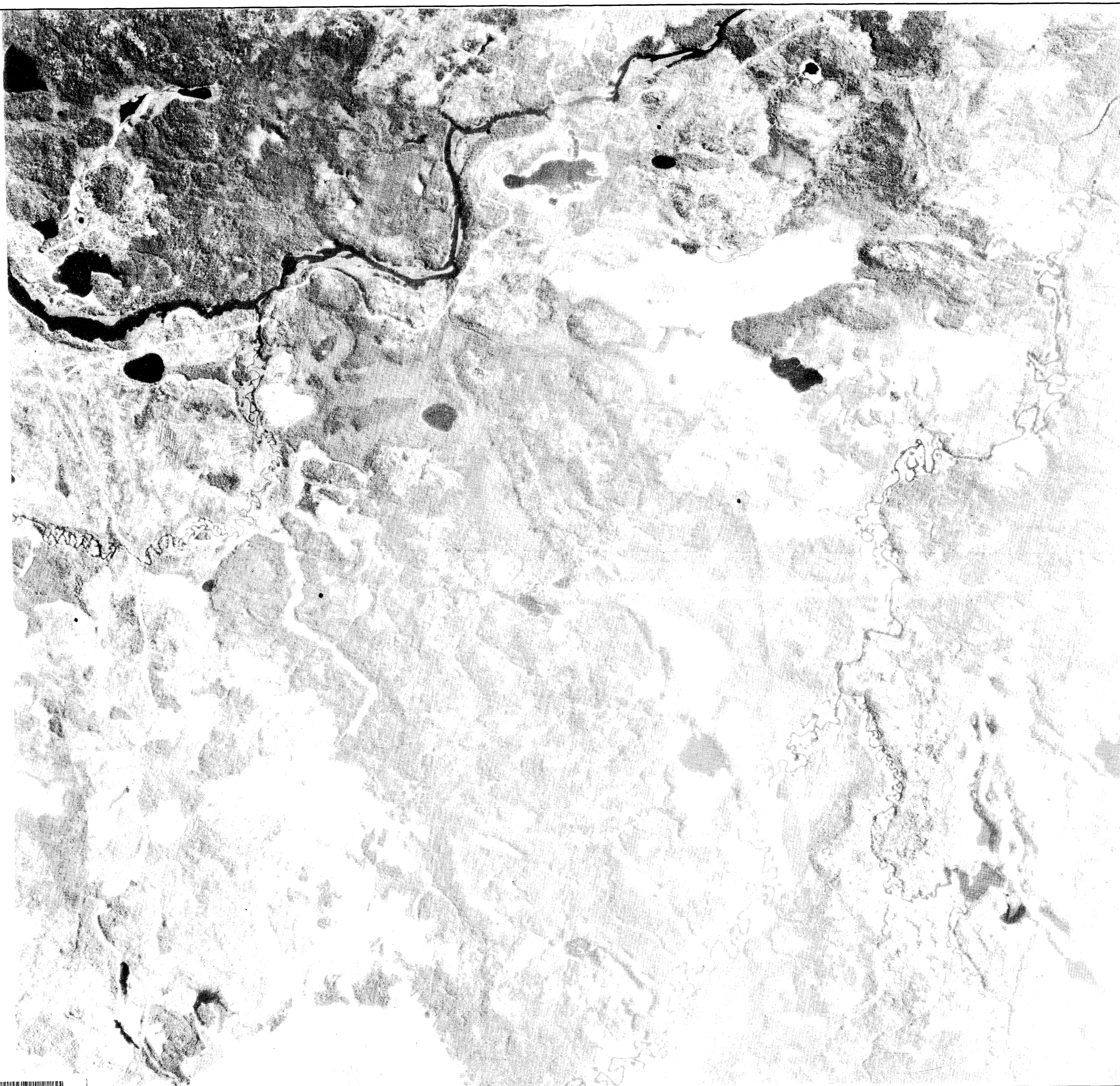
0 100 200 500 1 KILOMETRE

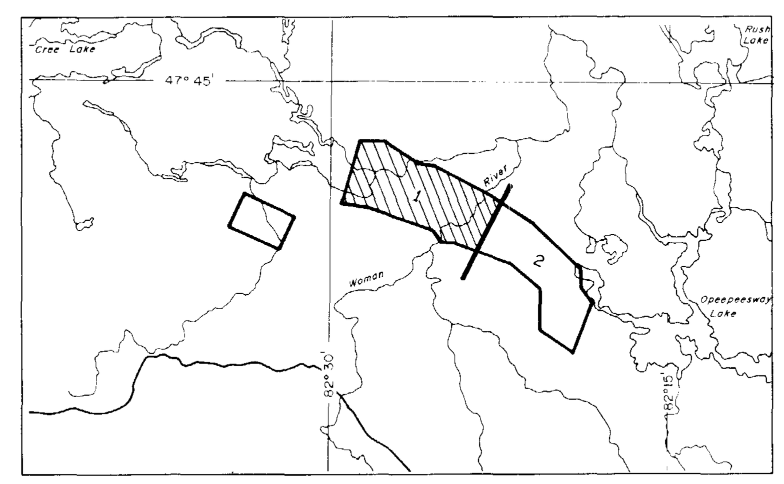
AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41-O/10 |
| MAP No: | 1 J8880 |

41O09NW0112 2.12291 FAWN

280





DOMINION EXPLORERS INC.

BASE MAP

CHAPLEAU
ONTARIO

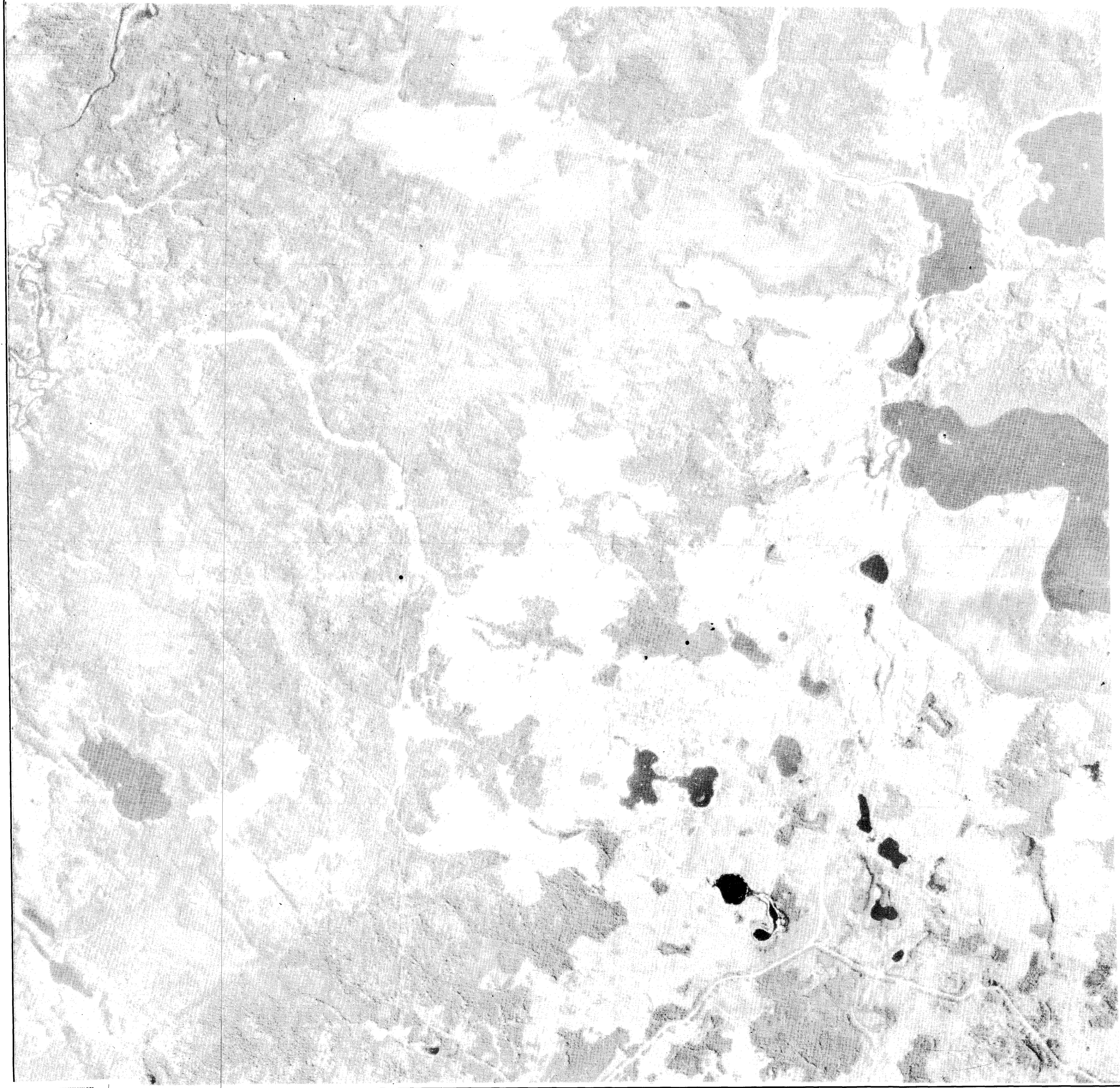
2.12291

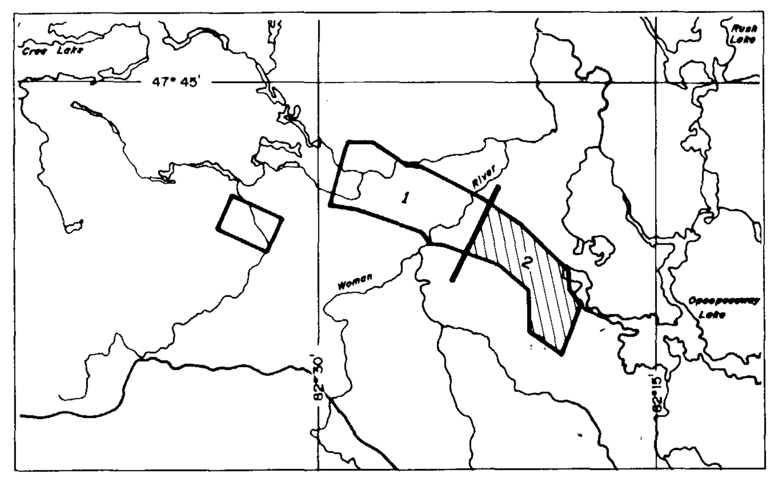
SCALE 1:10,000

AERODAT LIMITED

DATE: NOV 88
NTS No: 41 O-9
MAP No: 1(1of2) J8880

290






DOMINION EXPLORERS INC.

BASE MAP

2.12291

CHAPLEAU

ONTARIO

SCALE 1:10,000

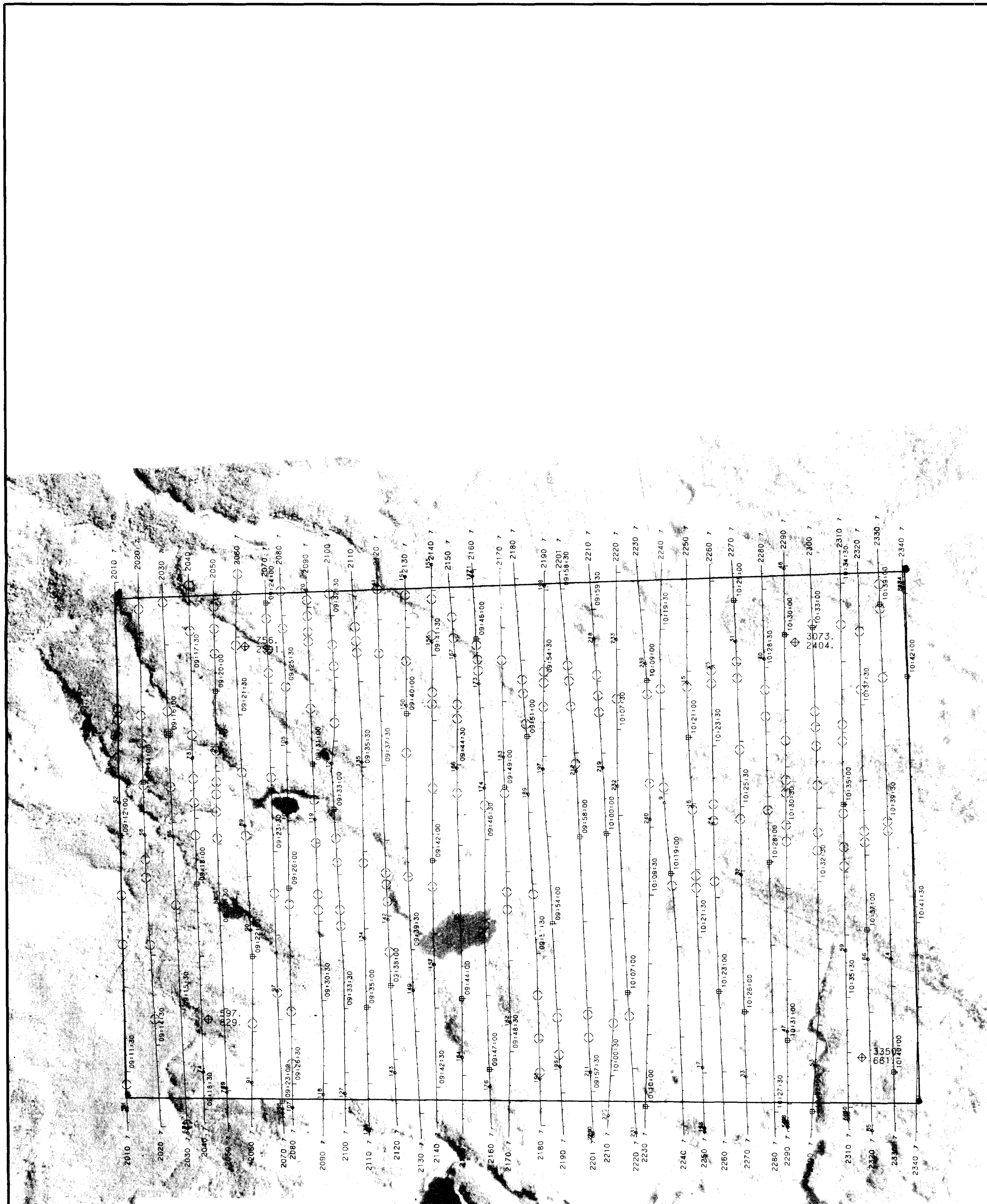
1/2 MILE

1 KILOMETRE

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 1(2of2) J8880 |

300



## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

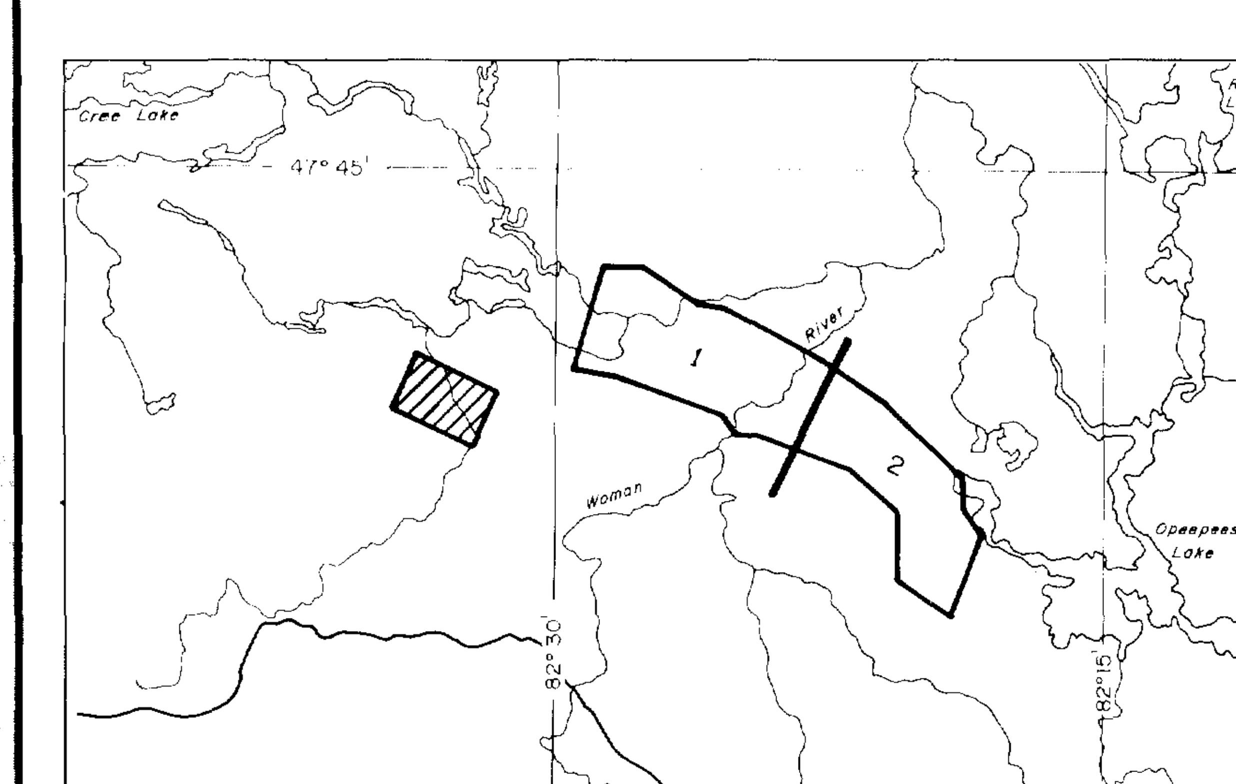
Average terrain clearance 60m
Average line spacing 100m

## EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).




# DOMINION EXPLORERS INC.

**FLIGHT PATH**

CHAPLEAU

ONTARIO

2.12291

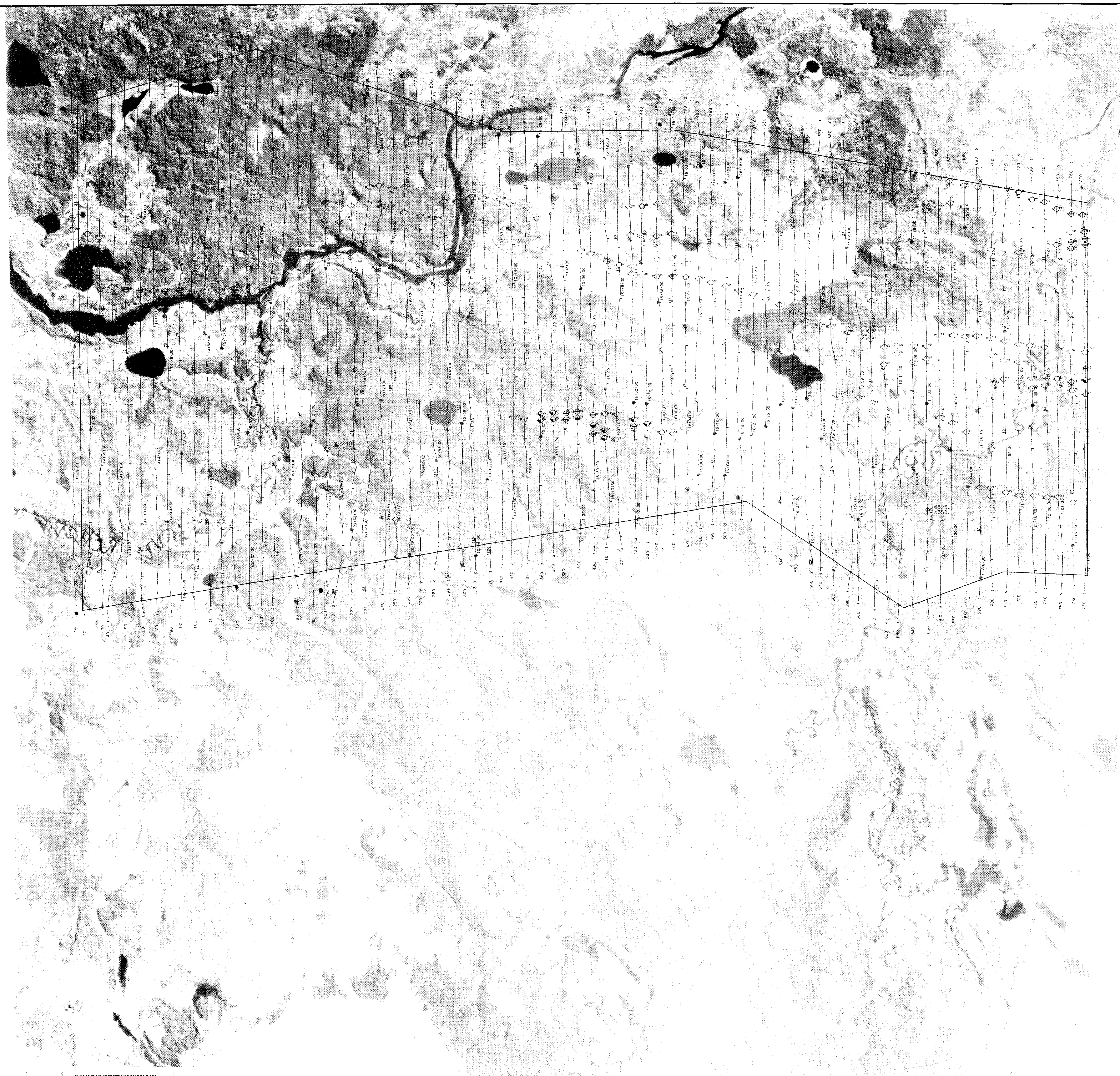
SCALE 1:10,000

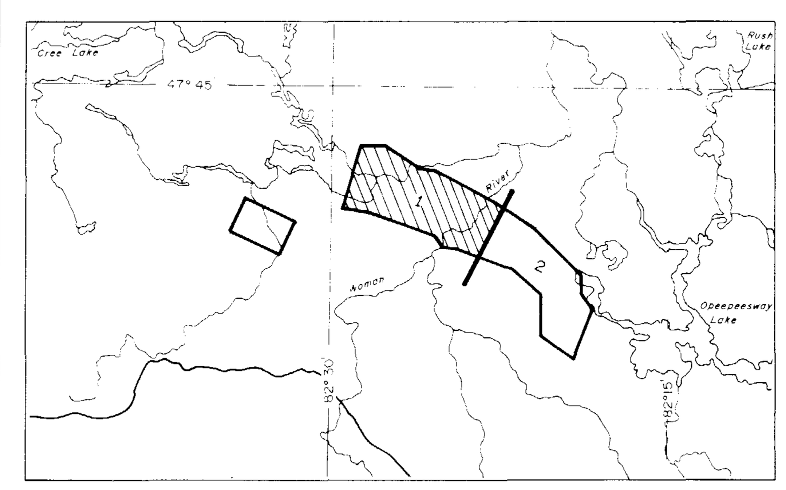
0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41-O/10 |
| MAP No: | 2 J8880 |



DOMINION EXPLORERS INC.

FLIGHT PATH

CHAPLEAU 2.12291

ONTARIO

SCALE 1:10,000

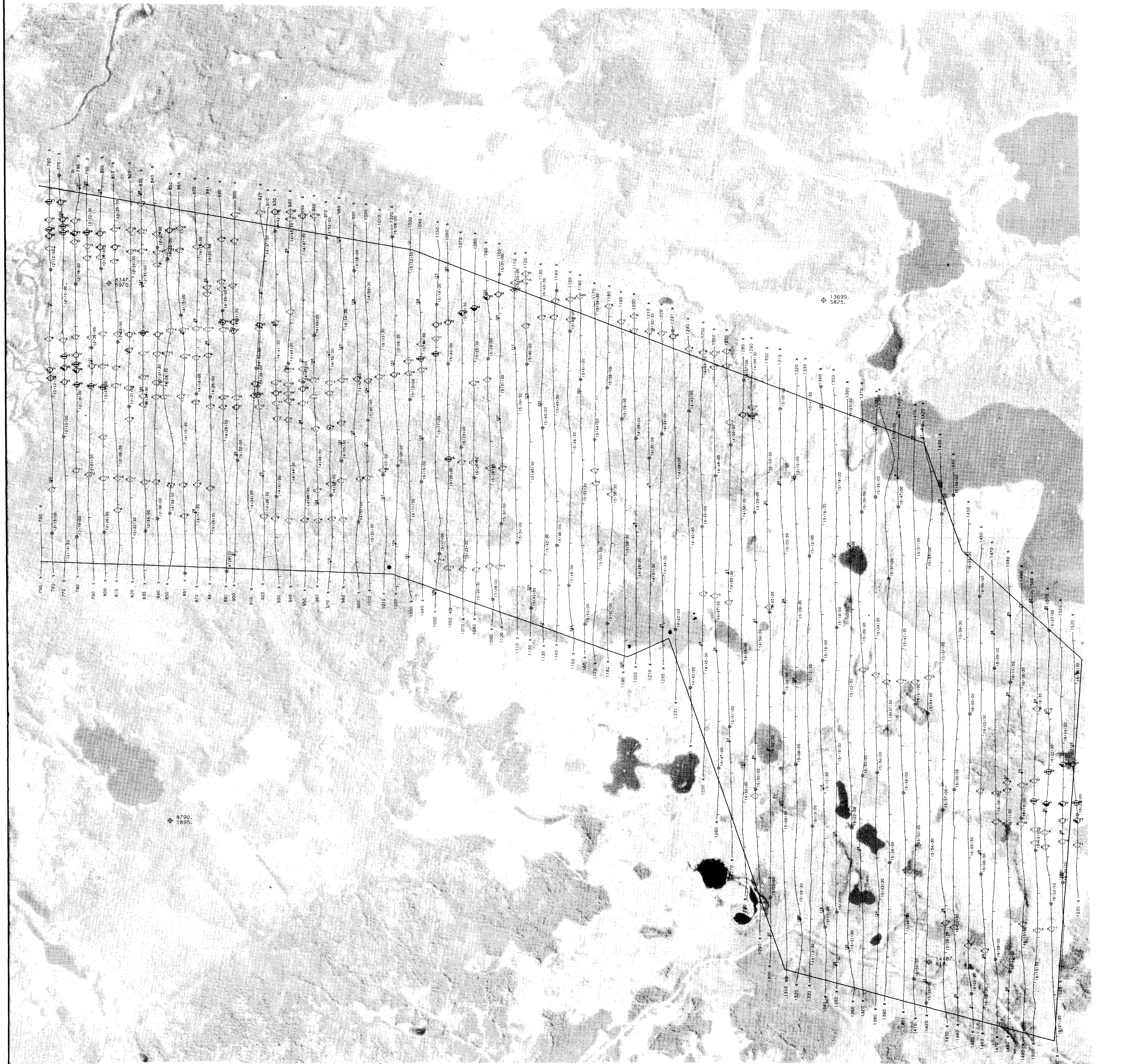
AERODAT LIMITED

DATE: NOV 88

NTS No: 41 O-9

MAP No: 2(1of2) J8880

320




## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

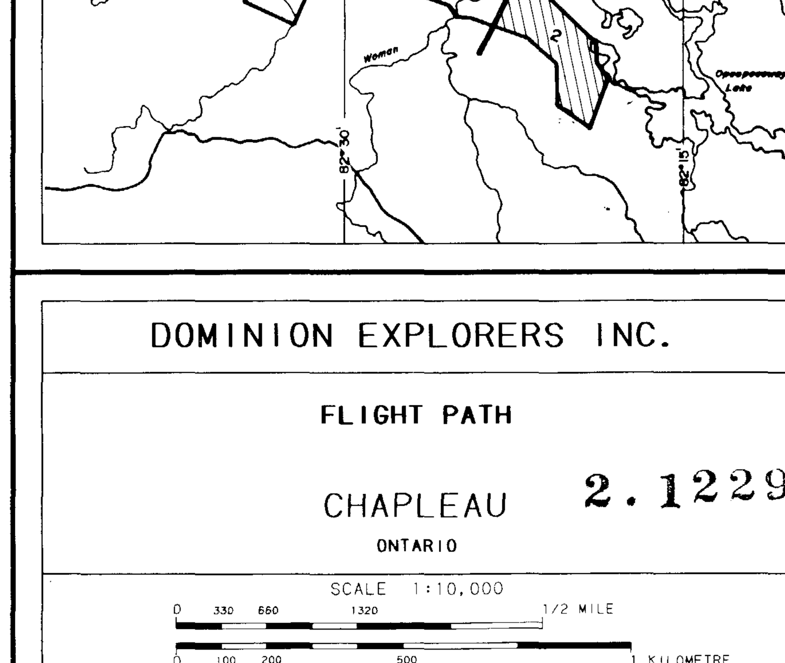
Average terrain clearance 60m
Average line spacing 100m

## EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).



DOMINION EXPLORERS INC.

FLIGHT PATH

CHAPLEAU 2.12291

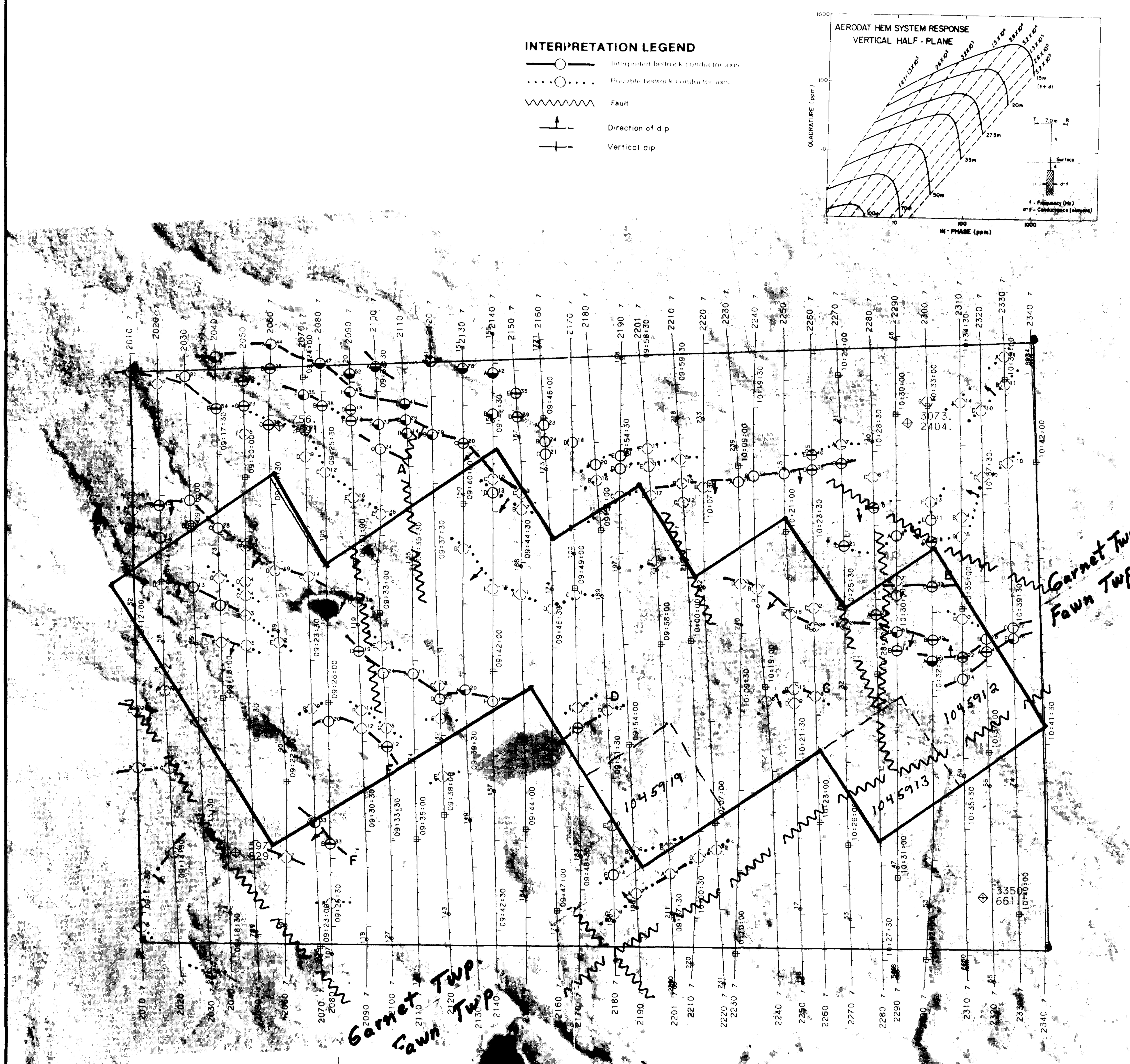
ONTARIO

SCALE 1:10,000

AERODAT LIMITED

DATE: NOV. 88
NTS No: 41 O-9
MAP No: 2(2of2) J8880

330




## Flight Path

Navigation and recovery using Motorola Mini Ranger (MRS IV) radar navigation system.

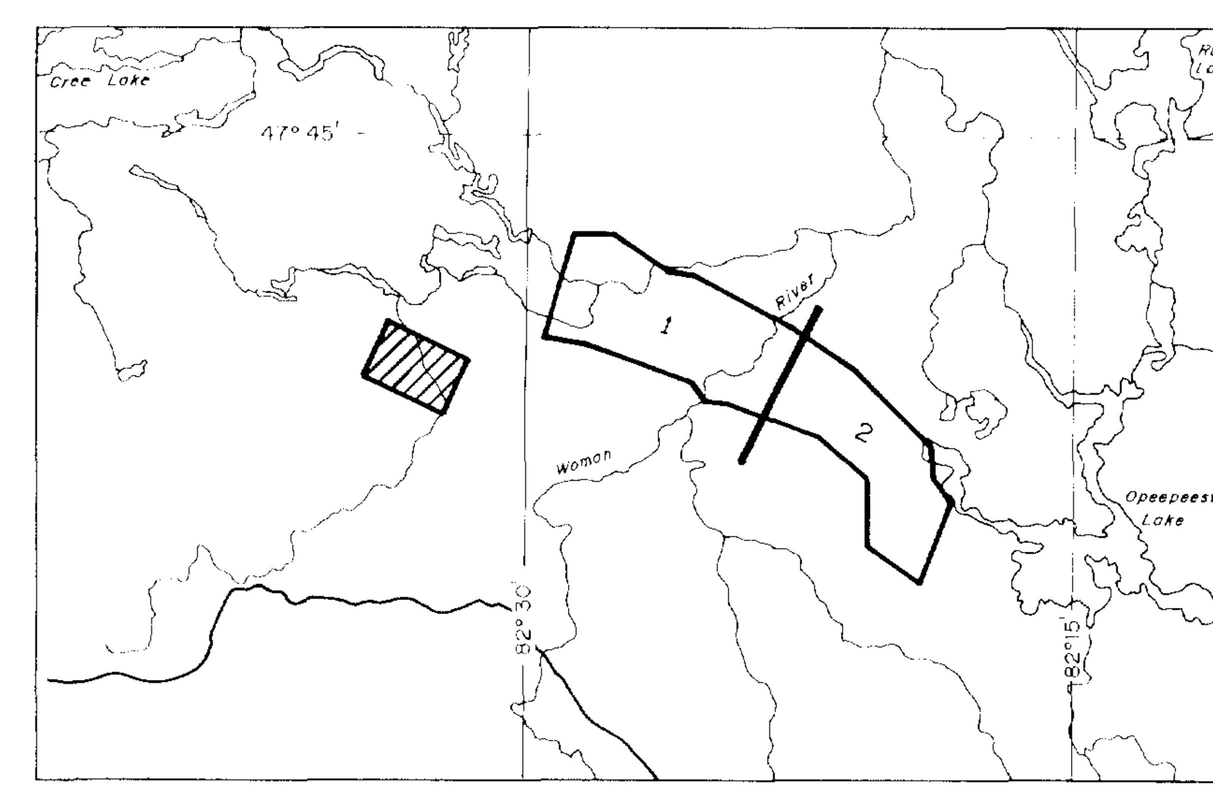
Average terrain clearance 60m
Average line spacing 100m

## EM Anomalies

Conductivity Thickness (mhos)

- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).




# DOMINION EXPLORERS INC.

## INTERPRETATION

## CHAPLEAU

ONTARIO

SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

DATE: NOV 88

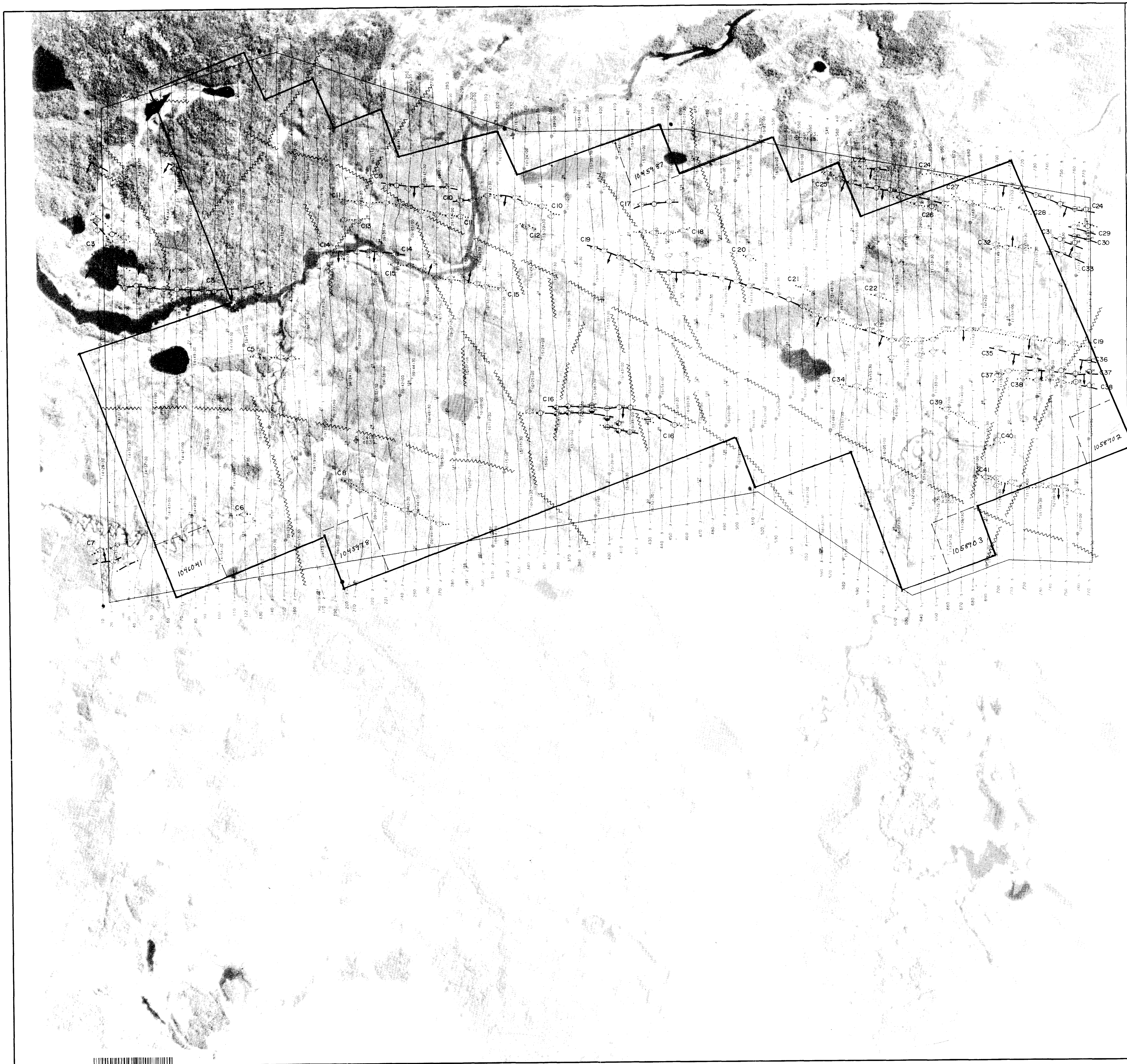
NTS No: 41-O/10

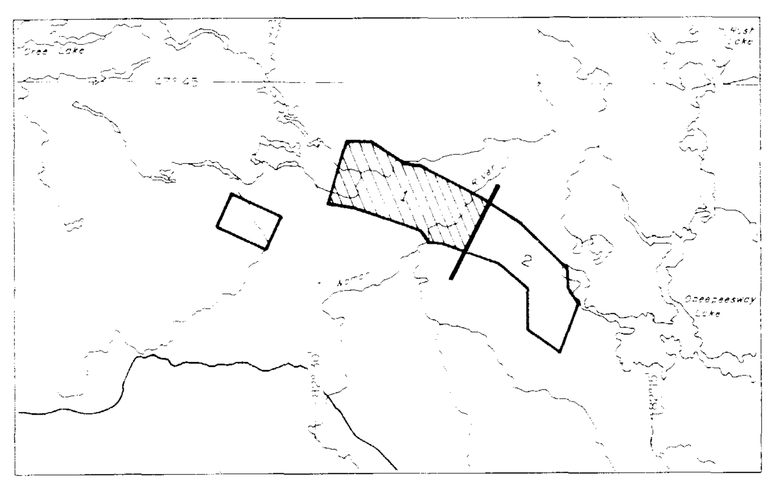
MAP No: 3

J8880



340



DOMINION EXPLORERS INC.

INTERPRETATION

CHAPLEAU

ONTARIO

AERODAT LIMITED

DATE: NOV 88

NTS No: 41 0-9

MAP No: 3(1of2) J8880

350


# DOMINION EXPLORERS INC.

## INTERPRETATION

CHAPLEAU

ONTARIO

SCALE 1:10,000

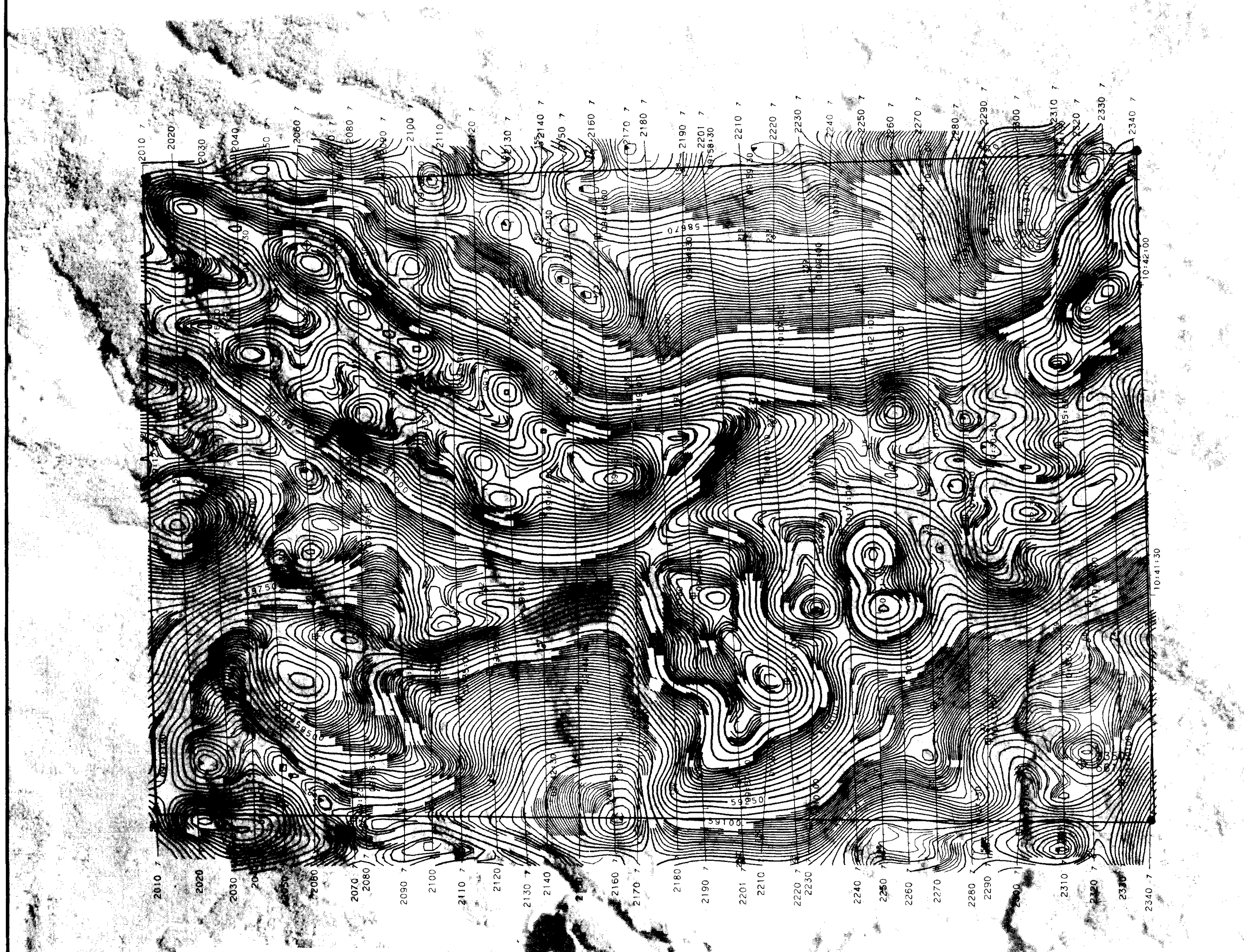
AERODAT LIMITED

DATE: NOV 88

NTS NO: 41 O-9

MAP NO: 3(2of2) J8880

360



## Magnetics

Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

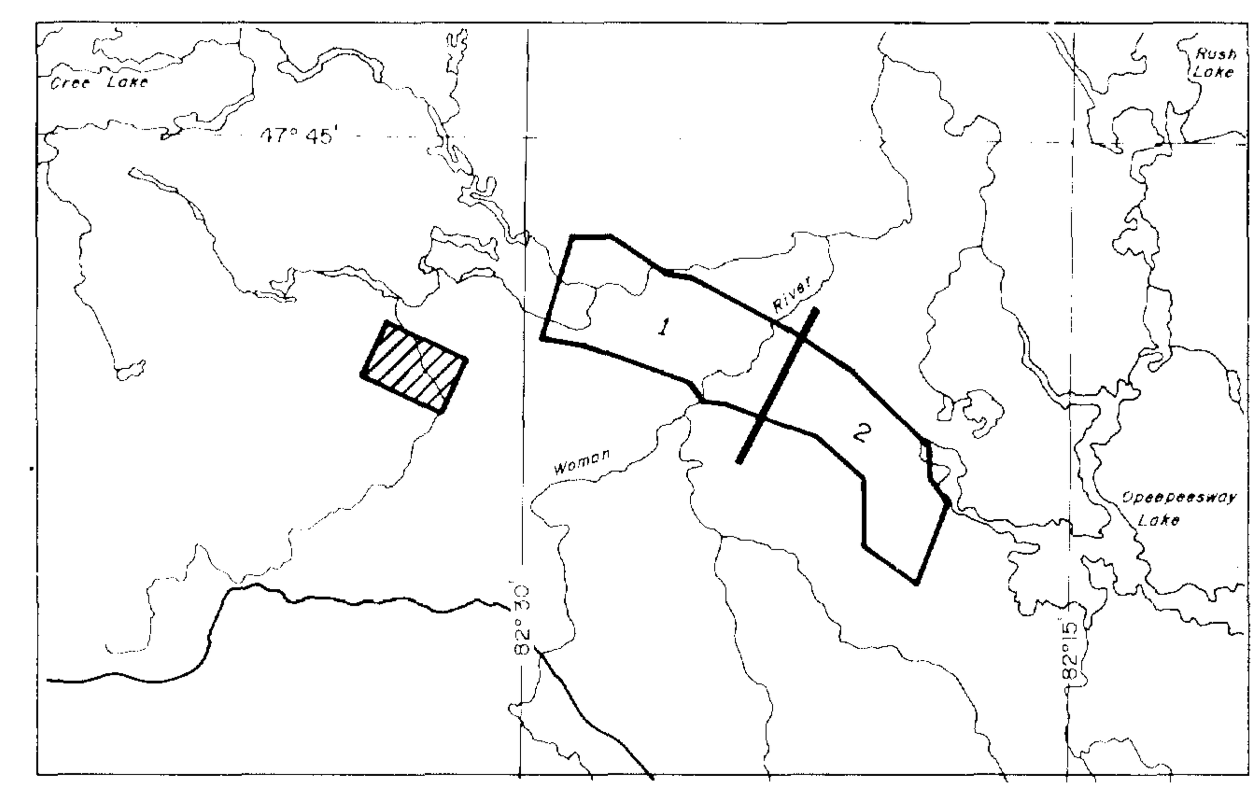
Map contours are multiples of those listed below

2 nT
10 nT
50 nT
250 nT

## Flight Path

Navigation and recovery using Motorola Mini Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m




# DOMINION EXPLORERS INC.

## TOTAL FIELD MAGNETIC CONTOURS

## CHAPLEAU

ONTARIO

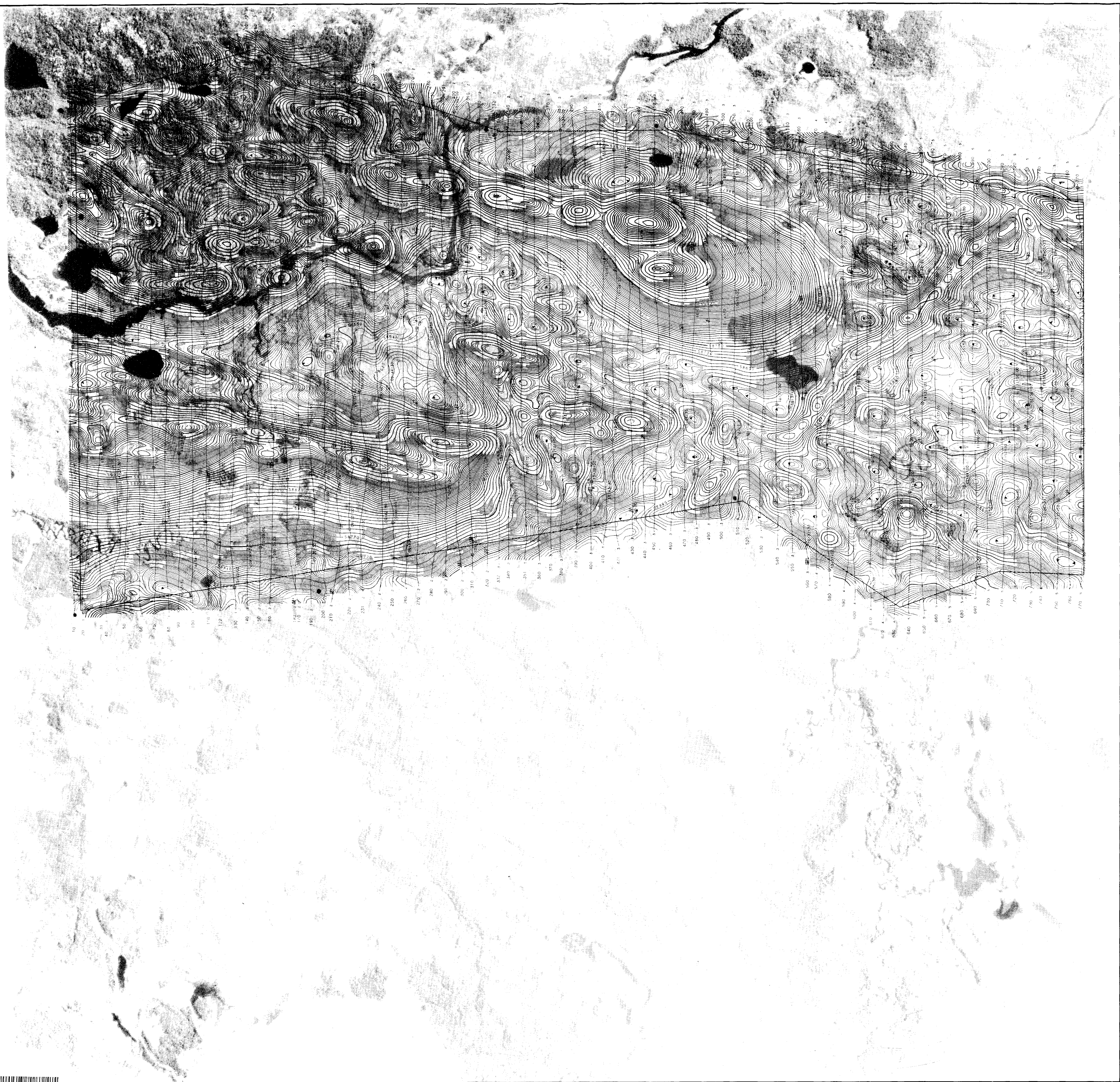
SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

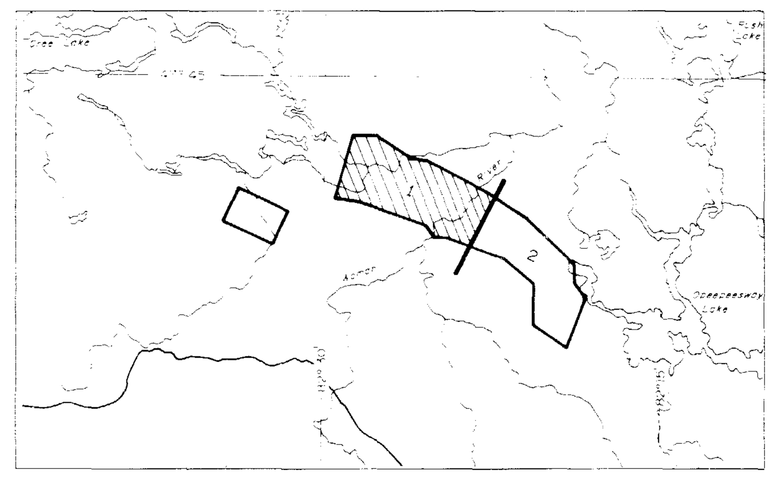
AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41-0/10 |
| MAP No: | 4 J8880 |



Magnetics

Flight Path



DOMINION EXPLORERS INC.

TOTAL FIELD MAGNETIC CONTOURS

CHAPLEAU

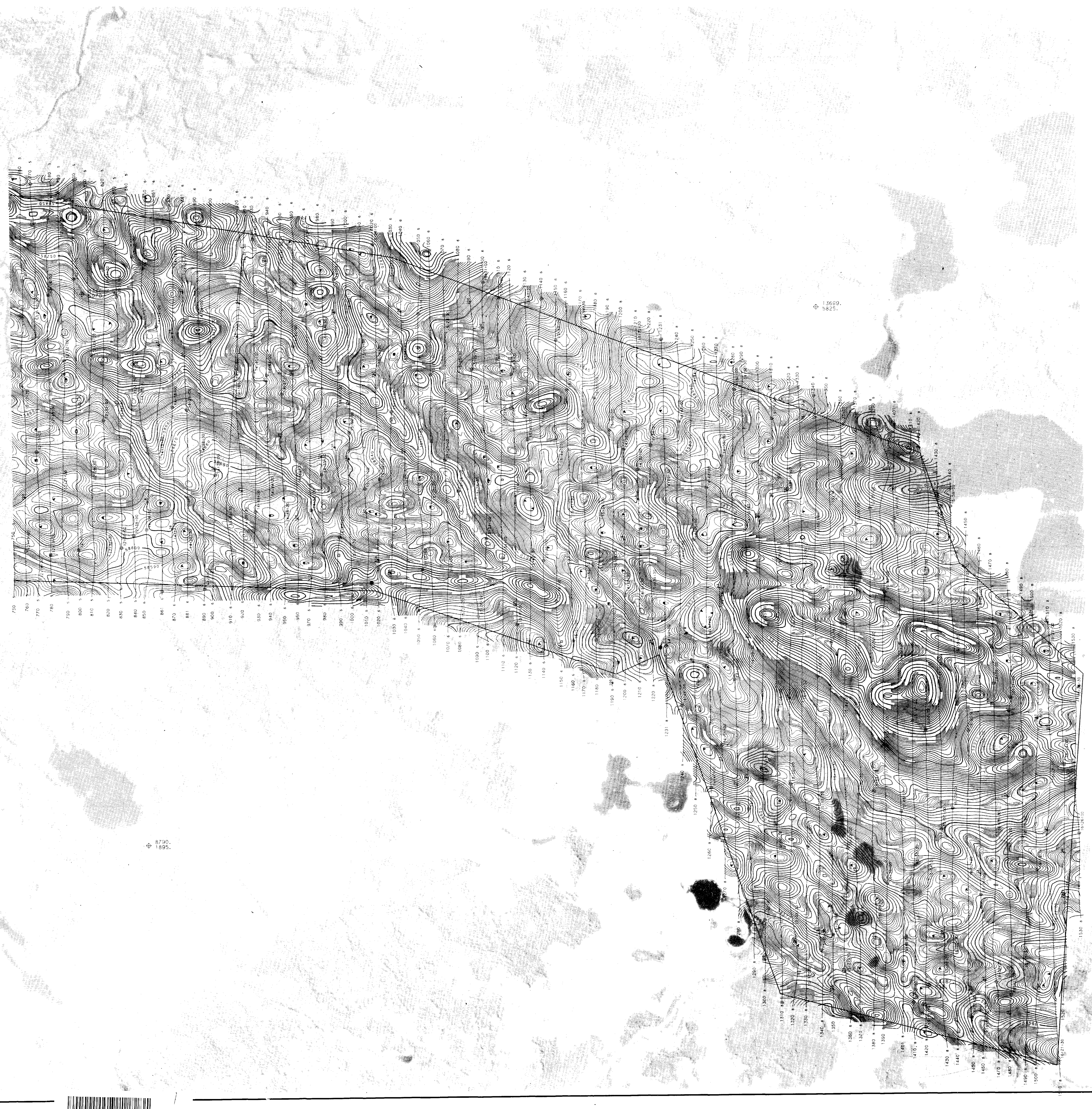
ONTARIO

AERODAT LIMITED

| | |
|---|---|
| DATE | NOV 88 |
| NTS NO. | 41 O-9 |
| MAP NO. | 4 (1of2) |

J8880

380



## Magnetics

Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

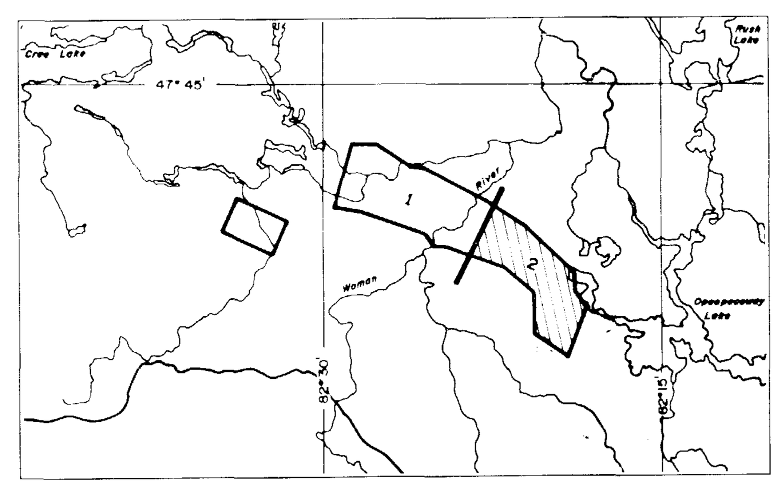
Map contours are multiples of those listed below

| | |
|---|---|
| | 2 nT |
| | 10 nT |
| | 50 nT |
| | 250 nT |

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS V) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m



# DOMINION EXPLORERS INC.

## TOTAL FIELD MAGNETIC CONTOURS

CHAPLEAU 2.1[illegible]

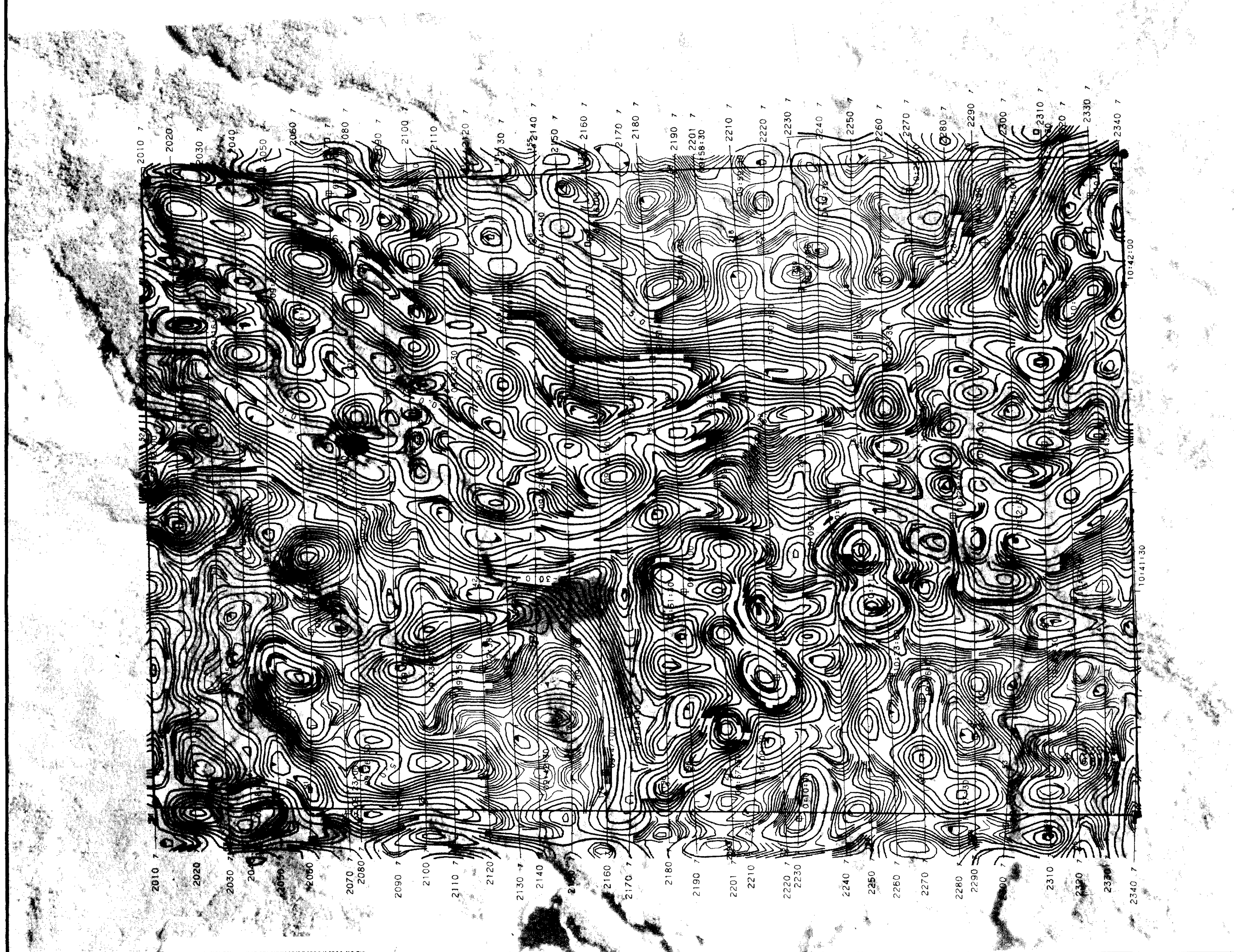
ONTARIO

SCALE 1:10,000

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 4 (2 of 2) J8880 |

390



## Vertical Gradient

Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

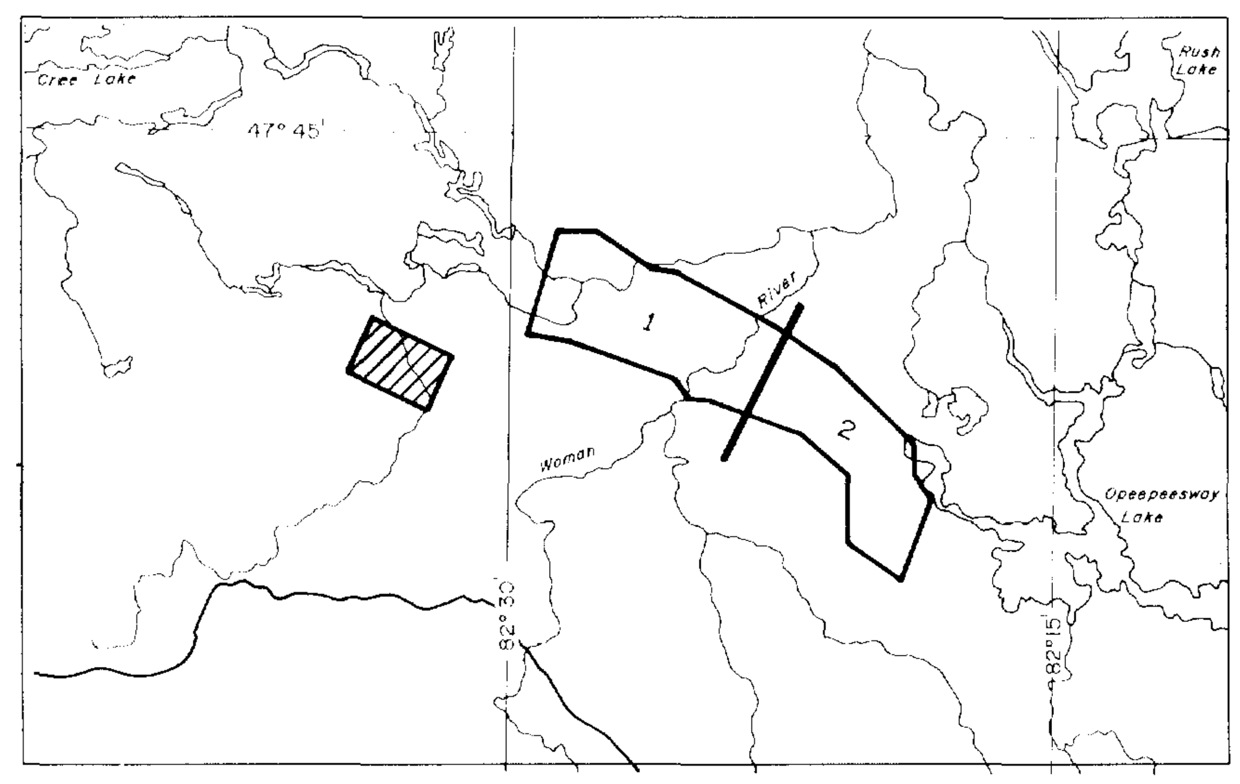
Map contours are multiples of those listed below

- 0.050 nt/m
- .250 nt/m
- 1.00 nt/m
- 5.00 nt/m
- 25.0 nt/m

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m




# DOMINION EXPLORERS INC.

## CALCULATED VERTICAL MAGNETIC GRADIENT

### CHAPLEAU

ONTARIO

SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

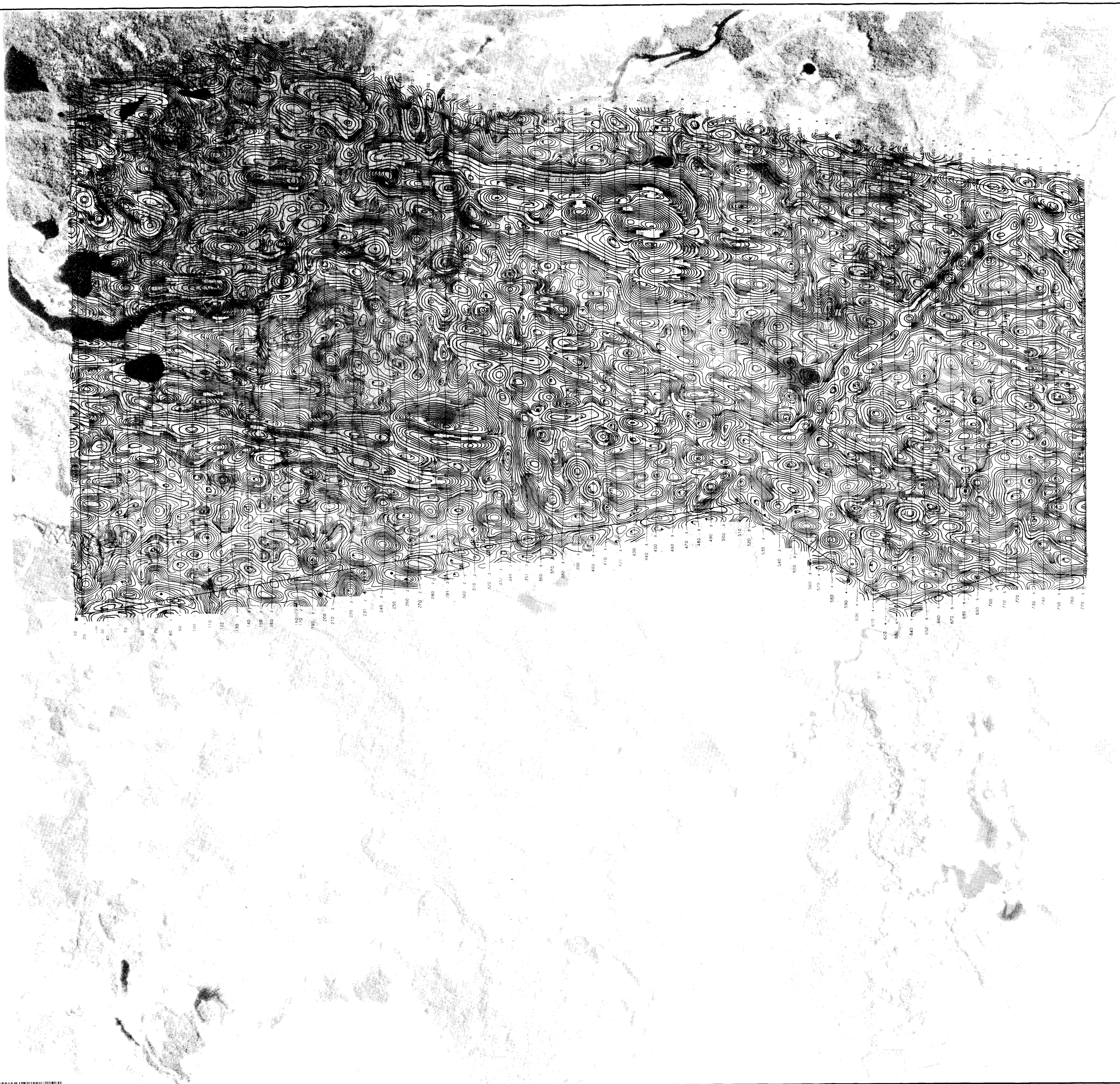
AERODAT LIMITED

DATE: NOV 88

NTS No: 41-0/10

MAP No: 5 J8880

400



## Vertical Gradient

Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

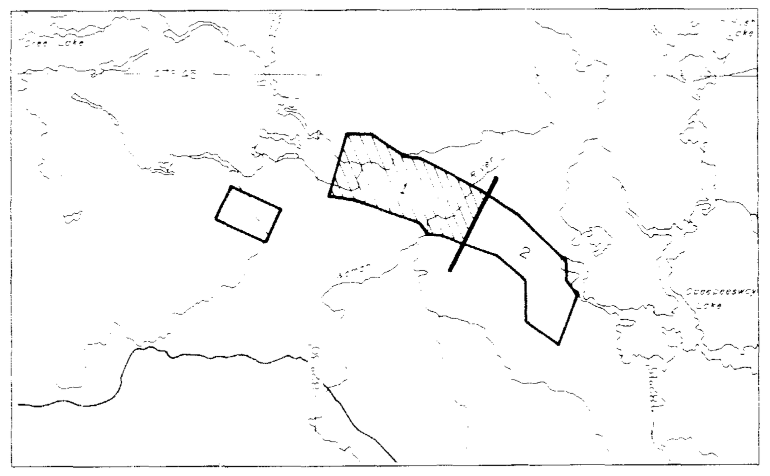
Map contours are multiples of those listed below

| | |
|---|---|
| ——— | 0.050 nT/m |
| ——— | .2500 nT/m |
| ——— | 1.000 nT/m |
| ——— | 5.000 nT/m |
| ——— | 25.0 nT/m |

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS III) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m



# DOMINION EXPLORERS INC.

## CALCULATED VERTICAL MAGNETIC GRADIENT

### CHAPLEAU

ONTARIO

SCALE 1:10,000

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 5 (1 of 2) J8880 |

410

## Vertical Gradient

Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

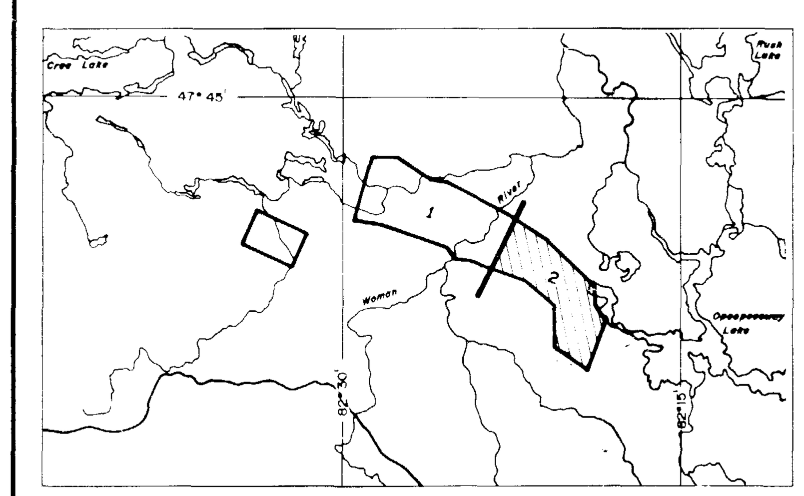
Map contours are multiples of those listed below

- 0.050 nt/m
- .250 nt/m
- 1.00 nt/m
- 5.00 nt/m
- 25.0 nt/m

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m



# DOMINION EXPLORERS INC.

## CALCULATED VERTICAL MAGNETIC GRADIENT

CHAPLEAU
ONTARIO

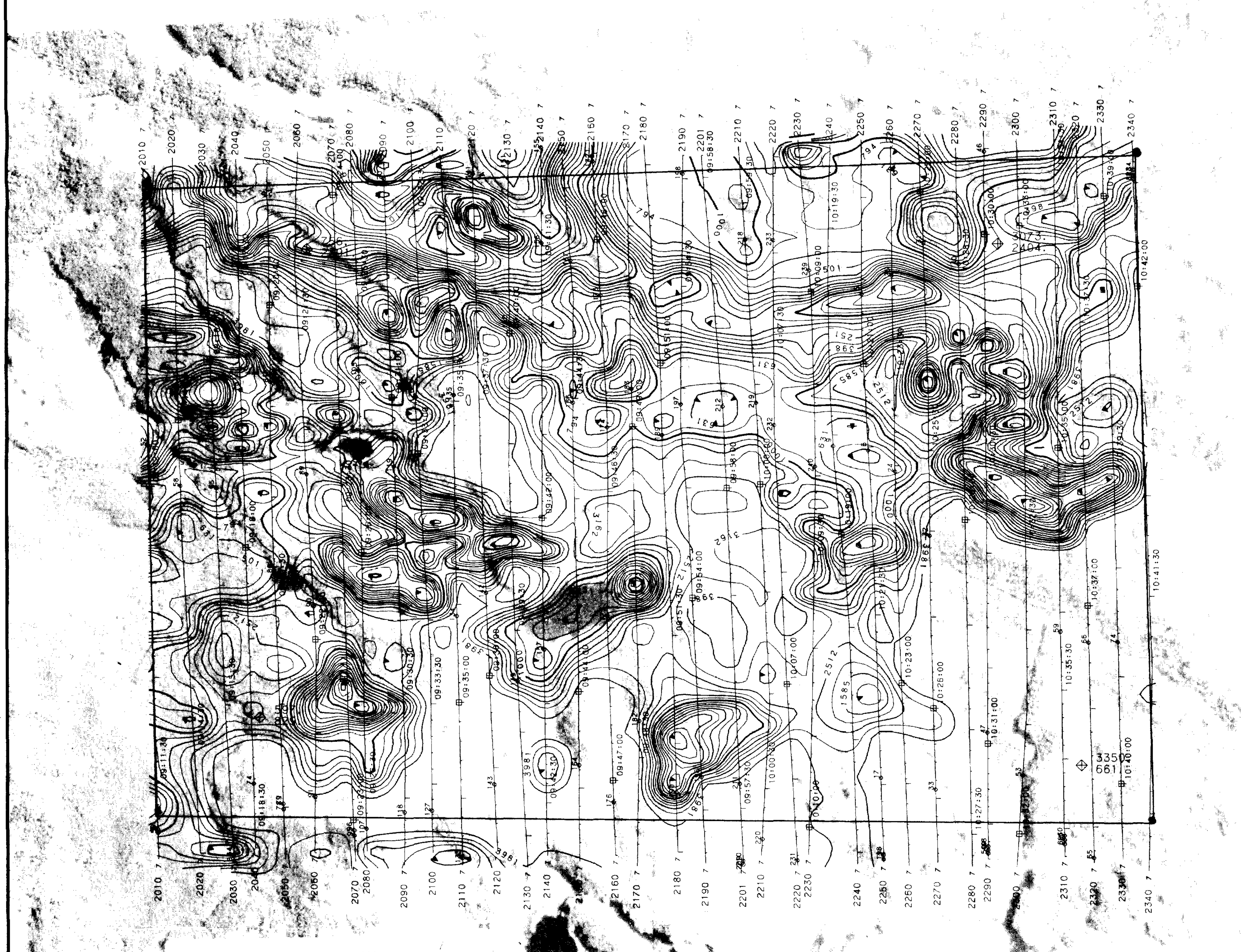
SCALE 1:10,000

0 330 660 1320 1/2 MILE
0 100 200 500 1 KILOMETRE

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 5 (2 of 2) J8880 |

420



## Apparent Resistivity

Calculated from 4600 Hz coaxial EM response assuming a 200 m conductive layer.

Contouring in ohm*m at logarithmic intervals.

Sensor elevation 30m

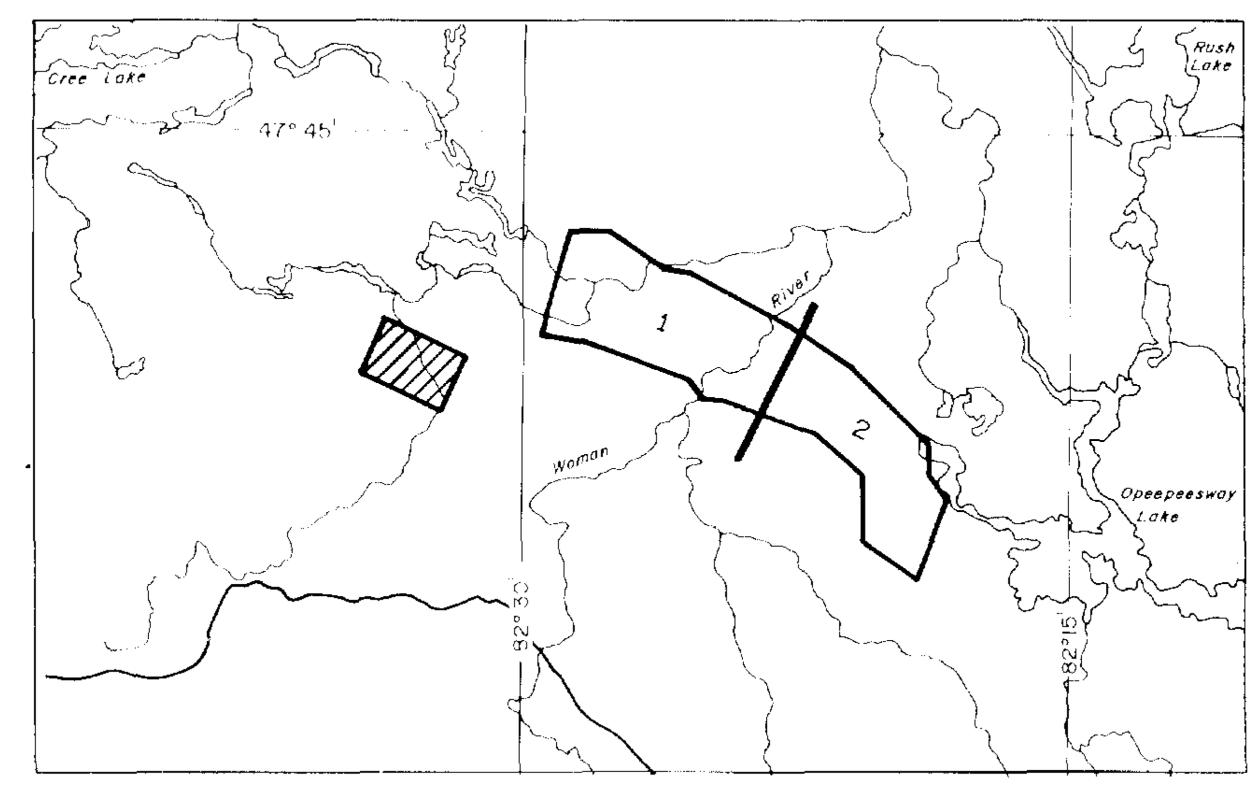
Map contours are multiples of those listed below

.1 LOG(ohm*m)
.2 LOG(ohm*m)
1 LOG(ohm*m)

## Flight Path

Navigation and recovery using Motorola Mini Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m




DOMINION EXPLORERS INC.

**APPARENT RESISTIVITY CONTOURS**

CHAPLEAU

ONTARIO

SCALE 1:10,000

0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

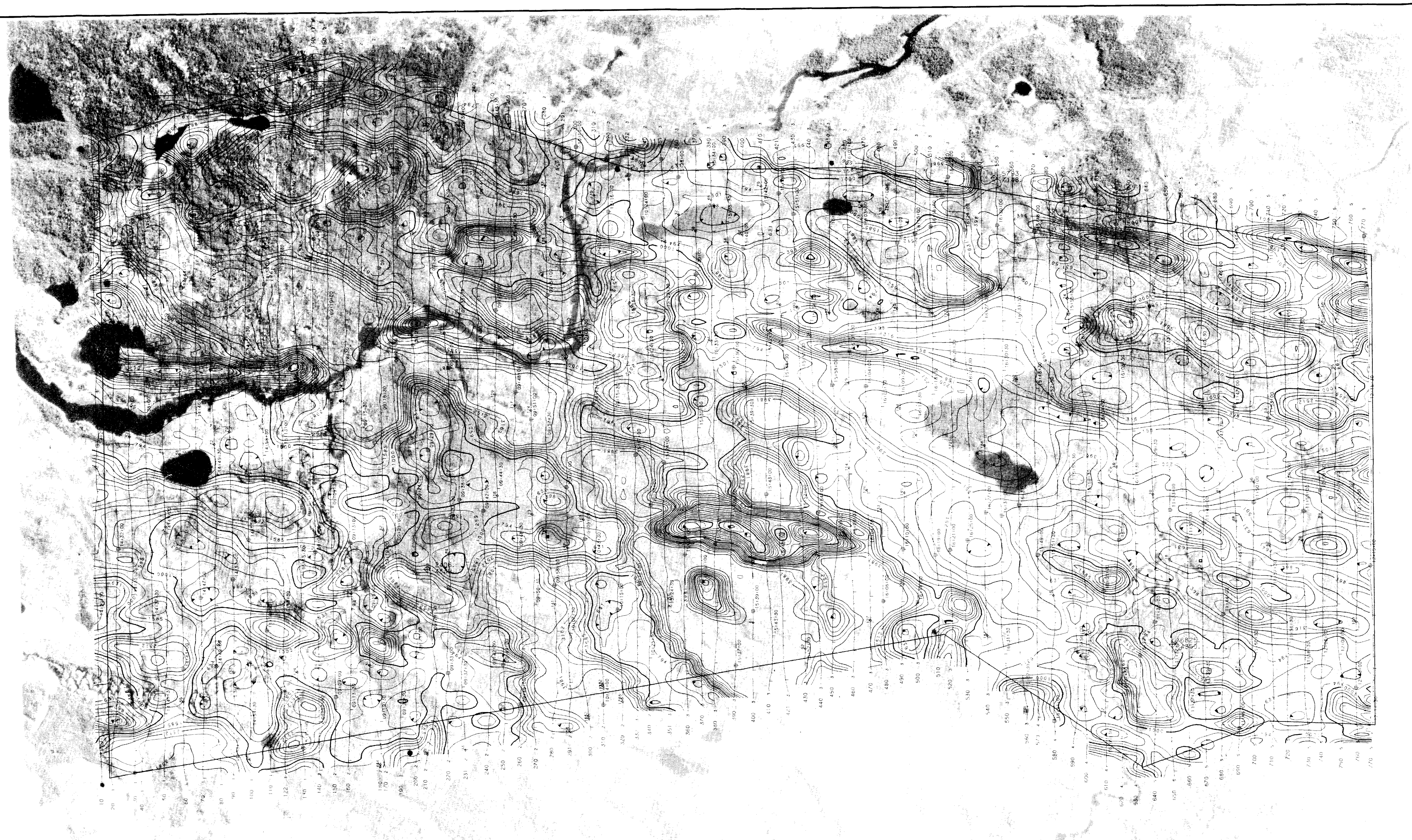
DATE: NOV 88

NTS No: 41-O/10

MAP No: 6

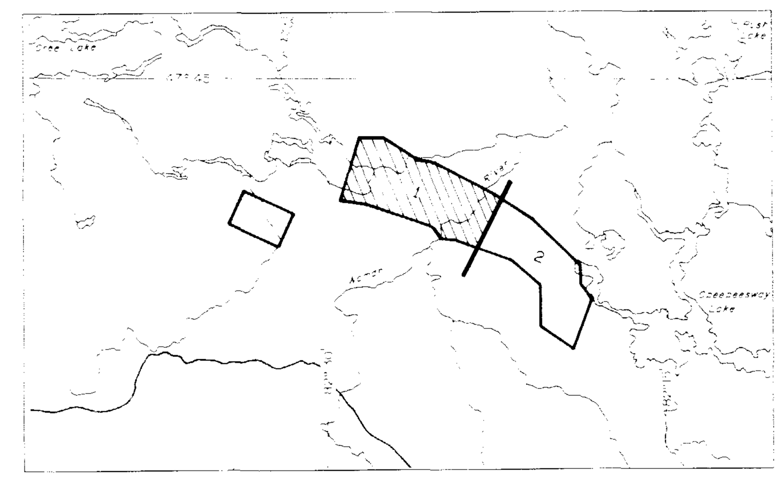
J8880

430



Apparent Resistivity

Flight Path



DOMINION EXPLORERS INC.

APPARENT RESISTIVITY CONTOURS

CHAPLEAU

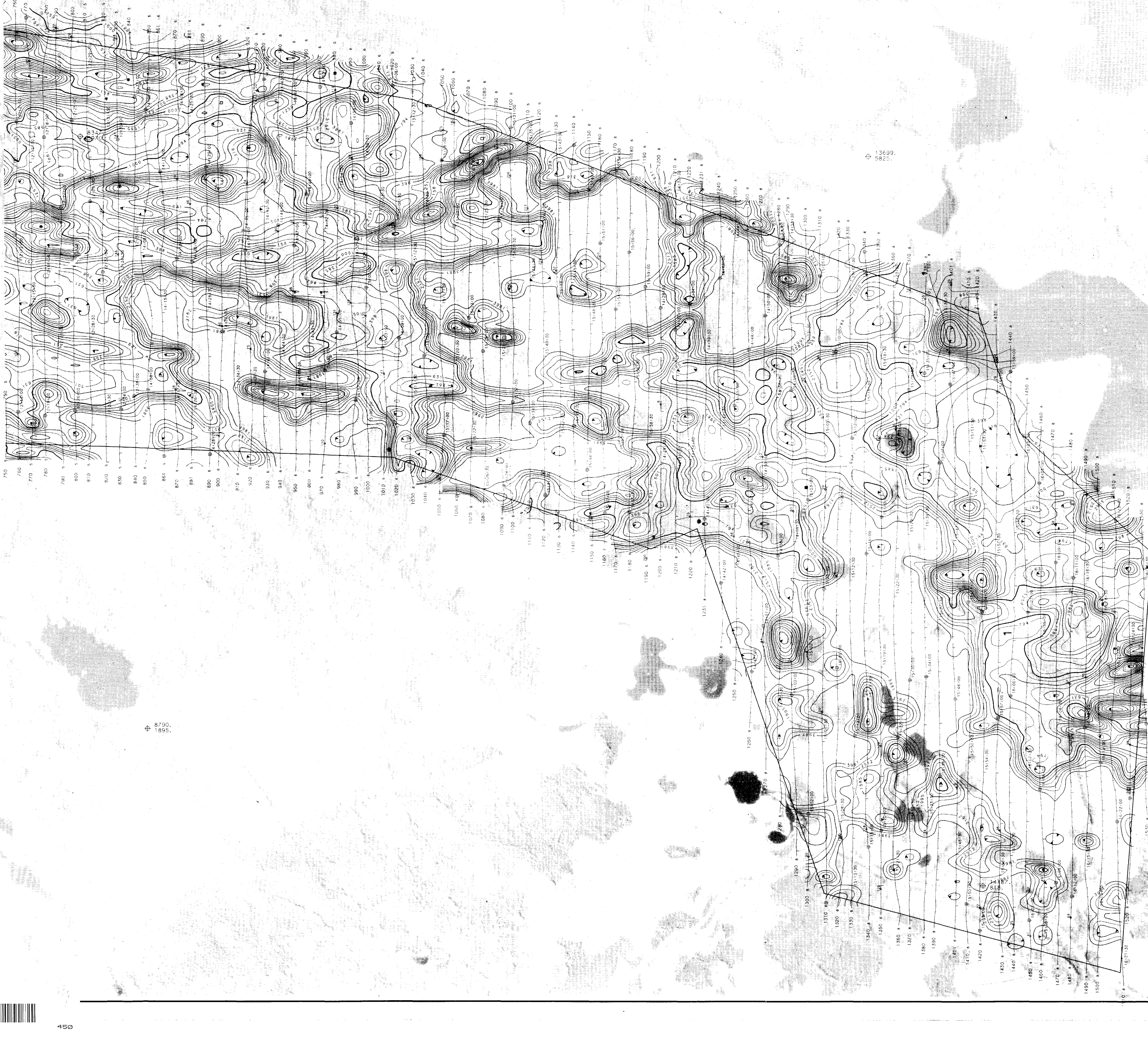
ONTARIO

AERODAT LIMITED

NOV 88

41 O-9

440



## Apparent Resistivity

Calculated from 4600 Hz coaxial EM response assuming a 200 m conductive layer.

Contouring in ohm*m at logarithmic intervals.

Sensor elevation 30m

Map contours are multiples of those listed below

.1 LOG(ohm*m)

.2 LOG(ohm*m)

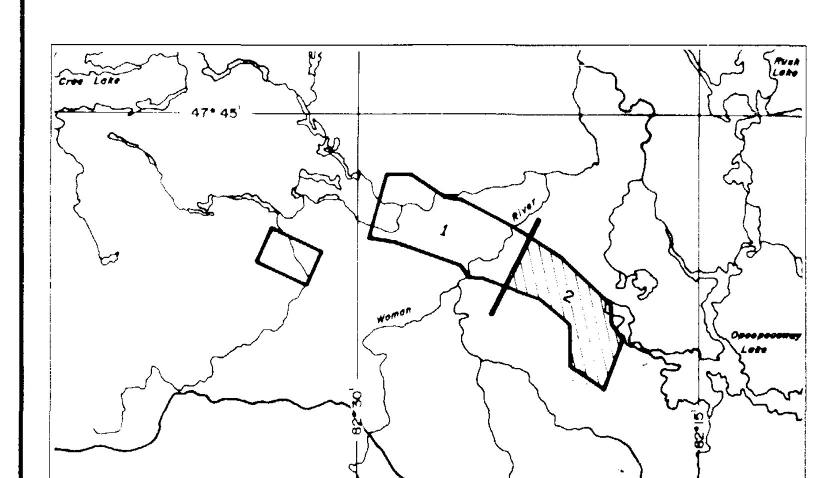
1 LOG(ohm*m)

## Flight Path

Navigation and recovery using Motorola Mini Ranger (MRS [illegible]) radar navigation system.

Average terrain clearance 60m

Average line spacing 100m



# DOMINION EXPLORERS INC.

## APPARENT RESISTIVITY CONTOURS

CHAPLEAU

ONTARIO

SCALE 1:10,000

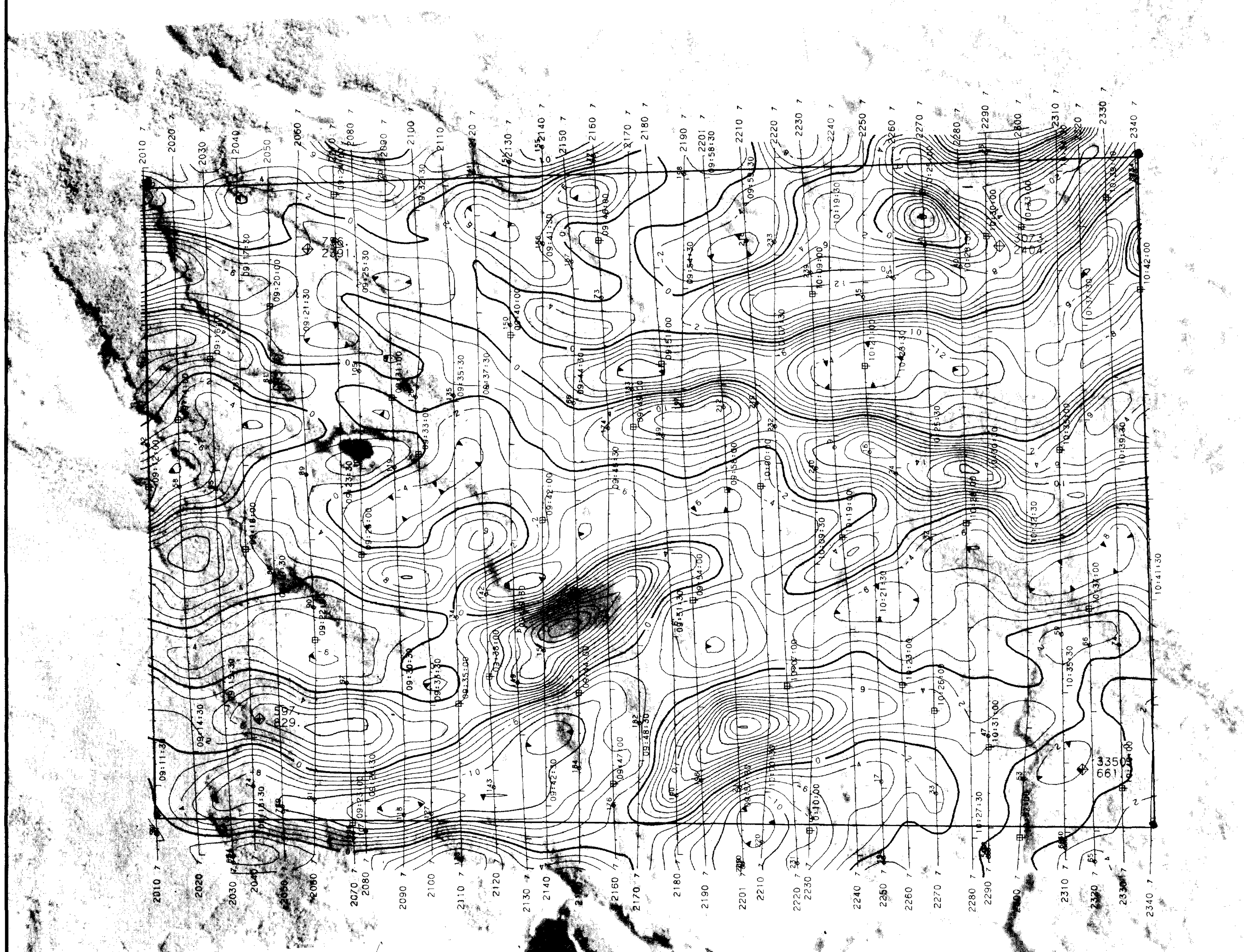
0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 6(2of2) J8880 |

450




## VLF-EM

VLF-EM Total Field Intensity in percent.

Station: NAA
Cutler, Maine
24.0 kHz

Sensor elevation 45m

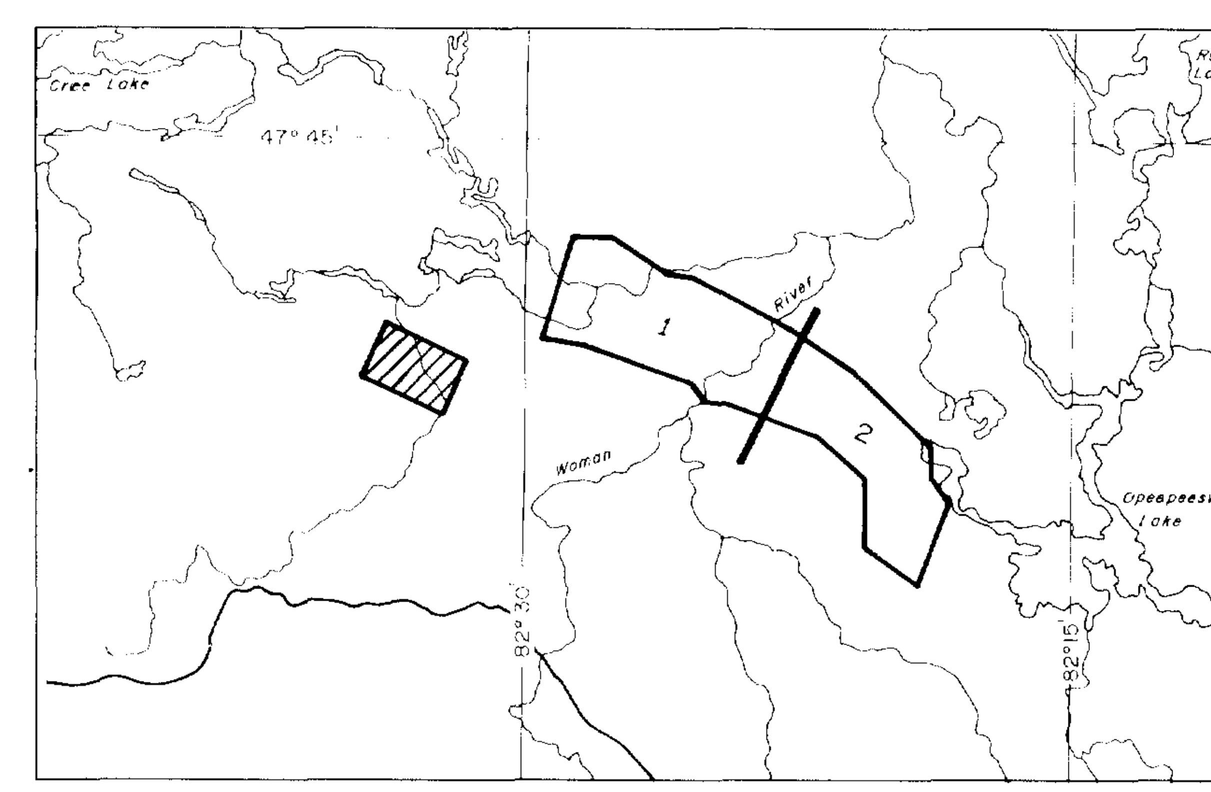
Map contours are multiples of those listed below

2 %
10 %
50 %
250 %

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m




# DOMINION EXPLORERS INC.

## VLF-EM TOTAL FIELD CONTOURS

## CHAPLEAU

ONTARIO

SCALE 1:10,000

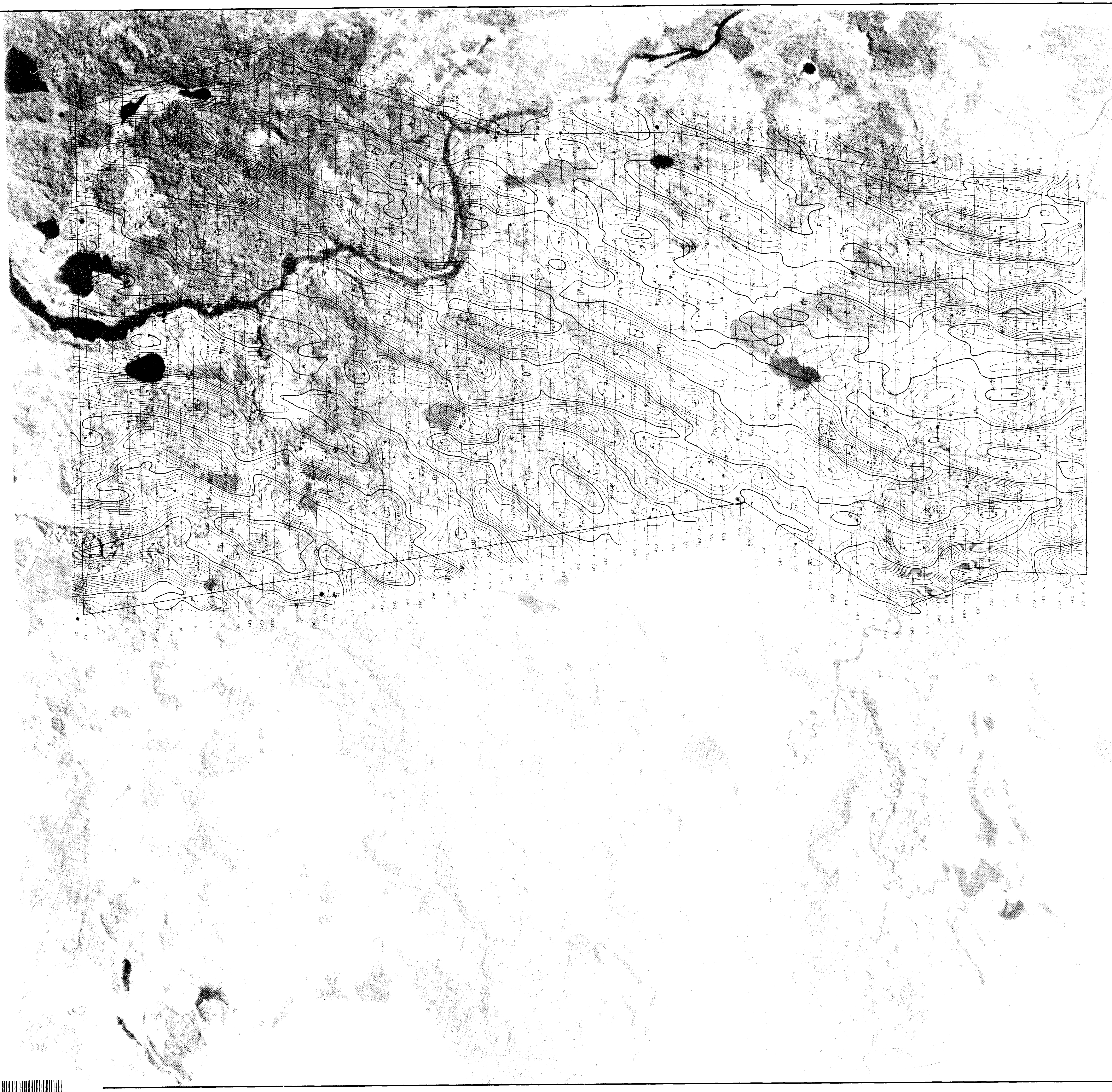
0 330 660 1320 1/2 MILE

0 100 200 500 1 KILOMETRE

AERODAT LIMITED

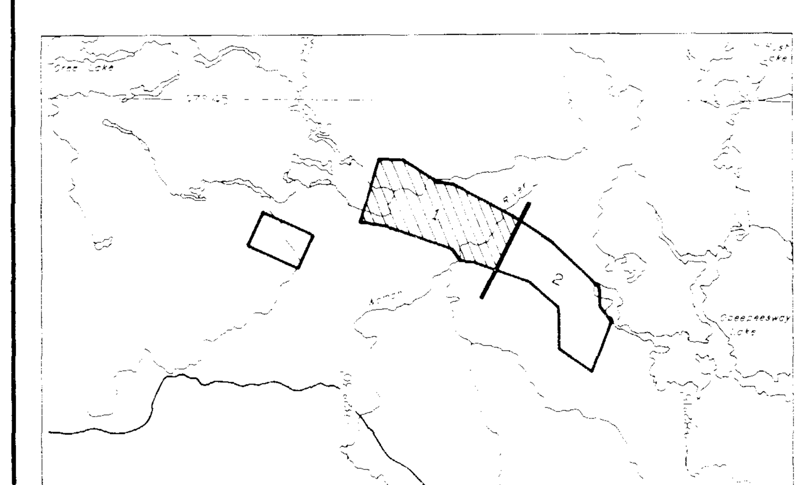
| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41-0/10 |
| MAP No: | 7 J8880 |

460



VLF-EM

Flight Path




DOMINION EXPLORERS INC.

VLF-EM TOTAL FIELD CONTOURS

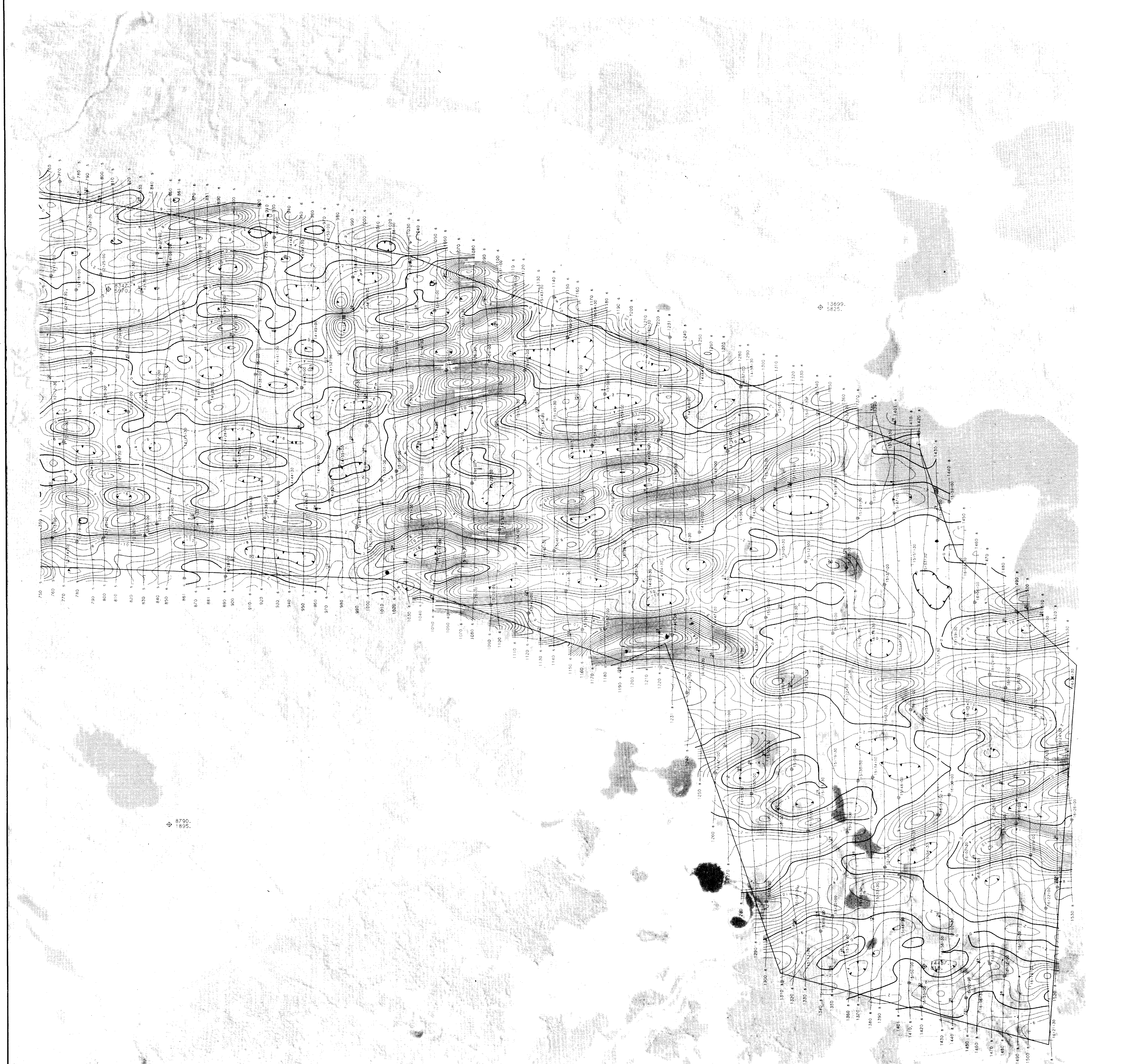
CHAPLEAU

ONTARIO

AERODAT LIMITED

| | |
|---|---|
| DATE: | NOV 88 |
| NTS No: | 41 O-9 |
| MAP No: | 7 (1 of 2) J8880 |

470



## VLF-EM

VLF-EM Total Field Intensity in percent.

Station: NSS
Annapolis, Maryland
21.4 kHz

Sensor elevation 45m

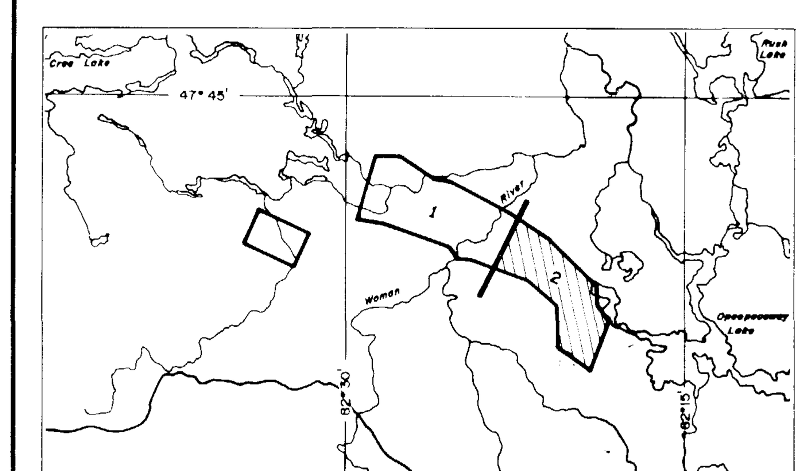
Map contours are multiples of those listed below

| | |
|---|---|
| ······ | 2 % |
| – – – | 10 % |
| —— | 50 % |
| —— | 250 % |

## Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS IV) radar navigation system.

Average terrain clearance 60m
Average line spacing 100m



# DOMINION EXPLORERS INC.

VLF-EM TOTAL FIELD CONTOURS

CHAPLEAU
ONTARIO

SCALE 1:10,000

AERODAT LIMITED

DATE: NOV 88
NTS NO: 41 O-9
MAP NO: 7 (2 of 2) J8880

480