REPORT ON A HELICOPTER-BORNE MAGNETIC AND ELECTROMAGNETIC SURVEY

"featuring the AeroQuest AeroTEM© System"

Parkin, Hess and Harty Blocks
Sudbury Area, Ontario

for

CHAMPION BEAR RESOURCES LTD.
2005-9th Street S.W.
Calgary, Alta.
T2T 3C4
www.championbear.com

by

AEROQUEST LIMITED
4-845 Main St.
Milton, Ont., L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

REPORT ON A HELICOPTER-BORNE MAGNETIC AND ELECTROMAGNETIC SURVEY

"featuring the AeroQuest AeroTEM© System"

Parkin, Hess and Harty Blocks
Sudbury Area, Ontario

for

CHAMPION BEAR RESOURCES LTD.
2005-9th Street S.W.
Calgary, Alta.
T2T 3C4
www.championbear.com

by

AEROQUEST LIMITED
4-845 Main St.
Milton, Ont., L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

TABLE OF CONTENTS

1.	**INTRODUCTION**	**1**
2.	**SURVEY AREAS**	**1**
3.	**SURVEY SPECIFICATIONS AND PROCEDURES**	**2**
4.	**AIRCRAFT AND EQUIPMENT**	**3**
5.	**PERSONNEL**	**8**
6.	**DELIVERABLES**	**9**
7.	**DATA PROCESSING AND PRESENTATION**	**9**

Figures

Figure 1-3: Location Maps

Appendices

Appendix 1: Survey Block Co-ordinates
Appendix 2: Description of Contents - xyz file
Appendix 3: AeroTEM EM Anomaly Listing
Appendix 4: Technical Paper entitled " AeroTEM: System Characteristics and Field Results" by W. Boyko, N. Patterson, and K. Kwan, 2001.
Appendix 5: Instrumentation Specification Sheets

MAPS

The results of the survey are presented in a series of black line and colour maps at a scale of 1:10,000. The two Parkin Township blocks are presented on a single plate. The Hess block and the Harty Block on plotted on separate plates.

Map products are as follows:

- Plate 1. Flight path with EM anomalies.
- Plate 2. Z1 and Z3 EM offset profiles with EM anomalies.
- Plate 3. Total Magnetic Intensity contours with EM anomalies, colour version
- Plate 4. Second Vertical derivative of the Magnetic Field with EM anomalies, colour version

All the maps show the skeletal topography, flight path and EM anomalies represented by symbols denoting the number of channels of response. The Z3 channel peak amplitude, if applicable, is posted alongside the anomaly symbol. Colour contour maps show colour fill plus superimposed line contours.

DIGITAL DATA on CD-ROM

A CD-ROM was prepared to accompany each report. It contains a digital flat file of the profile data in both ASCII-Geosoft and binary GDB-Geosoft format as well as the geophysical maps in Geosoft format. The magnetic grids are also included as well as a text file listing of the picked EM anomalies. A *readme.txt* file may be found on the CD-ROM which describes the file contents in more detail.

For the reader's convenience, a copy of Geosoft's Oasis Montaj Ver 5.0 Free Interface is included on the CD-ROM. To install the interface, unzip the two files and follow the instructions in the PDF format (Adobe Reader) guide.

The CD-ROM also contains a digital version of this report in PDF (Adobe Acrobat) format including the technical paper by Boyko et al which is re-printed in the appendix of this report. The Adobe freeware programme called Acrobat Reader Ver 5.0, used to read the PDF files, is provided as a convenience.

REPORT ON A HELICOPTER-BORNE MAGNETIC AND ELECTROMAGNETIC SURVEY

Parkin, Hess and Harty Townships
Sudbury Area, Ontario

1. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Champion Bear Resources Ltd. over four claim blocks in Parkin, Hess, and Harty Townships in the Sudbury area of Ontario.

Principal geophysical sensors included AeroQuest's exclusive AeroTEM© Mark II six channel time domain helicopter electromagnetic system and a high sensitivity cesium vapour magnetometer. Ancillary equipment included a GPS navigation system with GPS base station, radar altimeter, video recorder, and a base station magnetometer.

Appendix 1 lists the UTM corner co-ordinates for the four survey blocks. The total line kilometres flown, including tielines, was 317.4 km. The survey flying took place in two episodes, June 6, 2002 and August 14-16, 2002.

This report describes the survey, the data processing and presentation. Bedrock EM anomalies were picked and graded according to the number of channels of response. A late time response (channel 6 being the latest) indicates a better conductor. A list of picked EM anomalies may be found in the appendix.

2. SURVEY AREA

The regional and local settings of the survey area are shown in figures 1-4.

The Parkin North and Parkin South blocks are located in Parkin Township, near Wanapitei Lake, about 35 kilometres north-northeast of Sudbury. The Parkin blocks are centred roughly at latitude 46°49'N and longitude 80°26'W. The 1:50,000 NTS sheet covering the survey area is 41I/15.

The Hess and Harty Blocks may be found in Hess and Harty Townships respectively, near the town of Levack, about 35 kilometres northwest of Sudbury. The Hess and Harty blocks are centred roughly at latitude 46°46'N and longitude 81°29'W. The 1:50,000 NTS sheets covering the Hess block are 41I/12 and 13 and the Harty Block is covered by sheet 41I/15.

During the survey the crew was billeted at the Comfort Inn on 2nd Avenue, Sudbury. The helicopter and base station were based at the Sudbury airport. Installation of the equipment in the helicopter took place at the airport.

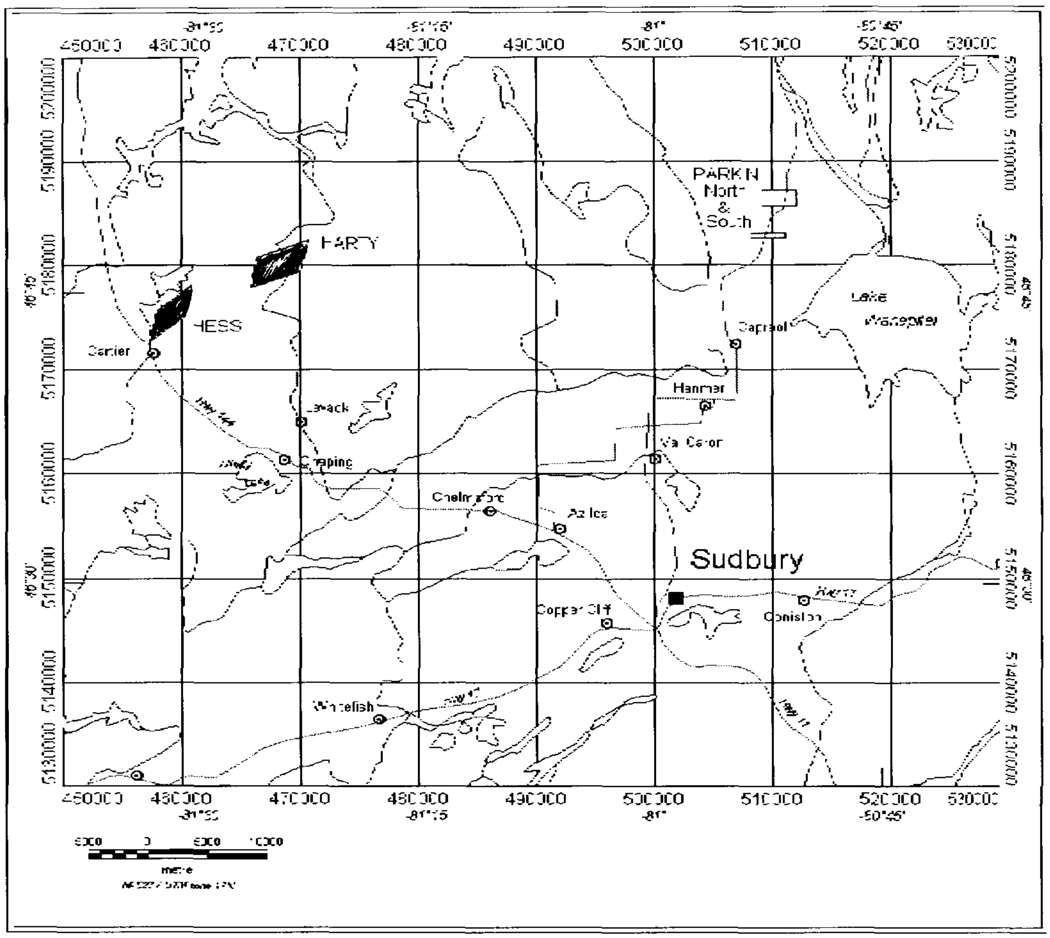


Fig 1. The Survey Area Location

3. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarised in the following table:

Area Name	Line Spacing (m)	Total Survey (km)	Survey Line (km)	Tielines (km)	Flight Direction	Dates Flown (2002)
Parkin North	100	61.0	54.9	6.1	E-W	June 6
Parkin South	100	18.4	16.9	1.5	E-W	June 6
Hess	100	96.9	88.7	8.2	N10E	August 14&16
Harty	100	141.1	130.6	10.5	N10E	August 16
Totals		317.4	291.1	26.3		

Nominal EM bird terrain clearance was 30+ metres (100+ ft). 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 and altimeter and 1.0 second for the GPS determined position. The electromagnetics was scanned 7.5 times per second by the DGR33 acquisition system. This translates to a geophysical reading about every 2 metres along flight track but ground speed does vary depending on the strength of the prevailing wind.

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 0.2 second intervals.

Unlike frequency domain electromagnetic systems, the AeroTEM© system has negligible drift due to thermal expansion. Any system offset is removed by high altitude zero calibration lines and employing local levelling lines.

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.

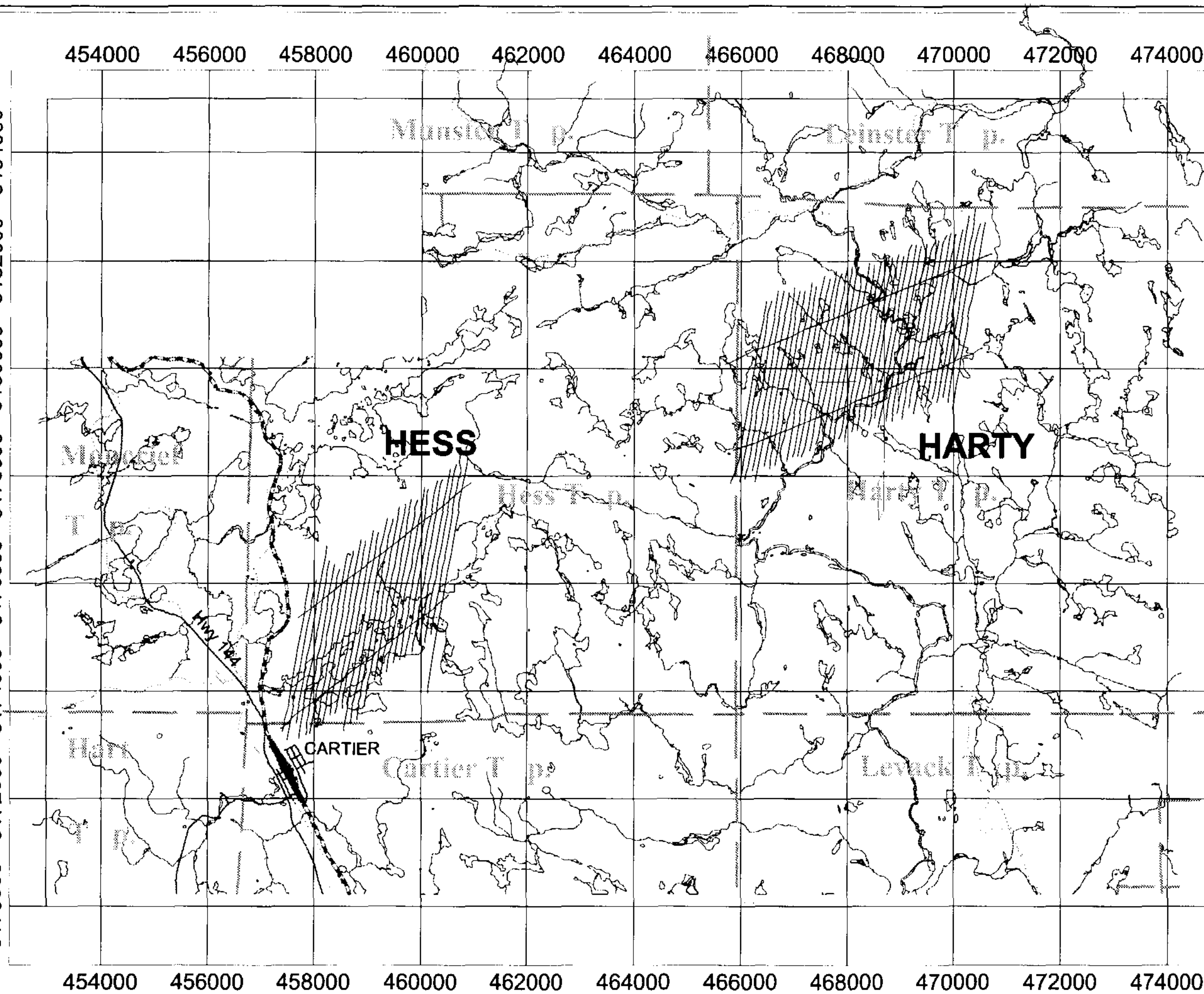
The integrated magnetics and GPS base station was located in the AeroQuest trailer at the Sudbury airport. The data was transferred to the field processing station daily.

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 removable hard-drive 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 from the intended path were re-flown.

4. AIRCRAFT AND EQUIPMENT

4.1 Aircraft

A Eurocopter (Aerospatiale) AS350B+ "A-Star" helicopter - registration C-FHAJ - owned and operated by Abitibi Helicopters Ltd., LaSarre, P.Q., was used for the survey. Installation of the geophysical and ancillary equipment was carried out by AeroQuest Limited at the Sudbury Airport. The survey aircraft was flown at a nominal terrain clearance of 200- 250 ft (61-76 m).



Scale 1:119316

2500 0

metre

NAD83 / UTM zone 17N

Fig. 3 Hess and Harty Blocks

4.2 Electromagnetic System

The electromagnetic system employed was an AeroQuest AeroTEM© Mk II Time Domain towed bird system. It is currently the only commercially available helicopter TDEM system using a coincident Tx-Rx loop combination. The transmitted waveform is triangular with a base frequency of 150 Hz, yielding 300 decays per second. The streaming data is recorded across both the on and off times with the MDAS acquisition system. 126 channels are recorded during each transmitter cycle.

Six channels of the off-time EM decay are recorded by the RMS DGR33 acquisition system in two components , i.e. 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). All EM data referred to in this report and on the maps was derived from the RMS acquisition. The channel window timing of the 6 channel system is described in the table below.

Channel	Start time (μsec)	End time (μsec)	Width (μsec)	Noise tolerance
1	64	149	85	20 ppb
2	149	234	85	20 ppb
3	234	404	170	15 ppb
4	404	574	170	15 ppb
5	574	914	340	10 ppb
6	914	1594	680	10 ppb

The Transmitter Dipole moment is 38.8 kNIA. The AeroTEM© bird was towed 38 metres (125 ft) below the helicopter. More technical details of the system may be found in the technical paper in the Appendix.

4.3 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 (170 ft.).

4.4 Ancillary Systems

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 diurnal 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 synchronised with GPS time in order to allow correlation with the airborne data. Digital recording resolution was 0.1 nT. A continuously updated profile plot of the base station values was available for viewing on the base station display.

The GPS base station employed a Leica MX-9212 12 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.

Radar Altimeter

A Terra TRA3000/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, i.e. 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) 8 metres too low. The bird height data in the digital database and in the plots has been corrected for this error. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

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 GPS position and time and can be used to verify ground positioning information and cultural causes of anomalous geophysical data.

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, a Trimble AGGPS132 WAAS enabled GPS receiver card mounted in the PNAV console and a Trimble antenna mounted on the magnetometer bird.

WAAS (Wide Area Augmention System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations, located on either coast, collect data from the reference stations and create a GPS correction message. This correction accounts for GPS satellite orbit and clock drift plus signal delays caused by the atmosphere and ionosphere. The corrected differential message is then broadcast through one of two geostationary satellites, or satellites with a fixed position over the equator. The corrected position has an accuracy of under 3 metres.

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 was NAD27 UTM given the existing 1:50,000 topographic sheets were in that datum. The final plot datum was NAD83. The real-time differentially corrected GPS positional data is recorded in WGS-84 latitude and longitude at 0.2 second intervals directly in the geophysical data file.

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 sheet in the appendices for more technical details on the acquisition system.

The streaming data, sampled over both on and off times at 126 channels per decay, 300 times per second, was processed in parallel by the proprietary MDAS data acquisition system. The streaming data was recorded on a removable hard-drive then archived on recordable DVD disks.

5. PERSONNEL

The following AeroQuest personnel were involved in the project

Field -

Operator: Jim Bursey, Bert Simon   Geophysicist: Neil Fiset, Ray Hetu

System Engineer: Jim Bursey

Office-

Data Processing and Report: Neil Fiset

The survey pilot, Steve Labranche, was employed directly by the helicopter operator - Abitibi Helicopters Ltd.

6. DELIVERABLES

The survey is described in a report which is provided in two copies. The report includes a set of four flight path/geophysical maps for the Hess and Harty blocks and another set for the combined Parkin North and South blocks. All the maps show the flight path trace with time reference fiducials marked at a 10 second interval which are related to the fiducials found on the analogue chart record.

The basic map coordinate/projection system used is NAD 83 Universal Transverse Mercator Zone 17. For reference, the latitude and longitude are also noted on the maps.

The following table describes the map products accompanying the report:

- Plate 1. Flight path with EM anomalies.
- Plate 2. Z1 and Z3 EM offset profiles with EM anomalies.
- Plate 3. Total Magnetic Intensity contours with EM anomalies, colour version
- Plate 4. Second Vertical derivative of the Magnetic Field with EM anomalies, colour version

Stacked profile sections for each survey line have been prepared as Geosoft **.map* files. Parameters shown on the stacked profiles include the six channels of Z component EM data, one X component, EM bird height, calculated Terrain Model (DTM) and magnetic intensity. The time reference fiducials and UTM co-ordinates are indicated along the x-axis. They can be used to help locate the profiles on the plan maps.

Also plotted beneath the EM traces are the picked bedrock anomaly symbols. The same symbols are found on the plan maps and described in the plan map legend.

The digital profile raw and processed data is archived on CD-ROM in a flat file Geosoft XYZ and GDB format. In addition, the geophysical maps and stacked sections in Geosoft format are included. A description of the xyz file format may be found in the appendices of this report.

7. DATA PROCESSING AND PRESENTATION

All in-field and post-field data processing was carried out using Geosoft Montaj as well as AeroQuest proprietary data processing software. Plotting was on a 36 inch wide HP650C ink-jet plotter.

7.1 Base Map

The geophysical maps accompanying this report are based on positioning in the datum of NAD83. The survey geodetic GPS positions have been map projected using the Universal Transverse Mercator projection in Zone 17.

A summary of the map datum and projection specifications are as follows:
Ellipse: WGS84
Ellipse major axis: 6378137.0m eccentricity: 0.081819191
Datum: North American 1983
Datum Shifts (x,y,z) : 0, 0, 0 metres
Map Projection: Universal Transverse Mercator Zone 17 (Central Meridian 81°W)
Central Scale Factor: 0.9996
False Easting, Northing: 500,000m, 0m

7.2 Flight Path Map

The position of the survey helicopter was directed by use of the Global Positioning System (GPS). Real time differential corrections were supplied by the WAAS satellites. Positions were updated every 0.2 second and expressed as WGS84 latitude and longitude.

The flight path, after conversion to NAD83 UTM Zone 17 co-ordinates, is drawn using linear interpolation between the corrected x/y positions. The time reference fiducials are drawn on the map at appropriate intervals and are used to reference the data file to the plan map.

The Digital Terrain Model (DTM) was derived by taking the satellite position altitude and subtracting the radar altimeter. No correction was made for the constant difference in position of the altimeter antenna (on bottom front of helicopter cabin) and the GPS antenna (on the tail boom). The calculated values are relative and are not tied into to surveyed geodetic heights.

7.3 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 3 seconds. This filter is referred to as a 30 point linear filter.

The EM channels have been levelled to remove the residual zero offset by the use of a short background line at the beginning and end of each flight. The background line is flown at high altitude (>1000 ft), theoretically far enough away from any ground conductivity response. Any residual response is therefore a system offset and can be removed from the on-line response by virtue of linear interpolation between the start and end of flight checks. If any non-linear drift remains in the data then artificial local levelling lines were employed.

During the high elevation checks, an internal 5 second wide calibration pulse in all EM channels was generated in order to ensure that the gain of the system remained constant and within specifications.

Apparent bedrock EM anomalies have been manually picked from the analogue profiles. Each anomaly has been given a letter label and is graded according to the channels in which the anomaly is discernible and the direction of the excursion, either positive or negative. The anomalies are plotted on the plan maps and stacked sections with a symbol denoting the number of channels of response and the polarity of that response. Beside the symbol is posted the Z3 channel amplitude. EM Anomalies that are discernible but questionable as they lie within the noise envelope are plotted with an x-symbol. Where indicated, broad anomalies (surficial?) with 3 or more channels of response were noted. A listing of all anomalies may be found in the appendix.

7.4 Magnetic Data

The Total Magnetic Intensity (TMI) data were corrected for diurnal variations by adjustment using the magnetic base station and 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 25 metres. Levelling errors caused by the rapidly alternating terrain clearance were removed by micro-levelling the grids. The final levelled grid provided the basis for threading the presented contours. The minimum contour interval was 2 nT.

The vertical gradient (2nd Vertical Derivative) of the magnetic field was calculated using Geosoft's MAGMAP programme. Basically, the algorithm takes the fourier transform of the spatial domain total field magnetic grid and then applies a gradient operator and an upward continuation operator to remove high frequency noise. The frequency domain data is then returned back to the spatial domain and plotted as a colour image. It was then contoured.

Respectfully submitted,

Neil Fiset, B.Sc.,
AeroQuest Limited
September 16, 2002

APPENDIX 1

Survey Block corner co-ordinates (NAD83-UTM Zone 17)

Parkin North		Parkin South	
509100mE	5185700mN	508175mE	5182650mN
509100mE	5187200mN	508175mE	5183050mN
512100mE	5187200mN	511175mE	5183050mN
512100mE	5185700mN	511175mE	5182650mN

Hess		Harty	
457367mE	5172683mN	465904mE	5177849mN
457888mE	5175637mN	466425mE	5180804mN
460872mE	5177990mN	470636mE	5182390mN
460351mE	5175036mN	470115mE	5179436mN

APPENDIX 2 Description of xyz & GDB file contents

Column	Description
x	Zone 17 UTM Easting in metres (NAD83)
y	Zone 17 UTM Northing in metres (NAD83)
fid	Time reference in seconds (matches chart fiducial)
emfid	Fiducial reference for streaming data (MDAS) synchronisation
lat	WGS84 Latitude in decimal degrees
long	WGS84 Longitude in decimal degrees
utctime	UTC time as seconds of the day
rtctime	Local time as HH:MM:SS.SS
date	Date in YY/MM/DD
fltno	Flight number
galt	GPS elevation in metres
ralt	Radar altimeter in metres
basemagf	Smoothed magnetic base station in nanoTesla
rawmagf	Smoothed total magnetic intensity in nanoTesla
mag	Final total magnetic intensity in nanoTesla
z*lev, z*flev	Raw levelled, Processed EM-Z component of channels 1 to 6 in ppb
x1lev, x1flev	Raw levelled, Processed EM-X component of channel 1in ppb
bheight	Terrain clearance of EM bird in feet
dtm	Calculated digital Terrain Model in metres
powerlinef	Smoothed Powerline (60Hz monitor)

Appendix 4: Technical Paper

AeroTEM: System Characteristics and Field Results

W. Boyko, N. Patterson, and K. Kwan, The Leading Edge, October 2001, Vol. 20 No.10, pp. 1130-1138.

Appendix 5: AeroTEM Mk II Instrumentation Specification Sheet

System Characteristics:

Transmitter:

Triangular Pulse Shape Base Frequency 30 or 150 Hz.
Tx On Time - 5,750 (30Hz) or 1,150 (150Hz) μsec.
Tx Off Time - 10,915 (30Hz) or 2,183 (150Hz) μsec.
Loop Diameter - 5 m.
Peak Current - 250 A.
Peak Moment - 38,800 NIA.
Typical Z Axis Noise at Survey Speed = +/- 8 ppb peak.
Sling Weight: 270 Kg.
Length of Tow Cable: 40 m.
Bird Survey Height: 30 m or less nominal.

Receiver:

Three Axis Receiver Coils (x, y, z) positioned at centre of transmitter loop.

Analogue Display & Acquisition:

Six Channels per Axis.
Analogue Channel Widths: 85.3, 85.3, 170.7, 170.7, 341.3, 682.6 μsec.
Recording & Display Rate = 10 readings per second.
Digital recording at 126 sample per decay curve at a maximum of 300 curves per second.

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 30 m, 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 nearly 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.

ONTARIO

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

Work Report Summary

Transaction No: W0270.01484 **Status:** APPROVED
Recording Date: 2002-SEP-20 **Work Done from:** 2002-AUG-14
Approval Date: 2002-OCT-07 **to:** 2002-AUG-16

Client(s):

116945 CHAMPION BEAR RESOURCES LTD.

Survey Type(s):

AEM AMAG

Work Report Details:

Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	Due Date
S 1179646	$1,655	$1,655	$2,400	$2,400	$0	0	$0	$0	2003-NOV-26
S 1179647	$2,483	$2,483	$3,600	$3,600	$0	0	$0	$0	2003-NOV-26
S 1179649	$1,656	$1,656	$6,000	$6,000	$0	0	$0	$0	2003-NOV-26
S 1214955	$1,380	$1,380	$0	$0	$1,380	1,380	$0	$0	2002-DEC-01
S 1215824	$2,207	$2,207	$0	$0	$702	702	$1,505	$1,505	2002-DEC-01
S 1218244	$3,863	$3,863	$0	$0	$0	0	$3,863	$3,863	2002-DEC-01
S 1218245	$1,104	$1,104	$0	$0	$1,104	1,104	$0	$0	2002-DEC-01
S 1218246	$552	$552	$0	$0	$552	552	$0	$0	2002-DEC-01
S 1218247	$828	$828	$0	$0	$828	828	$0	$0	2002-DEC-01
S 1224157	$1,372	$1,372	$6,000	$6,000	$0	0	$0	$0	2003-APR-20
S 1229424	$549	$549	$0	$0	$549	549	$0	$0	2003-JUN-10
S 1230789	$1,655	$1,655	$2,400	$2,400	$0	0	$0	$0	2003-OCT-22
S 1230847	$275	$275	$400	$400	$0	0	$0	$0	2003-APR-20
S 1231174	$2,196	$2,196	$0	$0	$2,196	2,196	$0	$0	2002-DEC-09
S 1231176	$3,295	$3,295	$0	$0	$0	0	$3,295	$3,295	2002-DEC-09
S 1231178	$549	$549	$0	$0	$549	549	$0	$0	2002-DEC-09
S 1231179	$2,471	$2,471	$0	$0	$2,471	2,471	$0	$0	2002-DEC-09
S 3002857	$549	$549	$0	$0	$549	549	$0	$0	2004-AUG-02
S 3002858	$824	$824	$0	$0	$824	824	$0	$0	2004-AUG-02
	$29,463	$29,463	$20,800	$20,800	$11,704	$11,704	$8,663	$8,663	

External Credits: $0

Reserve:

$8,663 Reserve of Work Report#: W0270.01484

$8,663 Total Remaining

Status of claim is based on information currently on record.

41I14SW2008 2.24242 HARTY

900

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: 2002-OCT-07

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

Submission Number: 2.24242
Transaction Number(s): W0270.01484

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.

If you have any question regarding this correspondence, please contact LUCILLE JEROME by email at lucille.jerome@ndm.gov.on.ca or by phone at (705) 670-5858.

Yours Sincerely,

Sheila Lessard
Acting 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)

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

MINING LAND TENURE MAP

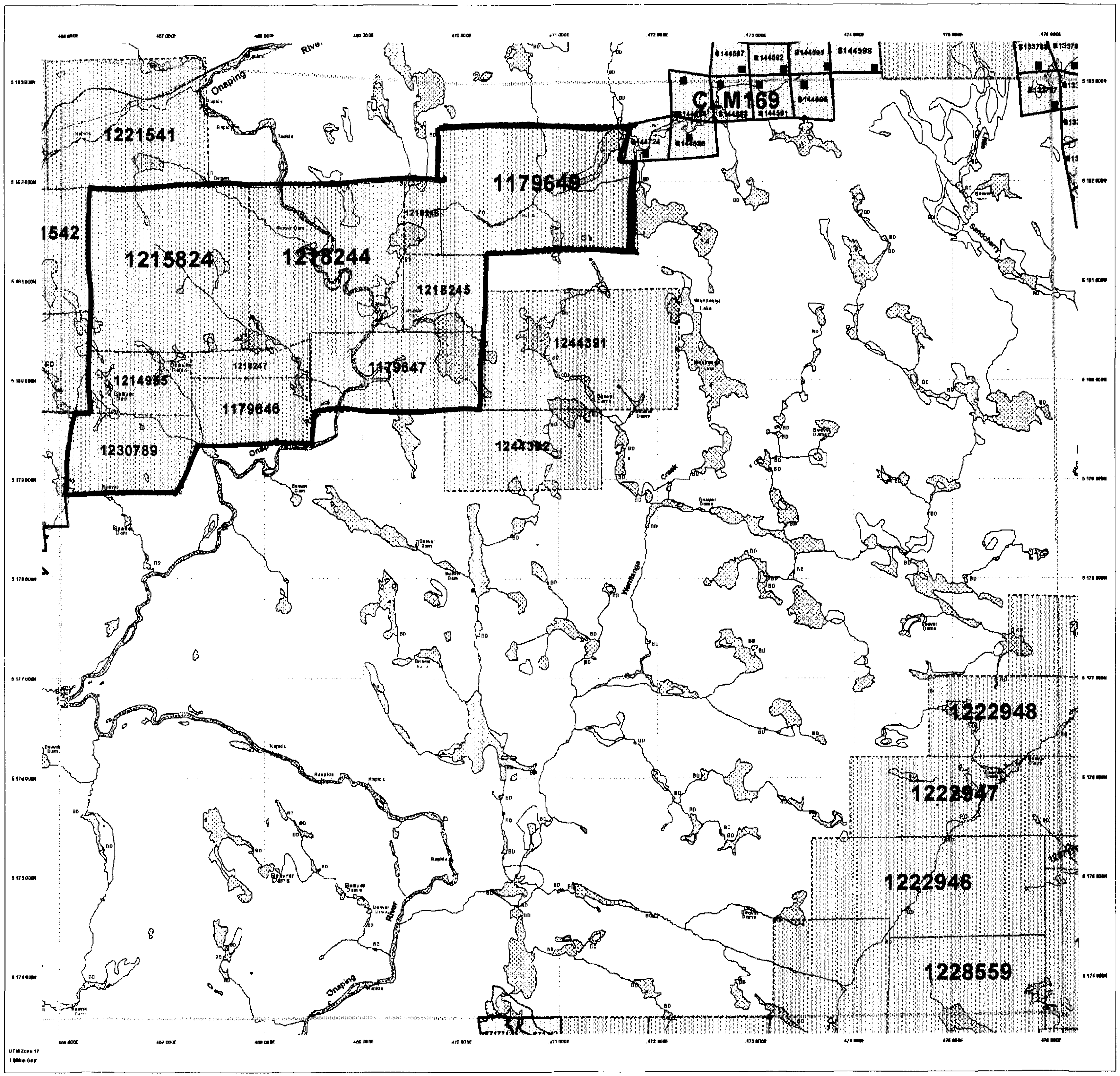
Date / Time of Issue Sep 20 2002 13:59h Eastern

TOWNSHIP / AREA: HARTY

PLAN: G-4059

ADMINISTRATIVE DISTRICTS / DIVISIONS

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



TOPOGRAPHIC

LAND TENURE

LAND TENURE WITHDRAWALS

IMPORTANT NOTICES

LAND TENURE WITHDRAWAL DESCRIPTIONS

IMPORTANT NOTICES

Areas under which special regulations, limitations or conditions exist that affect normal prospecting, staking and mineral development activities.

2.24242
AEM
AMAG

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 Lands 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.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Toll Free Tel: 1 (888) 415-9845 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

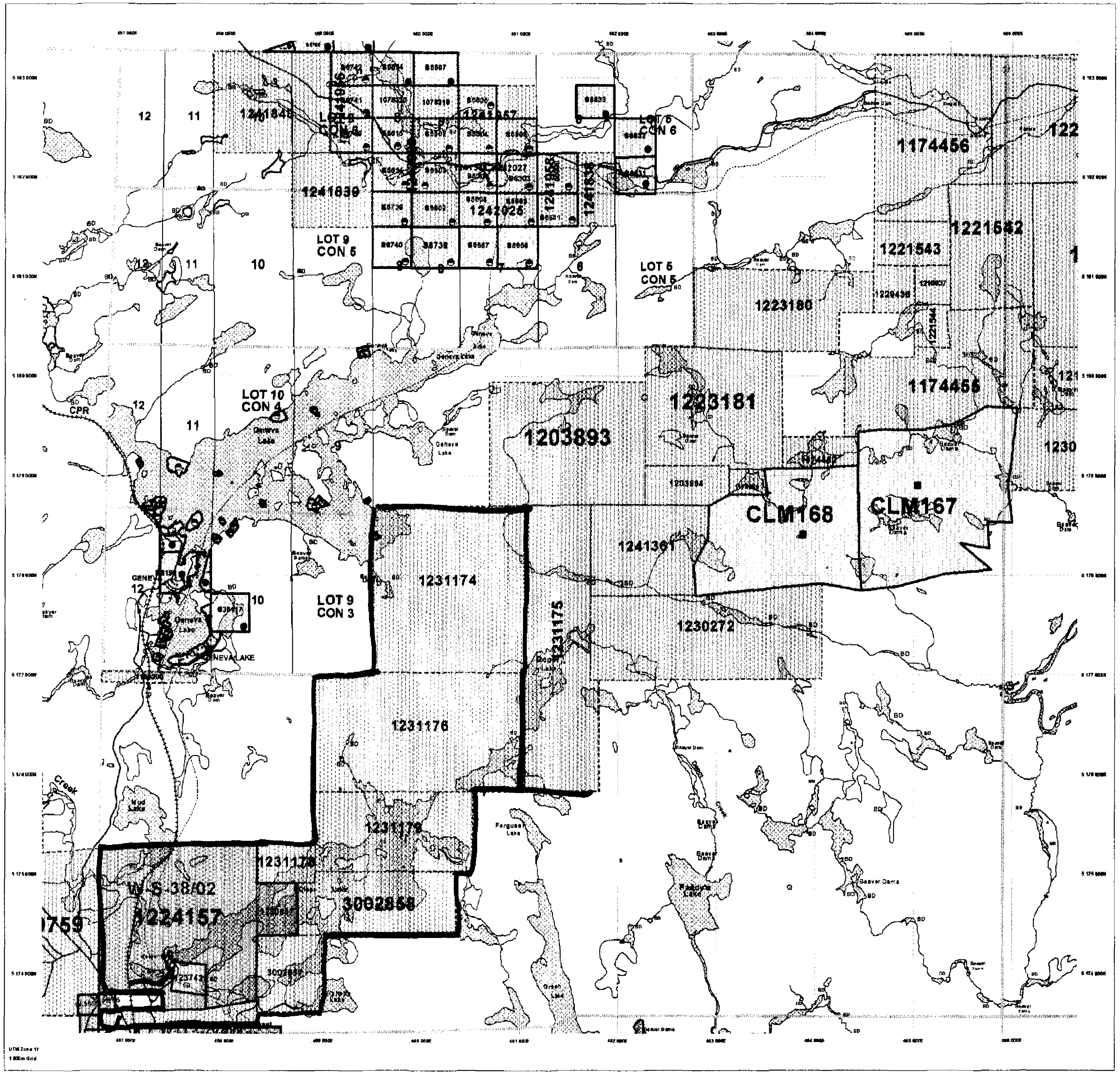
This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry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

200

41I14SW2008 2.24242 HARTY

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

MINING LAND TENURE MAP



Date / Time of Issue	Sep 20 2002 14:02h Eastern
TOWNSHIP / AREA	PLAN
HESS	G-4062

ADMINISTRATIVE DISTRICTS / DIVISIONS

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

TOPOGRAPHIC

LAND TENURE

LAND TENURE WITHDRAWALS

IMPORTANT NOTICES

LAND TENURE WITHDRAWAL DESCRIPTIONS

Identifier	Type	Date	Description
6813	Wsm	Jan 1 2001	PENDING AGGREGATE APPLICATION
W-LL-C20100	Wsm	May 10 1999	SEC38 W-LL-C20100 ONT.MAY 1999 MAS - Notice, this withdrawal area has now been regulated as a Conservation Reserve, consult the Mining Recorder's Office for the regulated boundary as it may go beyond this Withdrawal Order.
[illegible]	Wsm	Jan 1 [illegible]	[illegible]
[illegible]	Ws	Jan 1 2001	[illegible]
[illegible]	Wsm	May 21 [illegible]	[illegible]
W-LL-C202/00	Wsm	May 10 1999	SEC38 W-LL-C202/00 ONT. MAY 1999 MAS - Notice, this withdrawal area has now been regulated as a Conservation Reserve, consult the Provincial Mining Recorder's Office for the regulated boundary, as it may go beyond the withdrawal order.
ConReserve	Wsm	Dec 21 [illegible]	Green Lake Old Pine Conservation Reserve
ConReserve	Wsm	Dec 21 [illegible]	Cartier Moraine Conservation Reserve
W-S-38/02	Wsm	Jul 4 2002	Sec 35 RSO 1990 Surface and Mining Rights July 4, 2002

IMPORTANT NOTICES

Areas under which special regulations, limitations or conditions exist that affect normal prospecting, staking and mineral development activities.

2.24242

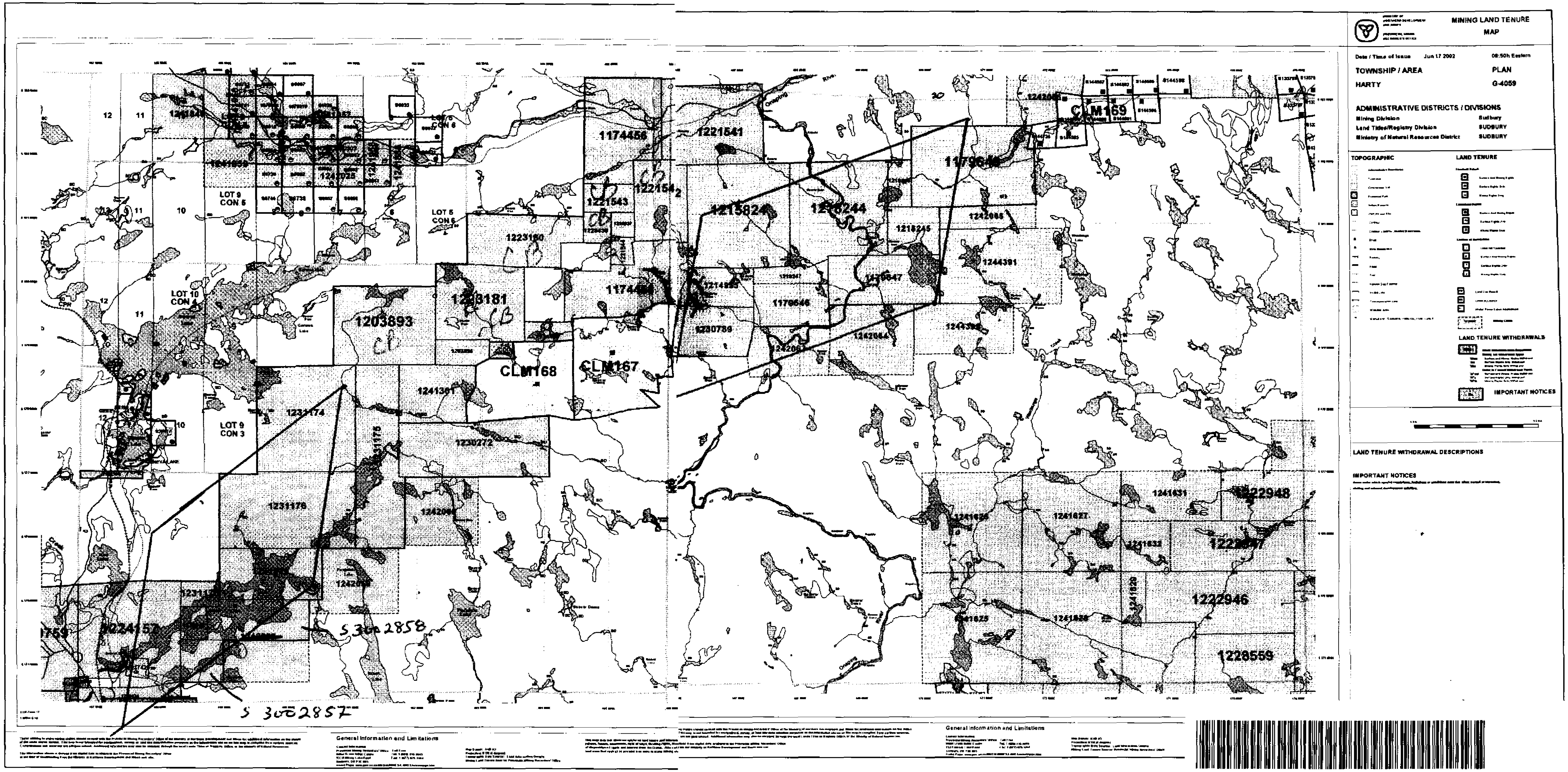
AEM
AMAG

General Information and Limitations

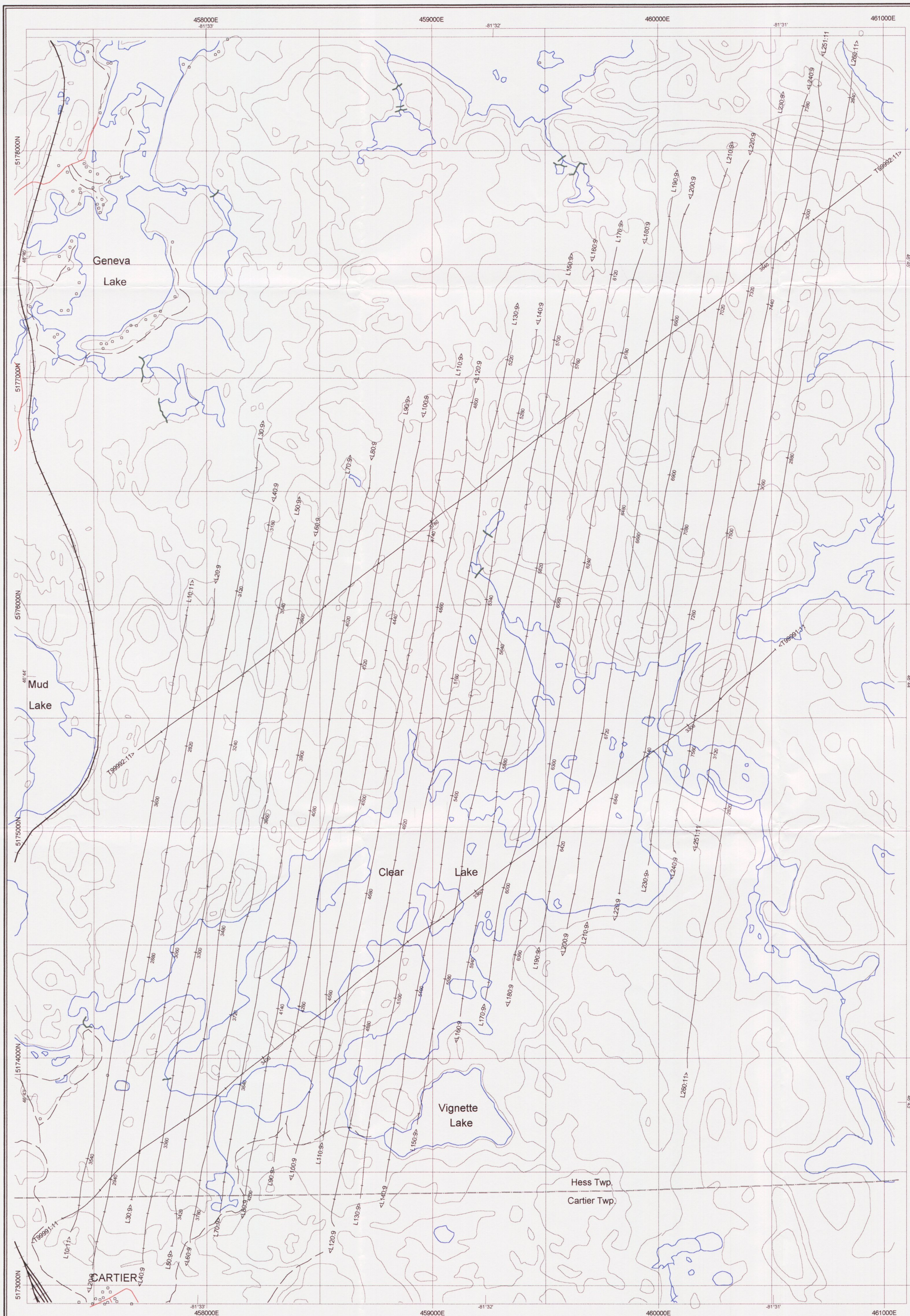
Map Datum: NAD 83

210

41I14SW2008 2.24242 HARTY



41I14SW2008 2.24242 HARTY 220



Grid North
NAD83-UTM Zone 17

AEROTEM Anomaly Symbols:

6 Channel (positive, negative) ....
5 Channel (positive, negative) ....
4 Channel (positive, negative) ....
3 Channel (positive, negative) ....
2 Channel (positive, negative) ....
1 Channel (positive, negative) ....
Indeterminate (positive, negative) .
Broad Anomaly.............................
Power Line ....
High Voltage Line ....
Other Culture ....

Anomaly Letter A
35
Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
- Survey flown: August 14,16, 2002
- Traverse line spacing: 100 metres
- Traverse line direction: N10E
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G822A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (WAAS DGPS)
- Navigation equipment: Trimble AGGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station levelling applied
- IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
  - Incl:-73.5 Decl:-10.0W Intensity:57066nT
  - IGRF Date: August 15, 2002
- EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
- Ellipsoid: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 81W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

2. 242 42

scale 1:10,000

200 0 200 400 600
metre
<utm17nad83.prj>

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

FLIGHT PATH

Hess Block

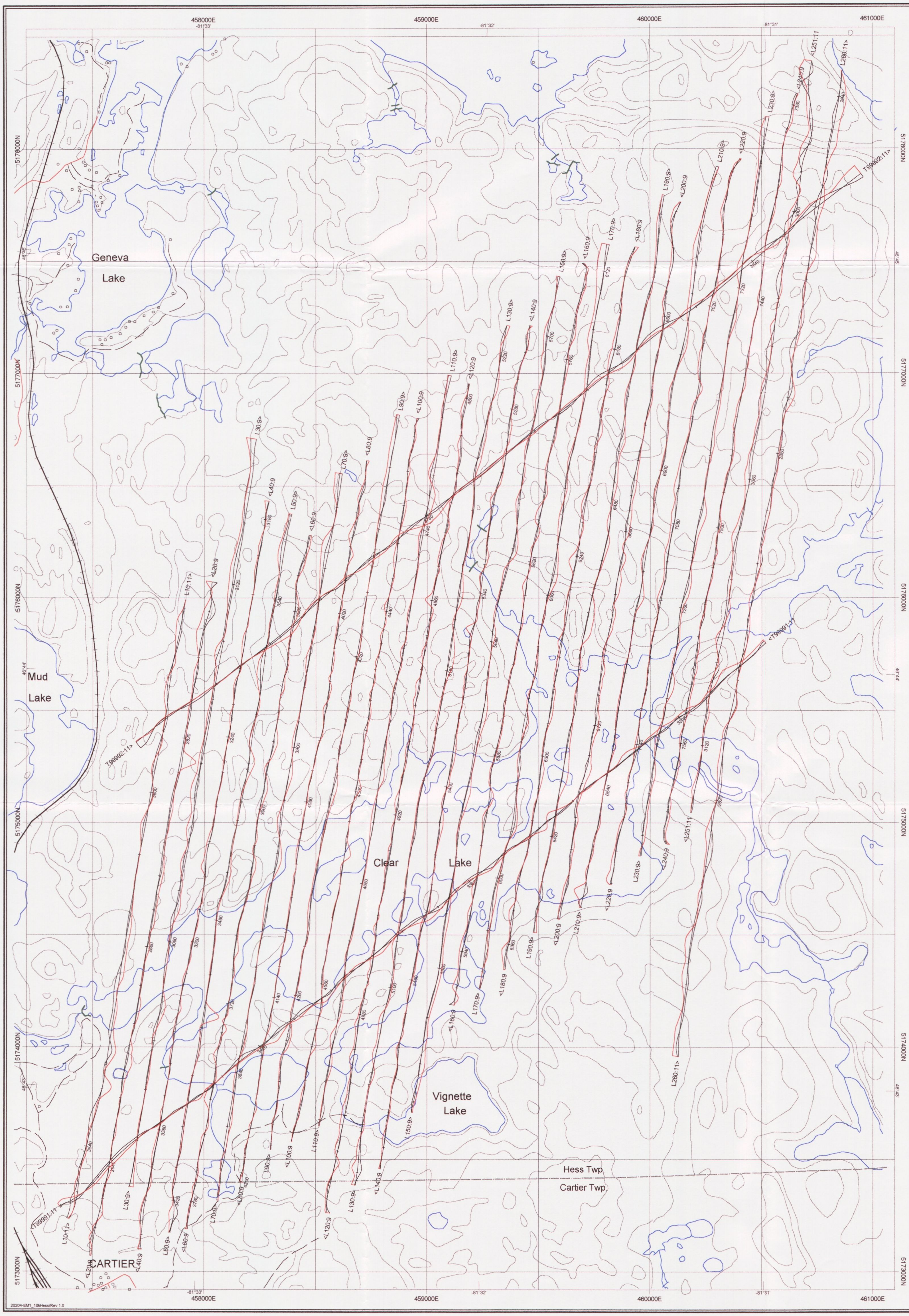
NTS 41I/12,13

Survey flown by:

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 1



Grid North
NAD83-UTM Zone 17

Positive excursion to left

Z1 Channel, 1mm=5ppb

Z3 Channel, 1mm=5ppb

AEROTEM Anomaly Symbols:

6 Channel (positive, negative) ....

5 Channel (positive, negative) ....

4 Channel (positive, negative) ....

3 Channel (positive, negative) ....

2 Channel (positive, negative) ....

1 Channel (positive, negative) ....

Indeterminate (positive, negative) .

Broad Anomaly............................

Power Line ....

High Voltage Line ....

Other Culture ....

Anomaly Letter A 35 Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
Survey flown: August 14,16, 2002
Traverse line spacing: 100 metres
Traverse line direction: N10E
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
Data acquisition: MDAS2 & RMS DGR-33
Magnetometer: Geometrics G822A cesium vapour
Installation: Towed bird 21 m above EM bird
Resolution: .001 nanoTesla
Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird

NAVIGATION:
Navigation: Global Positioning System (WAAS DGPS)
Navigation equipment: Trimble AGGPS132
Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
Magnetics: Base station levelling applied
IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
Incl:-73.5 Decl:-10.0W Intensity:57066nT
IGRF Date: August 15, 2002
EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
Ellipsoid: NAD83
Major Axis: 6378137.000
Eccentricity: 0.081819191

MAP PROJECTION
Projection: Universal Transverse Mercator
Central Meridian: 81W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

2.24242

scale 1:10,000

200 0 200 400 600
metre

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

AEROTEM PROFILES
Z1 & Z3 Channels

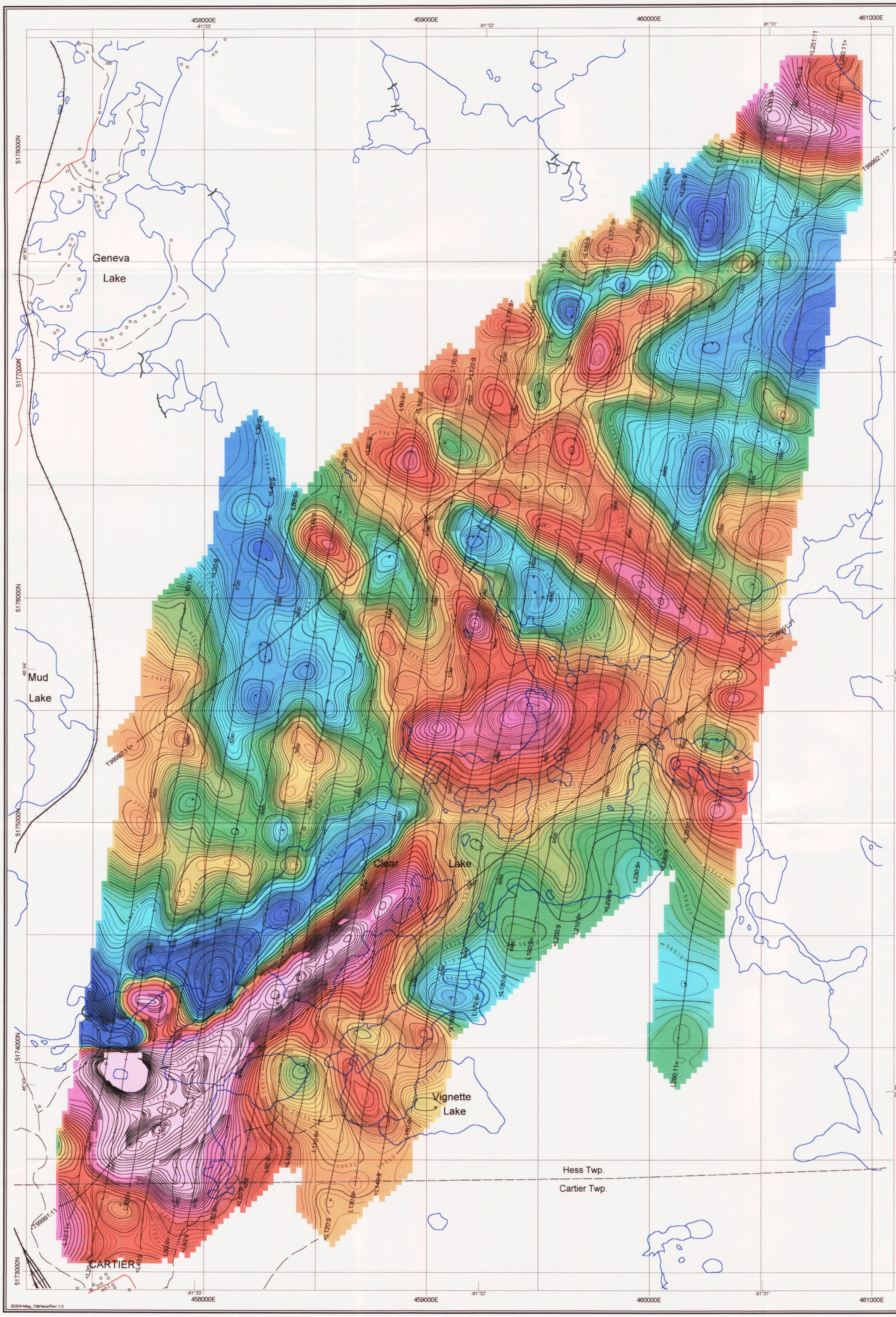
Hess Block

NTS 41I/12,13

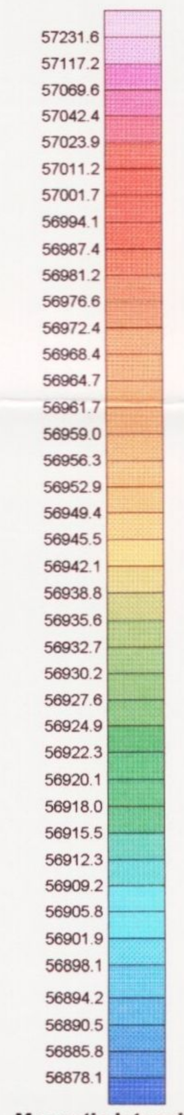
Survey flown by:
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 2



Grid North
NAD83-UTM Zone 17



Magnetic Intensity
nT

AEROTEM Anomaly Symbols:

- 6 Channel (positive, negative) ....
- 5 Channel (positive, negative) ....
- 4 Channel (positive, negative) ....
- 3 Channel (positive, negative) ....
- 2 Channel (positive, negative) ....
- 1 Channel (positive, negative) ....
- Indeterminate (positive, negative) .
- Broad Anomaly.............................
- Power Line ....
- High Voltage Line ....
- Other Culture ....

Anomaly Letter A
35
Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
- Survey flown: August 14,16, 2002
- Traverse line spacing: 100 metres
- Traverse line direction: N10E
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G822A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (WAAS DGPS)
- Navigation equipment: Trimble AGGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station levelling applied
- IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
  - Incl:-73.5 Decl:-10.0W Intensity:57066nT
  - IGRF Date: August 15, 2002
- EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
- Ellipsoid: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 81W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

Contour interval: 2, 10 & 50 nT

scale 1:10,000

200 0 200 400 600
metre
<utm17nad83.prj>

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

TOTAL MAGNETIC INTENSITY

Hess Block

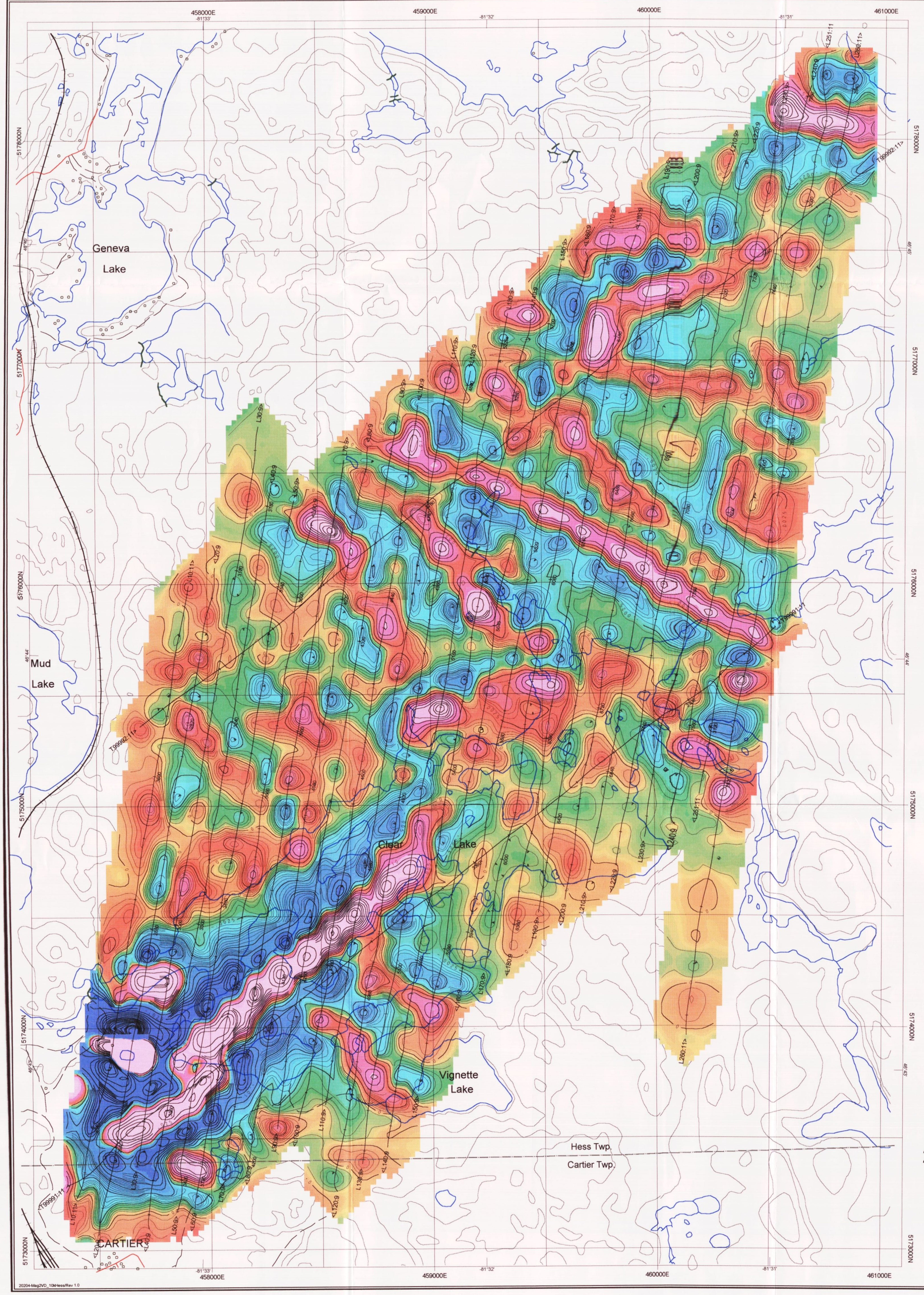
NTS 41I/12,13

Survey flown by:

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 3



Grid North
NAD83-UTM Zone 17

Vertical Derivative
nT

0.016, 0.010, 0.007, 0.005, 0.004, 0.003, 0.003, 0.002, 0.002, 0.001, 0.001, 0.001, 0.001, 0.000, 0.000, 0.000, 0.000, -0.000, -0.000, -0.000, -0.001, -0.001, -0.001, -0.001, -0.001, -0.001, -0.002, -0.002, -0.002, -0.002, -0.003, -0.003, -0.003, -0.004, -0.004, -0.005, -0.006, -0.008, -0.013

AEROTEM Anomaly Symbols:

- 6 Channel (positive, negative) ....
- 5 Channel (positive, negative) ....
- 4 Channel (positive, negative) ....
- 3 Channel (positive, negative) ....
- 2 Channel (positive, negative) ....
- 1 Channel (positive, negative) ....
- Indeterminate (positive, negative) .
- Broad Anomaly............................
- Power Line ....
- High Voltage Line ....
- Other Culture ....

Anomaly Letter A
35
Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
- Survey flown: August 14,16, 2002
- Traverse line spacing: 100 metres
- Traverse line direction: N10E
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G822A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (WAAS DGPS)
- Navigation equipment: Trimble AGGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station levelling applied
- IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
  - Incl:-73.5 Decl:-10.0W Intensity:57066nT
  - IGRF Date: August 15, 2002
- EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
- Ellipsoid: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 81W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

Contour interval: 0.0005, 0.0025 & 0.0125 nT/m^2

scale 1:10,000

200 0 200 400 600
metre
<utm17nad83.prj>

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

2nd VERTICAL DERIVATIVE

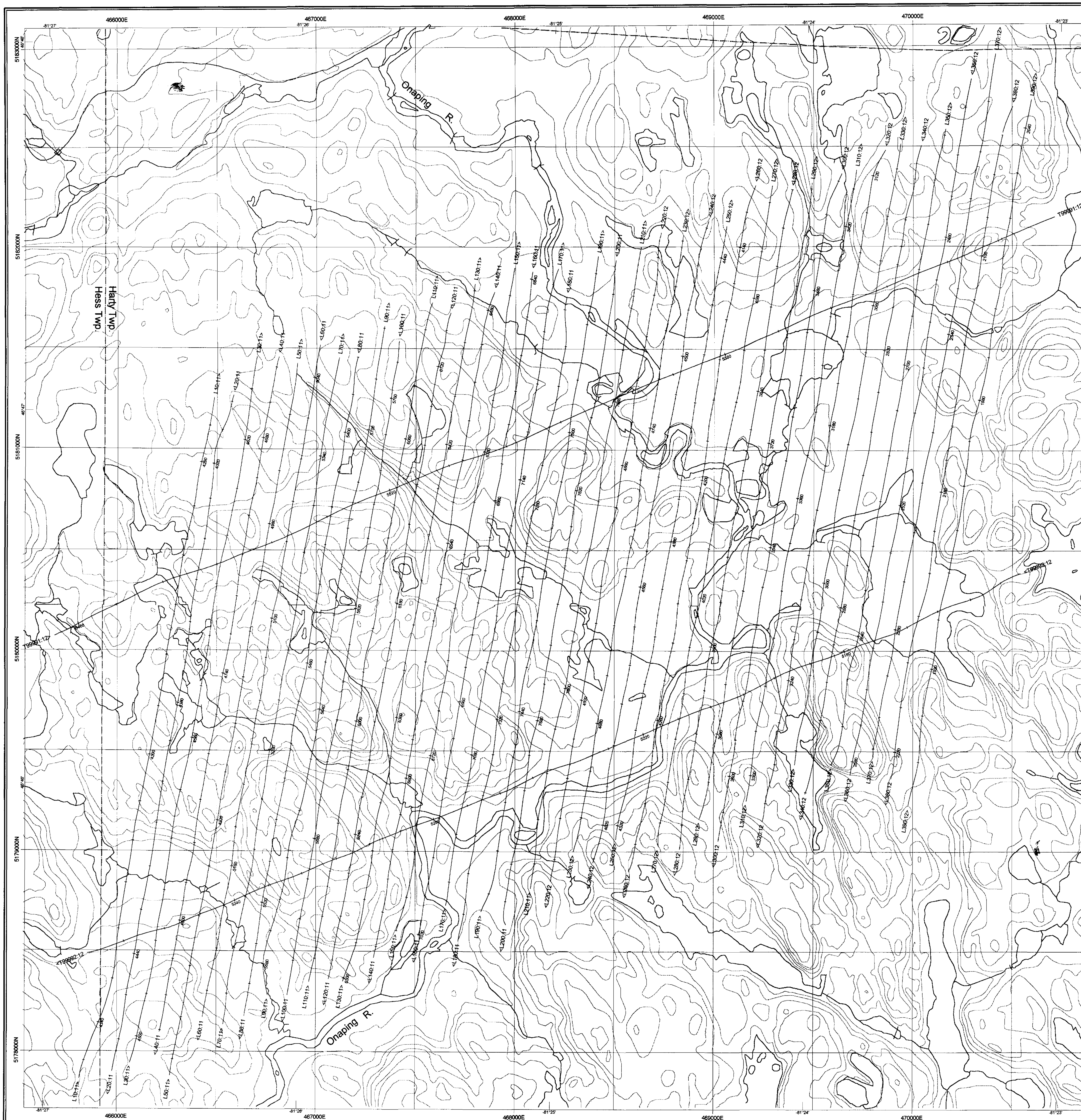
Hess Block

NTS 41I/12,13

Survey flown by:
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 4



Grid North
NAD83-UTM Zone 17

AEROTEM Anomaly Symbols:

6 Channel (positive, negative) ....
5 Channel (positive, negative) ....
4 Channel (positive, negative) ....
3 Channel (positive, negative) ....
2 Channel (positive, negative) ....
1 Channel (positive, negative) ....
Indeterminate (positive, negative) .
Broad Anomaly ....
Power Line ....
High Voltage Line ....
Other Culture ....

Anomaly Letter A
35
Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
- Survey flown: August 16, 2002
- Traverse line spacing: 100 metres
- Traverse line direction: N10E
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G822A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (WAAS DGPS)
- Navigation equipment: Trimble AGGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station levelling applied
- IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
  - Incl:-73.5 Decl:-10.0W Intensity:57066nT
  - IGRF Date: August 15, 2002
- EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
- Ellipsoid: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 81W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

2.24242

scale 1:10,000

200 0 200 400 600
metre

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

FLIGHT PATH

Harty Block

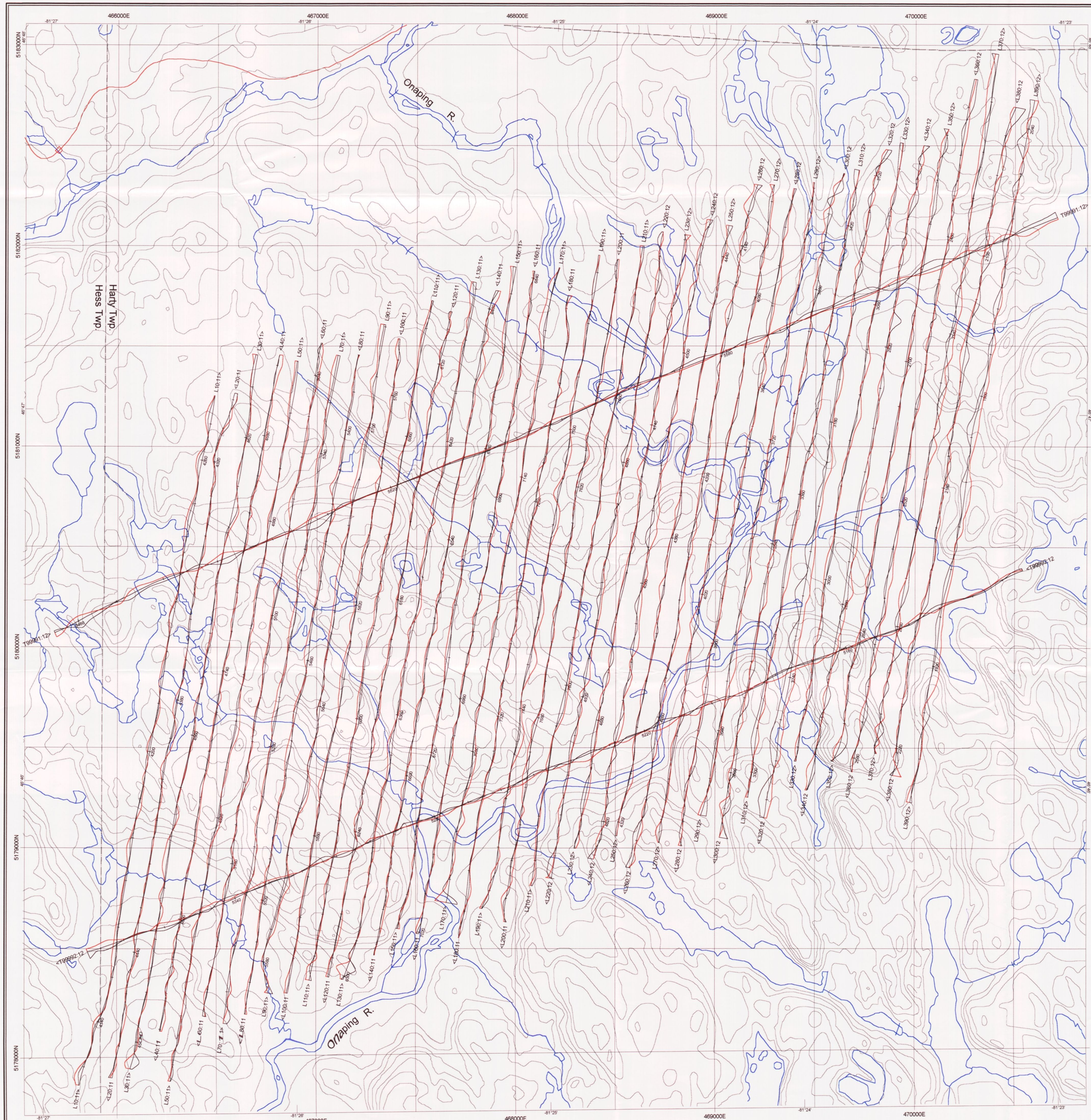
NTS 41I/14

Survey flown by:

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 1



Positive excursion to left

Z1 Channel, 1mm=5ppb

Z3 Channel, 1mm=5ppb

AEROTEM Anomaly Symbols:

6 Channel (positive, negative) ....

5 Channel (positive, negative) ....

4 Channel (positive, negative) ....

3 Channel (positive, negative) ....

2 Channel (positive, negative) ....

1 Channel (positive, negative) ....

Indeterminate (positive, negative) .

Broad Anomaly............................

Power Line ....

High Voltage Line ....

Other Culture ....

Anomaly Letter A

35 Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
- Survey flown: August 16, 2002
- Traverse line spacing: 100 metres
- Traverse line direction: N10E
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
- Data acquisition: MDAS2 & RMS DGR-33
- Magnetometer: Geometrics G822A cesium vapour
  - Installation: Towed bird 21 m above EM bird
  - Resolution: .001 nanoTesla
- Electromagnetics: AEROTEM Mk-II System
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Global Positioning System (WAAS DGPS)
- Navigation equipment: Trimble AGGPS132
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: Base station levelling applied
- IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
  - Incl:-73.5 Decl:-10.0W Intensity:57066nT
  - IGRF Date: August 15, 2002
- EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
- Ellipsoid: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 81W (Zone 17)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

2.24242

scale 1:10,000

200 0 200 400 600
metre
<utm17nad83.prj>

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

AEROTEM PROFILES
Z1 & Z3 Channels

Harty Block

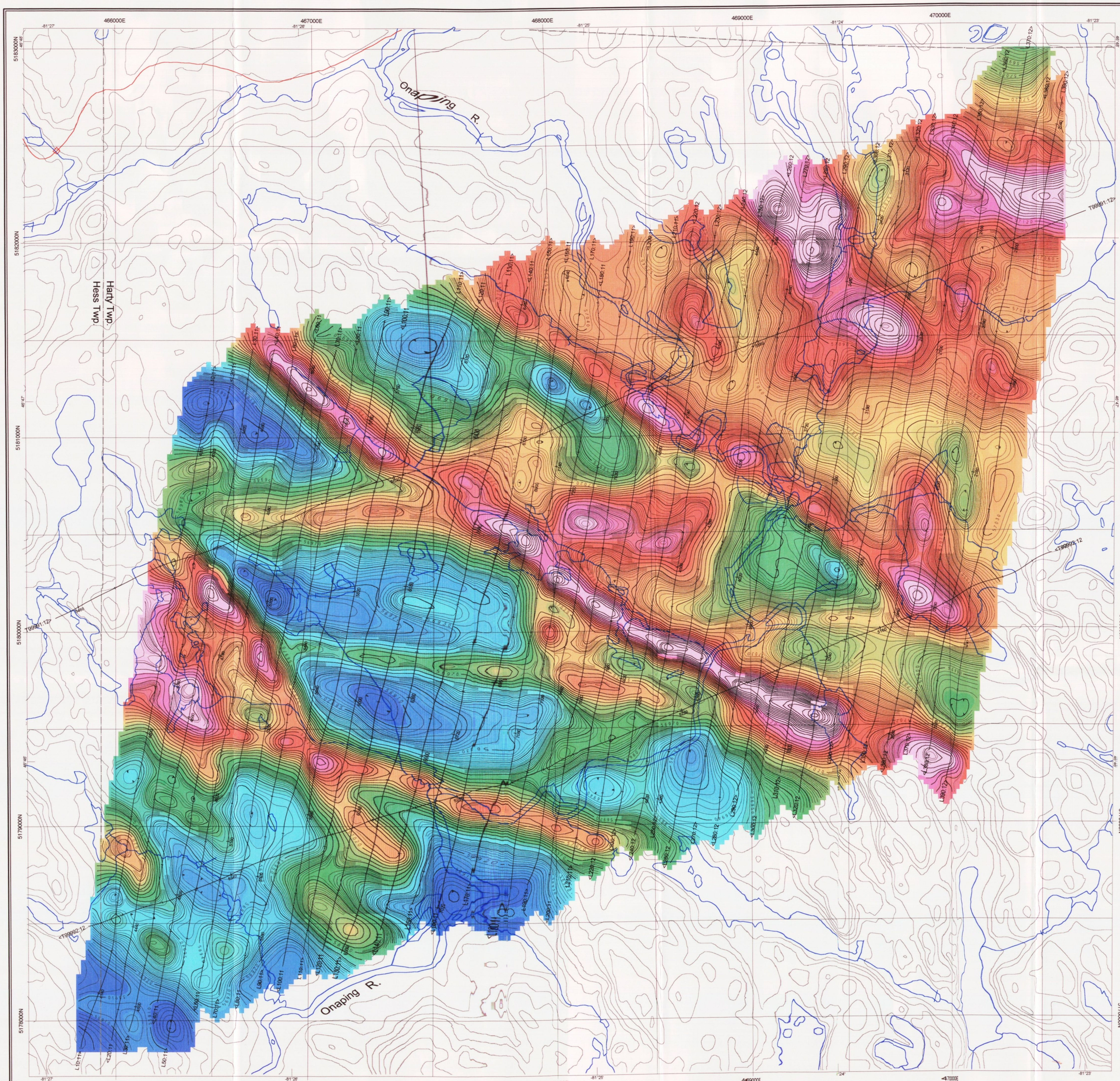
NTS 41I/14

Survey flown by:

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 2



Grid North
NAD83-UTM Zone 17

Magnetic Intensity
nT

AEROTEM Anomaly Symbols:

6 Channel (positive, negative)
5 Channel (positive, negative)
4 Channel (positive, negative)
3 Channel (positive, negative)
2 Channel (positive, negative)
1 Channel (positive, negative)
Indeterminate (positive, negative)
Broad Anomaly
Power Line
High Voltage Line
Other Culture

Anomaly Letter A
35 Z3 Amplitude (ppb)

SURVEY SPECIFICATIONS:
Survey flown: August 16, 2002
Traverse line spacing: 100 metres
Traverse line direction: N10E
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)

INSTRUMENTATION:
Data acquisition: MDAS2 & RMS DGR-33
Magnetometer: Geometrics G822A cesium vapour
Installation: Towed bird 21 m above EM bird
Resolution: .001 nanoTesla
Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird

NAVIGATION:
Navigation: Global Positioning System (WAAS DGPS)
Navigation equipment: Trimble AGGPS132
Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
Magnetics: Base station levelling applied
IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
Incl:-73.5 Decl:-10.0W Intensity:57066nT
IGRF Date: August 15, 2002
EM smoothing: Non-linear-8pt, Low Pass-30pt

POSITIONING
Ellipsoid: NAD83
Major Axis: 6378137.000
Eccentricity: 0.081819191

MAP PROJECTION
Projection: Universal Transverse Mercator
Central Meridian: 81W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

2.24242

Contour interval: 2, 10 & 50 nT

scale 1:10,000

200 0 200 400 600
metre
<utm17nad83.prj>

Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario

TOTAL MAGNETIC INTENSITY

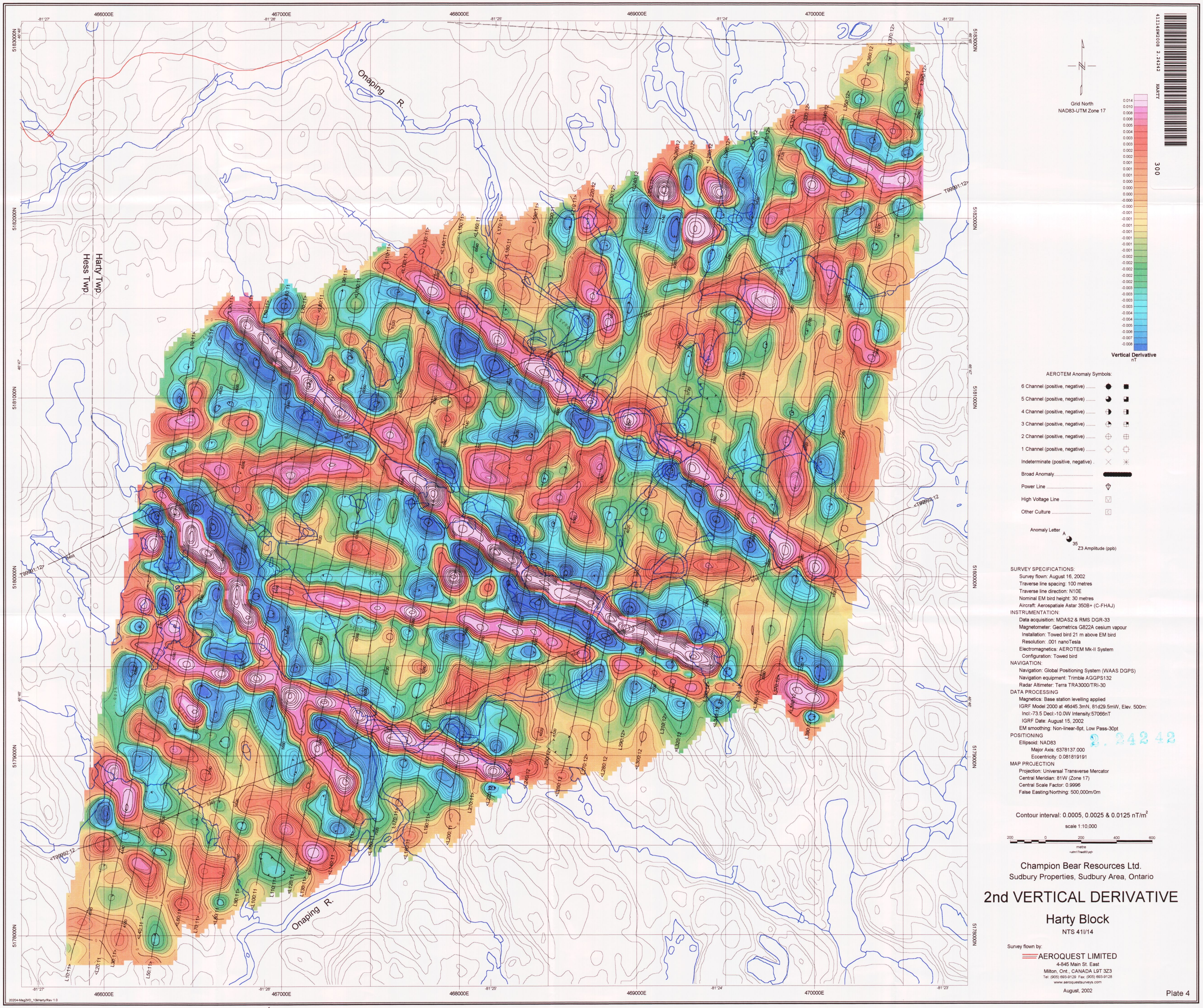
Harty Block

NTS 41I/14

Survey flown by:
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

August, 2002

Plate 3



Onaping R.
Harty Twp.
Hess Twp.
Onaping R.
466000E
467000E
468000E
469000E
470000E
5183000N
5182000N
5181000N
5180000N
5179000N
5178000N
Grid North
NAD83-UTM Zone 17
Vertical Derivative
nT
AEROTEM Anomaly Symbols:
6 Channel (positive, negative) ....
5 Channel (positive, negative) ....
4 Channel (positive, negative) ....
3 Channel (positive, negative) ....
2 Channel (positive, negative) ....
1 Channel (positive, negative) ....
Indeterminate (positive, negative) .
Broad Anomaly............................
Power Line ....
High Voltage Line ....
Other Culture ....
Anomaly Letter
A
35
Z3 Amplitude (ppb)
SURVEY SPECIFICATIONS:
Survey flown: August 16, 2002
Traverse line spacing: 100 metres
Traverse line direction: N10E
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale Astar 350B+ (C-FHAJ)
INSTRUMENTATION:
Data acquisition: MDAS2 & RMS DGR-33
Magnetometer: Geometrics G822A cesium vapour
Installation: Towed bird 21 m above EM bird
Resolution: .001 nanoTesla
Electromagnetics: AEROTEM Mk-II System
Configuration: Towed bird
NAVIGATION:
Navigation: Global Positioning System (WAAS DGPS)
Navigation equipment: Trimble AGGPS132
Radar Altimeter: Terra TRA3000/TRI-30
DATA PROCESSING
Magnetics: Base station levelling applied
IGRF Model 2000 at 46d45.3mN, 81d29.5mW, Elev. 500m:
Incl:-73.5 Decl:-10.0W Intensity:57066nT
IGRF Date: August 15, 2002
EM smoothing: Non-linear-8pt, Low Pass-30pt
POSITIONING
Ellipsoid: NAD83
Major Axis: 6378137.000
Eccentricity: 0.081819191
MAP PROJECTION
Projection: Universal Transverse Mercator
Central Meridian: 81W (Zone 17)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m
2.24242
Contour interval: 0.0005, 0.0025 & 0.0125 nT/m2
scale 1:10,000
200 0 200 400 600
metre
<utm17nad83.prj>
Champion Bear Resources Ltd.
Sudbury Properties, Sudbury Area, Ontario
2nd VERTICAL DERIVATIVE
Harty Block
NTS 41I/14
Survey flown by:
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com
August, 2002
Plate 4