INTERPRETATION REPORT

ON A
COMBINED HELICOPTER BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF-EM
SURVEY

IRON MASK PROPERTY
CARTIER BLOCKS
SUDBURY AREA, ONTARIO

FOR

CHAMPION BEAR RESOURCES LTD.
2005, 9th ST. SW
CALGARY, ALBERTA T2T 3C4

BY

GEODATEM AIRBORNE CONSULTANTS
28 WESTVIEW CRESCENT
PALGRAVE, ONTARIO L0N 1P0

ROBERT J. DE CARLE
AUGUST 30, 2002

G1603

TABLE OF CONTENTS

1. INTRODUCTION

This report is the interpretation of data from an airborne geophysical survey that was carried out on behalf of Champion Bear Resources Ltd. by High-Sense Geophysics Ltd. in 1998. Equipment operated included a five (5) frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a Hertz Totem 2A two- frequency VLF-EM system, a video tracking camera and a radar altimeter.

The survey area, comprised of a large block of ground, is located approximately 50 kilometres northwest of Sudbury, Ontario. Sixteen (16) flights, which were flown in December of 1998, were required to complete the survey. Flight lines were oriented 000-180 degrees, with a nominal flight line spacing of 150 metres for the eastern portion of the block and 120-300 degrees with a nominal flight line spacing of 150 metres for the western portion of the block.

The coverage and data quality are considered to be well within the specifications of the system.

The interpretation of this airborne data was commissioned by Joe Hinzer of Watts, Griffis and McQuat Limited, geological consultants for Champion Bear Resources Ltd., on May 7, 2002.

The primary objective for carrying out this airborne survey was to locate mineralized Ni-Cu-PGE zones, which can be directly or indirectly related to either Hess or Ministic-type offset dikes. Of importance in this area will be the Hess Offset dike, which contains INCO's Rivers Showing. Also of interest in this area will be replacement-type (Olympic Dam) base metal deposits, which may occur within the Huronian metasediments, particularly in calcareous rocks of the Espanola Formation, near their contacts with Nipissing Diabase intrusions. This may be particularly true in areas such as Hess, Hart and Ermatinger Twps.

In reference to the electromagnetic data, one will pay particular attention to strong EM responses that may reflect moderate or steeply dipping conductors associated with the offset

dikes. Also of interest will be poorly mineralized zones that may reflect disseminated sulphides within a footwall environment near the Nipissing Diabase intrusions.

A total of 1530 line kilometers of the recorded data were compiled in map form and are presented as part of this report according to specifications outlined by Champion Bear Resources Ltd.

2. SURVEY AREA LOCATION

The large survey block is depicted on the index map as shown (Figure 1) and is referenced and centered as follows:

NTS:	41 I 11,12,13,14
Latitude:	46 deg. 43 min.
Longitude:	81 deg. 35 min.

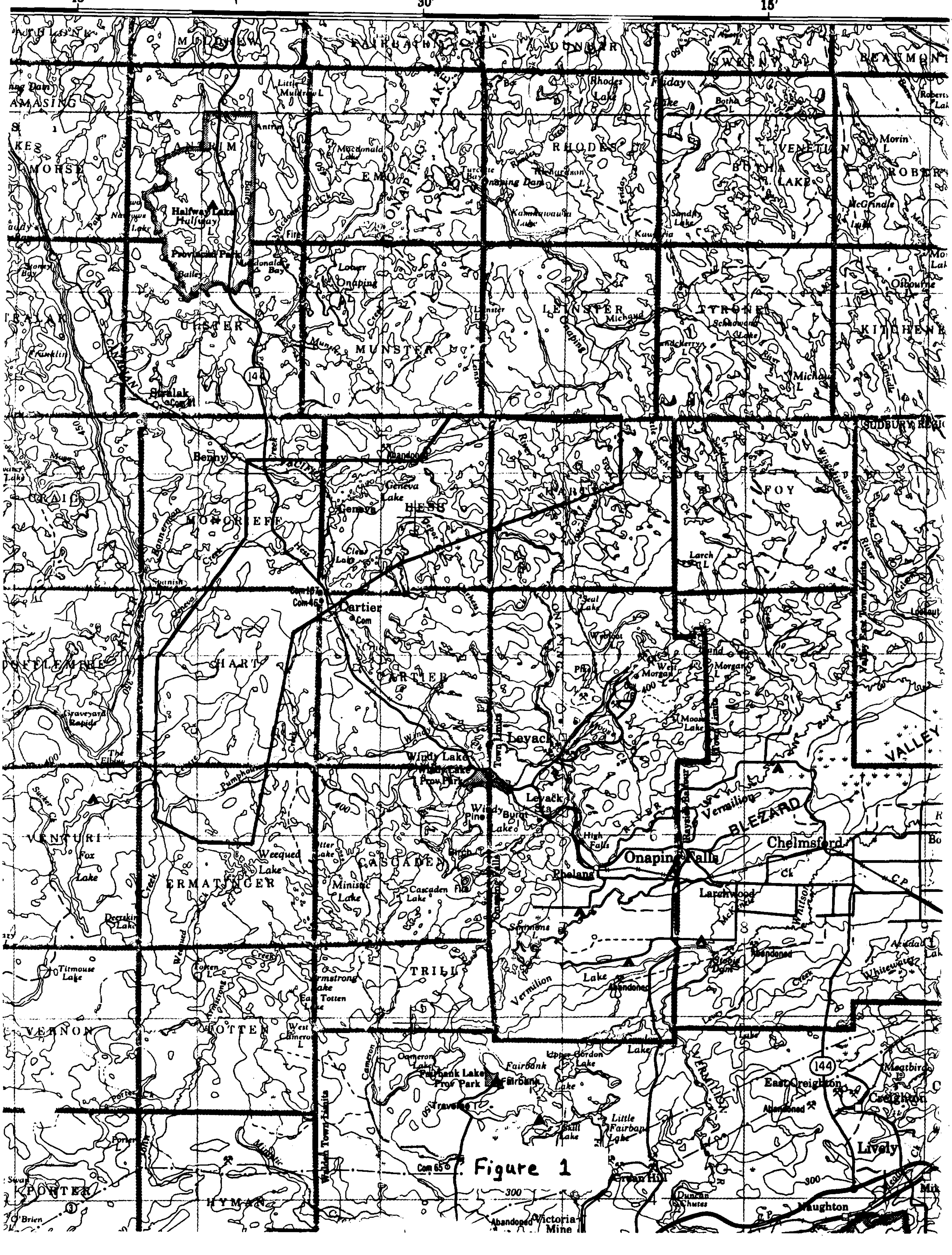
This large survey block is located approximately 50 kilometres northwest of Sudbury, Ontario. The eastern portion of the block is located in Moncrieff, Hess and Harty Townships, just north of the village of Cartier, while the western portion of the block is located to the southwest of the village of Cartier, roughly 8 kilometres.

Access to the region can be made via Highway 144 and then by numerous lumber roads for most areas.

3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

An Aerospatiale AS350B1 A-Star helicopter, owned and operated by Abitibi Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by High-Sense Geophysics Ltd. The survey aircraft was flown at a mean terrain clearance of 75 metres.



45′
30′
15′
MULDREW
FAIRBAIRN
DUNBAR
SWEENY
BEAUMONT
Little Muldrew L
Rhodes Lake
Friday Lake
Botha L
ANTRIM
RHODES
VENETIAN
Morin L
MORSE
Macdonald Lake
EMO
ONAPING LAKE
Onaping Dam
Richardson L
BOTHA LAKE
ROBERTS
McGrindle Lake
Halfway Lake
Halfway L
Provincial Park
Sandy Lake
Kawawaia Lake
Lower Onaping
Macdonald Bay
Leinster L
LEINSTER
Michaud
TYRONE
Osbourne
KITCHENER
ULSTER
MUNSTER
Michaud L
Stralak
14
Benny
GUDBURY REGION
Geneva Lake
Geneva
HESS
FOY
CRAIG
MONCRIEFF
Clear Lake
Larch L
Cartier
CHART
CARTIER
Seal Lake
Morgan L
West Morgan
DOFFLEMEIER
Graveyard Rapids
Leyack
Moose Lake
VALLEY
Windy Lake
Windy Lake Prov Park
Levack Sta
Vermilion
BLEZARD
Windy Lake
Pine Lake
High Falls
Chelmsford
VENTURI
Fox Lake
Weequed Lake
Otter Lake
CASCADEN
ERMATINGER
Ministic Lake
Cascaden Lake
Onaping Falls
Phelang
Larchwood
Simmons L
Titmouse Lake
TRILL
Armstrong Lake
East Totten Lake
Vermilion Lake
Abandoned
Whitewater
VERNON
TOTTEN
West Cameron L
Cameron Lake
Fairbank Lake Prov Park
Fairbank
Upper Gordon Lake
Fairbank Lake
144
Meatbird
East Creighton
Creighton
Travers
Skill Lake
Little Fairbank Lake
Lively
Porter L
VERMILION
PORTER
HYMAN
Com 65
Green Hill
Duncan Chutes
Naughton
Abandoned
Victoria Mine
300

Figure 1

3.2 Equipment

3.2.1 Electromagnetic System

The electromagnetic system was a five (5) frequency system consisting of two vertical coaxial coil pairs operated at 926 Hz. And 4445 Hz. And three horizontal coplanar coil pairs operated at 873 Hz., 4857 Hz. And 33,804 Hz. The transmitter-receiver separation was approximately 7 metres. Inphase and quadrature signals were measured simultaneously for the 5 frequencies with a time constant of 0.1 seconds. The electromagnetic bird was towed 45 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 30 metres below the helicopter. The VLF transmitters monitored were NLK, Seattle, Washington, broadcasting at 24.8 kHz. for the Line Station and NAA, Cutler, Maine, broadcasting at 24.0 kHz. for the Orthogonal Station.

3.2.3 Magnetometer

The magnetometer employed was a Geometrics Model G-822A cesium, optically pumped magnetometer sensor. The sensitivity of these instruments was 0.003 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 30 metres below the helicopter.

3.2.4 Magnetic Base Station

An IFG (GSM-8) proton precession magnetometer was operated at the base camp to record both in analog and digital form, the 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 Altimeter

A Terra TRA 3500 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude, with the digital resolution being better than 2.5% with a departure of 3 metres at 100 metre altitude discernable.

3.2.6 Tracking Camera

A Panasonic video tracking camera was used to record flight path on VHS video tape. 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	926 Hz. Coaxial Inphase	25 ppm/cm
CXQ1	926 Hz. Coaxial Quadrature	25 ppm/cm
CPI1	873 Hz. Coplanar Inphase	100 ppm/cm
CPQ1	873 Hz. Coplanar Quadrature	100 ppm/cm
CXI2	4445 Hz. Coaxial Inphase	25 ppm/cm
CXQ2	4445 Hz. Coaxial Quadrature	25 ppm/cm
CPI2	4857 Hz. Coplanar Inphase	100 ppm/cm
CPQ2	4857 Hz. Coplanar Quadrature	100 ppm/cm
CPI3	33 kHz. Coplanar Inphase	200 ppm/cm
CPQ3	33 kHz. Coplanar Quadrature	200 ppm/cm
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
RALT	Radar Altimeter	10ft/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	0.2 seconds
Magnetometer	0.2 seconds
Radar Altimeter	0.2 seconds
Positioning Data	0.2 seconds

3.2.9 Global Positioning System (GPS)

The Global Positioning System is a U.S. Department of Defense program, which will provide worldwide, 24 hour, all weather position determination capability. GPS consists of three segments:

- a constellation of satellites
- ground stations which control the satellites
- a receiver

The receiver takes in coded data from satellites in view and there after works out the range to each satellite. The coded data must therefore include the instantaneous position of the satellite relative to some agreed earth-fixed co-ordinate system.

The final system will have 24 satellites in 12 hour orbits, on 6 orbital planes. Currently, there are 25 satellites, but three will be replaced in the final constellation.

A Magnavox MX9212 sensor was utilized to acquire positional information for navigation and flight path recovery. Positional accuracy of the order of 5 metres can be achieved with this system.

4. DATA PRESENTATION

4.1 Colour Magnetic Total Field Maps

The aeromagnetic data (IGRF removed) were corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. The corrected profile data were interpolated onto a regular grid at a 35 metre true scale interval using an Akima spline technique. The grid provided the basis for threading the presented contours at a 5 nanoTesla interval.

The aeromagnetic data have been presented in colour along with superimposed contours, flight lines, fiducials and EM anomalies.

4.2 Vertical Magnetic Gradient Maps

The vertical gradient was computed from the gridded total field magnetic data (IGRF removed) to obtain values in nanoTeslas per metre. This data was presented in the same fashion as the measured total field, ie. On a 35 metre grid but contoured at a 0.01 nanoTesla per metre interval, and presented on a black and white topographic base map with contours, flight lines, fiducials and EM anomalies.

4.3 Colour Apparent Resistivity Maps

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 200 metre thick conductive layer (ie. 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 2 frequencies of EM data. The apparent resistivity profile data were interpolated onto a regular grid at a 35 metre true scale interval using a cubic spline technique.

The apparent resistivity data were presented in colour with superimposed contours, flight lines, fiducials and EM anomalies.

4.4 Colour VLF-EM Total Field Maps

The VLF electromagnetic data, derived from Cutler, Maine, was processed to produce a total field contour map on a 35 metre grid with a 1% contour interval. The VLF data for the Line Station is presented in colour with superimposed contours, flight lines, fiducials and EM anomalies.

4.5 Interpretation Overlays

The interpretation maps outline the geophysical interpretation of the electromagnetic, magnetic, geological and physiographic data. Bedrock conductors have axis locations and dip directions, if they are interpretable. The anomalous zones which are recommended for follow-up have a reference label assigned, to which additional comments and recommendations are directed in the interpretation section of this report. The following list summarizes the electromagnetic interpretation presentation:

- Bedrock conductor axis, probable and possible;
- Conductor dip;
- Anomalous conductors selected for ground evaluation with reference number;
- Bedrock conductor, depth estimate (where possible).

Geological interpretations have been based on the magnetic data and to a lesser extent, on the electromagnetic and VLF-EM data.

Magnetite responses have been extracted from the mid-frequency electromagnetic data. These are negative EM responses in which the EM system responds to percent magnetite, the larger the

negative response, the greater the magnetite content. Because of the higher EM resolution of the EM system compared to the magnetometer, multiple magnetite responses may be intercepted with the EM system, as opposed to one large magnetic anomaly with the magnetometer sensor.

Potential kimberlite targets have also been interpreted within the survey area. These are outlined on the Interpretation Map overlay with the letter **K.**

5. INTERPRETATION

5.1 Geology

The Iron Mask Property (Cartier Block) is located in the southern extremes of the Western Abitibi Subprovince, just to the west-northwest of the Sudbury Basin. It is also situated within the eastern limits of the Ramsey-Algoma granitoid complex. There are also areas, which contain outliers of the Huronian Supergroup.

The Benny Greenstone Belt, which contains both the Geneva Assemblage and the Bluewater Assemblage, underlies the most northernmost regions of the Cartier Block. It is the Geneva Assemblage, which covers a portion of this survey area. It consists of calc-alkalic andesite and dacitic-rhyolitic flows, pyroclastic tuffs and breccias, and cherty and calcareous metasedimentary rocks, graphitic shale and minor turbidite.

Four formations of the Huronian Supergroup underlie portions of this survey area. They are the Espanola Formation, the Serpent Formation, the Gowganda Formation and the Lorrain Formation. For the most part, these rocks occupy a narrow zone which have a northeast strike. The Espanola Formation is the earliest, significant carbonate-bearing formation of the Huronian Supergroup and, in places, can be lithostratigraphically subdivided into 3 parts: a lower carbonate member, a middle siltstone-wacke-arenite member, and a dolomitic member at the top. The Serpent

Formation consists mainly of feldspathic quartz arenites and arkoses. The Gowganda Formation consists of distinct, diverse sequences of clast- and matrix-supported conglomerate, pebbly wacke, wacke, siltstone, mudstone and arenite. The Lorrain Formation consists mainly of arkose and quartz arenite.

Intruding all of he above rock types are the Nipissing Diabase rocks, which consists mainly of pyroxene gabbro and hornblende gabbro, with minor amounts of feldspathic pyroxenite, gabbroic anorthosite and granophyre. These rocks form mafic dikes, sills and cone sheets. These rock types occur throughout the survey area.

Granitoid rocks of the Ramsey-Algoma complex also underlie most regions of the survey block. These rocks are generally granitic, granodioritic, granitic gneiss and syenite intrusions.

One of the last magmatic events is the intrusion of the offset dikes. The offset dikes of the Offset Sublayer either extend approximately radially from the Sudbury Igneous Complex or lie concentrically in the country rocks. Quartz diorite is the dominant rock type and, as with the Contact Sublayer of the Sudbury Igneous Complex, is characterized by a variety of inclusions and low sulphide mineralization.

Three types of quartz diorite occur in the dikes, hypersthene quartz diorite, two-pyroxene quartz diorite and amphibole-biotite quartz diorite.

Sulphide minerals appear to be spatially, and possibly also genetically, associated with mafic and ultramafic exotic inclusions. This association and the intermediate composition of the quartz diorite suggest that the quartz diorite was not the source for the sulphides. The mineralization was passively transported to its present position by the quartz diorite magma. Ore bodies in offset dikes tend to occur in areas of high inclusion/fragment concentration, as well as areas of geometric change of the host dikes.

The offset dike within this survey area is referred to as the Hess Offset. It is located in the eastern portion of the Cartier Block. Its westerly and southwesterly extentions are unknown at this point. To the south of the Cartier Block is the radial Ministic Offset dike. The dike extends to the northwest. The interpretation of the aeromagnetic data (later in this report) may reveal the existence of such an extention on to the Champion Bear claims.

In the eastern half of the Cartier Block, there are numerous northwest trending diabase dikes, known as the Sudbury Dike Swarm.

There are currently no known economic mineral deposits within the Cartier survey area. Ni-Cu-Co showings, including INCO's Rivers Showing in Hess Township, are believed to be associated with the Offset Dikes.

In northern Hart Township, a replacement-type deposit containing zinc with minor copper, lead, cobalt and nickel occurs in brecciated, contact-metamorphosed rocks of the Espanola and Serpent Formations. Veins, disseminations, and massive lenses of mineralization are erratically distributed in a zone approximately 300 metres in length near a Nipissing Diabase intrusion. This deposit, also known as the Iron Mask Cobalt Silver Mine has been tested several times by different companies over the years. Some interesting observations by Osborne in 1929 were that "magnetite, in the form of veins and disseminations, occurs in a zone approximately 120 metres long in the metasediments at the Nipissing Diabase contact. Chalcopyrite and pyrite mineralization occur further away from this contact, and still further from the contact, occur veins and disseminations of sphalerite and galena. According to Osborne, the cobalt mineralization occurs still further away from the Nipissing Diabase contact.

5.2 Magnetics

The aeromagnetic data clearly shows a variance in the magnetic intensity across the entire survey area, ranging from 56,750 nT in areas of foliated to sheared plutonic rocks and Huronian sediments to as high as 57,630 nT over areas considered to be underlain with Nipissing Diabase. The highest magnetic intensities are from those areas containing massive magnetite. This occurs within alteration zones termed in this report as contact zones (CZ).

The foliated felsic plutonic and migmatite rocks exhibit very low magnetic intensity, with very little magnetic influences from other sources. A few minor magnetite dikes within this complex, give rise to a very weak magnetic trends. The massive felsic intrusive rocks display a slightly higher magnetic intensity reflecting the more magnetite rich dikes within this rock group. However, the dikes are narrow and the total magnetite content is relatively low.

Late mafic intrusive rocks are located in a number of areas within the survey block. They are generally narrow dikes, but where they are wide, they are more inclined to exhibit a magnetic response. There does not seem to be as many mapped dikes in the western portion of the survey area, as there is in the eastern half. The magnetic intensities of these dikes are rather weak. The magnetic response may be mistaken for other types of dikes, such as the Sudbury Interuptive offset dikes and olivine diabase dikes. Most of the interpreted late mafic intrusive dikes are located within the eastern portion of the survey area.

The Mississagi, Bruce, Espanola, Serpent and Lorrain Formations are non-magnetic. The only Huronian Supergroup rock type that does exhibit magnetism is the Gowganda Formation. The Gowganda siltstone and wacke consist of quartz, feldspars, rock fragments, muscovite, biotite, chlorite, iron oxides and sulphides. Thin lenses of magnetite are contained within this unit, particularly near the contacts with the Nipissing Diabase.

The Nipissing Diabase intrusions exhibit variable magnetic intensity, which in this area are generally on the higher side. Since these intrusions vary in geometry, from sills to dikes, their magnetic signatures can vary as well. There is often a masking effect, particularly if the diabase is located close to a zone of massive magnetite within a contact zone.

There are a few areas within the eastern portion of the survey block that exhibit magnetic signatures related to lamprophyre and breccia dikes. They generally exhibit very low magnetic susceptibility.

Olivine diabase dikes criss-cross the eastern portion of the survey area. They generally exhibit moderate to high magnetic intensity. For most areas, the magnetic data has extended known dikes, as well as uncovering new ones.

One of the units that are of interest in this survey area, the Hess Offset dike, has shown that the magnetic susceptibility of these dikes is very weak. It would appear that INCO's Rivers Showing may be identified by its extremely weak magnetic signature. In fact, it is less than 10 nT. In order to extract extremely weak magnetic anomalies, such as that over the Hess Offset dike, one must consider further processing, such as the 2nd vertical magnetic gradient. This process will define the dikes, if they exist, somewhat better than the 1st vertical magnetic gradient or the total field

The writers have interpreted what appears to be an extention of the Hess Offset dike to the east of the Rivers Showing. It is generally 40-60 metres wide and in some areas, cross-cutting faults have displaced the dike. To the west of the Rivers Showing, a number of east-northeast trending dikes have been interpreted as late mafic intrusive rocks. This is based on existing dikes, as mapped in the field by government geologists. However, some of these interpreted mafic dikes could be westerly extentions of the Hess Offset dike. Ground reconnaissance surveys will be the only sure way of establishing whether or not these are quartz diorite offset dikes.

One of the more interesting magnetic features within this survey area is the occurrence of "bulls-eye" magnetic highs. These are the anomalies that may be characteristically associated with kimberlite pipes, which are sometimes the host rocks for the accumulation of diamonds. The more obvious "bulls-eye" magnetic highs exhibit a circular annotation, while some of the others display a more oval shape.

Kimberlitic material can also be introduced into a dike-like structure, similar to a diabase dike. One of the idealized characteristics of kimberlite structures is that they generally are contained within clusters. In other words, if one pipe is found, then others are suspected to be in variable proximity. Their means of introduction into the near surface elements is not part of this report, but can be summarized however, by stating that kimberlites will generally be introduced through deep fracture zones into a dominant stable region.

It is observed that a few of the selected kimberlite targets are located in close proximity to the diabase dikes. The only significance here is that the kimberlite materials may have used the dikes as conduits to eventually intrude the surficial rocks. These interpreted kimberlites are shown on the Interpretation Map overlay with the letter **K**. As a precautionary note, these so-called kimberlites may be merely massive magnetite plugs.

The last magnetic environment to be discussed is the horizon containing massive magnetite within an alteration zone near the Nipissing Diabase/ Espanola Formation contact. This alteration zone may extend into the overlying Serpent Formation. It has been noted that the base metal mineralization extends well into the alteration zone, away from the Nipissing Diabase intrusion. The same phenomenon occurs with the nickel-cobalt mineralization ie. well away from the magnetite. It would seem prudent therefore, that exploration for Ni-Co-Cu should be carried out near the contact CZ (contact zone) on the opposite side of the Nipissing Diabase. More will be said about this in a later section of this report.

The magnetic intensity for the CZ can be as high as 600 nT, with most of the activity in Hart Township. There are a few areas to the south, in Ermatinger Township that exhibit similar intensities as well. In the extreme southwest corner of the survey area, in Ermatinger Township, magnetite is suspected as the source, with or without the presence of Nipissing Diabase. Another potential contact zone (CZ) exists here.

5.3 Electromagnetics

The electromagnetic data was first checked by a line-by-line examination of the profile data set. Record quality was very good with only very minor noise levels on the mid-frequency coaxial coil pair and the high frequency coplanar coil pair. However, this was readily removed with a smoothing filter. Geological noise, in the form of surficial conductivity, is generally present on the mid frequency quadrature coaxial and coplanar coil pairs, as well as on both inphase and quadrature of the high frequency coplanar coil pairs.

Anomalies were picked off the analog traces of the mid and high frequency coaxial responses and then validated on the coplanar profile data. 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 from the analog data or surficial features not obvious on the analog charts.

As a result of this compilation of previous airborne surveys, it is very clear that this survey area contains both a locally conductive overburden cover and a bedrock that generally exhibits a very resistive background. The apparent resistivity of the basement rocks generally is in the order of 10,000 ohm-metres or greater. For those areas containing overburden cover, the apparent resistivity will be slightly lower.

The one unit that does display a range of conductivity is the lake bottom sediments. These topographical features exhibit apparent resistivities that are generally in the order of 3000 ohm-metres and in some areas, can be lower. For those areas containing the conductive lake bottom sediments and the few swamps that exist on land, the EM traces, particularly the quadrature traces, tend to be "tracking" each other. This is generally a sign that the conductive environment is a wide, flat-lying sheet, typical of a clay sequence within the lakes.

It is also interesting to note that in a number of areas within the survey area, the inphase EM responses for all frequencies are negative over such zones, 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 response. Examination of the EM profiles showed this particular phenomenon to exist within all portions of the survey area. In reference to the magnetic data presentation, these negative inphase EM responses mostly correlate with the contact zone (CZ) and the olivine diabase dikes. It does not seem to correlate with the Hess Offset dike.

5.4 VLF-EM Total Field

It is believed that the VLF-EM data will not be of much assistance in the locating of either Ni-Cu-PGE zones or replacement-type horizons. The sensitivities of the VLF frequencies are such that the depth of penetration will be very limited. It is generally believed that the VLF will penetrate to a depth of approximately 25 metres, but this would be under the best of conditions

In reference to the 5 frequency electromagnetic data, there is reasonable correlation with the VLF data. For the most part, the effects from the conductive lake bottom sediments have been intercepted.

With regard to the magnetic presentation, there would seem to be a good correlation between the VLF and the olivine diabase dikes in the eastern portion of the survey area. However, this phenomenon is due to the conductive river or creek bottoms in which the olivine diabase dikes were emplaced. The olivine diabase dikes have been susceptible to weathering and thus have created long, linear topographical lows.

5.5 Discussion of Results

This next section assesses the results of the airborne survey in more detail, specifically outlining potential targets to be further investigated in the field.

Each zone has been characteristically assessed for its magnetic relationship, its apparent resistivity significance and finally, its geophysical ranking ie. priority. Each of these criteria will assist the client in developing their exploration programs.

Seven (7) high priority targets have been outlined within the survey area. Only one (1) of the high priority targets involves a conductor, while six (6) involve magnetic features. There were also two (2) medium priority targets selected, which should be considered for further work, providing success is obtained on any of the other zones in the region.

The writers have outlined on the Interpretation Map overlay a number of EM and magnetic targets which have been assigned a letter and a number for the electromagnetic zones (C1, C2 etc.) and a letter only for the magnetic targets (A, B, C etc.).

As mentioned earlier, a few zones have been outlined in the survey area, which contain magnetic signatures consistent with kimberlite pipes. These zones, which have been outlined on the Interpretation Map overlays, will be discussed briefly as to their merits.

Zone C1

Towards the southwest corner of the survey area, Zone C1 has been outlined because of its rather low apparent resistivity. Even though it is located within a lake, the conductivity of this zone is quite a bit higher than that for surrounding lakes. The conductive zone, which coincides with a magnetic low, is located very close to a Nipissing Diabase – quartz monzonite contact. Only because of the exceptionally higher conductivity was this zone selected. It is believed that this zone may be located within ground held by Wallbridge Mining Co. Ltd.
Priority: low

Zone C2

These EM profiles indicate a flat-lying conductor. The fact that the two flight line intercepts are located within Clear Lake suggests that they may be related to highly conductive lake bottom sediments. Generally, most of the lakes in the region do exhibit some degree of conductivity, with an apparent resistivity in the order of 3000 ohm-metres or higher.

The writer has interpreted a contact zone (CZ) just to the west of Zone C2, indicating some possible Huronian metasediments in the area. Mafic dikes are also indicated in the area as well.
Priority: low

Zone C3

This isolated EM anomaly is located within an area mapped as massive felsic intrusive rocks. The cause of this anomaly is suspect. It may very well be related to instrument noise of the airborne system.
Priority: low

Zone C4

This zone was selected based on its apparent resistivity response. There are no lakes in the area, so one could not associate this anomaly with lake bottom sediments. The apparent resistivity for this anomaly is approximately 600 ohm-metres, which is quite a bit lower than any of the surrounding lakes and rivers. There is no magnetic association. The underlying rocks are massive felsic intrusive rocks.
Priority: low

Zone C5

The outlined target displays a very good EM response, with an apparent resistivity in the order of 300 ohm-metres. There is no magnetic association. Like Zone C4, the underlying rocks are massive felsic intrusive rocks. Again, there does not appear to be any lakes in this area, which could be a source for this EM response. It seems that the conductor is located between two olivine dikes, near the contact between a moderate magnetic background to the east and very low magnetic intensity to the west. This target is located just outside the property boundary, on ground that is believed to be held by INCO Limited.
Priority: low

Target A

This portion of the long east-southeast trending magnetic feature contains a large amount of magnetite, as noted from the negative EM response. In reference to the geology map, Serpent Formation rocks would be to the north of the interpreted fault zone, while massive felsic intrusive rocks are to the south of the fault. There may be some Espanola Formation rocks here that are not indicated on the geology map. There is however, a narrow dike of Nipissing Diabase located nearby.
Priority: low

Targets B-E

All four of these targets are located along or near the contact between the Espanola Formation to the west and Nipissing Diabase to the east. Each is somewhat of an isolated target, as they exhibit circular to oval-shaped magnetic responses. Targets B and C have the most magnetite content, as indicated by the negative EM response. This phenomenon can be seen on the EM Profile Map. As magnetite is involved and because of the observations of Osborne, these targets will be of interest for their replacement-type mineralization, similar to the Iron Mask deposit. If Osborne is correct, then one may also want to investigate the area to the west of the outlined targets, towards the west side of the magnetic anomalies. The geometrical shapes of these outlined targets, in the writer's opinion, also indicates the potential for kimberlites (annotated with the letter **K** on the Interpretation Maps). This is particularly true for Targets B and C.

A short distance to the west of Target C, A. Lacelle, from 1961 to 1969, trenched and diamond drilled Nipissing Diabase and Huronian metasediments (Lorrain Formation). A total of about 518 metres of diamond drilling encountered only minor disseminated pyrite. There were no EM responses intercepted in this airborne survey over this zone. It would seem that Target C is located to the east, closer to the Nipissing Diabase contact with Espanola Formation rock types. Target B is also an excellent zone to investigate.

According to a proprietary geology map of Champion Bear Resources Ltd., there is a showing termed the Cobalt Showing, that is located on or near Target D. This is another, albeit smaller magnetic anomaly that contains magnetite. This showing apparently has produced a section of 1.6 metres grading 16.9% Co, 7.3% Ni and 0.06 oz. Au. The writer is unaware whether or not this is a channel sample, chip sample or a drill hole section. These results up-grade the importance of Targets B and C to the south as they both contain more magnetite, hence possibly more alteration.

There are a few much weaker magnetic anomalies to the south of Target B and a couple to the north of Target E that could be given further consideration, providing there is success on the other four targets.
Priority: high

Target F

There is a reasonable amount of magnetite in this area as well, while there is no EM response. There is also an interpreted NW-SE fault zone just to the north, but this relationship to the zone, if any, is not known at this time. The rock types in the area have been indicated to be foliated felsic plutonic and migmatitic rocks to the north and Lorrain Formation arenite to the south. Target F may be totally within the foliated felsic plutonic and migmatitic rocks. If this is the case, then the target may be less interesting.
Priority: low

Target G

This is a long zone of alteration containing a significant amount of magnetite. The magnetic intensity is quite high, probably one of the highest within the survey area. The zone coincides with what this writer has termed a contact zone (CZ). This is a horizon of alteration material between Nipissing Diabase and Huronian metasediments. Previous exploration along this horizon (Iron Mask and Magnetite Shaft) has revealed the presence of potential replacement-type mineralization. The latter consists of Zn, Pb, Au, Ag, Ni, Cu, Co.

The contact zone is at least 8 kilometres long and its lateral extent varies between 200 and 400 metres wide. Since most of the mineralization tends to be contained within the Huronian metasediments and is located in close proximity to the magnetite horizon, it would seem prudent therefore that any further exploration should be carried out to the west of the magnetite horizon or the high intensity magnetic trend.

There are a few isolated magnetic anomalies to the west of the main magnetite horizons that may be of interest. There are also a few isolated trends east of the main magnetite horizon. The writer is unsure of their importance at this time, as they are located within massive felsic intrusive rocks, but they should be field tested.

As mentioned, there are at least two areas that have shown that Ni-Co exists, namely the Iron Mask and the Magnetite Showing (Target J). It would seem therefore, that there exists the potential for further discovery of similar mineralization along the western limits of the contact zone (CZ). Areas where there are cross-cutting faults would be priority areas to investigate.
Priority: high

Target H

This is another potential contact zone (CZ) where Nipissing Diabase is located to the east and Lorrain Formation rock types are to the west. The magnetite horizon is approximately one kilometer long and 100 metres wide. This trend seems to be separate from that of Target G and thus may have other interesting potential. It is just to the northeast of the Iron Mask showing, thus enhancing its possibilities. One should also note that there are a number of other magnetite horizons to the northeast of Target G and a short distance to the west of Target G. Each of these zones should be considered in any further exploration program.
Priority: medium

Target J

It is believed that this isolated, near circular magnetic anomaly coincides with the Magnetite Shaft. In the early 1950's, Cons. Mogul Mines Ltd. did some trenching and diamond drilled 12 holes totaling 696 metres, which encountered massive amounts of pyrrhotite, sphalerite, galena, pyrite, chalcopyrite, magnetite, cobaltite smaltite in brecciated, contact metamorphosed Huronian metasediments near a contact with Nipissing Diabase. Is this an Olympic Dam style environment? Salem Exploration late

in 1965, A. Landry in 1971 and Jar-Vin Magnetite Syndicate in 1972 carried out further exploration. The writer does not have the details on exactly where this exploration was carried out ie. with respect to the magnetite horizon. It is the writer's opinion that further exploration should be carried out to the west of the magnetite horizon. The interpreted cross-cutting fault zone may also have had some influence in the mineralizing process. One could also look at the contact to the west of Target J ie. along the western edge of the contact zone (CZ) termed Target G.
Priority: high

Target K

The Bardswich Deposit is a magnetite zone located at the western end of this contact zone (CZ). Previous work has established a body of magnetite mineralization containing approximately 500,000 tons to a vertical depth of 30 metres grading 34% Fe. Minor amounts of chalcopyrite are also present. The magnetic trend extends to the northeast into Clear Lake for approximately 2 kilometres. It is roughly 150 metres wide. Towards the south end, and located to the west of the main magnetite horizon are two isolated near circular magnetic anomalies that may be of interest. The exact location of the Bardswich Deposit is uncertain, but these two magnetic anomalies should be investigated, particularly near the west contact of the westernmost of these two anomalies. The magnetite mineralization ends abruptly against a unit of altered limestone (Espanola Formation) with disseminated pyrite and chalcopyrite a few metres thick along the contact. This target may have potential for copper, as opposed to an iron deposit.
Priority: medium

6. CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this airborne survey, ground follow-up is recommended for the selected targets as outlined on the Interpretation Map overlay. Each of the conductive zones and magnetic targets that have been recommended for further work would be of primary interest for either Cu-Ni-Co offset dike mineralization or replacement-type (Olympic Dam style) Zn-Pb-Ni-Co deposits.

In the eastern portion of this survey area, the target is offset dike mineralization, while in the southwestern region of the survey, the target is replacement-type deposits. There may or may not be offset dikes in the southwestern region. Interpretation of the magnetic data in the region outlined a few weak magnetic trends, which may be related to offset dikes. The offset dikes generally exhibit weak intensities, such as the magnetic trend for INCO's Rivers Showing. No electromagnetic conductors were recorded along the trend of the offset dike. Similar magnetic trends are present to the east and west of the Rivers Showing, each one of these should be investigated. It may be helpful to produce a 2^{nd} vertical derivative in order to enhance these weak magnetic trends.

High intensity magnetic features seem to be the 'horizon marker' for replacement-type horizons in the southwestern region of this airborne survey. Further reconnaissance work on these environments should be carried out along the western side of this magnetite contact. There are a number of these contact zones (CZ) in Hart Township, which will require a lot of detailed work in order to evaluate all of the potential targets.

Reconnaissance soil or till sampling could be carried out along these horizons, which hopefully would identify the most highly mineralized targets. Areas that have been affected by cross-cutting faults and targets exhibiting magnetic 'plugs' near the CZ may be areas to look at first.

Several magnetic anomalies have characteristics commonly associated with kimberlite pipes (letter **K** on the maps) and these have been outlined on the Interpretation Map overlays. Some of the most interesting magnetic anomalies are situated near the boundary of Hess and Harty Townships. These anomalies are located near olivine diabase dikes, particularly near the junction of two intersecting dikes. There are also a couple of interpreted potential kimberlite pipes just to the west of INCO's Rivers Showing. These too should be investigated further.

Ground follow-up work over a few of the selected areas, in the form of deep-penetrating, time domain geophysical surveys, may

contribute to a better understanding of the underlying potential for base metals. UTEM, Geonics EM 37 or EM 42, or DEEPEM are some of the ground systems to consider. A gravity survey for specific areas may also be considered, particularly over replacement-type showings.

The comments on a few of the targets outlined have been detailed within Section 5 to give some feeling for the various types of zones encountered. There are a number of interesting targets within the survey area that warrant further work. There may also be some possible base metal horizons that may not have been detected by the airborne EM system. Magnetics can often assist geological and geochemical exploration techniques to help locate sulphide targets. in order to assist with the outlining of a sulphide target.

Utilization of all resources, including geophysics, drill information and the compilation of this pseudo-geological map and till or soil (MMI or Enzyme Leach) surveys in conjunction with the calculated vertical gradient data over regions of the contact zone (CZ) and offset dikes should all be included as part of an on-going exploration program.

Respectfully submitted,

R. J. de Carle

Robert J. de Carle
Consulting Geophysicist
Geodatem Airborne Consultants

Joe Hinzer
Consulting Geologist
Watts, Griffis and McQuat Limited

APPENDIX I

REFERENCES

Card, K.D.
1965: Cartier Sheet, Districts of Sudbury and Algoma, Preliminary Geological Map P. 287, Ontario Department of Mines, Geological Compilation Series, scale 1 inch to 2 miles.

Card, K.D., and Innes, D.G.
1976: Benny Area, Spanish – Johnson Lakes Sheet, District of Sudbury; Ontario Division of Mines, Preliminary Map P. 1110, Geological Series, scale 1:15,840 or 1 inch to ¼ mile. Geology 1973,1974.

Card, K.D., and Innes, D.G.
1976: Benny Area, Cartier – Carhess Lake Sheet, District of Sudbury; Ontario Division of Mines, Preliminary Map P. 1111, Geological Series, scale 1:15,840 or 1 inch to ¼ mile. Geology 1973, 1974.

Card, K.D., and Innes, D.G.
1976: Benny Area, Genova – Munster Lakes Sheet, District of Sudbury; Ontario Division of Mines, Preliminary Map P. 1108, Geological Series, scale 1:15,840 or 1 inch to ¼ mile. Geology 1973, 1974.

Card, K.D., and Innes, D.G.
1981: Geology of the Benny Area, District of Sudbury; Ontario Geological Survey Report 206, 117p. Accompanied by Maps 2434 and 2435, scale 1:31,680 (1 inch to ½ mile), and 4 charts.

Champion Bear Res. Ltd.
2002: Proprietary Geology Maps, Iron Mask Property, Cartier Area, Sudbury Mining District, Ontario.

Choudhry, A.G.
1983: Precambrian Geology of Hart Township, Sudbury District; Ontario Geological Survey, Map P. 2599, Geological Series – Preliminary Map, scale 1:15,840 or 1 inch to ¼ mile. Geology 1982.

Choudhry, A.G.
1983: Precambrian Geology of Ermatinger Township, Sudbury District; Ontario Geological Survey, Map P. 2600, Geological Series – Preliminary Map, scale 1:15,840 or 1 inch to ¼ mile. Geology 1982.

Dressler, B.O.
1984: Sudbury Geological Compilation; Ontario Geological Survey Map 2491, Precambrian Geology Series, scale 1:50,000, geological compilation 1982-3.

Osborne, F.F.
1929: The Cartier – Stralak Area, District of Sudbury, Ontario Department of Mines, Vol. XXXVIII, Part VII, p.52-68.

Osborne, F.F.
1929: A Diabase Contact – Metamorphic Mineral Deposit in Ontario; Economic Geology, Vol. 24, p. 722-732.

APPENDIX II

CERTIFICATE OF QUALIFICATIONS

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

1. I hold a B. 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 thirty-two years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and I hold memberships as a Fellow in good standing in The Geological Association of Canada and 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 Champion Bear Resources Ltd., and from a review of the proprietary airborne geophysical survey flown by High-Sense Geophysics Limited for Champion Bear Resources Ltd. I have not personally visited the property.

6. I have no interest, direct or indirect, in the properties described, nor do I hold securities in Champion Bear Resources Ltd.

7. This report may be used for filing with the various regulatory bodies as may be required.

Signed,

R. J. de Carle

Palgrave, Ontario
August 30, 2002

Robert J. de Carle
Consulting Geophysicist

To Accompany the Report entitled
"INTERPRETATION REPORT
ON A
COMBINED HELICOPTER BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF-EM SURVEY
IRON MASK PROPERTY CARTIER BLOCKS
SUDBURY AREA, ONTARIO
For
Champion Bear Resources Ltd."
By
GEODATEM AIRBORNE CONSULTANTS
28 WESTVIEW CRESCENT
PALGRAVE ONTARIO L0N 1P0

ROBERT J. DE CARLE
dated August 30, 2002

I, Joe B. Hinzer, P.Geo. do hereby certify that:

1. I reside at 6395 Russell Street, Niagara Falls, Ontario, Canada, L2J 1P4.

2. I am graduated from the University of Waterloo in 1971 with a B.Sc. in Earth Sciences, and from the University of Western Ontario in 1977 with a M.Sc. in Geology, and have been practicing my profession continuously since 1972.

3. I am a practising member of the Association of Professional Geoscientists of Ontario, (No. 0146).

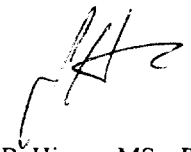
4. I am a Senior Geologist with Watts Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by the Professional Engineers Ontario since 1969.

5. I have worked extensively in the Archean terrain of Eastern Canada, exploring and evaluating a number projects including Cu-Ni-PGE mineralization in the Flying Loon Lake area of the English River Belt near Sioux Lookout, and the former Lorraine Mine near Belletere in Quebec, and the Sudbury area in general within geological environments similar to the Iron Mask property. I have also had more than 20 years experience in the design and supervision of airborne surveys and have worked closely with geophysicists during the interpretive phases.

6. I have visited the Iron Mask property on several occasions during the current calendar year as part of WGM's ongoing project supervision for Champion Bear Resources Ltd.

7. I have assisted in the preparation of the report and am in agreement with all the interpretations set forth.

8. I do not own, directly or indirectly, nor do I expect to receive, any interest in the properties or securities of Champion Bear Resources Ltd., or any associated or affiliated companies.



Joe B. Hinzer, MSc. P.Geo.
August 30, 2002

INTERPRETATION REPORT

INTERPRETATION OF AIRBORNE AEROTEM EM DATA
IRON MASK PROPERTY
HESS-HARTY TOWNSHIPS
SUDBURY AREA, ONTARIO

FOR

CHAMPION BEAR RESOURCES LTD.
2005, 9th ST. SW
CALGARY, ALBERTA T2T 3C4

BY

GEODATEM AIRBORNE CONSULTANTS
28 WESTVIEW CRESCENT
PALGRAVE, ONTARIO L0N 1P0

ROBERT J. DE CARLE
AUGUST 30, 2002

G1604

TABLE OF CONTENTS

1. INTRODUCTION

This report details the operation and interpretation of a helicopter-borne electromagnetic and magnetic survey flown for Champion Bear Resources Ltd. on August 14 and 16, 2002, over blocks of ground in both Hess and Harty Townships near Sudbury, Ontario (Figure 1). The system used was the Aeroquest AEROTEM time domain EM system.

Joe Hinzer of Watts, Griffis and McQuat Limited, geological consultants for Champion Bear Resources Ltd., commissioned the interpretation of this airborne data on May 7, 2002.

The primary objective for carrying out this survey was to locate mineralized Ni-Cu-PGE zones, which can be directly or indirectly related to offset dikes. Of importance in this survey area will be the Hess Offset Dike, which contains INCO's Rivers Showing. Also of interest in this area will be replacement-type (Olympic Dam) mineral deposits, which may occur within the Huronian metasediments, particularly in calcareous rocks of the Espanola Formation, near their contacts with Nipissing Diabase intrusions. This may be particularly true in southwestern Hess Township.

In reference to the electromagnetic data, one will pay particular attention to strong EM responses that may reflect moderate or steeply dipping conductors associated with the offset dikes. Also of interest will be poorly mineralized zones that may reflect disseminated sulphides within a footwall environment near the Nipissing Diabase intrusions.

Interpretation of the magnetic data may reveal the existence of structural effects, cross-cutting lithological patterns, and possible zones of pyrrhotite and magnetite within the offset dikes.

A total of 138 line kilometres of the recorded data for the Harty Block and 86 line kilometres for the Hess Block were compiled in map form and are presented as part of this report according to specifications outlined by Champion Bear Resources Ltd.

2. PROJECT LOCATION

The survey blocks are depicted on the index map as shown (Figure 1), and referenced to NTS 41 I 12, 13 and 14. They are centered in Hess and Harty Townships at Latitude 46 degrees 45 minutes north, Longitude 81 degrees 28 minutes west, approximately 45 kilometres northwest of Sudbury, Ontario. The survey blocks are also located east of the village of Cartier.

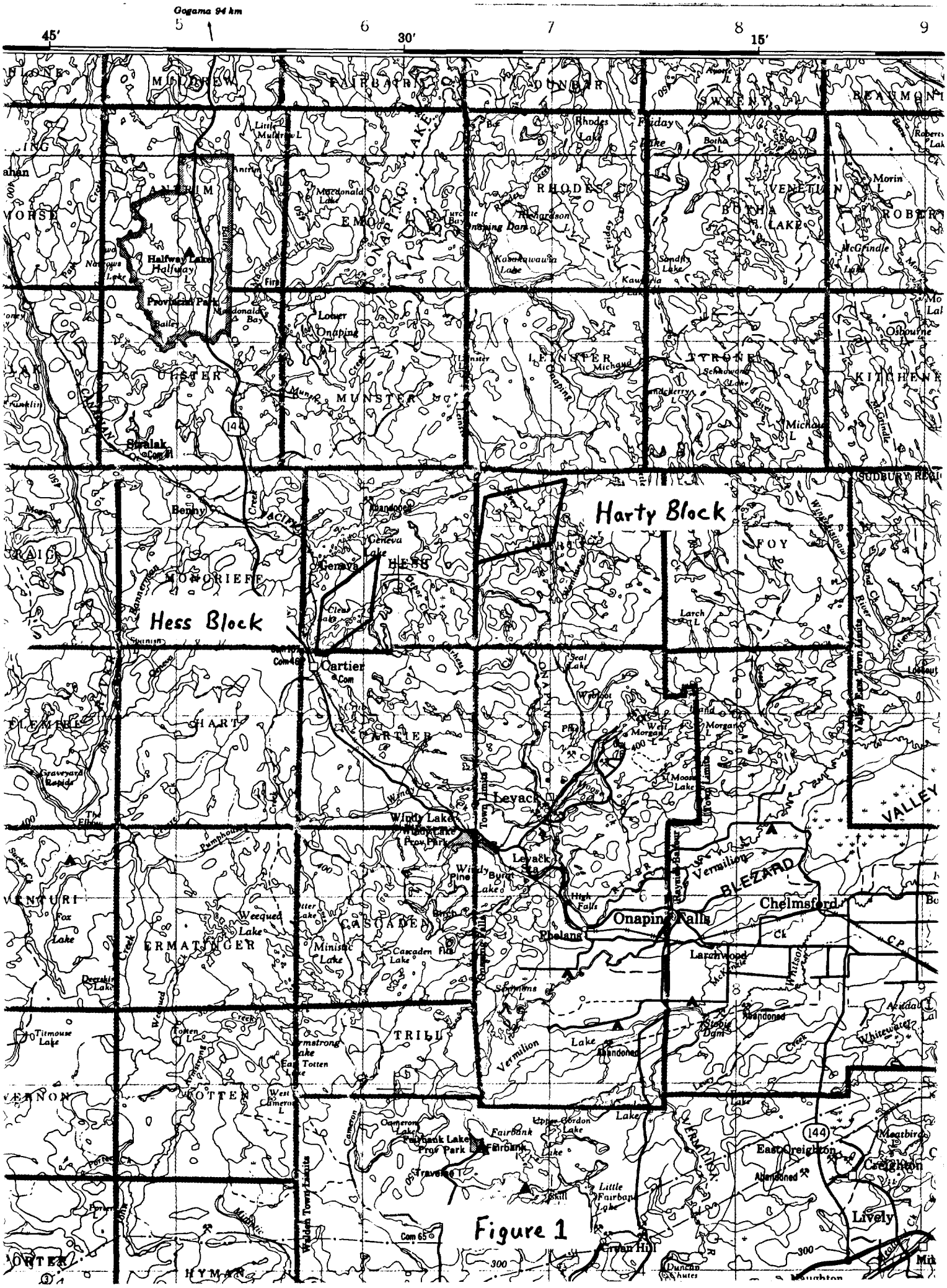
Access to the region can be made via Highway 144 from Sudbury, and then via numerous secondary or lumber roads, which lead into the survey area from the village of Cartier.

3. SURVEY OPERATIONS

Nominal EM bird terrain clearance was 25 metres. The magnetometer sensor was mounted in a smaller bird connected to the tow rope 21 metres above the EM bird and 17 metres below the helicopter. Nominal survey speed was 75 km/hr. Scan rates for data acquisition was 0.1 second for the magnetometer, electromagnetics and altimeter and 1.0 second for the GPS determined position. This translates to a geophysical reading about every 2 metres along flight track.

Navigation was assisted by a GPS receiver and the RMS data acquisition system, which reports GPS co-ordinates as WGS-84 latitude/longitude and directs the pilot over a pre-programmed survey grid. The x-y-z position of the aircraft, as reported by the GPS, is recorded at one second intervals. The GPS positions were differentially corrected in real time using the RACAL satellite based system.

Unlike frequency domain electromagnetic systems, the AEROTEM system has negligible drift due to thermal expansion and therefore high altitude zero calibration lines are not required. The inherent static offset is removed by identifying areas of no response and employing local leveling lines.


Gogama 94 km
45'
30'
15'
Harty Block
Hess Block
Figure 1

The operator was responsible for ensuring the instrument was properly warmed up prior to departure and that the instruments operated properly throughout the flight. He also maintained a detailed flight log during the survey noting the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp, the RMS acquisition system survey data on ZipDisk was downloaded to the data processing work station. The MDAS recorded data on JazzDisk was also downloaded to the processing station for back-up purposes. In-field processing included flight preparation, transfer of the RMS acquired data to Geosoft GDB database format and production of preliminary EM, magnetic contour, and flight path maps. Survey lines which showed excessive deviation after differential correction were reflown.

3.1 System Parameters

System Characteristics:

Transmitter:
Triangular Pulse Shape Base Frequency 30 or 150 Hz.
Tx On Time : 5,750 (30Hz) or 1,150 (150Hz) msec.
Tx Off Time : 10,915 (30Hz) or 2,183 (150Hz) msec.
Loop Diameter : 5 metres.
Peak Current : 250 Amp.
Peak Moment : 40,000 NIA.
Typical Z Axis Noise at Survey Speed : 8 ppb peak.
Sling Weight: 270 Kg.
Length of Tow Cable : 40 metres.
Bird Survey Height : 30 metres or less nominal.

Receiver:
Three Axis Receiver Coils (x,y,z) positioned at center of transmitter loop.
Selectable Time Delay to start of first channel 20, 40, or 60 msec.

Analog Display & Acquisition:
Six Channels per Axis.
Analogue Channel Widths : 85.3, 85.3, 170.7, 170.7, 341.3, 682.6 msec.
Recording & Display Rate : 10 readings per second.
Digital recording at 108 sample per decay curve at a maximum of 300 curves per second (16.67 or 83.34 msec channel width).

System Considerations:
Comparing a fixed-wing time domain transmitter with a typical moment of 500,000 NIA flying at an altitude of 120 m with a Helicopter TDEM at 30m, notwithstanding, the substantial moment loss in the airframe of the fixed-wing, the same penetration by the lower flying helicopter system would only require a sixty-fourth of the moment. Clearly the AEROTEM system with 40,000 NIA has more than sufficient moment.

The airframe of the fixed-wing presents a response to the towed bird, which must be compensated for dynamically. This problem is non-existent for AEROTEM since transmitter and receiver positions are fixed. The AEROTEM system is completely portable, and can be assembled at the survey site within half a day.

4. AIRCRAFT AND EQUIPMENT

4.1 Aircraft

A Eurocopter (Aerospatiale) AS350BA A-Star helicopter – registration C-FHAJ – owned and operated by Abitibi Helicopters Ltd., LaSarre, Quebec, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aeroquest Limited at the Abitibi Helicopter base in LaSarre. The survey aircraft was flown at a nominal terrain clearance of 120 metres.

4.2 Survey Personnel

The survey crew was made up of experienced employees:

Pilot:	Steve LaBranche
Operator/technician:	Bert Simon

4.3 Equipment

4.3.1 Electromagnetic System

The electromagnetic system employed was an Aeroquest AEROTEM Time Domain towed bird system. It is currently the only commercially available helicopter TDEM system using a coincident Tx-Rx loop combination. Six channels of the off-time EM decay are measured in two components, ie. The x and z directions. Although both x and z components of the decay field were recorded, only the z component data is presented in the final maps (although x1 appears in the stacked profiles). The transmitted waveform is triangular with a base frequency of 150Hz., yielding 300 decays per second. The Transmitter Dipole Moment is 48,000 NIA. The AEROTEM bird was towed 38 metres below the helicopter. More technical details of the system may be found in Section 3.1.

4.3.2 Magnetometer

The Aeroquest airborne survey system employed the Geometrics G-822A cesium vapour magnetometer sensor installed in a two metre towed bird airfoil attached to the main tow line, 17 metres below the helicopter. The sensitivity of the magnetometer is 0.001 nanoTesla at a 0.1 second sampling rate. The nominal ground clearance of the magnetometer bird was 51 metres.

4.4 Ancillary Systems

4.4.1 Magnetometer and GPS Base Station

An integrated GPS and magnetometer base station was set up at the base of operations to monitor the static position GPS errors to permit differential post-processing and to record the dirurnal variations of the earth's magnetic field. Each sensor, GPS and magnetic, receiver/signal processor was attached to a dedicated laptop computer for purposes of instrument control and/or data display and recording. The laptops were, in turn, linked together to provide a common recording time reference using the GPS clock.

The magnetometer was a GEM GSM-19 proton precession magnetometer configured to measure at 1 second intervals. The sensor was placed on a tripod away from potential noise sources. The clock of the base station was synchronized with GPS time in order to allow correlation with the airborne data. Digital recording resolution was 0.1 nT. A continually updated profile plot of the base station values was available for viewing on the base station display.

The GPS base station employed a Magnavox 4200-6 channel GPS receiver with external antenna. The static location of the antenna was recorded at one second intervals to allow differential corrections to be made to the helicopter GPS recorded flight path. The GPS base station was only used for back-up as the RACAL real time differential receiver system was installed in the helicopter.

4.4.2 Radar Altimeter

A Terra TRA 3500/TRI-30 radar altimeter was used to record terrain clearance. The antenna was mounted on the outside of the helicopter beneath the cockpit. The recorded data represented height of the antenna, ie. helicopter, above the ground. The recorded value of the helicopter clearance was in metres but it must be noted that it was reading (and recording) 3 metres too low. The bird height data in the digital data base and in the plots has been corrected for this error. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

4.4.3 Video Tracking and Recording System

A high resolution colour video camera was used to record the helicopter ground flight path along the survey lines. The video is digitally annotated with the GPS position and time and can be used to verify ground positioning information and cultural causes of anomalous geophysical data.

4.4.4 GPS Navigation System

The navigation system consisted of a Picodas PNAV navigation system comprising a PC based acquisition system, navigation software, a deviation indicator in front of the aircraft pilot to direct the flight, a full screen display with controls in front of the operator, an Ashtech GPS receiver card mounted in the PNAV console, an Ashtech GPS antenna mounted on the magnetometer bird, and the RACAL Mk III DGPS data receiver.

Survey co-ordinates are set up prior to survey and the information is fed into the airborne navigation system. The co-ordinate system employed in the survey design is NAD 83 UTM. The real time differentially corrected GPS positional data is recorded in WGS-84 latitude and longitude at one second intervals directly in the geophysical data file. The raw GPS data is also stored in a separate file by the acquisition system.

4.4.5 Digital Acquisition System

The RMS Instruments DGR33A data acquisition system was used to collect and record the geophysical and positional data. The data was recorded on 100Mb capacity Zip disks. See the specification notes in Section 3.1 for more technical details on the acquisition system.

5. DATA PRESENTATION

5.1 Electromagnetic Data

A two stage digital filtering process was used 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 filter used was a 0.8 sec. non-linear filter.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift, which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 2 seconds or 40 metres. This filter is referred to as a 2.0 sec linear filter.

EM anomalies would have been manually picked from the analogue profiles. Each anomaly would then have been given a letter label and graded according to the channel in which the anomaly is discernible and the direction of the excursion, either positive or negative. However, there were no anomalies intercepted in either block.

The EM channels have been leveled to remove the residual zero offset.

5.2 Magnetic Data

The aeromagnetic data were corrected for diurnal variations by adjustment using the magnetic base station and, where necessary, the intersections of the tie lines. No corrections for the regional reference field (IGRF) were applied. The corrected profile data were interpolated on to a grid using a random grid technique.

The cell size was 10 metres for the 1:10,000 grid. Any leveling errors still apparent in the magnetic grid were removed by micro-levelling, which involves the use of a frequency domain directional filter. The final leveled grid provided the basis for threading the presented contours. The minimum contour interval was 2 nT.

6. INTERPRETATION

6.1 Geology

The Hess-Harty Blocks are located in the southern extremes of the Western Abitibi Subprovince, just to the northwest of the Sudbury Basin. It is also situated within the eastern limits of the Ramsey-Algoma granitoid complex. There are also areas, which contain outliers of the Huronian Supergroup.

The Benny Greenstone Belt, which contains both the Geneva Assemblage and the Bluewater Assemblage, underlies the region to the north of both survey blocks. It is the Geneva Assemblage, which is closest to this survey area. It consists of calc-alkalic andesite and dacitic-rhyolitic flows, pyroclastic tuffs and breccias, and cherty and calcareous metasedimentary rocks, graphitic shale and minor turbidite.

Only one formation of the Huronian Supergroup underlies a portion of the Hess survey area. It is the Espanola Formation. For the most part, these rocks occupy a narrow zone, which have a northeast strike, in the southwestern portion of Hess Township. The Espanola Formation is the earliest, significant carbonate-

bearing formation of the Huronian Supergroup and, in places, can be lithostratigraphically subdivided into 3 parts: a lower carbonate member, a middle siltstone-wacke-arenite member, and a dolomitic member at the top.

Intruding all of the above rock types are the Nipissing Diabase rocks, which consists mainly of pyroxene gabbro and hornblende gabbro, with minor amounts of feldspathic pyroxenite, gabbroic anorthosite and granophyre. These rocks form mafic dikes, sills and cone sheets. These rock types occur throughout both survey areas.

Granitoid rocks of the Ramsey-Algoma complex also underlie most regions of each survey block. These rocks are generally granitic, granodioritic, granitic gneiss and syenite intrusions.

One of the last magmatic events is the intrusion of the offset dikes. The offset dikes of the Offset Sublayer either extend approximately radially from the Sudbury Igneous Complex or lie concentrically in the country rocks. Quartz diorite is the dominant rock type and, as with the Contact Sublayer of the Sudbury Igneous Complex, is characterized by a variety of inclusions and low sulphide mineralization.

Three types of quartz diorite occur in the dikes, hypersthene quartz diorite, two-pyroxene quartz diorite and amphibole-biotite quartz diorite.

Sulphide minerals within the offset dikes appear to be spatially, and possibly also genetically, associated with mafic and ultramafic exotic inclusions. This association and the intermediate composition of the quartz diorite suggest that the quartz diorite was not the source for the sulphides. The mineralization was passively transported to its present position by the quartz diorite magma. Ore bodies in offset dikes tend to occur in areas of high inclusion/fragment concentration, as well as areas of geometric change of the host dikes.

The offset dike within this survey area is referred to as the Hess Offset. It is located in the western portion of the Harty Block. Its westerly and easterly extentions are unknown at this point.

Across most areas of the Harty Block, there are numerous northwest trending diabase dikes, known as the Sudbury Dike Swarm.

There are currently no known economic mineral deposits within this survey area. Ni-Cu-Co showings, including INCO's Rivers Showing in Hess Township, are believed to be associated with the Hess Offset Dike.

The Fe-Cu showing, referred to as the Bardswich Deposit, is located near the southwestern corner of Hess Township. Magnetite mineralization replaces carbonate-rich rocks of the Espanola Formation that form a fault-bounded outlier enclosed within Early Precambrian granitic rock. The Espanola Formation is intruded by a Nipissing Diabase body on the south. Exploration has outlined a body of magnetite mineralization containing 456,800 long tons to a vertical depth of 30m of rock grading an estimated 34% iron in the form of magnetite. Minor amounts of copper in the form of chalcopyrite are also present.

6.2 Magnetics

The aeromagnetic data clearly shows a variance in the magnetic intensity across the entire survey area, ranging from 56,878 nT in areas of foliated to sheared plutonic rocks and Huronian sediments to as high as 57,230 nT over areas considered to be underlain with the replacement magnetite. The highest magnetic intensities are from those areas containing the massive magnetite. This occurs within alteration zones termed in this report as contact zones (CZ).

The massive felsic intrusive rocks display a slightly lower magnetic intensity. This magnetism is the result of many magnetite dikes within this rock group, however, the dikes are narrow and the magnetite content is quite low.

The Nipissing Diabase intrusions exhibit variable magnetic intensity, which in this area are generally on the higher side. Since these intrusions vary in geometry, from sills to dikes, their magnetic signatures can vary as well. There is often a masking effect, particularly if the diabase is located close to a zone of massive magnetite within a contact zone.

Olivine diabase dikes criss-cross the Harty Block. They generally exhibit moderate to high magnetic intensity. For most areas, the magnetic data has extended known dikes, as well as uncovering new ones.

One of the more interesting magnetic features within this survey area is the occurrence of "bulls-eye" magnetic highs. These are the anomalies that may be characteristically associated with kimberlite pipes, which are sometimes the host rocks for the accumulation of diamonds. The more obvious "bulls-eye" magnetic highs exhibit a circular annotation, while some of the others display a more oval shape.

Kimberlitic material can also be introduced into a dike-like structure, similar to a diabase dike. One of the idealized characteristics of kimberlite structures is that they generally are contained within clusters. In other words, if one pipe is found, then others are suspected to be in variable proximity. Their means of introduction into the near surface elements is not part of this report, but can be summarized however, by stating that kimberlites will generally be introduced through deep fracture zones into a dominant stable region.

Harty Block

The most striking magnetic features within this block are the northwest to west-northwest trending olivine diabase dikes. They tend to exhibit the highest magnetic intensities, more so than any of the thin magnetite lenses within the massive felsic intrusive rocks.

Across the central region of the block, the Nipissing Diabase rocks exhibit moderate magnetic intensities. The outline of the magnetic features tends to correlate with what has been mapped in the field.

Towards the northeast corner of the block, the higher magnetic intensities would tend to suggest that perhaps there is more Nipissing Diabase than is exposed on surface. The author has also interpreted a number of olivine diabase dikes in this area.

There are a few areas outlined as mafic dikes, some of which coincide with mapped dikes.

Four magnetic anomalies have been outlined within this block as potential kimberlite pipes. They have been designated with a **K** on the Interpretation Map. They are approximately 150 metres in diameter, with one located quite close to an olivine diabase dike. The latter's magnetic intensity is 60 nT. The three potential pipes in the northeast corner were selected based on their geometrical shapes and 'clustering effect'. There is still the distinct possibility that massive magnetite within mafic dikes, hosted by massive felsic intrusive rocks, is the source for each target.

The total field aeromagnetic data was not applicable for outlining the Hess Offset Dike. Neither the southern trend nor the northern trend, as indicated on the Interpretation Map, displayed any magnetic susceptibility. One should keep in mind that the magnetic intensities over such dikes are generally less than 10 nT. The 2nd Vertical Derivative data did show some local correlation (outlined on the map as **Target A**) with mapped dikes. These zones however were of limited extent and may only be co-incident.

The displacement of the offset dike, in a few areas, may be explained by fault structures parallel to the olivine diabase dikes. Cross-cutting faults have also been interpreted.

Hess Block

The massive felsic intrusive rocks exhibit a low to moderate intensity magnetic background. Within this widespread rock unit, there are also a few mafic dikes.

Two olivine dikes have been interpreted, one across the central region of the block and a second towards the extreme northern portion. Both dikes exhibit moderate to high magnetic intensities.

One of the most striking magnetic feature within the Hess Block is what the writers have termed the contact zone (CZ). This is interpreted to be the alteration zone between the Nipissing Diabase intrusion rocks to the south and the Espanola Formation rocks to the north. The zone is highly altered and contains massive magnetite along a trend that extends for approximately 150 metres. Towards the south end of this long trend is the Fe-Cu zone known as the Bardswich Deposit. **Target C** is thought to be the location of this zone.

The contact zone (CZ) is at least 2 kilometres long, perhaps displaced by a thrust fault near the south end. There is also a distinct possibility that a NW fault has displaced the contact zone near the north end, resulting in an extention. However, there does not appear to be any Huronian Supergroup rocks (Espanola Formation) in this area and thus the replacement-type relationship may not exist. Alternatively, this magnetic feature may be due to magnetite seams within the massive felsic intrusive rocks.

An interesting phenomenon which exists within this block is the existence of four (4) isolated, circular to oval shaped magnetic

anomalies. They have been designated as **Targets B to E** . Because of their geometrical shapes, they may potentially be related to kimberlite pipes.

Target B is located very close to a metagabbro – porphyritic quartz monzonite contact. As such, the source may have no association as a replacement-type body. The major Clear Lake Fault traverses through the area and thus may have had a role in the emplacement of a potential kimberlite pipe.

It is believed that **Target C** may be the magnetic anomaly that coincides with the Bardswich Fe-Cu Deposit. Its magnetic intensity is extremely high. One will note its isolation and separation from the longer main contact zone (2^{nd} Vertical Derivative). At this point, faulting and folding have played a crucial role in the structure of the surrounding region.

In reference to Geology Map 2435, it is noted that the long narrow contact zone (CZ) is located entirely within the Nipissing Diabase rocks. The significance of this fact is unknown at this time. It is possible however, that the Nipissing Diabase, as a thin sill, is lying on top of Huronian Supergroup rocks. The possible relationship between pyrrhotite and any Ni-Cu mineralization should also be investigated.

Targets D and E may be other isolated anomalies related to potential kimberlite pipes. The geology is unknown on Geology Map 2435, although quartz monzonite may be the rock types.

Access to each of these targets will be very easy, as they are all within one (1) kilometre of the village of Cartier.

6.3 AEROTEM

The electromagnetic data was first checked by a line-by-line examination of the analog data. Record quality was very poor, with background noise levels for one of the flights well above 50 ppb. Even after removing this noise level with a smoothing filter,

no EM anomalies that could be related to bedrock sources with any degree of confidence were identified.

No EM anomalies were recorded over either the Hess Offset Dike in Harty Township or over the Bardswich massive magnetite zone in southwestern Hess Township. Although the AEROTEM system did not intercept any conductors, disseminated sulphides (Cu) may still exist in both environments.

7. CONCLUSIONS AND RECOMMENDATIONS

No electromagnetic responses were intercepted that could be ascribed to bedrock sources. The background noise levels were very high, thus negating the possibility of detecting very weak EM responses.

The aeromagnetic data, on the other hand, has rendered some positive results, especially for Olympic Dam replacement-type environments in the Hess Block.

The 2nd Vertical Derivative, which was computed from the total field magnetic data had some limited correlation with offset dike material locally. **Target A** shows a weak magnetic trend that appears to strike parallel to the dike. These few very weak magnetic intensity features in this block may only be lateral influences from stronger magnetic anomalies.

In southwestern Hess Township, the strong magnetic trend is related to massive magnetite along or near the contact zone (CZ) between the Espanola Formation rocks and the Nipissing Diabase. Examination of the area approximately 200 metres on either side of the magnetic trend for Olympic Dam replacement-type mineralization is recommended.

Faulting near the west end of the contact zone (CZ) in Hess Township may have resulted in the displacement and offset of the long alteration horizon, producing **Targets B-E**. Alternatively, these four near circular magnetic anomalies may be related to

potential kimberlite pipes. Ground reconnaissance surveys are needed, in order to confirm the source. Four magnetic anomalies have also been outlined in the Harty Block as well.

The interpretation of the airborne geophysical data that was acquired from this helicopter-borne geophysical survey identified a number of anomalies requiring follow-up. It is recommended that this include compiling all information, including geophysics, geological mapping, diamond drill hole information and till or soil sampling over regions of interest in conjunction with the magnetic targets previously described. This will provide additional critical information for prioritizing targets and may lead to a successful on-going exploration program for diamondiferous kimberlite pipes and Olympic Dam replacement-type deposits.

Respectfully submitted,

R. J. de Carle

Robert J. de Carle
Consulting Geophysicist
Geodatem Airborne Consultants

Joe Hinzer
Consulting Geologist
Watts, Griffis and McOuat Limited
August 30, 2002

APPENDIX I

REFERENCES

Card, K.D. and Lumbers, S.B.
1977: Sudbury – Cobalt, Geological Compilation Series, Ontario Geological Survey, Map 2361, scale 1:253,440.

Card, K.D.
1965: Cartier Sheet, Districts of Sudbury and Algoma, Preliminary Geological Map P. 287, Ontario Department of Mines, Geological Compilation Series, scale 1 inch to 2 miles.

Card, K.D., and Innes, D.G.
1981: Geology of the Benny Area, District of Sudbury; Ontario Geological Survey Report 206, 117p. Accompanied by Maps 2434 and 2435, scale 1:31,680 (1 inch to ½ mile), and 4 charts.

Champion Bear Res. Ltd.
2002: Proprietary Geology Maps, Iron Mask Property, Cartier Area, Sudbury Mining District, Ontario, scale 1:100,000.

Dressler, B.O.
1984: Sudbury Geological Compilation; Ontario Geological Survey Map 2491, Precambrian Geology Series, scale 1:50,000, geological compilation 1982-3.

Gandhi, S.S. and Bell, R.T.
1996: Kiruna/Olympic Dam – type iron, copper, uranium, gold, silver; in Geology of Canadian Mineral Deposit Types, (ed.) O.R. Eckstrand, W.D. Sinclair, and R.I. Thorpe; Geological Survey of Canada, Geology of Canada, no. 8, p. 513-522.

Osborne, F.F.
1929: The Cartier – Stralak Area, District of Sudbury, Ontario Department of Mines, Vol. XXXVIII, Part VII, p.52-68.

Osborne, F.F.
1929: A Diabase Contact – Metamorphic Mineral Deposit in Ontario; Economic Geology, Vol. 24, p. 722-732.

Pye, E.G. 1991: The Sudbury Structure; in Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 1, p. 609-610.

APPENDIX II

CERTIFICATE OF QUALIFICATIONS

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

1. I hold a B. 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 thirty-two years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and I hold memberships as a Fellow in good standing in The Geological Association of Canada and 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 Champion Bear Resources Ltd., and from a review of the proprietary airborne geophysical survey flown by Aeroquest Limited for Champion Bear Resources Ltd. I have not personally visited the property.

6. I have no interest, direct or indirect, in the properties described, nor do I hold securities in Champion Bear Resources Ltd.

7. This report may be used for filing with the various regulatory bodies as may be required.

Signed,

R. J. de Carle

Palgrave, Ontario
August 30, 2002

Robert J. de Carle
Consulting Geophysicist

To Accompany the Report entitled
"INTERPRETATION OF AEROTEM EM DATA IRON MASK PROPERTY HESS-HARTY TOWNSHIPS SUDBURY AREA, ONTARIO
for Champion Bear Resources Ltd."
By
GEODATEM AIRBORNE CONSULTANTS
28 WESTVIEW CRESCENT
PALGRAVE ONTARIO L0N 1P0

ROBERT J. DE CARLE
dated August 30, 2002

I, Joe B. Hinzer, P.Geo. do hereby certify that:

1. I reside at 6395 Russell Street, Niagara Falls, Ontario, Canada, L2J 1P4.

2. I am graduated from the University of Waterloo in 1971 with a B.Sc. in Earth Sciences, and from the University of Western Ontario in 1977 with a M.Sc. in Geology, and have been practicing my profession continuously since 1972.

3. I am a practising member of the Association of Professional Geoscientists of Ontario, (No. 0146).

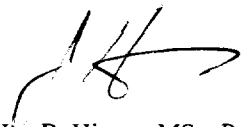
4. I am a Senior Geologist with Watts Griffis and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by the Professional Engineers Ontario since 1969.

5. I have worked extensively in the Archean terrain of Eastern Canada, exploring and evaluating a number projects including Cu-Ni-PGE mineralization in the Flying Loon Lake area of the English River Belt near Sioux Lookout, and the former Lorraine Mine near Belletere in Quebec, and the Sudbury area in general within geological environments similar to the Iron Mask property. I have also had more than 20 years experience in the design and supervision of airborne surveys and have worked closely with geophysicists during the interpretive phases.

6. I have visited the Iron Mask property on several occasions during the current calendar year as part of WGM's ongoing project supervision for Champion Bear Resources Ltd.

7. I have assisted in the preparation of the report and am in agreement with all the interpretations set forth.

8. I do not own, directly or indirectly, nor do I expect to receive, any interest in the properties or securities of Champion Bear Resources Ltd., or any associated or affiliated companies.



Joe B. Hinzer, MSc. P.Geo.
August 30, 2002

To: Geoscience Assessment Office
From: Champion Bear resources Ltd
Date: April 2, 2003
Re: Submission No. 2.24827 / Transaction No. W0370.00089

Please be advised that the Airborne Geophysical data which forms the basis for this interpretation was originally filed as Submission No. 2.19240. The reader is advised to check this file to review all the original survey data.

Joe Hinzer

Agent for Champion Bear Resources Ltd

ONTARIO

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

Work Report Summary

Transaction No: W0370.00089 **Status:** APPROVED
Recording Date: 2003-JAN-17 **Work Done from:** 2002-MAY-07
Approval Date: 2003-APR-02 **to:** 2002-AUG-30

Client(s):

116945 CHAMPION BEAR RESOURCES LTD.

Survey Type(s):

DATA

41I14SW2014 2.24827 LEINSTER

900

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
S 1043524	$275	$275	$0	$0	$275	275	$0	$0	2004-AUG-03
S 1098665	$172	$172	$0	$0	$172	172	$0	$0	2004-APR-25
S 1098666	$172	$172	$0	$0	$172	172	$0	$0	2004-APR-25
S 1163246	$120	$120	$0	$0	$120	120	$0	$0	2004-MAR-03
S 1164300	$17	$17	$17	$17	$0	0	$0	$0	2003-OCT-08 E
S 1174455	$206	$206	$0	$0	$206	206	$0	$0	2004-APR-12
S 1174456	$224	$224	$0	$0	$224	224	$0	$0	2004-APR-12
S 1174457	$120	$120	$0	$0	$120	120	$0	$0	2004-APR-19
S 1174459	$17	$17	$0	$0	$17	17	$0	$0	2004-MAY-17
S 1174460	$34	$34	$0	$0	$34	34	$0	$0	2004-MAY-17
S 1179399	$69	$69	$0	$0	$69	69	$0	$0	2003-MAY-14 E
S 1179646	$220	$220	$0	$0	$220	220	$0	$0	2004-APR-02
S 1179647	$330	$330	$0	$0	$330	330	$0	$0	2004-APR-02
S 1179649	$549	$549	$0	$0	$549	549	$0	$0	2004-APR-02
S 1197716	$103	$103	$0	$0	$103	103	$0	$0	2004-FEB-23
S 1197717	$206	$206	$0	$0	$206	206	$0	$0	2004-FEB-23
S 1197718	$155	$155	$0	$0	$155	155	$0	$0	2004-FEB-23
S 1197722	$275	$275	$0	$0	$275	275	$0	$0	2004-FEB-23
S 1197723	$206	$206	$0	$0	$206	206	$0	$0	2004-FEB-23
S 1203893	$206	$206	$0	$0	$206	206	$0	$0	2004-MAY-25
S 1203894	$34	$34	$0	$0	$34	34	$0	$0	2004-MAY-25
S 1210838	$34	$34	$800	$800	$0	0	$0	$0	2004-JAN-18
S 1210839	$275	$275	$3,133	$3,133	$0	0	$0	$0	2004-JAN-18
S 1210840	$206	$206	$4,800	$4,800	$0	0	$0	$0	2004-JAN-18
S 1210841	$69	$69	$1,600	$1,600	$0	0	$0	$0	2004-JAN-18
S 1210842	$103	$103	$2,400	$2,400	$0	0	$0	$0	2004-JAN-18
S 1211181	$34	$34	$0	$0	$34	34	$0	$0	2003-AUG-24
S 1211272	$34	$34	$0	$0	$34	34	$0	$0	2003-AUG-24
S 1211355	$17	$17	$0	$0	$17	17	$0	$0	2003-AUG-24
S 1211360	$69	$69	$0	$0	$69	69	$0	$0	2003-AUG-24
S 1211361	$17	$17	$0	$0	$17	17	$0	$0	2003-AUG-24
S 1214588	$275	$275	$0	$0	$275	275	$0	$0	2004-FEB-23
S 1214589	$189	$189	$0	$0	$189	189	$0	$0	2004-FEB-23
S 1214631	$241	$241	$0	$0	$241	241	$0	$0	2003-MAY-14 E
S 1214820	$103	$103	$0	$0	$103	103	$0	$0	2004-JUN-26

Work Report Summary

Transaction No: W0370.00089 **Status:** APPROVED
Recording Date: 2003-JAN-17 **Work Done from:** 2002-MAY-07
Approval Date: 2003-APR-02 **to:** 2002-AUG-30

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
S 1214821	$17	$17	$0	$0	$17	17	$0	$0	2004-JUN-25
S 1214955	$147	$147	$0	$0	$147	147	$0	$0	2004-APR-08
S 1214994	$275	$275	$0	$0	$275	275	$0	$0	2004-JUN-13
S 1215824	$586	$586	$0	$0	$586	586	$0	$0	2003-OCT-08 E
S 1218244	$549	$549	$0	$0	$549	549	$0	$0	2003-OCT-08 E
S 1218245	$147	$147	$0	$0	$147	147	$0	$0	2004-APR-08
S 1218246	$73	$73	$0	$0	$73	73	$0	$0	2004-APR-08
S 1218247	$110	$110	$0	$0	$110	110	$0	$0	2004-APR-08
S 1221541	$206	$206	$0	$0	$206	206	$0	$0	2003-SEP-07
S 1221542	$103	$103	$0	$0	$103	103	$0	$0	2003-SEP-06
S 1221543	$34	$34	$0	$0	$34	34	$0	$0	2003-SEP-06
S 1221544	$17	$17	$0	$0	$17	17	$0	$0	2003-SEP-06
S 1223180	$155	$155	$0	$0	$155	155	$0	$0	2004-APR-02
S 1223181	$172	$172	$0	$0	$172	172	$0	$0	2004-APR-02
S 1224157	$413	$413	$0	$0	$413	413	$0	$0	2003-OCT-08 E
S 1229424	$86	$86	$0	$0	$86	86	$0	$0	2003-OCT-16
S 1229436	$17	$17	$0	$0	$17	17	$0	$0	2003-SEP-06
S 1229443	$69	$69	$0	$0	$69	69	$0	$0	2004-MAR-02
S 1229444	$34	$34	$0	$0	$34	34	$0	$0	2004-MAR-02
S 1229729	$206	$206	$0	$0	$206	206	$0	$0	2004-FEB-23
S 1230272	$103	$103	$0	$0	$103	103	$0	$0	2004-JUL-15
S 1230759	$206	$206	$0	$0	$206	206	$0	$0	2004-JUN-19
S 1230789	$220	$220	$0	$0	$220	220	$0	$0	2004-FEB-27
S 1230804	$206	$206	$206	$206	$0	0	$0	$0	2003-APR-02 E
S 1230847	$36	$36	$0	$0	$36	36	$0	$0	2004-APR-20
S 1230856	$206	$206	$0	$0	$206	206	$0	$0	2004-MAR-16
S 1231174	$586	$586	$0	$0	$586	586	$0	$0	2004-APR-02
S 1231175	$206	$206	$0	$0	$206	206	$0	$0	2003-OCT-08 E
S 1231176	$586	$586	$0	$0	$586	586	$0	$0	2003-OCT-08 E
S 1231178	$73	$73	$0	$0	$73	73	$0	$0	2004-APR-16
S 1231179	$366	$366	$0	$0	$366	366	$0	$0	2004-APR-16
S 1235410	$275	$275	$0	$0	$275	275	$0	$0	2004-FEB-23
S 1235411	$138	$138	$0	$0	$138	138	$0	$0	2004-FEB-23
S 1241361	$206	$206	$0	$0	$206	206	$0	$0	2004-JUL-15
S 1241362	$17	$17	$0	$0	$17	17	$0	$0	2004-JUL-15
S 1241363	$17	$17	$0	$0	$17	17	$0	$0	2004-JUL-15
S 1241364	$69	$69	$0	$0	$69	69	$0	$0	2004-JUL-15
S 1246436	$275	$275	$0	$0	$275	275	$0	$0	2004-FEB-21
S 1249906	$34	$34	$0	$0	$34	34	$0	$0	2004-JUN-22
S 3002857	$119	$119	$0	$0	$119	119	$0	$0	2004-AUG-02

Work Report Summary

Transaction No: W0370.00089 **Status:** APPROVED
Recording Date: 2003-JAN-17 **Work Done from:** 2002-MAY-07
Approval Date: 2003-APR-02 **to:** 2002-AUG-30

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
S 3002858	$220	$220	$0	$0	$220	220	$0	$0	2004-AUG-02
	$12,956	$12,956	$12,956	$12,956	$12,046	$12,046	$0	$0	

External Credits: $0

Reserve:

$0 Reserve of Work Report#: W0370.00089

$0 Total Remaining

Status of claim is based on information currently on record.

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

GEOSCIENCE ASSESSMENT OFFICE
933 RAMSEY LAKE ROAD, 6th FLOOR
SUDBURY, ONTARIO
P3E 6B5

Tel: (888) 415-9845
Fax:(877) 670-1555

Date: 2003-APR-02

CHAMPION BEAR RESOURCES LTD.
2005-9TH STREET, S.,W.,
CALGARY, ALBERTA
T2T 3C4 CANADA

Submission Number: 2.24827
Transaction Number(s): W0370.00089

Dear Sir or Madam

Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

Thank you for your prompt response to the 45-Day Notice dated March 17, 2003. The revisions outlined in the Notice have been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form that accompanied this submission.

If you have any question regarding this correspondence, please contact STEVEN BENETEAU by email at steve.beneteau@ndm.gov.on.ca or by phone at (705) 670-5855.

Yours Sincerely,

Ron Gashinski
Senior Manager, Mining Lands Section

Cc: Resident Geologist

Champion Bear Resources Ltd.
(Claim Holder)

Joe Hinzer
(Agent)

Assessment File Library

Champion Bear Resources Ltd.
(Assessment Office)

41I14SW2014 2.24827 LEINSTER 200

ONTARIO CANADA — MINISTRY OF NORTHERN DEVELOPMENT AND MINES — PROVINCIAL MINING RECORDER'S OFFICE

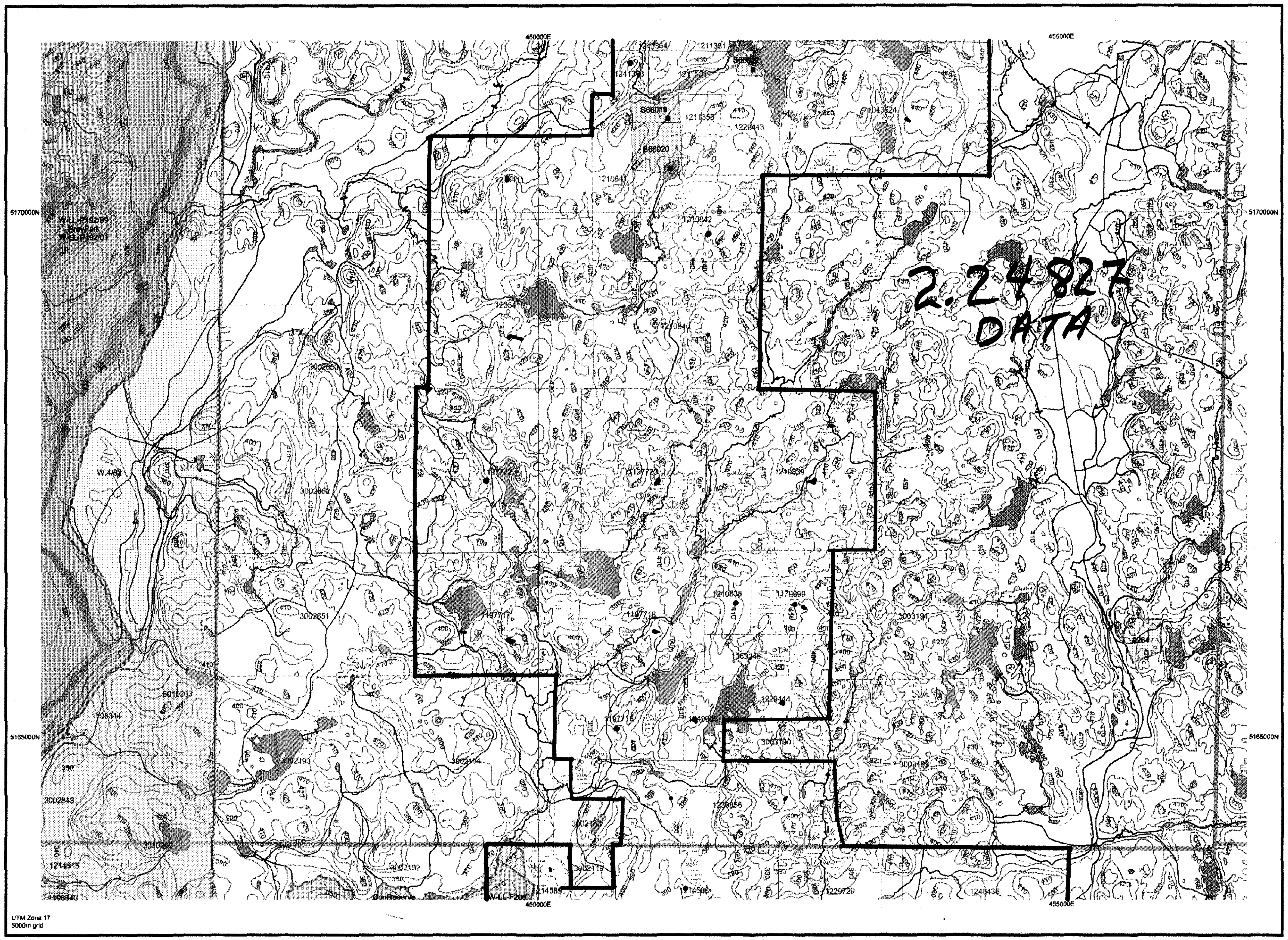
Mining Land Tenure Map

Date / Time of Issue: Thu Apr 03 09:39:47 EST 2003

TOWNSHIP / AREA HART — **PLAN** G-4058

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Sudbury
Land Titles/Registry Division	SUDBURY
Ministry of Natural Resources District	SUDBURY



TOPOGRAPHIC: Administrative Boundaries; Township; Concession, Lot; Provincial Park; Indian Reserve; Cliff, Pit & Pile; Contour; Mine Shafts; Mine Headframe; Railway; Road; Trail; Natural Gas Pipeline; Utilities; Tower

Land Tenure: Freehold Patent — Surface And Mining Rights; Surface Rights Only; Mining Rights Only. Leasehold Patent — Surface And Mining Rights; Surface Rights Only; Mining Rights Only. Licence of Occupation — Uses Not Specified; Surface And Mining Rights; Surface Rights Only; Mining Rights Only. Land Use Permit; Order In Council (Not open for staking); Water Power Lease Agreement; Mining Claim; Filed Only Mining Claims

LAND TENURE WITHDRAWALS: Areas Withdrawn from Disposition. Mining Acts Withdrawal Types: Wsm Surface And Mining Rights Withdrawn; Ws Surface Rights Only Withdrawn; Wm Mining Rights Only Withdrawn. Order In Council Withdrawal Types: W'sm Surface And Mining Rights Withdrawn; W's Surface Rights Only Withdrawn; W'm Mining Rights Only Withdrawn.

IMPORTANT NOTICES

Scale 1:40000 — 700m 0m 2.1km

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
6013	Wsm	Jan 1, 2001	PENDING AGGREGATE APPLICATION
6264	Wsm	Jan 1, 2001	PENDING AGGREGATE APPLICATION
Cat. 11	Wsm	May 16, 2001	Aggregate Permit #55336 for Bedrock
ConReserve	Wsm	Dec 21, 2000	Cartier Moraine Conservation Reserve
ConReserve	Wsm	Dec 21, 2000	Centre Creek Old Growth White Pine Conservation Reserve
W-48/86	Wsm	May 21, 1986	SEC.36/80 W-48/86 21 MAY 1986 S+M 188654
W-LL-C202/99	Wsm	May 10, 1999	SEC35 W-LL-C202/99 ONT MAY 10/99 M&S - Notice, this withdrawal area has no
W-LL-C206/99	Wsm	May 12, 1999	SEC. 35 W-LL-C206/99 ONT MAY 12/99 M&S - Notice, this withdrawal area has
W-LL-F192/01	Wsm	Jul 21, 2001	SEC. 35 W-LL-F192/01 ONT JULY 21/01 M+S
W-LL-F206	Wsm	Feb 26, 2002	<a href=" http://www.mndm.gov.on.ca/MNDM/MINES/LANDS/livleg/gtlks/2002orders/
W-S-07/01	Wsm	Feb 1, 2001	Sec. 35 W-S-07/01 2001/02/01 M+S 195150
W.59/86	Ws	Jan 1, 2001	SEC.36/80 W.59/86 S.R.O.
W.59/86	Wsm	Jan 1, 1986	SEC.36/8 W.59/86 S&M
ProvPark	Wsm	Oct 20, 2001	Spanish River Provincial Park
W-LL-P192/01	Wsm	Jul 20, 2001	SEC 35 W-LL-P192/01 ONT JULY 20/01 M+S
W-LL-P192/99	Wsm	May 17, 1999	SEC 35 W-LL-P192/99 ONT MAY 17/99 M+S (200 m FROM WATERS EDGE)
W.4/82	Ws	Jul 14, 1982	SEC.36/80 W.4/82 14/07/82 S.R.O. 137635

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Willet Green Miller Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free
Tel: 1 (888) 415-9845 ext 57##
Fax: 1 (877) 670-1444

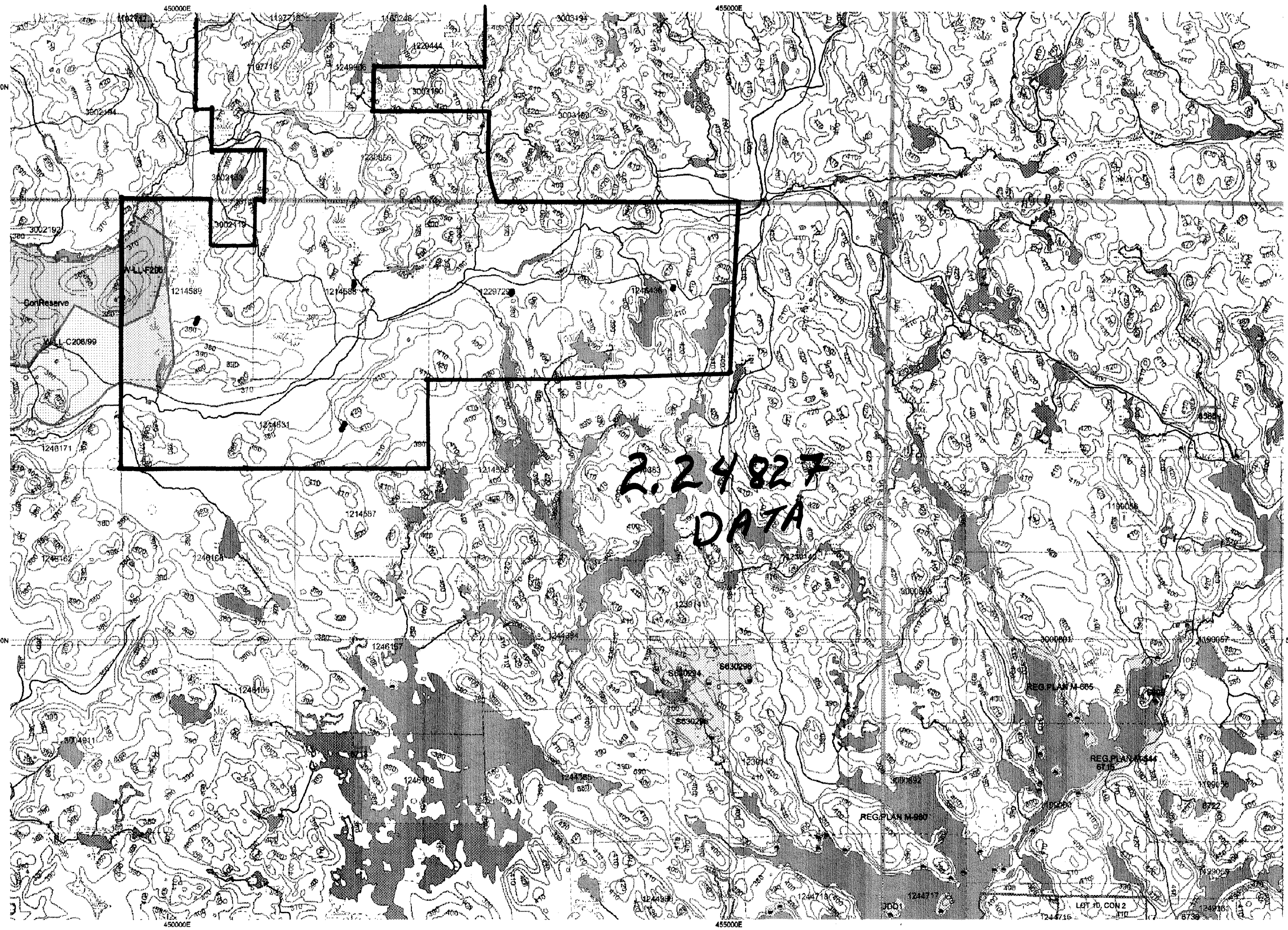
Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

41I14SW2014 2.24827 LEINSTER 210

ONTARIO CANADA — MINISTRY OF NORTHERN DEVELOPMENT AND MINES — PROVINCIAL MINING RECORDER'S OFFICE

Mining Land Tenure Map



UTM Zone 17
5000m grid

Date / Time of Issue: Thu Apr 03 09:49:57 EST 2003

TOWNSHIP / AREA ERMATINGER

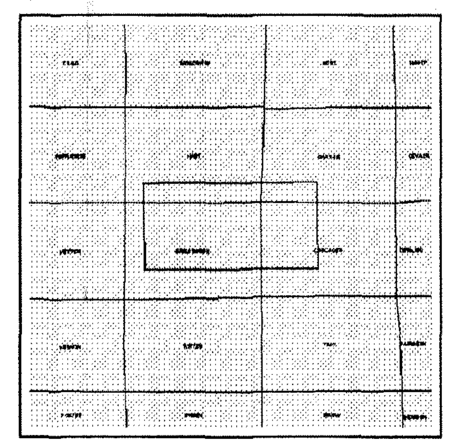
PLAN G-4045

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Sudbury
Land Titles/Registry Division	SUDBURY
Ministry of Natural Resources District	SUDBURY

TOPOGRAPHIC

- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit & Pile
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower



Land Tenure

Freehold Patent

- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Leasehold Patent

- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation

- Uses Not Specified
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

- Land Use Permit
- Order In Council (Not open for staking)
- Water Power Lease Agreement
- 1234567 Mining Claim
- 1234567 Filed Only Mining Claims

LAND TENURE WITHDRAWALS

1234 Areas Withdrawn from Disposition

Mining Acts Withdrawal Types
- Wsm Surface And Mining Rights Withdrawn
- Ws Surface Rights Only Withdrawn
- Wm Mining Rights Only Withdrawn

Order In Council Withdrawal Types
- W*sm Surface And Mining Rights Withdrawn
- W*s Surface Rights Only Withdrawn
- W*m Mining Rights Only Withdrawn

Ns IMPORTANT NOTICES

Scale 1:40000

700m 0m 2.1km

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
6264	Wsm	Jan 1, 2001	PENDING AGGREGATE APPLICATION
6565	Wsm	Jan 1, 2001	DUMP SITE AUG.,1983 S.R.O.
6695	Wsm	Jan 1, 2001	PUBLIC ACCESS AUG.,1983 S.R.O.
6713	Wsm	Jan 1, 2001	LICENCE OF OCCUPATION NO. 1517 ISSUED FOR STORAGE PURPOSES ON MI
6715	Wsm	Jan 1, 2001	DISPOSITION SEC.30(B) FEB.,1996
6722	Wsm	Jan 1, 2001	*Mining Rigths of the land and land under the waters ofWindy Lake are WITHDRAWN*
6738	Wsm	Jan 1, 2001	M.N.R. RESERVE 178405
6761	Wsm	Jan 1, 2001	FLOODING ELEVATION: 1207.7 FT G.S.C. DATUM FILE: 20396
ConReserve	Wsm	Dec 21, 2000	Centre Creek Old Growth White Pine Conservation Reserve
W-LL-C206/99	Wsm	May 12, 1999	SEC. 35 W-LL-C206/99 ONT MAY 12/99 M&S - Notice, this withdrawal area has
W-LL-F206	Wsm	Feb 26, 2002	<a href=" http://www.mndm.gov.on.ca/MNDM/MINES/LANDS/livleg/gtiks/2002orders/

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

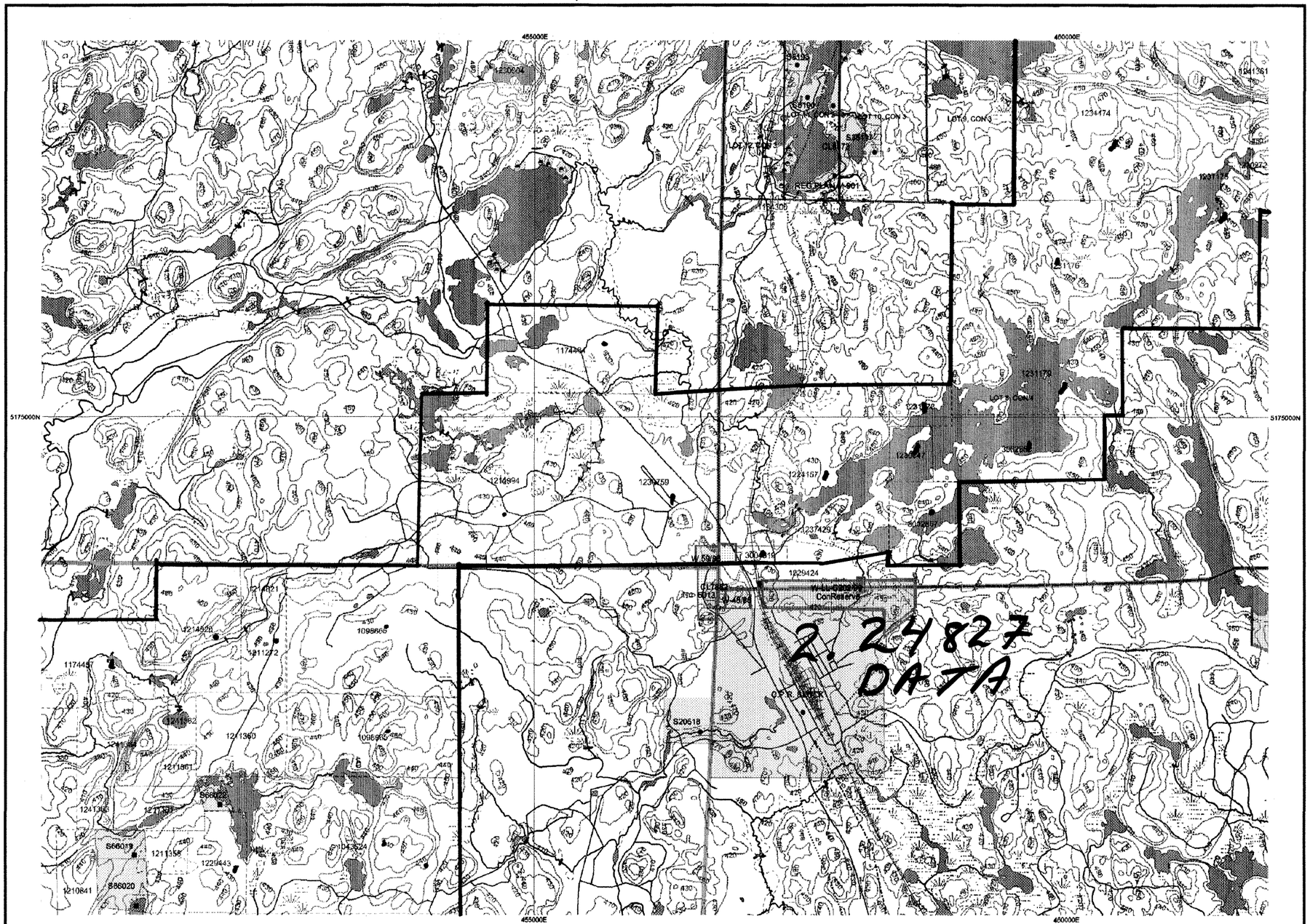
General Information and Limitations

Contact information:
Provincial Mining Recorders' Office
Willet Green Miller Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free
Tel: 1 (888) 415-9845 ext 57##
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.



UTM Zone 17
5000m grid

ONTARIO CANADA — MINISTRY OF NORTHERN DEVELOPMENT AND MINES — PROVINCIAL MINING RECORDER'S OFFICE

Mining Land Tenure Map

Date / Time of Issue: Thu Apr 03 09:30:05 EST 2003

TOWNSHIP / AREA	PLAN
MONCRIEFF	G-4086

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Sudbury
Land Titles/Registry Division	SUDBURY
Ministry of Natural Resources District	SUDBURY

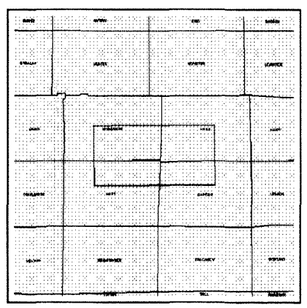
TOPOGRAPHIC
- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit & Pile
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

Freehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Leasehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation
- Uses Not Specified
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only
- Land Use Permit
- Order In Council (Not open for staking)
- Water Power Lease Agreement
- Mining Claim 1234567
- Filed Only Mining Claims 1234567



LAND TENURE WITHDRAWALS

1234 Areas Withdrawn from Disposition

Mining Acts Withdrawal Types
- Wsm Surface And Mining Rights Withdrawn
- Ws Surface Rights Only Withdrawn
- Wm Mining Rights Only Withdrawn

Order in Council Withdrawal Types
- W°sm Surface And Mining Rights Withdrawn
- W°s Surface Rights Only Withdrawn
- W°m Mining Rights Only Withdrawn

Nil — IMPORTANT NOTICES

Scale 1:40000

700m 0m 2.1km

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
8013	Wsm	Jan 1, 2001	PENDING AGGREGATE APPLICATION
ConReserve	Wsm	Dec 21, 2000	Cartier Moraine Conservation Reserve
ConReserve	Wsm	Dec 21, 2000	Green Lake Old Pine Conservation Reserve
W-46/86	Wsm	May 21, 1986	SEC.36/80 W-46/86 21 MAY 1986 S+M 168554
W-LL-C201/99	Wsm	May 10, 1999	SEC35 W-LL-C201/99 ONT MAY 10/99 M&S - Notice, this withdrawal area has now
W-LL-C202/99	Wsm	May 10, 1999	SEC35 W-LL-C202/99 ONT MAY 10/99 M&S - Notice, this withdrawal area has now
W.59/86	Ws	Jan 1, 2001	SEC.36/80 W.59/86 S.R.O.
W.59/86	Wsm	Jan 1, 1986	SEC.36/8 W.59/86 S&M

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Willet Green Miller Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free
Tel: 1 (888) 415-9845 ext 5778
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: *UTM (6 degree)*
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, *flooding rights, licences, or other forms of disposition of rights and* interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

41I14SW2014 2.24827 LEINSTER 230

2.24827
DATA

ONTARIO CANADA — MINISTRY OF NORTHERN DEVELOPMENT AND MINES — PROVINCIAL MINING RECORDER'S OFFICE

Mining Land Tenure Map

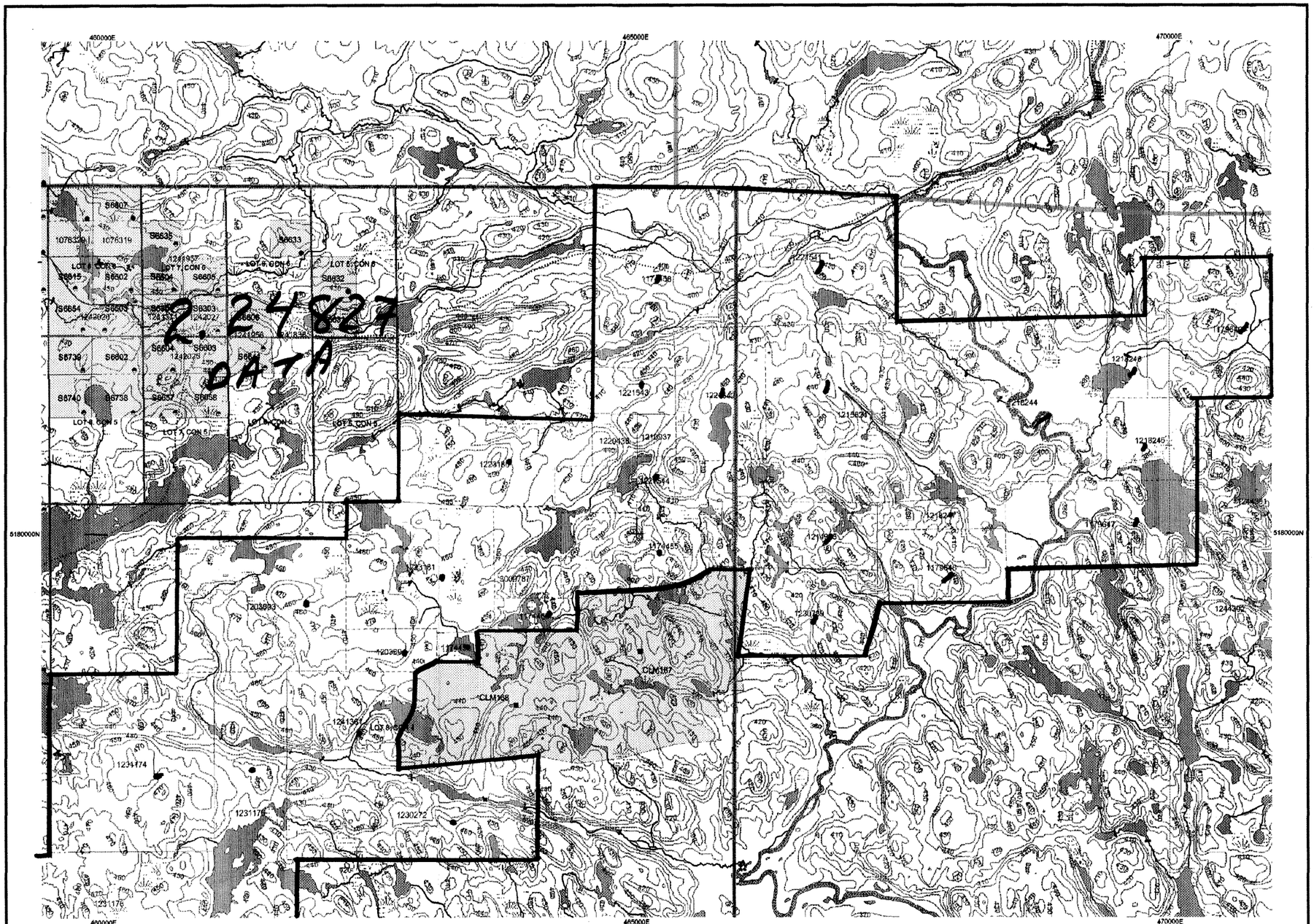
Date / Time of Issue: Thu Apr 03 09:19:21 EST 2003

TOWNSHIP / AREA
HESS

PLAN
G-4062

ADMINISTRATIVE DISTRICTS / DIVISIONS

Mining Division	Sudbury
Land Titles/Registry Division	SUDBURY
Ministry of Natural Resources District	SUDBURY



TOPOGRAPHIC

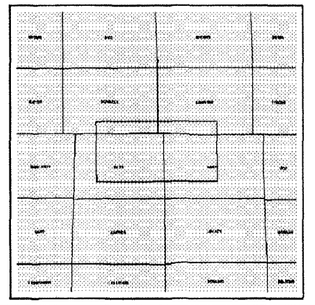
- Administrative Boundaries
- Township
- Concession, Lot
- Provincial Park
- Indian Reserve
- Cliff, Pit & Pile
- Contour
- Mine Shafts
- Mine Headframe
- Railway
- Road
- Trail
- Natural Gas Pipeline
- Utilities
- Tower

Land Tenure

Freehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Leasehold Patent
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation
- Uses Not Specified
- Surface And Mining Rights
- Surface Rights Only
- Mining Rights Only
- Land Use Permit
- Order In Council (Not open for staking)
- Water Power Lease Agreement
- Mining Claim
- Filed Only Mining Claims



LAND TENURE WITHDRAWALS

- Areas Withdrawn from Disposition
- Mining Acts Withdrawal Types
  - Wsrm Surface And Mining Rights Withdrawn
  - Ws Surface Rights Only Withdrawn
  - Wm Mining Rights Only Withdrawn
- Order In Council Withdrawal Types
  - W'srm Surface And Mining Rights Withdrawn
  - W's Surface Rights Only Withdrawn
  - W'm Mining Rights Only Withdrawn

No — IMPORTANT NOTICES

Scale 1:40000

700m 0m 2.1km

Those wishing to stake mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Northern Development and Mines for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources.

The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Northern Development and Mines web site.

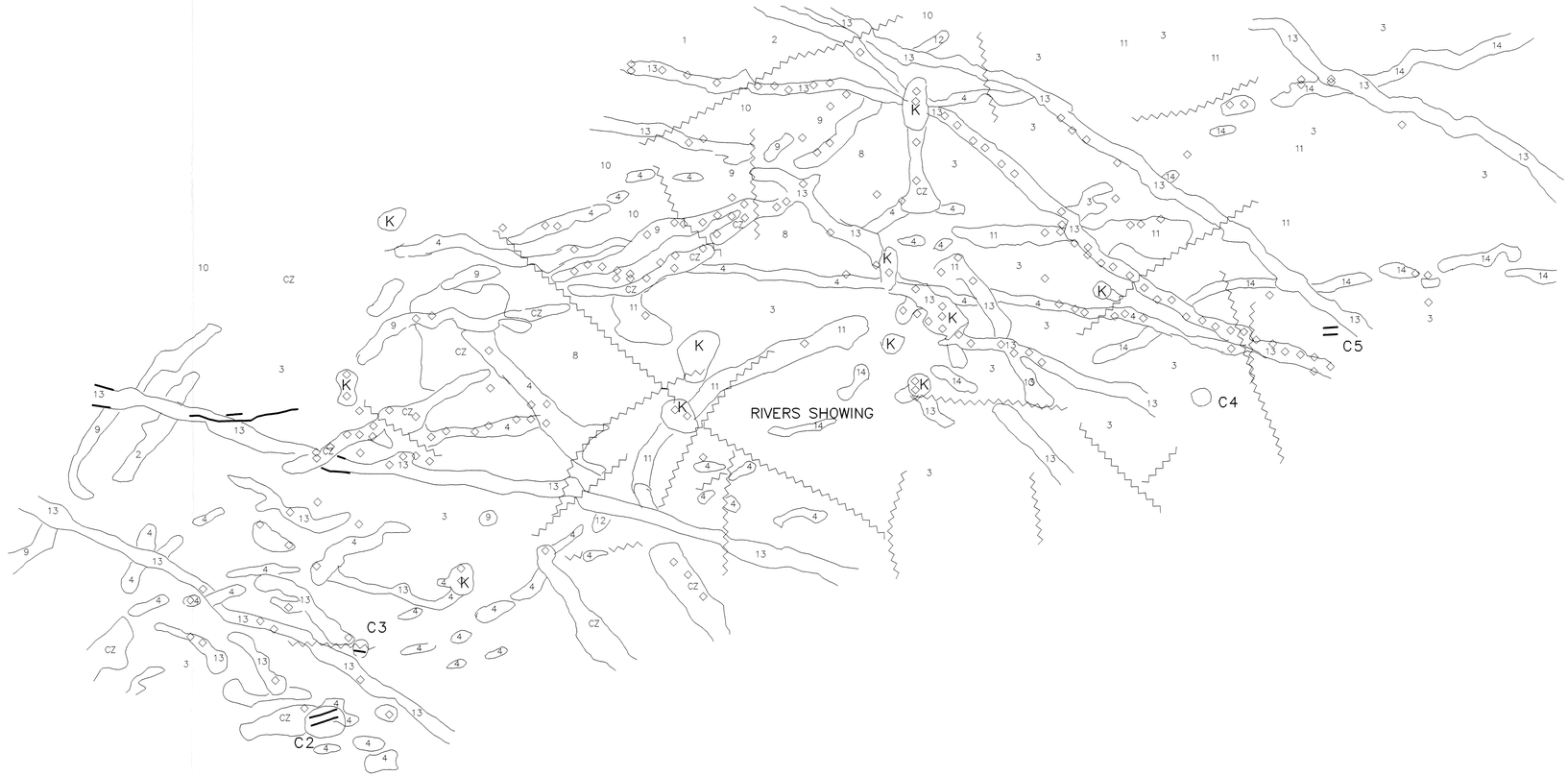
General Information and Limitations

Contact Information:
Provincial Mining Recorders' Office
Willet Green Miller Centre 933 Ramsey Lake Road
Sudbury ON P3E 6B5
Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mismnpge.htm

Toll Free
Tel: 1 (888) 415-9845 ext 5778
Fax: 1 (877) 670-1444

Map Datum: NAD 83
Projection: UTM (6 degree)
Topographic Data Source: Land Information Ontario
Mining Land Tenure Source: Provincial Mining Recorders' Office

This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.



Grid North
UTM Zone 17
NAD83

Scale 1 : 20 000

500 0 500 1000 1500

metres

Geological Legend

14	Sudbury Nickel Irruptive – offset dikes
13	Olivine diabase dikes
12	Lamprophyre and Breccia
11	Nipissing diabase
10	Lorrain Formation
9	Gowganda Formation
8	Serpent Formation
7	Espanola Formation
6	Bruce Formation
5	Mississagi Formation
4	Late mafic intrusive rocks
3	Massive felsic intrusive rocks
2	Foliated felsic plutonic and migmatitic rocks
1	Volcanic rocks

C1, C2, etc.	EM Conductors
A, B, C, etc.	Magnetic targets
K	Potential Kimberlite pipes
	Conductor axis
	Geological Contacts
	Fault Zone
CZ	Contact zones – magnetite alteration
◇	Magnetite – EM Response

Champion Bear Resources Ltd.

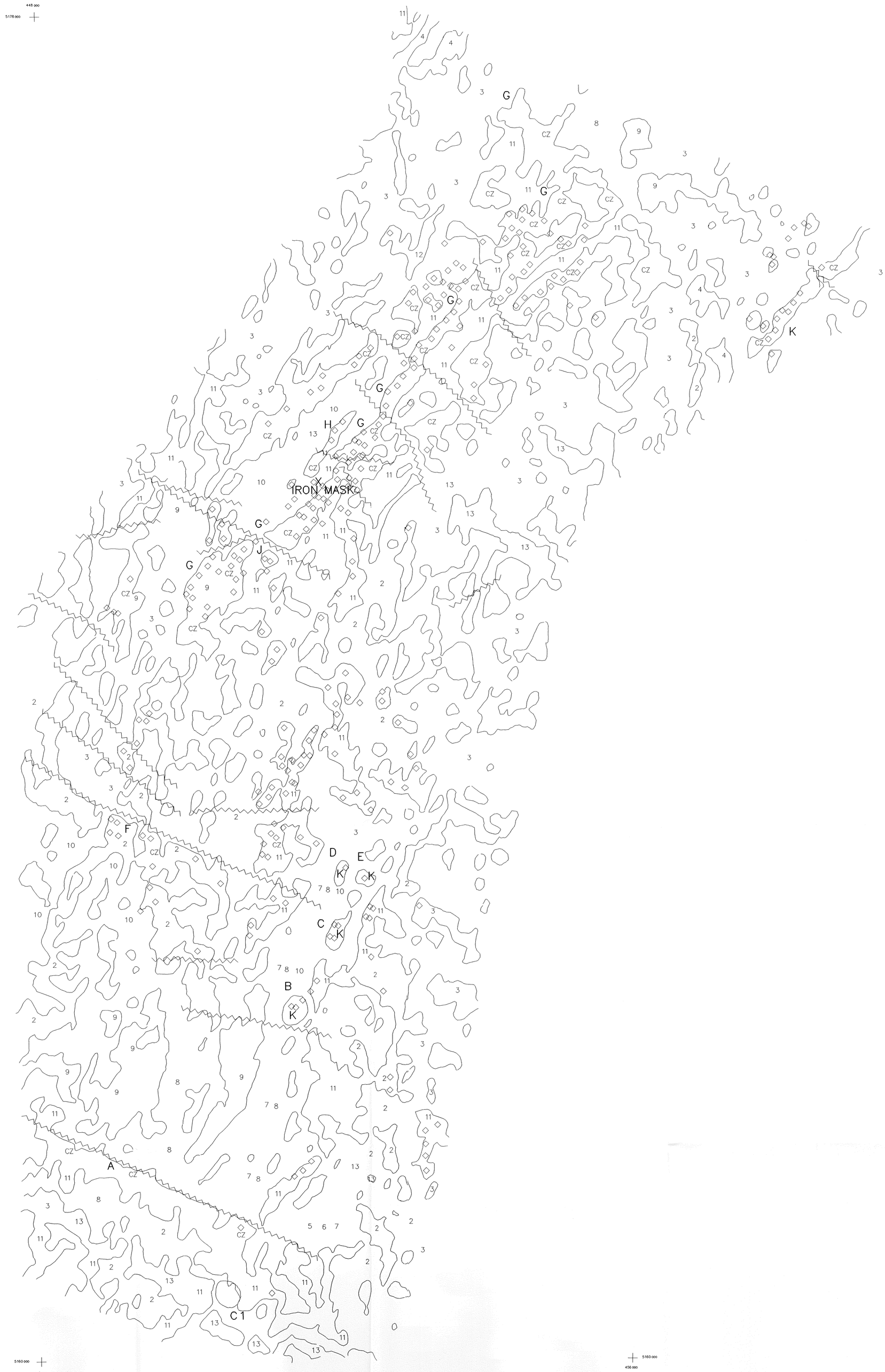
Cartier Area, Ontario

INTERPRETATION MAP

Map 1 of 2	Scale 1 : 20 000
Compilation Date: August, 2002	Project Number: G1603
Date Flown: December, 1998	NTS 41 I 11,12,13,14

Compilation By: R.J. de Carle

Robert J. de Carle
Geodatem Airborne Consultants
Palgrave, Ontario
905–880–4515



Grid North
UTM Zone 17
NAD83

Scale 1 : 20 000

500 0 500 1000 1500

metres

Geological Legend

14 Sudbury Nickel Irruptive – offset dikes
13 Olivine diabase dikes
12 Lamprophyre and Breccia
11 Nipissing diabase
10 Lorrain Formation
9 Gowganda Formation
8 Serpent Formation
7 Espanola Formation
6 Bruce Formation
5 Mississagi Formation
4 Late mafic intrusive rocks
3 Massive felsic intrusive rocks
2 Foliated felsic plutonic and migmatitic rocks
1 Volcanic rocks

C1, C2, etc. EM Conductors
A, B, C, etc. Magnetic targets
K Potential Kimberlite pipes
Conductor axis
Geological Contacts
Fault Zone
CZ Contact zones – magnetite alteration
◇ Magnetite – EM Response

2.24827

Champion Bear Resources Ltd.

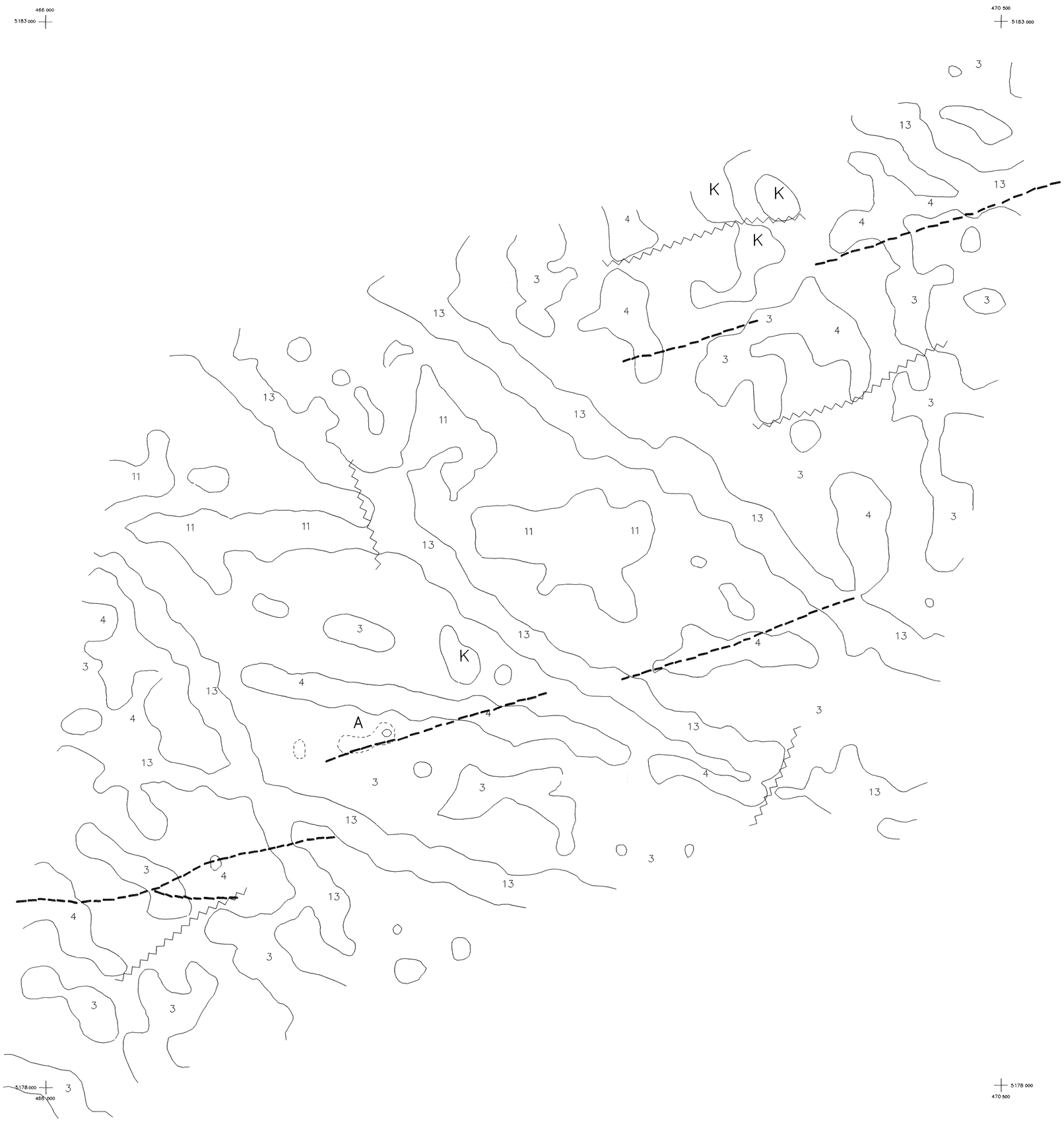
Cartier Area, Ontario

INTERPRETATION MAP

Map 2 of 2	Scale 1 : 20 000
Compilation Date: August, 2002	Project Number: G1603
Date Flown: December, 1998	NTS 41 I 11,12,13,14

Compilation By: R.J. de Carle

Robert J. de Carle
Geodatem Airborne Consultants
Palgrave, Ontario
905-880-4515



Grid North
UTM Zone 17
NAD83

Scale 1 : 10 000

200 0 200 400 600

metres

AEROTEM EM
Peak Response Symbols

- 1 Channel
- 2 Channel
- 3 Channel
- 4 Channel
- 5 Channel
- 6 Channel

Geological Legend

14 Sudbury Nickel Irruptive – offset dikes
13 Olivine diabase dikes
12 Lamprophyre and Breccia
11 Nipissing diabase
10 Lorrain Formation
9 Gowganda Formation
8 Serpent Formation
7 Espanola Formation
6 Bruce Formation
5 Mississagi Formation
4 Late mafic intrusive rocks
3 Massive felsic intrusive rocks
2 Foliated felsic plutonic and migmatitic rocks
1 Volcanic rocks

C1, C2, etc. EM Conductors
A, B, C, etc. Magnetic targets
K Potential Kimberlite pipes
Hess Offset Dike
Geological Contacts
Fault Zone
CZ Contact zones – magnetite alteration

Champion Bear Resources Ltd.

2.24827

Sudbury Properties, Sudbury Area, Ontario

INTERPRETATION MAP

AEROTEM Airborne Survey

Harty Block
NTS 41 I / 14

Interpretation By: R. J. de Carle
Robert J. de Carle
Geodatem Airborne Consultants
Palgrave, Ontario
905–880–4515

August, 2002

Grid North
UTM Zone 17
NAD83

Scale 1 : 10 000

200 0 200 400 600

metres

AEROTEM EM
Peak Response Symbols

- 1 Channel
- 2 Channel
- 3 Channel
- 4 Channel
- 5 Channel
- 6 Channel

Geological Legend

14 Sudbury Nickel Irruptive – offset dikes
13 Olivine diabase dikes
12 Lamprophyre and Breccia
11 Nipissing diabase
10 Lorrain Formation
9 Gowganda Formation
8 Serpent Formation
7 Espanola Formation
6 Bruce Formation
5 Mississagi Formation
4 Late mafic intrusive rocks
3 Massive felsic intrusive rocks
2 Foliated felsic plutonic and migmatitic rocks
1 Volcanic rocks

C1, C2, etc. EM Conductors
A, B, C, etc. Magnetic targets
K Potential Kimberlite pipes
Hess Offset Dike
Geological Contacts
Fault Zone
CZ Contact zones – magnetite alteration

Champion Bear Resources Ltd.

Sudbury Properties, Sudbury Area, Ontario

INTERPRETATION MAP

AEROTEM Airborne Survey

Hess Block
NTS 41 I / 12, 13

Interpretation By: R.J. de Carle
Robert J. de Carle
Geodatem Airborne Consultants
Palgrave, Ontario
905–880–4515

August, 2002