

**Report on a Helicopter-Borne
AeroTEM II Electromagnetic
& Magnetometer Survey**



Aeroquest Job # 07025
Iskut Property
Northern British Columbia
NTS 104B11

for

Spirit Bear Minerals Ltd.

by

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Report date: October, 2006

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1.2. Appendices

- Appendix 1: Survey Block Co-ordinates
- Appendix 2: Description of Database Fields
- Appendix 3: AeroTEM Anomaly Listing
- Appendix 4: AeroTEM Design Considerations
- Appendix 5: Instrumentation Specification Sheet

1.3. List of Maps (1:10,000)

- MAG Coloured Total Magnetic Intensity (TMI) with line contours and EM anomalies
- TDR Tilt Derivative of Total Magnetic Intensity with line contours and EM anomalies
- ZOFF AeroTEM Off-Time Z1 colour grid with line contours and EM anomalies

2. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Spirit Bear Minerals Ltd. (hereafter Spirit Bear) on the Iskut Property, Northern British Columbia.

The principal geophysical sensor is Aeroquest's exclusive AeroTEM II time domain helicopter electromagnetic system which is employed in conjunction with a high-sensitivity cesium vapour magnetometer. Ancillary equipment includes a real-time differential GPS navigation system, radar altimeter, video recorder, and a base station magnetometer. Full-waveform streaming EM data is recorded at 38,400 samples per second. The streaming data comprise the transmitted waveform, and the X component and Z component of the resultant field at the receivers. A secondary acquisition system (RMS) records the ancillary data.

The total line kms presented in the maps and data totalled 498.9, of which 477.5 fell within the project area. The survey flying described in this report took place on July 14th – 19th, 2006.

3. SURVEY AREA

The project area is located on 100km northwest of Stewart, BC and 50kms east of the town of Boundary, on the British Columbia – Alaska boundary (Figure 1). The survey terrain is mountainous and rugged with elevations ranging from 1000-6000 feet. There are a number of glaciers and icefields in the area and the Craig River flows westwards just to the north of the area. The project area is accessible by air only. The survey consisted of one block with an area of 47km². A number of mining claims fall either wholly or partly within the project area. They are outlined in Table 1.

The field crew was based at the Bronson Creek camp and the base magnetometer and fuel caching were located at this site also (56° 41 05.26N, 131° 04 28.89W). The crew stayed at Bronson Creek Lodge.

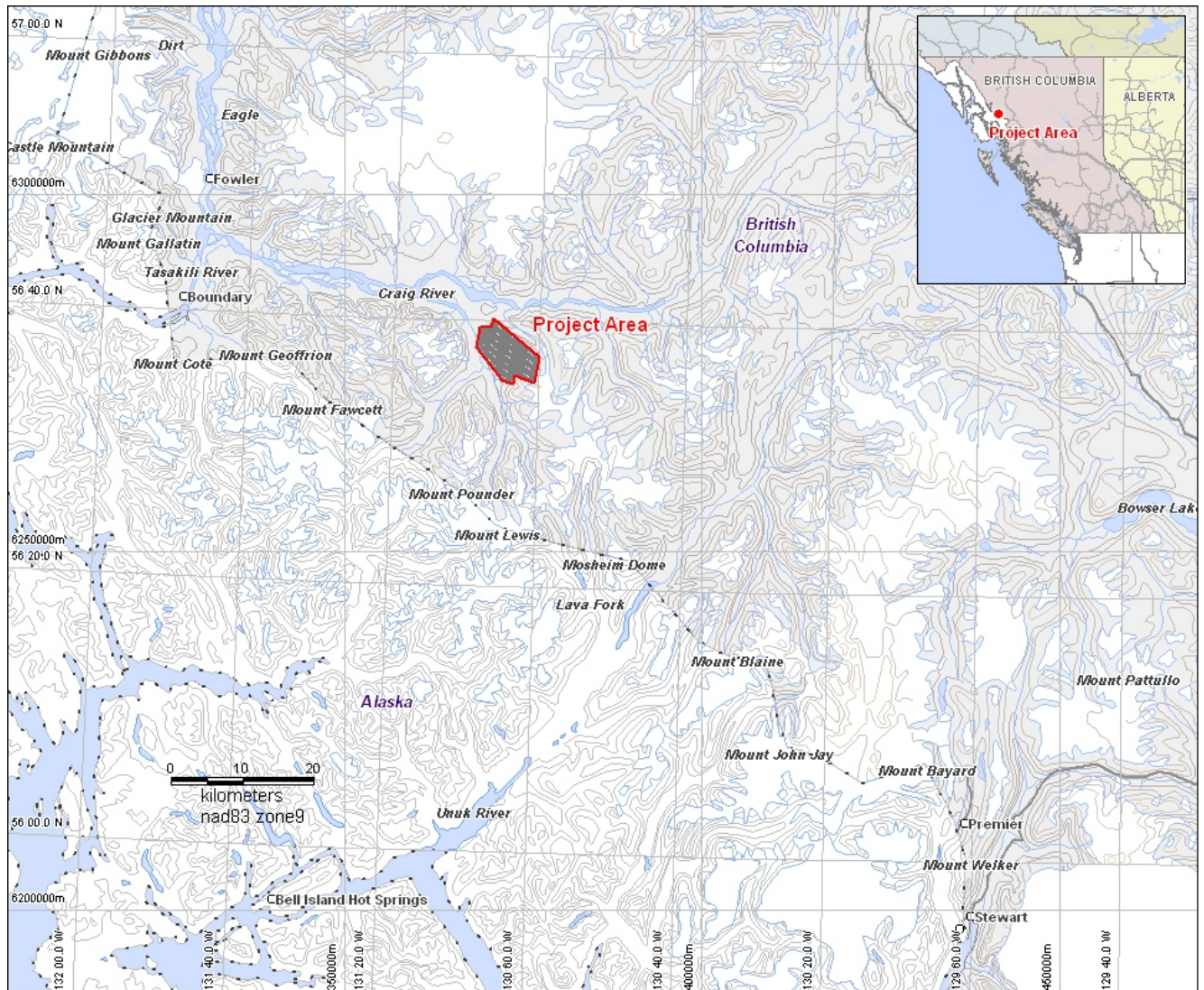


Figure 1. Regional location map of the project area.

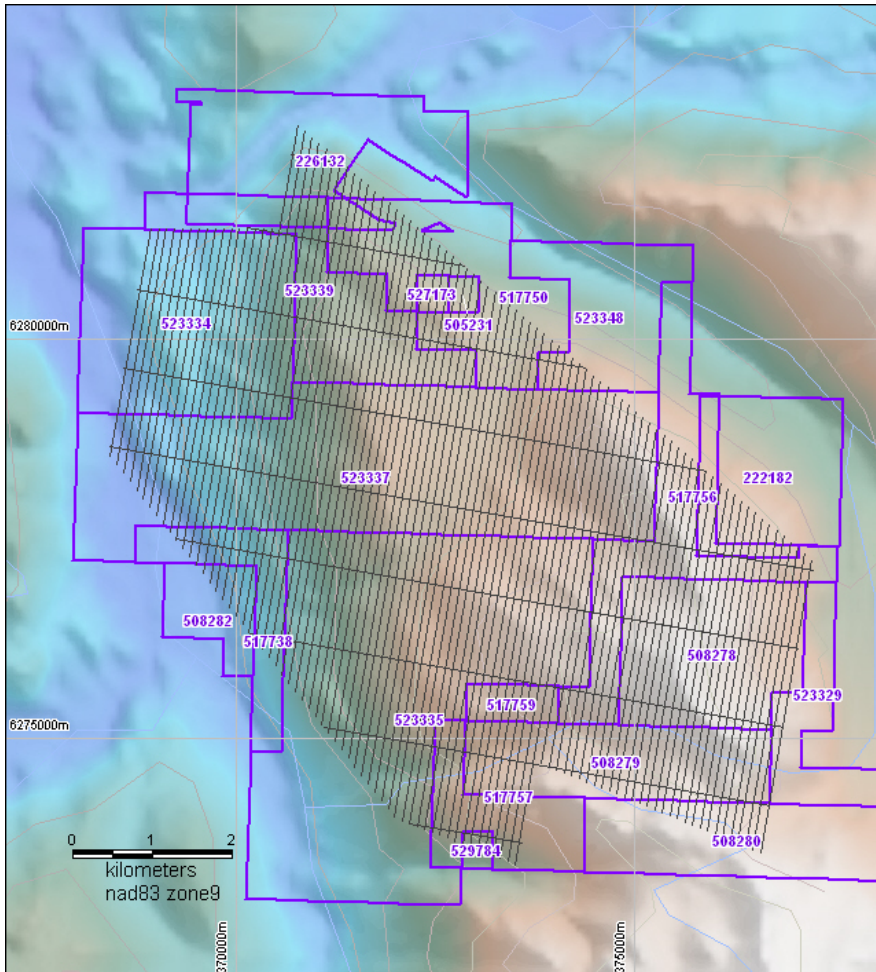


Figure 2. Project Flight Paths and mining claims

Tenure Number	Claim Name	Owner	Good To Date	Mining Division	Area (ha)
222182	GOSSAN 17	ECSTALL MINING CORPORATION	2007/JUN/28	LIARD	500
226132		BARRICK GOLD INC	2007/JUL/21	LIARD	482.07
505231	NIP1 NIP2	Robert Kenneth Lee	2007/JAN/31		17.788
508278	jmx	SKYLINE GOLD CORPORATION	2006/DEC/31		409.547
508279	jmx2	SKYLINE GOLD CORPORATION	2006/DEC/31		356.247
508280	jmx3	SKYLINE GOLD CORPORATION	2006/DEC/31		356.325
508282	jmx4	SKYLINE GOLD CORPORATION	2006/DEC/31		124.635
517738	BURNIE2	SKYLINE GOLD CORPORATION	2006/DEC/31		178.046
517750	BRONSON	SKYLINE GOLD CORPORATION	2006/DEC/31		409.107
517756	SKYFILL1	SKYLINE GOLD CORPORATION	2006/DEC/31		427.192
517757	BURNIEADD	SKYLINE GOLD CORPORATION	2006/DEC/31		195.97
517759	BURNIEADD1	SKYLINE GOLD CORPORATION	2006/DEC/31		53.428
523329	HIGHADD	SKYLINE GOLD CORPORATION	2006/DEC/01		178.1
523334		SKYLINE GOLD CORPORATION	2006/DEC/31		622.647
523335		SKYLINE GOLD CORPORATION	2006/DEC/31		1353.509
523337		SKYLINE GOLD CORPORATION	2006/DEC/31		1263.601
523339		SKYLINE GOLD CORPORATION	2006/DEC/31		355.767
523348	SNIP 1	ST. ANDREW GOLDFIELDS LTD.	2007/DEC/02		284.618
527173	CG1	SKYLINE GOLD CORPORATION	2007/FEB/06		17.788
529784	SECOND BASIN	LOGAN MILLER-TAIT	2007/MAR/09		17.817

Table 1. Mining Claims in the Project Area

4. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarized in the following table:

Survey Block	Line Spacing (m)	Line direction	Survey Coverage (line-km)	Dates Flown
Iskut	100	N-S (10°)	498.9	July 14 th - July 19 th , 2006

The survey coverage was calculated by adding up the along-line distance of the survey lines and control (tie) lines as presented in the final Geosoft database. The survey was flown with a line spacing of 100 m. The control (tie) lines were flown perpendicular to the survey lines with a spacing of 1 km. The nominal EM bird terrain clearance is 30m, but can be higher in more rugged terrain due to safety considerations and the capabilities of the aircraft. The magnetometer sensor is mounted in a smaller bird connected to the tow rope 17 metres above the EM bird and 21 metres below the helicopter (Figure 4). Nominal survey speed over relatively flat terrain is 75 km/hr and is generally lower in rougher terrain. Scan rates for ancillary data acquisition is 0.1 second for the magnetometer and altimeter, and 0.2 second for the GPS determined position. The EM data is acquired as a data stream at a sampling rate of 38,400 samples per second and is processed to generate final data at 10 samples per second. The 10 samples per second translates to a geophysical reading about every 1.5 to 2.5 metres along the flight path.

4.1. Navigation

Navigation is carried out using a GPS receiver, an AGNAV2 system for navigation control, and an RMS DGR-33 data acquisition system which records the GPS coordinates. The x-y-z position of the aircraft, as reported by the GPS, is recorded at 0.2 second intervals. The system has a published accuracy of under 3 metres. A recent static ground test of the Mid-Tech WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two-hour period.

4.2. System Drift

Unlike frequency domain electromagnetic systems, the AeroTEM II system has negligible drift due to thermal expansion. The operator is responsible for ensuring the instrument is properly warmed up prior to departure and that the instruments are operated properly throughout the flight. The operator maintains a detailed flight log during the survey noting the times of the flight and any unusual geophysical or topographic features. Each flight included at least two high elevation ‘background’ checks. 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.

4.3. Field QA/QC Procedures

On return of the pilot and operator to the base, usually after each flight, the AeroDAS streaming EM data and the RMS data are carried on removable hard drives and FlashCards, respectively and

transferred to the data processing work station. At the end of each day, the base station magnetometer data on FlashCard is retrieved from the base station unit.

Data verification and quality control includes a comparison of the acquired GPS data with the flight plan; verification and conversion of the RMS data to an ASCII format XYZ data file; verification of the base station magnetometer data and conversion to ASCII format XYZ data; and loading, processing and conversion of the steaming EM data from the removable hard drive. All data is then merged to an ASCII XYZ format file which is then imported to an Oasis database for further QA/QC and for the production of preliminary EM, magnetic contour, and flight path maps.

Survey lines which show excessive deviation from the intended flight path are re-flown. Any line or portion of a line on which the data quality did not meet the contract specification was noted and reflown.

5. AIRCRAFT AND EQUIPMENT

5.1. Aircraft

A Eurocopter (Aerospatiale) AS350B2 "A-Star" helicopter - registration C-FPTG was used as survey platform (Figure 3). The helicopter was owned and operated by Hi-Wood Helicopters, Okotose, Alberta. The survey aircraft was flown at a nominal terrain clearance of 220 ft (70 m).



Figure 3. Survey helicopter C-FPTG.

5.2. Magnetometer

The Aeroquest airborne survey system employs the Geometrics G-823A cesium vapour magnetometer sensor installed in a two metre towed bird airfoil attached to the main tow line, 17 metres below the helicopter (Figure 4A). The sensitivity of the magnetometer is 0.001 nanoTesla at a 0.1 second sampling rate. The nominal ground clearance of the magnetometer bird is 51 metres (170 ft.). The magnetic data is recorded at 10Hz by the RMS DGR-33.

5.3. Electromagnetic System

The electromagnetic system is an AeroQuest AeroTEM[©] II time domain towed-bird system (Figure 4B). The current AeroTEM[©] transmitter dipole moment is 38.8 kNIA. The AeroTEM[©] bird is towed 38 m (125 ft) below the helicopter. More technical details of the system may be found in Appendix 4.

The wave-form is triangular with a symmetric transmitter on-time pulse of 1.10 ms and a base frequency of 150 Hz (Figure 5). The current alternates polarity every on-time pulse. During every Tx on-off cycle (300 per second), 128 contiguous channels of raw x and z component (and a transmitter current monitor, itx) of the received waveform are measured. Each channel width is 26.04 microseconds starting at the beginning of the transmitter pulse. This 128 channel data is referred to as the raw streaming data. The AeroTEM[©] system has two separate EM data recording streams, the conventional RMS DGR-33 and the AeroDAS system which records the full waveform.

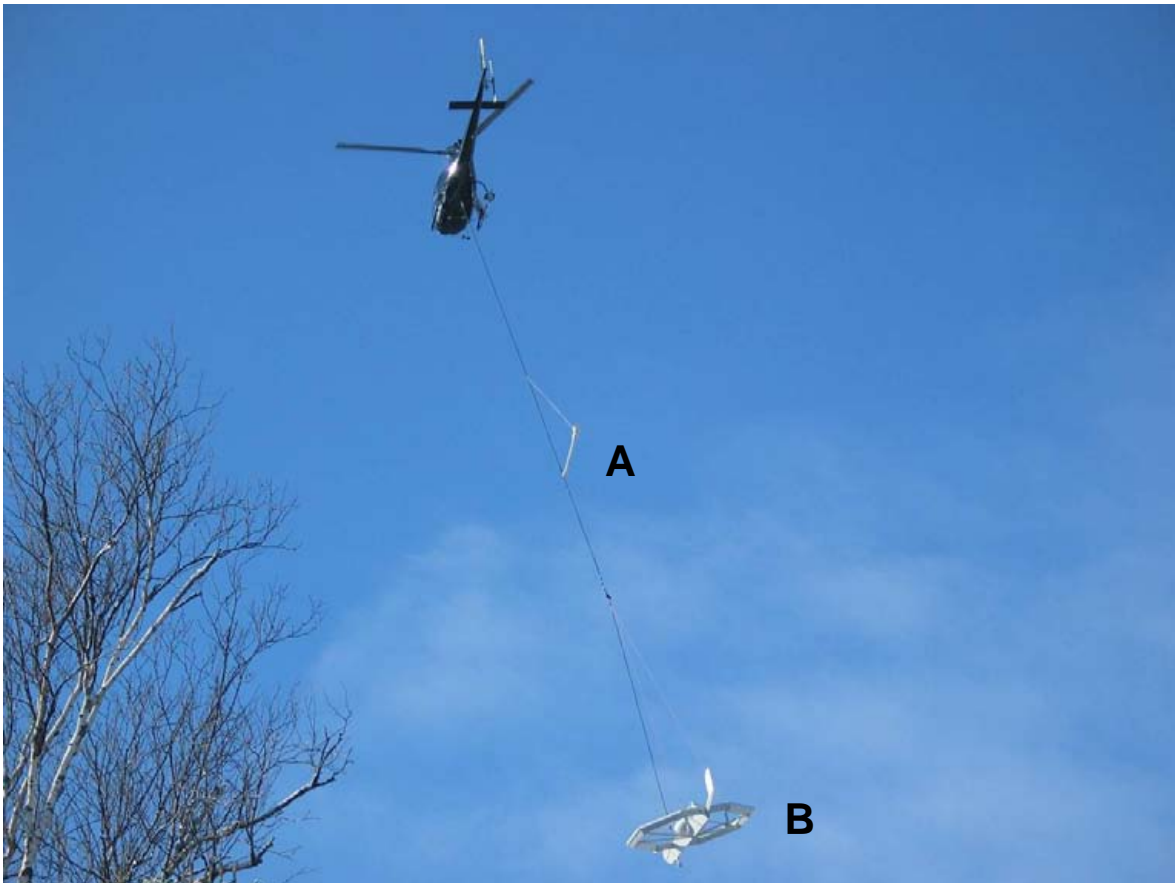


Figure 4. The magnetometer bird (A) and AeroTEM II EM bird (B)

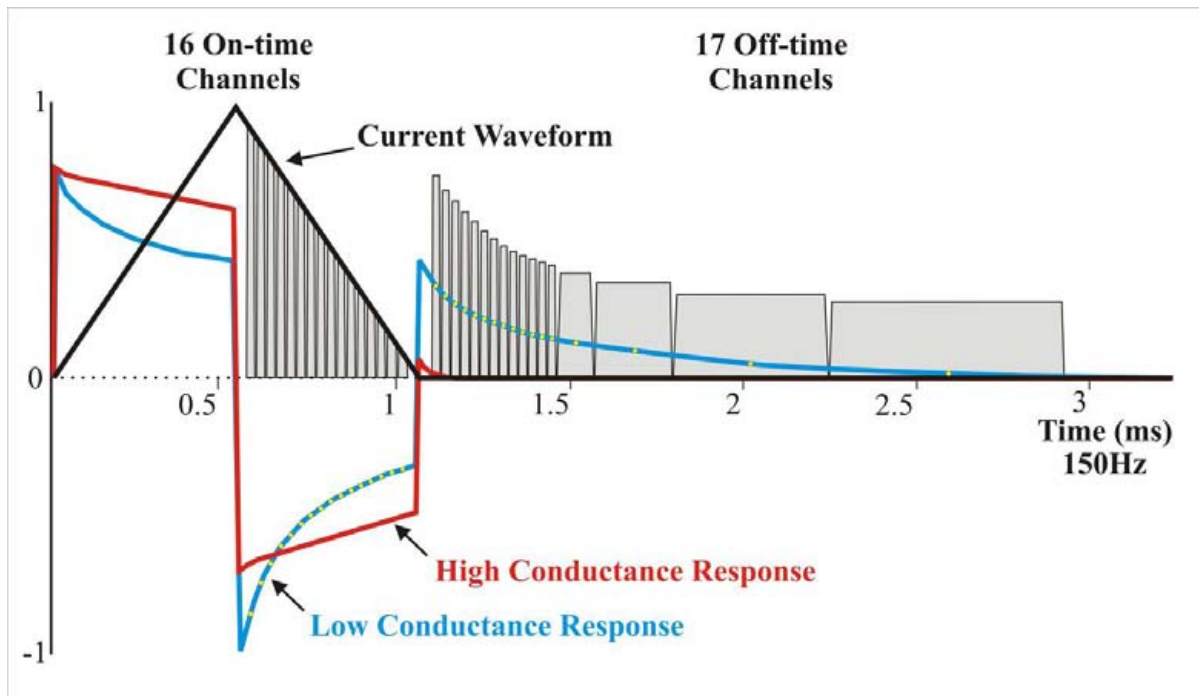


Figure 5. Schematic of Transmitter and Receiver waveforms

5.4. AERODAS Acquisition System

The 128 channels of raw streaming data are recorded by the AeroDAS acquisition system (Figure 6) onto a removable hard drive. The streaming data are processed post-survey to yield 33 stacked and binned on-time and off-time channels at a 10 Hz sample rate. The timing of the final processed EM channels is described in the following table:

Channel:	Start Gate	End Gate	Start (us)	Stop (us)	Mid (us)	Width (us)
1 ON	25	25	651.0	677.0	664.0	26.0
2 ON	26	26	677.0	703.1	690.1	26.0
3 ON	27	27	703.1	729.1	716.1	26.0
4 ON	28	28	729.1	755.2	742.1	26.0
5 ON	29	29	755.2	781.2	768.2	26.0
6 ON	30	30	781.2	807.2	794.2	26.0
7 ON	31	31	807.2	833.3	820.3	26.0
8 ON	32	32	833.3	859.3	846.3	26.0
9 ON	33	33	859.3	885.4	872.3	26.0
10 ON	34	34	885.4	911.4	898.4	26.0
11 ON	35	35	911.4	937.4	924.4	26.0
12 ON	36	36	937.4	963.5	950.5	26.0
13 ON	37	37	963.5	989.5	976.5	26.0
14 ON	38	38	989.5	1015.6	1002.5	26.0

15 ON	39	39	1015.6	1041.6	1028.6	26.0
16 ON	40	40	1041.6	1067.6	1054.6	26.0
0 OFF	44	44	1145.8	1171.8	1158.8	26.0
1 OFF	45	45	1171.8	1197.8	1184.8	26.0
2 OFF	46	46	1197.8	1223.9	1210.9	26.0
3 OFF	47	47	1223.9	1249.9	1236.9	26.0
4 OFF	48	48	1249.9	1276.0	1262.9	26.0
5 OFF	49	49	1276.0	1302.0	1289.0	26.0
6 OFF	50	50	1302.0	1328.0	1315.0	26.0
7 OFF	51	51	1328.0	1354.1	1341.1	26.0
8 OFF	52	52	1354.1	1380.1	1367.1	26.0
9 OFF	53	53	1380.1	1406.2	1393.1	26.0
10 OFF	54	54	1406.2	1432.2	1419.2	26.0
11 OFF	55	55	1432.2	1458.2	1445.2	26.0
12 OFF	56	56	1458.2	1484.3	1471.3	26.0
13 OFF	57	60	1484.3	1588.4	1536.4	104.2
14 OFF	61	68	1588.4	1796.8	1692.6	208.3
15 OFF	69	84	1796.8	2213.4	2005.1	416.6
16 OFF	85	110	2213.4	2890.4	2551.9	677.0

5.5. RMS DGR-33 Acquisition System

In addition to the magnetics, altimeter and position data, six channels of real time processed off-time EM decay in the Z direction and one in the X direction are recorded by the RMS DGR-33 acquisition system at 10 samples per second and plotted real-time on the analogue chart recorder. These channels are derived by a binning, stacking and filtering procedure on the raw streaming data. The primary use of the RMS EM data (Z1 to Z6, X1) is to provide for real-time QA/QC on board the aircraft.

The channel window timing of the RMS DGR-33 6 channel system is described in the table below.

RMS Channel	Start time (microsec)	End time (microsec)	Width (microsec)	Streaming Channels
Z1, X1	1269.8	1322.8	52.9	48-50
Z2	1322.8	1455.0	132.2	50-54
Z3	1428.6	1587.3	158.7	54-59
Z4	1587.3	1746.0	158.7	60-65
Z5	1746.0	2063.5	317.5	66-77
Z6	2063.5	2698.4	634.9	78-101



Figure 6. AeroTEM II Instrument Rack. Includes (AeroDAS system and RMS DGR-33 and AeroTEM power supply, data acquisition computer and AG-NAV2 navigation)

5.6. Magnetometer Base Station

The base magnetometer was a Geometrics G-858 cesium vapour magnetometer. Data logging and UTC time synchronisation was carried out within an external data logging computer, with an external GPS providing the timing signal. That data logging was configured to measure at 0.1 second intervals (10Hz). Digital recording resolution was 0.001 nT. The sensor was placed on a tripod in an area free of cultural noise sources. A continuously updated display of the base station values was available for viewing and regularly monitored to ensure acceptable data quality and diurnal levels.

5.7. Radar Altimeter

A Terra TRA 3500/TRI-30 radar altimeter is used to record terrain clearance. The antenna was mounted on the outside of the helicopter beneath the cockpit. The recorded data represents the height of the antenna, i.e. helicopter, above the ground. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

5.8. Video Tracking and Recording System

A high resolution colour digital video camera is 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 responses.



Figure 7. Digital video camera typical mounting location.

5.9. GPS Navigation System

The navigation system consists of an Ag-Nav Incorporated AG-NAV2 GPS 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 Mid-Tech RX400p WAAS-enabled GPS receiver mounted on the instrument rack and an antenna mounted on the magnetometer bird. WAAS (Wide Area Augmentation System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations, located on the east and west coasts, 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 a published accuracy of under 3 metres. A recent static ground test of the Mid-Tech WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two-hour period.

Survey co-ordinates are set up prior to the survey and the information is fed into the airborne navigation system. The co-ordinate system employed in the survey design was WGS84 [World] using the UTM zone 9N projection. The real-time differentially corrected GPS positional data was recorded by the RMS DGR-33 in geodetic coordinates (latitude and longitude using WGS84) at 0.2 second intervals.

5.10. Digital Acquisition System

The AeroTEM received waveform sampled during on and off-time at 128 channels per decay, 300 times per second, was logged by the proprietary AeroDAS data acquisition system. The channel sampling commences at the start of the Tx cycle and the width of each channel is 26.04 microseconds. The streaming data was recorded on a removable hard-drive and was later backed-up onto DVD-ROM from the field-processing computer.

The RMS Instruments DGR33A data acquisition system was used to collect and record the analogue data stream, i.e. the positional and secondary geophysical data, including processed 6 channel EM, magnetics, radar altimeter, GPS position, and time. The data was recorded on 128Mb capacity FlashCard. The RMS output was also directed to a thermal chart recorder.

6. PERSONNEL

The following AeroQuest personnel were involved in the project:

- Manager of Operations: Bert Simon
- Field Data Processors: Emilio Schein
- Field Operator: Chris Kozak
- Data Interpretation and Reporting: Jonathan Rudd, Emilio Schein, Marion Bishop

The survey pilot Remi Fashanu was employed directly by the helicopter operator – Hi-Wood Helicopters, Okotose, Alberta.

7. DELIVERABLES

7.1. Hardcopy Map Products

The report includes a set of three (3) 1:10,000 maps. The survey area is covered by one (1) map plate. Each map plate has one (1) geophysical data product. The geophysical products are listed below:

- MAG Coloured Total Magnetic Intensity (TMI) with line contours and EM anomalies
- TDR Tilt Derivative of Total Magnetic Intensity with line contours and EM anomalies
- ZOFF AeroTEM Off-Time Z1 colour grid with line contours and EM anomalies

The coordinate/projection system for the maps is NAD83 Universal Transverse Mercator Zone 9 (for Canada; Central America; Mexico; USA (ex Hawaii Aleutian Islands)). For reference, the latitude and longitude in WGS84 are also noted on the maps. All the maps show flight path trace, skeletal topography, and conductor picks represented by an anomaly symbol classified according to calculated on-time conductance. The anomaly symbol is accompanied by postings denoting the calculated off-time conductance, a thick or thin classification and an anomaly identifier label. The anomaly symbol legend is given in the margin of the maps. The magnetic field data is presented as superimposed line contours with a minimum contour interval of 10 nT. Bold contour lines are separated by 1000 nT.

7.2. Digital Deliverables

Final Database of Survey Data

The geophysical profile data is archived digitally in Geosoft GDB binary format database(s). The databases have also been exported into Geosoft XYZ format, which is text file format offering greater compatibility with other viewing software. A description of the contents of the individual channels in the database can be found in Appendix 3. A copy of this digital data is archived at the Aeroquest head office in Milton.

Geosoft Grid files (GRD)

Leveled Grid products used to generate the geophysical map images. Cell size for all grid files is 25 meters.

- Total Magnetic Intensity (TF Mag)
- Tilt Derivative of TMI (TDR)
- AeroTEM Z1 Off-Time (ZOFF)

Digital Versions of Final Maps

Map files in Geosoft .map and Adobe PDF format

Free Viewing Software

Geosoft Oasis Montaj Viewing Software
Adobe Acrobat Reader

Digital Copy of this Document

8. DATA PROCESSING AND PRESENTATION

All in-field and post-field data processing was carried out using Aeroquest proprietary data processing software, and Geosoft Oasis montaj software. Maps were generated using 36-inch wide Hewlett Packard ink-jet plotters.

8.1. Base Map

The geophysical maps accompanying this report are based on positioning in the datum of NAD83. The survey geodetic GPS positions have been projected using the Universal Transverse Mercator projection in Zone 9N. A summary of the map datum and projection specifications are as follows:

- Ellipse: GRS 1980
- Ellipse major axis: 6378137m eccentricity: 0.081819191
- Datum: North American 1983 - Canada Mean
- Datum Shifts (x,y,z) : 0, 0, 0 metres
- Map Projection: Universal Transverse Mercator Zone 9 (Central Meridian 129°W)
- Central Scale Factor: 0.9996
- False Easting, Northing: 500,000m, 0m

8.2. Flight Path & Terrain Clearance

The position of the survey helicopter was directed by use of the Global Positioning System (GPS). Positions were updated five times per second (5Hz) and expressed as WGS84 latitude and longitude calculated from the raw pseudo range derived from the C/A code signal. The instantaneous GPS flight path, after conversion to UTM co-ordinates, is drawn using linear interpolation between the x/y positions. The terrain clearance was maintained with reference to the radar altimeter. The raw Digital Terrain Model (DTM) was derived by taking the GPS survey elevation and subtracting the radar altimeter terrain clearance values. The calculated topography elevation values are relative to WGS84 (GPS) altitude and are not tied in to surveyed geodetic heights.

Each flight included at least two high elevation ‘background’ checks. 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.

8.3. Electromagnetic Data

The raw streaming data, sampled at a rate of 38,400 Hz (128 channels, 300 times per second) was reprocessed using a proprietary software algorithm developed and owned by Aeroquest Limited. Processing involves the compensation of the X and Z component data for the primary field waveform. Coefficients for this compensation for the system transient are determined and applied to the stream data. The stream data are then pre-filtered, stacked, binned to the 33 on and off-time channels and checked for the effectiveness of the compensation and stacking processes. The stacked data is then filtered, leveled and split up into the individual line segments. Further base level adjustments may be carried out at this stage.

The final field processing step was to merge the processed EM data with the other data sets into a Geosoft GDB file. The EM fiducial is used to synchronize the two datasets. The processed channels are merged into ‘array format; channels in the final Geosoft database as Zon, Zoff, Xon, and Xoff

The filtering of the stacked data is designed to remove or minimize high frequency noise that can not be sourced from the geology. Apparent bedrock EM anomalies were interpreted with the aid of an auto-pick from positive peaks and troughs in the on-time Z channel responses correlated with X channel responses. The auto-picked anomalies were reviewed and edited by a geophysicist on a line by line basis to discriminate between thin and thick conductor types. Anomaly picks locations were migrated and removed as required. This process ensures the optimal representation of the conductor centres on the maps.

At each conductor pick, estimates of the off-time conductance have been generated based on a horizontal plate source model for those data points along the line where the response amplitude is sufficient to yield an acceptable estimate. Some of the EM anomaly picks do not display a tau value; this is due to the inability to properly define the decay of the conductor usually because of low signal amplitudes. Each conductor pick was then classified according to a set of seven ranges of calculated off-time conductance values. For high conductance sources, the on-time conductance values may be used, since it provides a more accurate measure of high-conductance sources. Each symbol is also

given an identification letter label, unique to each flight line. Conductor picks that did not yield an acceptable estimate of off-time conductance due to a low amplitude response were classified as a low conductance source. Please refer to the anomaly symbol legend located in the margin of the maps.

8.4. Magnetic Data

Prior to any leveling the magnetic data was subjected to a lag correction of -0.1 seconds and a spike removal filter. The filtered aeromagnetic data were then corrected for diurnal variations using the magnetic base station and 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 with a grid cell size of 25 metres. The final leveled grid provided the basis for threading the presented contours which have a minimum contour interval of 10 nT.

In order to enhance subtle magnetic trends a ‘tilt’ derivative grid was calculated from the total magnetic intensity (TMI) grid. The Tilt Derivative (TDR) of the TMI enhances low amplitude and small wavelength magnetic features which define shallow basement structures as well as potential mineral exploration targets. The TILT derivative can be thought of as a combination of the first vertical derivative and the total horizontal derivative of the total magnetic intensity.

Mathematically, the TDR is defined as:

$$TDR = \arctan\left(\frac{dT}{dz}\right) \quad , \text{ where VDR and THDR are first vertical and total horizontal derivatives, respectively, of the total magnetic intensity T.}$$

$$VDR = \frac{dT}{dz}$$

$$THDR = \sqrt{\left(\frac{dT}{dx}\right)^2 + \left(\frac{dT}{dy}\right)^2}$$

Due to the nature of the arctan trigonometric function in the filter, all amplitudes are restricted to $+\pi/2$ and $-\pi/2$ radians. This gives the Tilt derivative the added advantage of acting like an automatic gain control (AGC) filter. The calculated TDR grid is presented a colour sun-shaded image (illumination from the north-northeast). Line contours are also overlain which have a minimum contour interval of 0.05 radians.

9. General Comments

The survey was successful in mapping the magnetic and conductive properties of the geology throughout the survey area. Below is a brief interpretation of the results. For a detailed interpretation please contact Aeroquest Limited.

9.1. Magnetic Response

The magnetic data provide a high resolution map of the distribution of the magnetic mineral content of the survey area. This data can be used to interpret the location of geological contacts and other structural features such as faults and zones of magnetic alteration. The sources for anomalous magnetic responses are generally thought to be predominantly magnetite because of the relative abundance and strength of response (high magnetic susceptibility) of magnetite over other magnetic minerals such as pyrrhotite.

9.2. EM Anomalies

The EM anomalies on the maps are classified by conductance (as described earlier in the report) and also by the thickness of the source. A thin, vertically orientated source produces a double peak anomaly in the z-component response and a positive to negative crossover in the x-component response (Figure 8). For a vertically orientated thick source (say, greater than 10m), the response is a single peak in the z-component response and a negative to positive crossover in the x-component response (Figure 9). Because of these differing responses, the AeroTEM system provides discrimination of thin and thick sources and this distinction is indicated on the EM anomaly symbols (N = thin and K = thick). Where multiple, closely spaced conductive sources occur, or where the source has a shallow dip, it can be difficult to uniquely determine the type (thick vs. thin) of the source (Figure 10). In these cases both possible source types may be indicated by picking both thick and thin response styles. For shallow dipping conductors the 'thin' pick will be located over the edge of the source, whereas the 'thick' pick will fall over the downdip 'heart' of the anomaly.

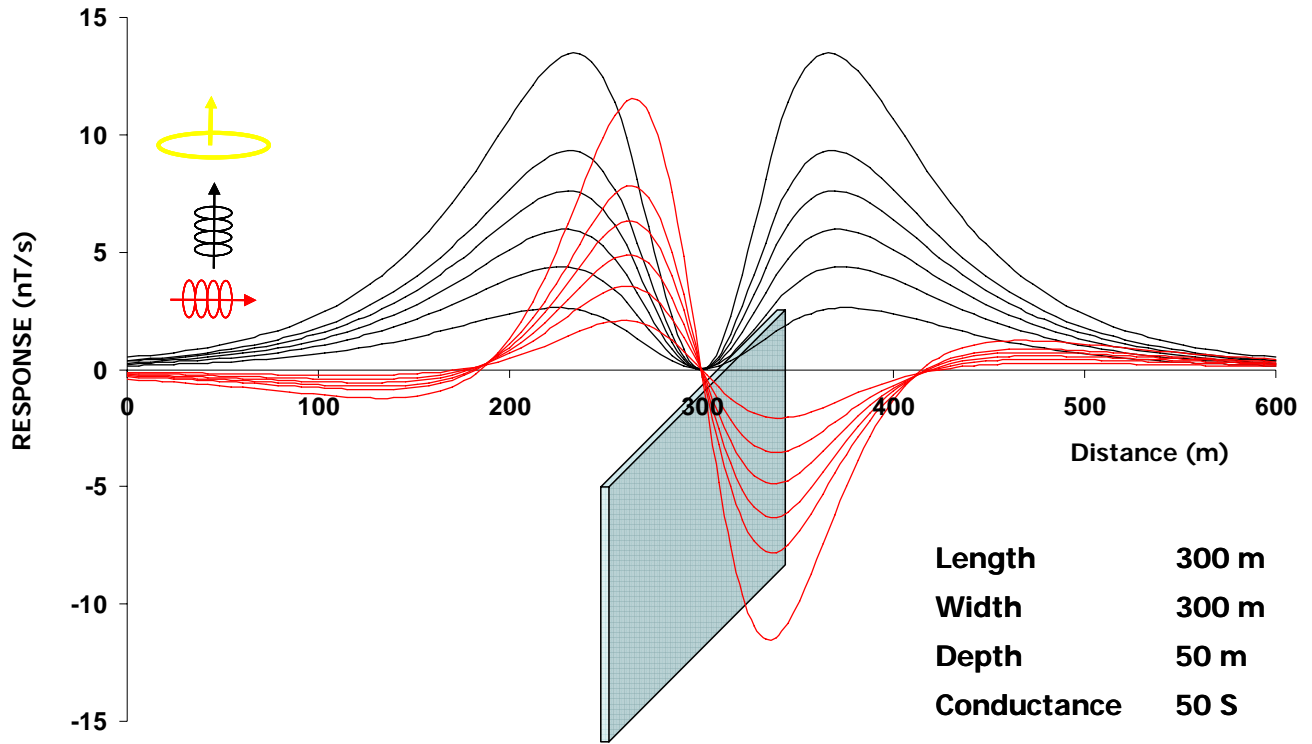


Figure 8. AeroTEM response to a 'thin' vertical conductor.

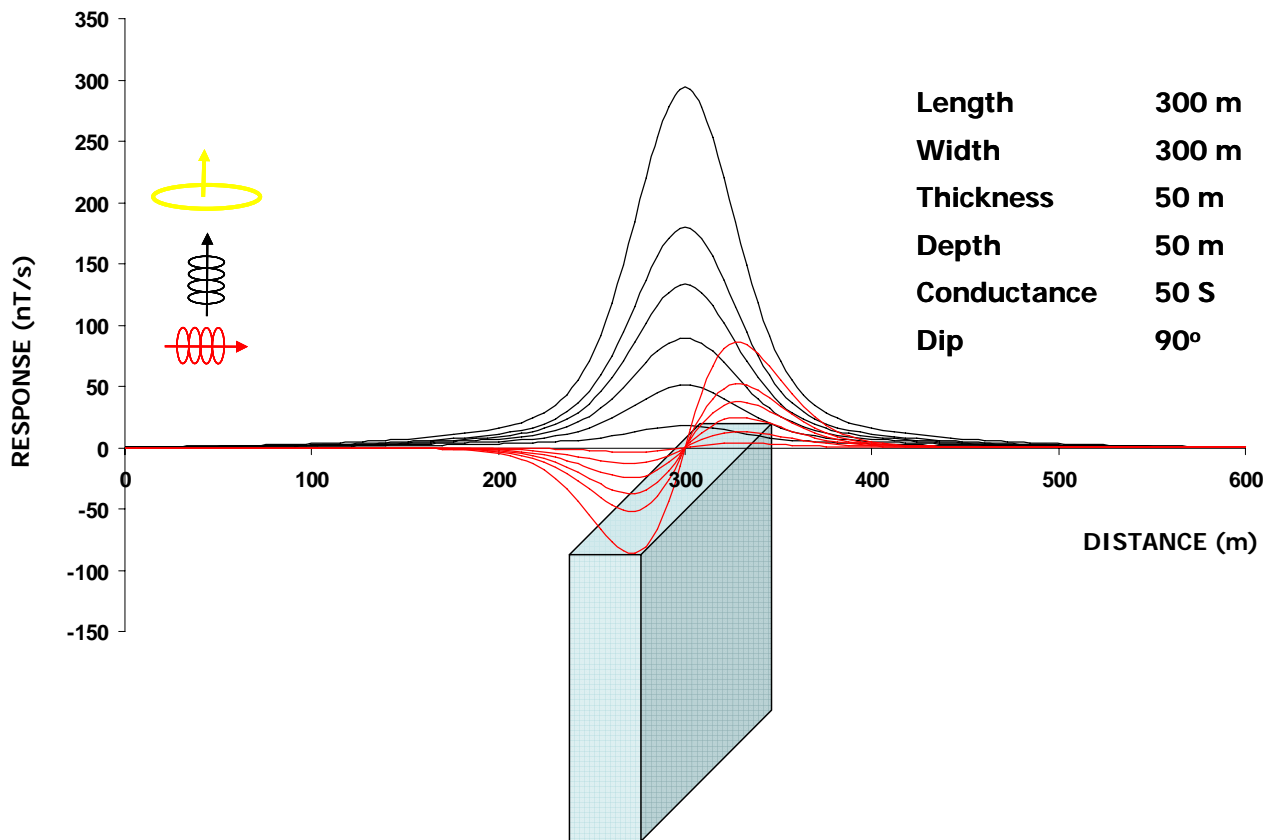


Figure 9. AeroTEM response for a 'thick' vertical conductor.

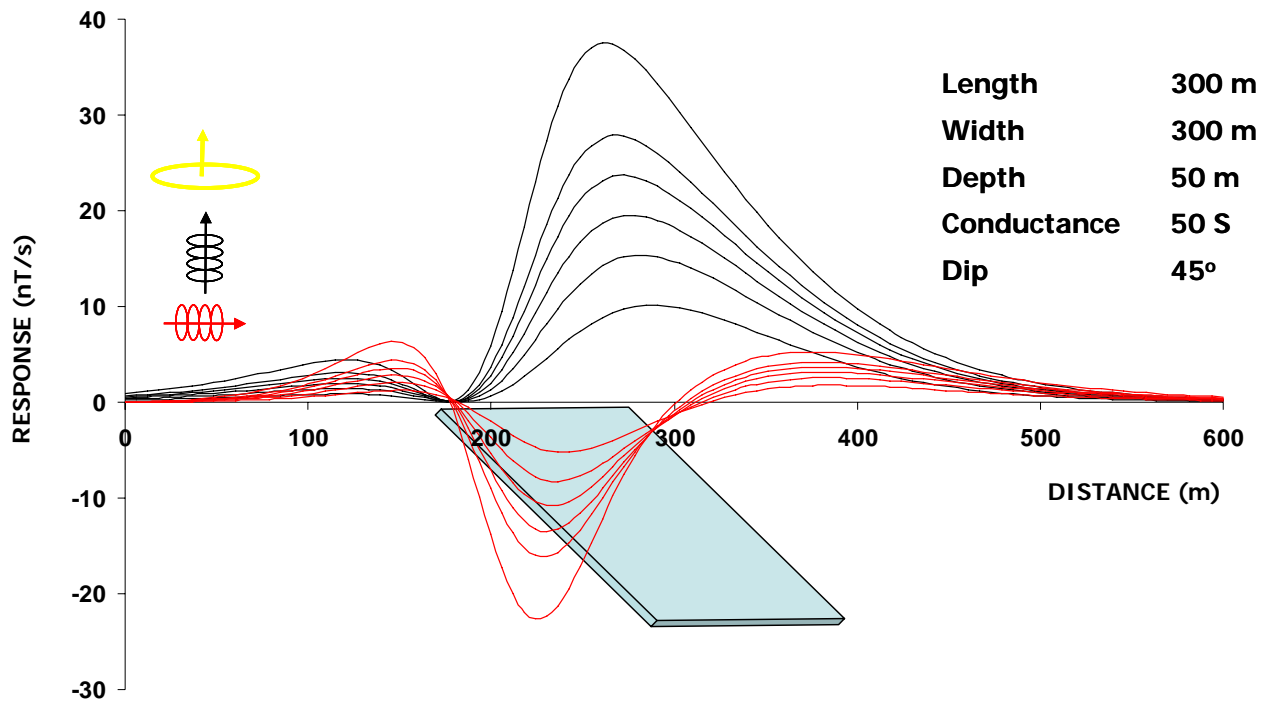


Figure 10. AeroTEM response over a 'thin' dipping conductor.

All cases should be considered when analyzing the interpreted picks and prioritizing for follow-up. Specific anomalous responses which remain as high priority should be subjected to numerical modeling prior to drill testing to determine the dip, depth and probable geometry of the source.

Respectfully submitted,

Jonathan Rudd, P.Eng.

Aeroquest Limited
October, 2006

APPENDIX 1 – PROJECT CORNER COORDINATES

The Project consists of an irregular shaped block with boundaries as defined in the following table. Positions are in UTM Zone 9 – NAD83.

X	Y
368900.0	6281400.0
370500.0	6281400.0
370772.1	6282697.0
377276.3	6277205.9
376594.7	6273561.8
373800.0	6274699.9
373548.3	6273403.2
372000.0	6274000.0
368404.0	6278554.4

APPENDIX 2 - Description of Database Fields

The GDB file is a Geosoft binary database. In the database, the Survey lines and Tie Lines are prefixed with an "L" for "Line" and "T" for "Tie".

Database (07025_Iskut_Final.gdb):

Column	Units	Description
Line		Line number
Flight		Flight #
emfid		AERODAS Fiducial
utctime	hh:mm:ss.ss	UTC time
x	m	UTM Easting (NAD83, zone 9N)
y	m	UTM Northing (NAD83, zone 9N)
bheight	m	Terrain clearance of EM bird
dtmf	m	Digital Terrain Model
magf	nT	Final leveled total magnetic intensity
magonbird	nT	Total magnetic field from sensor on EM bird
Basemagf	nT	Base station total magnetic intensity
Zon	nT/s	Processed Streaming On-Time Z component Channels 1-16
Zoff	nT/s	Processed Streaming Off-Time Z component Channels 0-16
Xon	nT/s	Processed Streaming On-Time X component Channels 1-16
Xoff	nT/s	Processed Streaming Off-Time X component Channels 0-16
Anom_labels		Alphanumeric label of conductor pick
Off_Con	S	Off-time conductance at conductor pick
Off_Tau	S	Off-time decay constant at conductor pick
Anom_ID	S	Anomaly Character (K= thickK, N = thiN)
grade		Classification from 1-7 based on conductance of conductor pick
pwrline		powrline monitor data channel
Off_allcon	S	Off-time conductance
Off_AllTau	S	Off-time decay constant
Tranon	ms	Time of transmitter turn on
Transwitch	ms	Time of transmitter transition
Tranoff	ms	Time of transmitter turn off

APPENDIX 3: AEROTEM ANOMALY LISTING

Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
K	A	1	82.00	0.67	369287.4	6279980.7	10070	54.82	309.10	03:23:58.7
K	A	2	199.00	3.97	369345.3	6279710.8	10080	57.82	346.36	03:27:22.6
K	B	2	157.00	2.49	369224.8	6279118.8	10080	62.28	214.77	03:27:53.7
K	A	2	132.00	1.76	369304.3	6278903.4	10090	35.04	224.94	03:30:48.4
K	B	2	157.00	2.47	369434.1	6279676.7	10090	52.80	302.00	03:31:41.0
K	A	2	115.79	1.34	369518.4	6279610.1	10100	43.55	295.34	18:58:31.3
K	A	1	53.00	0.28	369788.1	6279411.4	10130	62.25	326.22	18:45:45.8
K	B	1	62.00	0.38	369749.3	6279121.8	10130	56.62	322.49	18:46:00.6
K	C	1	75.00	0.56	369672.9	6278660.1	10130	42.15	331.61	18:46:22.6
K	A	1	53.00	0.28	369774.1	6278706.8	10140	58.36	330.49	18:40:35.2
K	A	1	25.00	0.07	370038.9	6279692.8	10150	59.28	398.67	18:36:05.9
K	B	1	86.00	0.75	369789.7	6278240.2	10150	65.81	336.58	18:37:21.9
K	A	1	52.00	0.28	369951.9	6278506.1	10160	52.96	373.84	18:30:59.6
K	A	1	10.00	0.01	370089.6	6278800.2	10170	57.38	376.34	02:37:21.2
K	B	2	155.00	2.40	369990.5	6278223.1	10170	53.58	380.11	02:37:55.1
K	A	2	212.00	4.50	370034.2	6277888.0	10180	47.32	391.47	02:40:55.8
K	B	2	117.08	1.37	370086.9	6278137.6	10180	67.98	390.73	02:41:11.0
K	A	1	87.00	0.76	370622.6	6280651.4	10190	61.61	674.89	02:47:57.3
K	B	1	63.00	0.40	370599.9	6280517.3	10190	54.42	678.79	02:48:05.2
K	C	2	110.00	1.22	370169.7	6278093.6	10190	49.62	420.88	02:50:31.9
K	A	1	95.00	0.90	370256.4	6277973.6	10200	67.13	445.52	02:53:55.4
K	B	2	112.00	1.25	370722.1	6280600.0	10200	51.96	716.62	02:55:59.2
K	C	1	33.00	0.11	370745.9	6280782.0	10200	60.41	698.76	02:56:06.9
K	A	1	67.00	0.45	370819.1	6280623.0	10210	50.62	744.41	03:00:46.0
K	B	2	109.00	1.19	370330.2	6277850.6	10210	56.74	466.96	03:03:24.6
K	C	2	163.00	2.65	370251.8	6277416.8	10210	58.24	402.45	03:03:51.1
N	A	2	107.00	1.15	370372.3	6277506.4	10220	58.29	460.72	03:06:27.0
K	B	2	107.17	1.15	370399.3	6277686.3	10220	56.66	469.61	03:06:35.3
K	C	1	45.00	0.20	370916.4	6280542.9	10220	61.25	783.45	03:08:48.4
K	A	1	59.46	0.35	370493.8	6277647.9	10230	51.43	499.67	03:15:56.2
K	B	1	94.00	0.88	370444.0	6277378.2	10230	53.47	460.34	03:16:11.4
K	A	1	61.00	0.37	371354.7	6281338.3	10250	47.88	887.88	03:24:44.5
N	A	1	25.00	0.07	370913.5	6278251.6	10260	57.55	736.21	03:32:33.0
N	A	2	147.66	2.18	371477.9	6280881.9	10270	51.02	920.58	23:03:58.7
N	B	1	25.00	0.07	371004.3	6278227.5	10270	59.88	780.94	23:06:03.2
N	A	1	25.00	0.07	371088.6	6278126.3	10280	42.96	817.30	23:11:07.7
K	B	1	22.00	0.05	371746.7	6281923.9	10280	57.37	686.26	23:14:58.5
K	A	2	221.00	4.91	371676.8	6280820.2	10290	51.27	955.88	23:16:41.5
K	B	2	155.92	2.43	371654.1	6280700.4	10290	65.52	935.48	23:16:47.5
K	C	1	39.00	0.15	371507.3	6279872.2	10290	48.75	956.26	23:17:28.3
K	A	1	57.00	0.33	370961.5	6276297.8	10300	51.56	592.15	23:22:31.4
N	B	1	36.31	0.13	371254.0	6277913.7	10300	60.86	862.61	23:24:12.4
K	C	4	425.60	18.11	371759.9	6280749.9	10300	40.68	960.09	23:27:06.0
K	A	2	160.72	2.58	371927.4	6281088.4	10310	53.19	904.82	23:29:56.7

Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
K	B	2	189.31	3.58	371857.0	6280695.9	10310	48.25	983.07	23:30:22.3
K	C	1	21.17	0.04	371352.7	6277899.7	10310	53.64	920.07	23:32:40.7
K	D	1	45.00	0.20	371057.7	6276170.7	10310	55.20	622.13	23:34:00.6
K	A	1	38.00	0.15	371131.5	6276095.9	10320	56.43	656.08	23:36:31.6
K	B	1	38.00	0.14	371175.0	6276315.5	10320	45.98	660.10	23:36:44.7
K	C	2	146.54	2.15	371595.4	6278701.0	10320	41.91	1063.95	23:39:17.7
K	D	3	307.11	9.43	371903.9	6280447.7	10320	43.03	993.53	23:40:58.8
K	E	4	425.65	18.12	371992.4	6280954.2	10320	47.28	956.79	23:41:32.0
K	A	2	132.00	1.74	372141.9	6281197.7	10330	50.13	806.91	23:43:24.3
N	B	3	315.00	9.92	371988.8	6280352.1	10330	38.91	1016.78	23:44:26.1
K	C	1	23.00	0.06	371266.0	6276299.5	10330	58.81	712.90	23:47:52.8
K	D	1	56.00	0.32	371218.0	6276041.0	10330	75.82	677.55	23:48:05.9
K	A	1	88.00	0.77	371324.9	6276004.0	10340	66.94	717.40	23:50:42.9
K	B	1	10.00	0.01	371375.4	6276293.7	10340	50.10	780.63	23:50:58.5
K	C	4	323.08	10.44	372075.5	6280282.5	10340	44.20	1015.36	23:54:57.3
N	D	3	263.25	6.93	372116.5	6280499.1	10340	42.57	1038.69	23:55:09.5
K	A	4	352.06	12.40	372260.3	6280778.8	10350	44.82	997.84	23:58:05.7
K	B	4	383.45	14.70	372206.5	6280386.5	10350	45.76	1054.56	23:58:28.2
K	C	1	10.00	0.01	371466.4	6276255.5	10350	62.52	833.06	00:02:18.1
K	D	1	70.00	0.50	371421.6	6276023.2	10350	55.87	780.43	00:02:30.6
K	E	1	*	0.53	371420.3	6276015.2	10350	56.15	780.23	00:02:31.0
K	A	1	81.66	0.67	371511.0	6275877.9	10360	60.83	846.41	00:05:15.8
N	B	1	46.00	0.22	371681.1	6276869.6	10360	59.12	909.19	00:06:07.4
K	C	1	48.00	0.23	371904.4	6278156.8	10360	37.61	1119.49	00:07:17.1
K	D	4	405.00	16.44	372269.8	6280197.7	10360	42.29	1030.21	00:09:06.2
K	E	4	373.25	13.93	372289.5	6280306.1	10360	42.73	1044.48	00:09:12.2
K	F	3	303.00	9.20	372354.4	6280707.3	10360	55.20	1020.73	00:09:40.9
K	G	3	291.00	8.49	372369.4	6280781.3	10360	57.74	971.38	00:09:46.8
N	H	2	199.79	3.99	372442.8	6281214.8	10360	83.84	651.28	00:10:23.9
K	A	3	239.03	5.71	372508.8	6281012.7	10370	38.32	814.17	00:11:44.4
K	B	4	359.02	12.89	372384.3	6280250.1	10370	59.54	1045.50	00:12:43.9
K	C	4	376.87	14.20	372358.3	6280109.7	10370	51.99	1036.90	00:12:50.7
K	D	2	175.52	3.08	372263.3	6279601.5	10370	52.13	1037.94	00:13:15.3
K	E	2	205.23	4.21	371973.9	6277914.2	10370	45.13	1100.27	00:14:39.5
N	F	2	180.51	3.26	371784.1	6276841.0	10370	48.36	954.69	00:15:45.5
K	G	2	132.41	1.75	371595.2	6275837.6	10370	49.64	903.00	00:16:40.7
K	A	2	148.05	2.19	371686.4	6275707.6	10380	52.28	959.53	00:19:32.8
N	B	4	318.00	10.11	371883.6	6276784.7	10380	51.65	1003.22	00:20:27.8
K	C	2	106.78	1.14	372070.2	6277928.8	10380	43.29	1093.42	00:21:26.4
K	D	1	52.47	0.28	372275.9	6279061.5	10380	48.72	1081.48	00:22:20.6
K	E	4	339.63	11.54	372463.6	6280146.5	10380	44.48	1050.13	00:23:16.3
N	F	2	179.96	3.24	372529.1	6280501.2	10380	41.53	1057.65	00:23:41.3
N	G	2	205.73	4.23	372627.9	6281120.8	10380	94.26	647.92	00:24:31.4
N	A	3	231.16	5.34	372623.2	6280495.1	10390	54.57	1046.30	00:26:19.9
K	B	4	442.36	19.57	372547.4	6280067.2	10390	64.18	1054.04	00:26:41.7
K	C	2	143.38	2.06	372194.3	6278074.0	10390	45.20	1094.02	00:28:15.7

Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
N	D	1	45.58	0.21	372001.7	6276978.9	10390	37.35	1032.81	00:29:13.3
K	E	1	45.58	0.21	371996.0	6276932.0	10390	39.19	1035.82	00:29:15.6
K	F	2	151.34	2.29	371971.0	6276794.3	10390	50.94	1038.16	00:29:22.0
K	G	2	170.99	2.92	371781.5	6275677.8	10390	49.49	1004.24	00:30:19.4
K	A	2	105.00	1.11	371650.0	6274406.1	10400	82.32	567.91	00:32:31.1
K	B	2	134.64	1.81	371876.4	6275632.2	10400	56.34	1008.64	00:33:36.9
K	C	1	39.00	0.15	372069.0	6276759.2	10400	39.07	1066.83	00:34:34.6
K	D	3	311.93	9.73	372544.0	6279486.4	10400	38.38	1058.16	00:36:43.3
K	E	5	499.25	24.93	372639.7	6280001.9	10400	43.15	1063.56	00:37:08.0
K	F	6	670.00	45.00	372650.0	6280073.9	10400	43.83	1070.45	00:37:11.6
K	G	2	149.75	2.24	372711.9	6280412.5	10400	41.12	1061.58	00:37:32.9
K	H	2	219.00	4.80	372801.1	6280972.3	10400	73.98	743.79	00:38:18.7
K	A	4	327.15	10.70	372815.0	6280373.4	10410	44.08	1056.72	00:39:38.8
K	B	6	670.61	44.97	372735.7	6279920.3	10410	43.55	1067.85	00:39:58.8
N	C	4	342.54	11.73	372651.6	6279504.0	10410	35.17	1054.90	00:40:18.9
K	D	1	23.00	0.05	372520.4	6278736.7	10410	33.55	1092.40	00:40:54.8
K	E	2	101.01	1.02	371954.9	6275552.9	10410	48.09	1040.46	00:43:32.9
K	F	1	91.60	0.84	371931.5	6275401.8	10410	46.19	1026.48	00:43:43.2
K	G	1	59.00	0.35	371730.1	6274256.9	10410	-33.99	721.84	00:44:55.4
K	A	1	42.11	0.18	371819.3	6274175.2	10420	77.72	642.96	00:46:10.3
K	B	1	40.53	0.16	372020.0	6275340.4	10420	56.51	1054.85	00:47:26.4
K	C	1	14.31	0.02	372607.4	6278704.3	10420	42.09	1096.59	00:50:11.6
K	D	5	517.18	26.75	372753.4	6279482.7	10420	44.50	1057.10	00:50:46.0
K	E	5	558.05	31.14	372783.1	6279633.4	10420	37.24	1054.13	00:50:53.6
K	F	6	615.39	37.87	372795.6	6279696.8	10420	32.74	1061.80	00:50:56.8
K	G	6	608.49	37.02	372820.6	6279829.0	10420	41.06	1065.95	00:51:03.5
K	H	3	275.45	7.59	372859.0	6280139.4	10420	44.14	1084.72	00:51:19.2
K	I	5	459.97	21.16	372885.6	6280316.1	10420	44.37	1054.63	00:51:30.7
K	A	4	346.07	11.98	372964.2	6280128.8	10430	35.61	1062.40	02:17:34.5
N	B	4	346.07	11.98	372955.0	6280087.2	10430	34.88	1069.20	02:17:37.0
K	C	5	543.79	29.57	372935.5	6279931.3	10430	36.76	1062.15	02:17:45.8
N	D	5	543.79	29.57	372928.9	6279885.4	10430	36.45	1061.03	02:17:48.4
K	E	6	628.16	39.46	372899.2	6279715.2	10430	33.37	1060.86	02:17:57.9
K	F	4	388.84	15.12	372856.7	6279479.5	10430	43.37	1055.16	02:18:10.5
K	G	3	233.91	5.47	372832.4	6279363.6	10430	43.86	1056.22	02:18:17.0
K	H	1	38.00	0.14	371905.0	6274111.5	10430	64.68	732.62	02:22:57.6
K	A	1	35.00	0.13	371988.4	6274016.6	10440	49.91	763.27	02:23:46.1
K	B	1	67.00	0.46	372054.5	6274349.2	10440	79.07	770.94	02:24:12.5
K	C	4	357.71	12.80	372656.1	6277788.7	10440	55.08	1088.41	02:27:20.9
K	D	5	448.03	20.07	372675.2	6277901.6	10440	52.45	1088.73	02:27:26.4
K	E	4	343.84	11.82	372903.3	6279212.0	10440	44.21	1066.04	02:28:23.2
K	F	5	560.80	31.45	372938.5	6279432.2	10440	36.73	1063.70	02:28:32.3
K	G	5	550.07	30.26	372969.7	6279573.7	10440	36.01	1069.97	02:28:38.3
K	H	5	582.82	33.97	373031.4	6279917.5	10440	39.44	1063.17	02:28:52.8
N	I	5	582.82	33.97	373041.8	6279982.4	10440	40.29	1062.46	02:28:55.6
K	J	3	301.47	9.09	373053.8	6280048.1	10440	39.90	1060.32	02:28:58.5

Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
K	K	2	158.94	2.53	373112.9	6280385.7	10440	49.83	1018.71	02:29:17.2
K	A	3	276.22	7.63	373261.5	6280641.6	10450	64.59	872.36	02:30:28.9
K	B	2	207.40	4.30	373211.7	6280384.4	10450	44.59	1009.28	02:30:49.6
N	C	3	243.20	5.91	373167.6	6280118.5	10450	38.83	1038.55	02:31:04.2
K	D	6	606.16	36.74	373145.0	6279936.5	10450	35.79	1052.65	02:31:15.7
N	E	6	606.16	36.74	373134.8	6279886.2	10450	36.20	1055.67	02:31:18.7
K	F	5	531.97	28.30	373093.6	6279628.5	10450	29.94	1067.25	02:31:34.8
K	G	6	626.00	39.30	373077.6	6279569.5	10450	32.86	1070.67	02:31:38.5
K	H	1	10.00	0.01	372880.8	6278492.5	10450	40.04	1092.85	02:32:39.1
K	I	3	258.00	6.68	372775.9	6277881.5	10450	58.68	1093.84	02:33:09.6
K	J	1	31.00	0.10	372609.7	6276926.3	10450	46.79	1247.79	02:33:59.7
K	K	1	34.00	0.12	372144.4	6274311.9	10450	59.34	837.65	02:36:31.8
K	A	3	299.00	8.95	372497.5	6275701.6	10460	62.71	1257.91	02:39:35.3
N	B	2	133.00	1.77	372674.2	6276766.8	10460	56.08	1283.71	02:40:25.7
K	C	2	133.13	1.77	372680.0	6276819.7	10460	50.64	1282.89	02:40:28.1
N	D	2	133.13	1.77	372692.3	6276911.2	10460	39.21	1275.99	02:40:32.4
K	E	1	58.28	0.34	372698.8	6276946.5	10460	35.02	1275.35	02:40:34.1
N	F	1	33.32	0.11	372862.1	6277797.6	10460	44.87	1121.21	02:41:11.0
K	G	4	331.95	11.02	373167.6	6279558.8	10460	47.19	1064.46	02:42:22.5
K	H	4	407.46	16.60	373230.6	6279924.1	10460	46.69	1042.59	02:42:36.9
K	I	2	222.87	4.97	373296.3	6280263.9	10460	45.48	1011.19	02:42:56.1
K	J	3	248.91	6.20	373326.9	6280438.0	10460	46.86	956.47	02:43:09.6
K	K	3	289.08	8.36	373348.5	6280573.7	10460	46.95	883.67	02:43:20.9
K	A	3	313.78	9.85	373419.8	6280416.0	10470	51.13	922.20	15:08:44.1
K	B	3	231.93	5.38	373382.4	6280260.1	10470	41.58	988.07	15:08:53.3
N	C	1	10.00	0.01	373306.8	6279739.1	10470	44.01	1046.15	15:09:17.3
K	D	3	298.04	8.88	373279.4	6279600.4	10470	37.91	1057.99	15:09:24.0
N	E	1	81.78	0.67	373192.5	6279072.8	10470	51.60	1067.77	15:09:48.4
K	F	1	26.00	0.07	372917.2	6277533.5	10470	50.37	1170.49	15:10:55.9
K	G	1	81.20	0.66	372795.4	6276828.7	10470	36.04	1327.60	15:11:30.3
N	H	1	26.54	0.07	372567.5	6275597.5	10470	49.81	1290.38	15:12:26.2
K	I	1	26.54	0.07	372559.8	6275542.4	10470	45.60	1290.60	15:12:28.8
K	A	1	18.00	0.03	372369.4	6273858.1	10480	53.56	888.84	15:14:53.2
N	B	2	169.65	2.88	372935.8	6277083.8	10480	44.58	1314.99	15:18:22.8
K	C	4	330.20	10.90	373354.5	6279493.3	10480	39.27	1044.93	15:20:13.8
K	D	3	288.00	8.30	373375.8	6279606.2	10480	40.92	1047.57	15:20:19.0
K	E	4	428.33	18.35	373431.5	6279904.4	10480	41.51	1029.79	15:20:32.6
K	F	3	229.95	5.29	373465.0	6280095.0	10480	43.57	1008.44	15:20:42.1
N	A	3	302.73	9.16	373587.9	6280237.2	10490	38.24	988.68	15:21:48.0
K	B	3	279.83	7.83	373547.3	6280014.0	10490	46.28	1010.38	15:22:00.3
K	C	3	311.97	9.73	373477.5	6279610.9	10490	48.32	1057.89	15:22:19.1
N	D	3	311.97	9.73	373466.9	6279538.4	10490	46.86	1062.73	15:22:22.3
K	E	2	117.76	1.39	373386.8	6279080.2	10490	44.27	1093.73	15:22:42.4
K	F	3	269.49	7.26	373044.9	6277143.5	10490	42.52	1301.59	15:24:07.4
K	G	1	43.00	0.19	372992.1	6276830.2	10490	38.04	1397.31	15:24:23.8
K	A	2	124.84	1.56	373076.4	6276798.4	10500	48.00	1425.28	15:31:02.4

Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
K	B	2	105.21	1.11	373493.8	6279092.8	10500	42.27	1113.97	15:32:56.1
K	C	4	374.19	14.00	373573.5	6279573.3	10500	53.17	1067.26	15:33:19.8
N	D	4	439.11	19.28	373611.7	6279752.5	10500	44.84	1057.86	15:33:28.4
K	E	3	264.25	6.98	373642.9	6279977.9	10500	45.71	1021.14	15:33:39.9
K	A	3	279.33	7.80	373659.5	6279464.4	10510	41.97	1110.12	15:35:07.3
K	B	2	185.31	3.43	373604.3	6279148.1	10510	41.14	1135.14	15:35:21.5
K	C	1	93.15	0.87	373540.8	6278794.4	10510	37.69	1151.54	15:35:36.0
K	D	1	83.73	0.70	373474.0	6278416.2	10510	39.00	1147.59	15:35:52.0
K	E	1	85.00	0.73	373204.2	6276902.8	10510	39.54	1400.44	15:37:04.2
K	A	2	154.00	2.38	373316.6	6276864.3	10520	46.16	1391.18	15:44:36.4
K	B	3	259.01	6.71	373745.4	6279395.8	10520	47.18	1130.49	15:46:33.7
K	C	4	369.92	13.68	373828.3	6279862.4	10520	62.20	1061.71	15:46:55.0
N	D	2	220.96	4.88	373835.0	6279892.9	10520	59.81	1056.47	15:46:56.4
K	E	2	220.96	4.88	373844.7	6279936.4	10520	49.23	1059.43	15:46:58.4
K	F	3	248.88	6.19	373869.5	6280092.2	10520	50.61	1037.02	15:47:05.6
K	A	3	272.58	7.43	373959.4	6280034.2	10530	33.73	1065.57	15:47:41.6
K	B	3	311.76	9.72	373857.7	6279461.7	10530	46.28	1160.65	15:48:12.5
K	C	2	109.00	1.20	373648.6	6278269.8	10530	56.67	1189.70	15:49:05.3
N	D	1	39.41	0.16	373016.5	6274768.8	10530	60.17	1140.31	15:52:28.5
K	A	1	27.00	0.08	373248.6	6275403.5	10540	43.09	1453.38	15:56:42.1
K	B	1	36.00	0.13	373303.4	6275659.3	10540	39.77	1497.49	15:56:55.1
N	C	2	208.36	4.34	373631.2	6277563.7	10540	55.85	1335.34	15:58:33.9
K	D	3	288.72	8.34	374000.0	6279615.4	10540	35.65	1157.16	16:00:13.8
N	E	3	299.18	8.95	374050.0	6279939.2	10540	40.96	1095.48	16:00:30.6
K	F	3	299.18	8.95	374057.7	6279984.2	10540	50.31	1079.41	16:00:32.8
K	A	3	294.59	8.68	374147.7	6279956.8	10550	40.81	1078.66	16:01:02.9
K	B	4	434.31	18.86	374096.9	6279666.8	10550	38.65	1155.12	16:01:20.1
K	C	1	63.00	0.40	373650.8	6277121.8	10550	40.38	1402.12	16:03:26.0
K	D	2	112.62	1.27	373314.9	6275222.0	10550	55.94	1376.08	16:05:07.3
N	E	2	112.62	1.27	373308.3	6275188.8	10550	57.56	1346.66	16:05:09.7
K	A	1	69.00	0.48	373476.0	6275554.0	10560	50.24	1534.03	16:09:56.8
K	B	5	489.73	23.98	374207.6	6279681.9	10560	48.21	1139.58	16:13:24.0
K	A	5	508.71	25.88	374311.6	6279701.3	10570	57.90	1141.94	16:14:16.3
N	B	2	187.68	3.52	374028.5	6278114.3	10570	47.53	1289.76	16:15:40.9
K	C	1	57.00	0.33	373468.4	6274961.8	10570	56.36	1260.35	16:18:38.4
K	A	1	60.00	0.36	373647.9	6275357.5	10580	36.67	1502.96	16:23:27.1
K	B	4	334.00	11.17	374419.6	6279684.1	10580	89.75	1160.12	16:27:25.0
K	A	3	267.00	7.07	374474.8	6279454.9	10591	71.01	1349.29	16:28:11.6
K	B	1	85.00	0.72	373699.9	6275085.4	10591	58.14	1366.50	16:32:24.9
K	C	1	10.00	0.01	373592.1	6274497.9	10591	39.00	1491.43	16:33:02.7
K	A	1	57.00	0.33	373811.0	6275196.9	10600	74.87	1454.25	18:12:21.4
K	A	2	197.25	3.89	374581.8	6279470.1	10600	62.51	1344.73	18:19:01.9
N	B	2	215.58	4.65	374587.4	6279499.5	10600	62.98	1315.57	18:19:04.2
K	C	2	215.58	4.65	374593.4	6279531.9	10600	56.85	1297.15	18:19:06.5
K	A	1	67.00	0.45	373919.0	6275199.4	10610	53.80	1473.24	16:37:36.1
K	B	2	185.00	3.45	374673.3	6279455.0	10610	88.58	1360.41	16:42:02.2

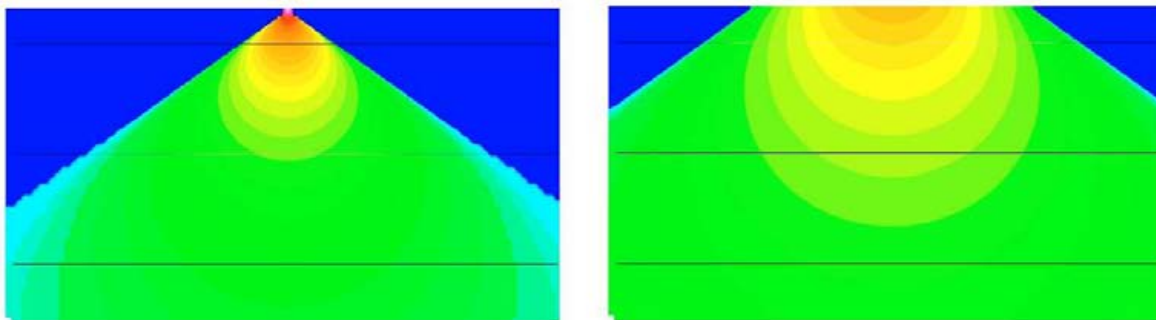
Anom ID	Anom Labels	Grade	Off Tau	Off Con	x	y	line	bheight	dtmf	utctime
N	C	2	193.41	3.74	374680.6	6279507.6	10610	90.05	1325.43	16:42:05.3
K	A	1	67.00	0.45	374033.7	6275213.2	10620	54.20	1501.18	17:25:48.9
K	A	2	125.00	1.56	374394.6	6274471.2	10670	63.41	1583.91	17:53:40.1
K	A	2	101.00	1.02	374568.1	6274809.9	10680	42.89	1560.18	18:02:24.2
K	B	1	92.00	0.85	374499.6	6274410.9	10680	63.91	1602.86	18:02:47.4
K	A	1	77.00	0.59	374586.7	6274404.5	10690	67.28	1611.91	18:03:36.7
K	B	2	123.00	1.52	374655.7	6274762.2	10690	42.14	1583.13	18:03:55.0
K	A	1	87.00	0.76	374754.0	6274710.3	10700	46.29	1605.74	18:16:23.3
K	A	1	74.00	0.55	374847.7	6274692.1	10710	55.12	1631.49	18:17:42.0
K	A	1	55.00	0.30	375547.9	6273953.9	10790	54.76	1931.20	21:47:10.6
K	A	2	102.00	1.04	375761.6	6274665.3	10800	58.19	1833.03	21:48:28.0
K	B	2	126.00	1.58	375972.3	6275759.5	10800	53.00	1921.15	21:50:42.4
K	A	1	92.34	0.85	371933.6	6281069.0	19020	43.16	913.32	17:42:45.0
K	A	5	570.08	32.50	372649.0	6279945.6	19030	35.41	1059.85	17:50:45.9
K	B	6	629.66	39.65	372737.1	6279932.3	19030	32.12	1069.95	17:50:50.1
K	C	5	558.66	31.21	372939.2	6279901.5	19030	40.63	1065.70	17:50:59.9
K	D	5	499.82	24.98	373315.6	6279831.5	19030	43.13	1041.91	17:51:18.5
K	E	4	398.68	15.90	374077.2	6279696.6	19030	39.07	1144.50	17:52:02.1
K	A	1	25.00	0.07	373492.9	6278780.7	19040	62.02	1135.76	19:51:55.4
K	B	1	50.00	0.10	372322.6	6278985.9	19040	35.71	1088.04	19:52:51.7
K	C	1	70.00	0.20	369455.6	6279488.2	19040	66.53	275.44	19:55:28.3
K	A	1	50.00	0.20	368512.1	6278648.7	19050	61.47	77.98	19:57:33.8
K	B	2	50.00	2.00	372079.7	6278008.3	19050	46.50	1096.77	20:01:15.8
K	C	2	157.00	2.45	372697.4	6277909.0	19050	47.79	1094.91	20:01:43.9
K	D	1	64.00	0.40	376782.0	6277167.8	19050	55.26	1449.44	20:07:09.6
K	A	1	50.00	0.25	372025.8	6277009.0	19060	55.36	1034.05	20:17:37.6
K	B	1	50.00	0.25	371733.5	6277056.3	19060	54.66	892.17	20:17:58.9
N	C	1	50.00	0.25	370545.3	6277272.8	19060	51.70	483.44	20:19:18.3
K	D	1	50.00	0.25	370477.9	6277286.8	19060	51.90	470.46	20:19:21.9
K	A	1	63.00	0.39	375195.7	6274405.5	19080	63.22	1733.92	18:00:09.1
K	B	1	68.00	0.47	374578.2	6274519.0	19080	72.64	1585.37	18:00:38.5
K	C	1	50.00	0.25	372908.7	6274804.4	19080	73.83	1101.54	18:02:10.0
K	A	1	17.00	0.03	372336.7	6273898.2	19090	65.34	884.56	18:06:04.6

APPENDIX 4: AEROTEM DESIGN CONSIDERATIONS

Helicopter-borne EM systems offer an advantage that cannot be matched from a fixed-wing platform. The ability to fly at slower speed and collect data with high spatial resolution, and with great accuracy, means the helicopter EM systems provide more detail than any other EM configuration, airborne or ground-based. Spatial resolution is especially important in areas of complex geology and in the search for discrete conductors. With the advent of helicopter-borne high-moment time domain EM systems the fixed wing platforms are losing their *only* advantage – depth penetration.

Advantage 1 – Spatial Resolution

The AeroTEM system is specifically designed to have a small footprint. This is accomplished through the use of concentric transmitter-receiver coils and a relatively small diameter transmitter coil (5 m). The result is a highly focused exploration footprint, which allows for more accurate “mapping” of discrete conductors. Consider the transmitter primary field images shown in Figure 1, for AeroTEM versus a fixed-wing transmitter.



The footprint of AeroTEM at the earth's surface is roughly 50m on either side of transmitter

The footprint of a fixed-wing system is roughly 150 m on either side of the transmitter

Figure 1. A comparison of the footprint between AeroTEM and a fixed-wing system, highlights the greater resolution that is achievable with a transmitter located closer to the earth's surface. The AeroTEM footprint is one third that of a fixed-wing system and is symmetric, while the fixed-wing system has even lower spatial resolution along the flight line because of the separated transmitter and receiver configuration.

At first glance one may want to believe that a transmitter footprint that is distributed more evenly over a larger area is of benefit in mineral exploration. In fact, the opposite is true; by energizing a larger surface area, the ability to energize and detect discrete conductors is reduced. Consider, for example, a comparison between AeroTEM and a fixed-wing system over the Mesamax Deposit (1,450,000 tonnes of 2.1% Ni, 2.7% Cu, 5.2 g/t Pt/Pd). In a test survey over three flight lines spaced 100 m apart, AeroTEM detected the Deposit on all three flight lines. The fixed-wing system detected the Deposit only on two flight lines. In exploration programs that seek to expand the flight line spacing in an effort to reduce the cost of the airborne survey, discrete conductors such as the Mesamax Deposit can go undetected. The argument often put forward in favor of using fixed-wing systems is that because of their larger footprint, the flight line spacing can indeed be widened. Many fixed-wing surveys are flown at 200 m or 400 m. Much of the survey work performed by Aeroquest has been to survey in areas that were previously flown at these wider line spacings. One of the reasons for AeroTEM's impressive discovery record has been the strategy of flying closely spaced lines and finding all the discrete near-surface conductors. These higher resolution surveys are being flown within existing mining camps, areas that improve the chances of discovery.

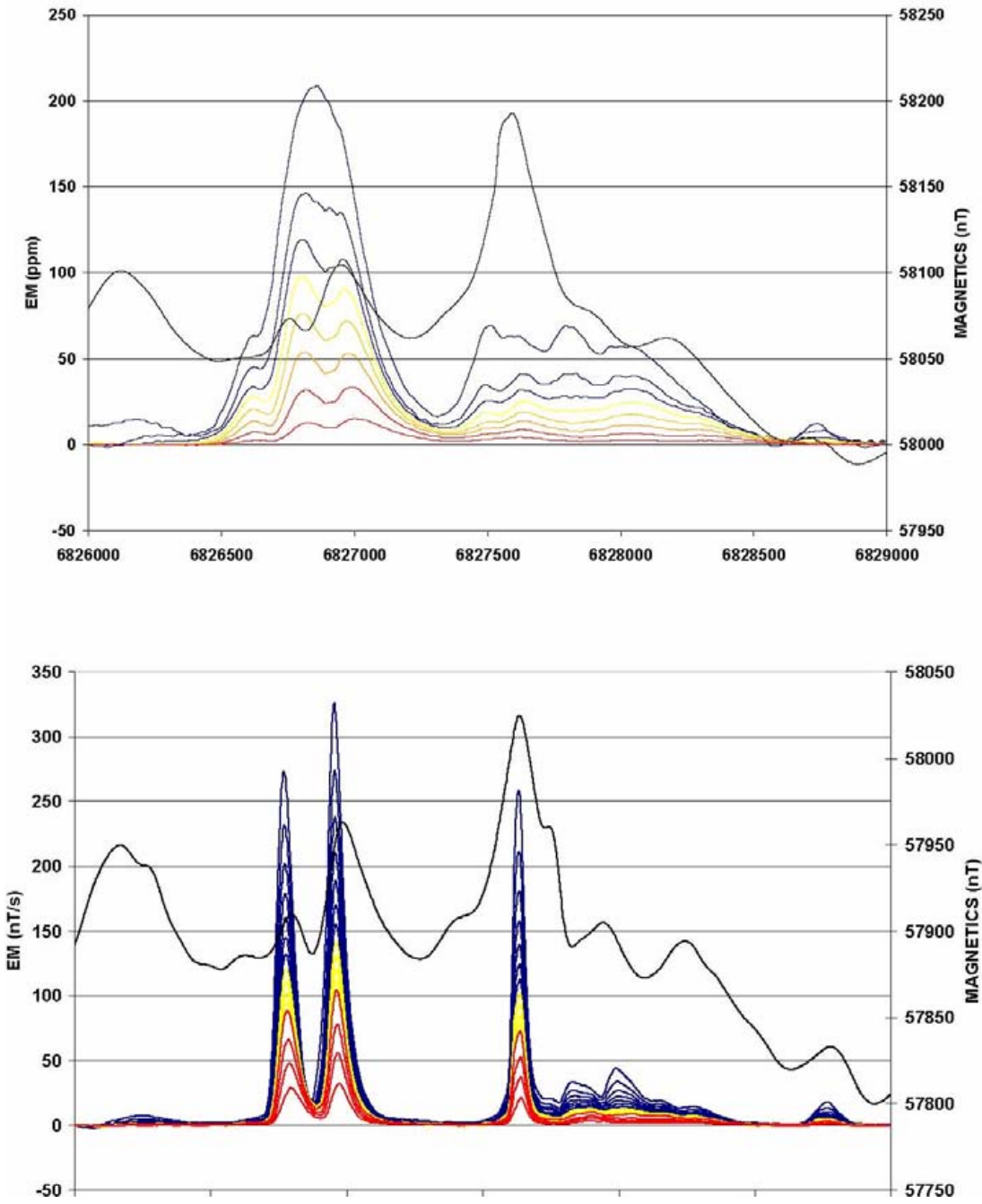


Figure 2. Fixed-wing (upper) and AeroTEM (lower) comparison over the eastern limit of the Mesamax Deposit, a Ni-Cu-PGE zone located in the Raglan nickel belt and owned by Canadian Royalties. Both systems detected the Deposit further to the west where it is closer to surface.

The small footprint of AeroTEM combined with the high signal to noise ratio (S/N) makes the system more suitable to surveying in areas where local infrastructure produces electromagnetic noise, such as power lines and railways. In 2002

Aeroquest flew four exploration properties in the Sudbury Basin that were under option by FNX Mining Company Inc. from Inco Limited. One such property, the Victoria Property, contained three major power line corridors.

The resulting AeroTEM survey identified all the known zones of Ni-Cu-PGE mineralization, and detected a response between two of the major power line corridors but in an area of favorable geology. Three boreholes were drilled to test the anomaly, and all three intersected sulphide. The third borehole encountered 1.3% Ni, 6.7% Cu, and 13.3 g/t TPMs over 42.3 ft. The mineralization was subsequently named the Powerline Deposit.

The success of AeroTEM in Sudbury highlights the advantage of having a system with a small footprint, but also one with a high S/N. This latter advantage is achieved through a combination of a high-moment (high signal) transmitter and a rigid geometry (low noise). Figure 3 shows the Powerline Deposit response and the response from the power line corridor at full scale. The width of power line response is less than 75 m.

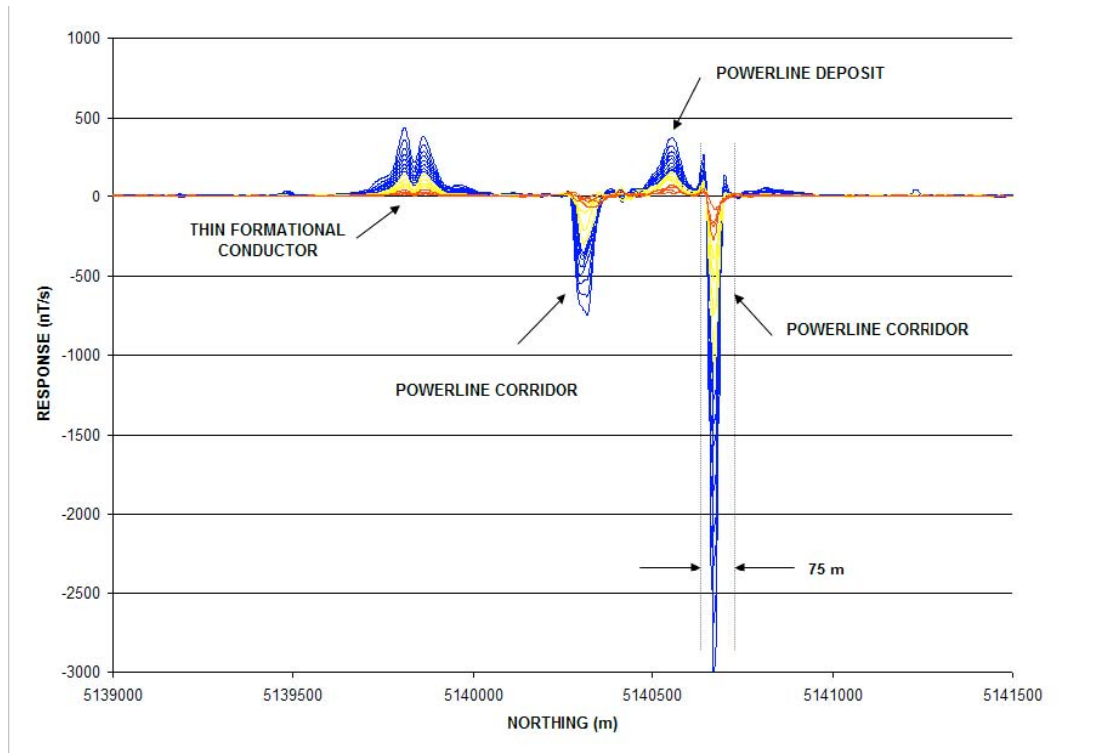


Figure 3. The Powerline Deposit is located between two major power line corridors, which make EM surveying problematic. Despite the strong response from the power line, the anomaly from the Deposit is clearly detected. Note the thin formational conductor located to the south. The only way to distinguish this response from that of two closely spaced conductors is by interpreting the X-axis coil response.

Advantage 2 – Conductance Discrimination

The AeroTEM system features full waveform recording and as such is able to measure the on-time response due to high conductance targets. Due to the processing method (primary field removal), there is attenuation of the response with increasing conductance, but the AeroTEM on-time measurement is still superior to systems that rely on lower base frequencies to detect high conductance targets, but do not measure in the on-time.

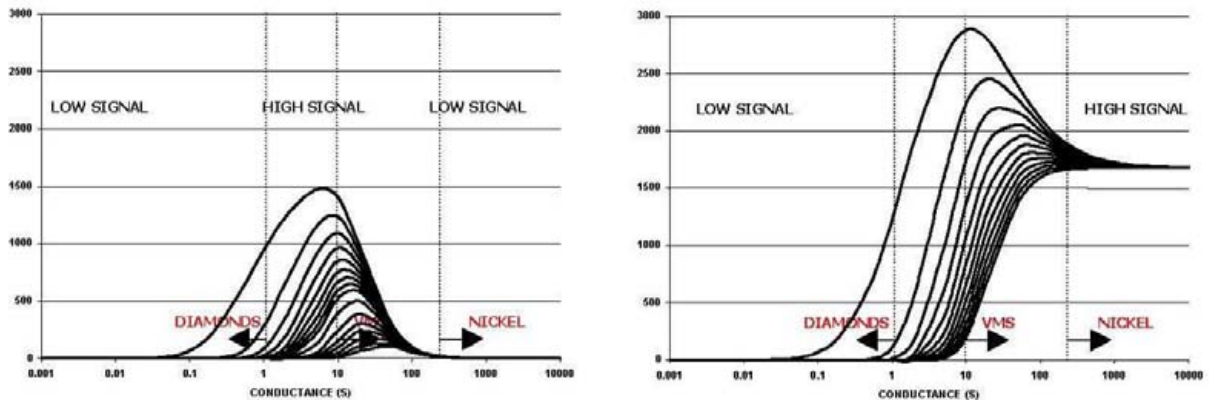
The peak response of a conductive target to an EM system is a function of the target conductance and the EM system base frequency. For time domain EM systems that measure only in the off-time, there is a drop in the peak response of a target as the base frequency is lowered for all conductance values below the peak system response. For example, the AeroTEM peak response occurs for a 10 S conductor in the early off-time and 100 S in the late off-time for a 150 Hz base frequency. Because base frequency and conductance form a linear relationship when considering the peak response of any EM system, a drop in base frequency of 50% will double the conductance at which an EM system shows its peak response. If

the base frequency were lowered from 150 Hz to 30 Hz there would be a fivefold increase in conductance at which the peak response of an EM occurred.

However, in the search for highly conductive targets, such as pyrrhotite-related Ni-Cu-PGM deposits, a fivefold increase in conductance range is a high price to pay because the signal level to lower conductance targets is reduced by the same factor of five. For this reason, EM systems that operate with low base frequencies are not suitable for general exploration unless the target conductance is more than 100 S, or the target is covered by conductive overburden.

Despite the excellent progress that has been made in modeling software over the past two decades, there has been little work done on determining the optimum form of an EM system for mineral exploration. For example, the optimum configuration in terms of geometry, base frequency and so remain unknown. Many geophysicists would argue that there is no single ideal configuration, and that each system has its advantages and disadvantages. We disagree.

When it comes to detecting and discriminating high-conductance targets, it is necessary to measure the pure inphase response of the target conductor. This measurement requires that the measured primary field from the transmitter be subtracted from the total measured response such that the secondary field from the target conductor can be determined. Because this secondary field is in-phase with the transmitter primary field, it must be made while the transmitter is turned on and the transmitter current is changing. The transmitted primary field is several orders of magnitude larger than the secondary field. AeroTEM uses a bucking coil to reduce the primary field at the receiver coils. The only practical way of removing the primary field is to maintain a rigid geometry between the transmitter, bucking and receiver coils. This is the main design consideration of the AeroTEM airframe and it is the only time domain airborne system to have this configuration.



The off-time AeroTEM response for the 16 channel configuration.

The on-time response assuming 100% removal of the measured primary field.

Figure 4. The off-time and on-time response nomogram of AeroTEM for a base frequency of 150 Hz. The on-time response is much stronger for higher conductance targets and this is why on-time measurements are more important than lower frequencies when considering high conductance targets in a resistive environment.

Advantage 3 – Multiple Receiver Coils

AeroTEM employs two receiver coil orientations. The Z-axis coil is oriented parallel to the transmitter coil and both are horizontal to the ground. This is known as a maximum coupled configuration and is optimal for detection. The X-axis coil is oriented at right angles to the transmitter coil and is oriented along the line-of-flight. This is known as a minimum coupled configuration, and provides information on conductor orientation and thickness. These two coil configurations combined provide important information on the position, orientation, depth, and thickness of a conductor that cannot be matched by the traditional geometries of the HEM or fixed-wing systems. The responses are free from a system geometric effect and can be easily compared to model type curves in most cases. In other words, AeroTEM data is very easy to interpret. Consider, for example, the following modeled profile:

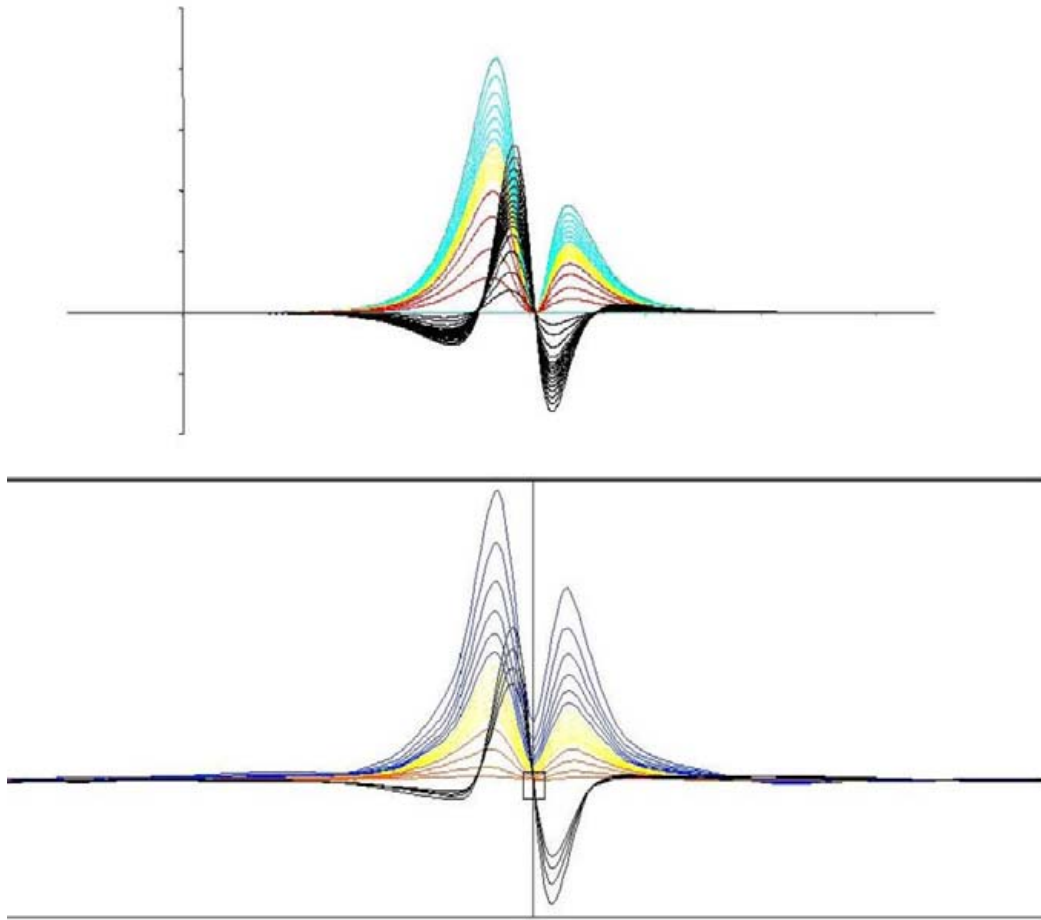


Figure 5. Measured (lower) and modeled (upper) AeroTEM responses are compared for a thin steeply dipping conductor. The response is characterized by two peaks in the Z-axis coil, and a cross-over in the X-axis coil that is centered between the two Z-axis peaks. The conductor dips toward the higher amplitude Z-axis peak. Using the X-axis cross-over is the only way of differentiating the Z-axis response from being two closely spaced conductors.

HEM versus AeroTEM

Traditional helicopter EM systems operate in the frequency domain and benefit from the fact that they use narrowband as opposed to wide-band transmitters. Thus all of the energy from the transmitter is concentrated in a few discrete frequencies. This allows the systems to achieve excellent depth penetration (up to 100 m) from a transmitter of modest power. The Aeroquest Impulse system is one implementation of this technology.

The AeroTEM system uses a wide-band transmitter and delivers more power over a wide frequency range. This frequency range is then captured into 16 time channels, the early channels containing the high frequency information and the late time channels containing the low frequency information down to the system base frequency. Because frequency domain HEM systems employ two coil configurations (coplanar and coaxial) there are only a maximum of three comparable frequencies per configuration, compared to 16 AeroTEM off-time and 12 AeroTEM on-time channels.

Figure 6 shows a comparison between the Dighem HEM system (900 Hz and 7200 Hz coplanar) and AeroTEM (Zaxis) from surveys flown in Raglan, in search of highly conductive Ni-Cu-PGM sulphide. In general, the AeroTEM peaks are sharper and better defined, in part due to the greater S/N ratio of the AeroTEM system over HEM, and also due to the modestly filtered AeroTEM data compared to HEM. The base levels are also better defined in the AeroTEM data. AeroTEM filtering is limited to spike removal and a 5-point smoothing filter. Clients are also given copies of the raw, unfiltered data.

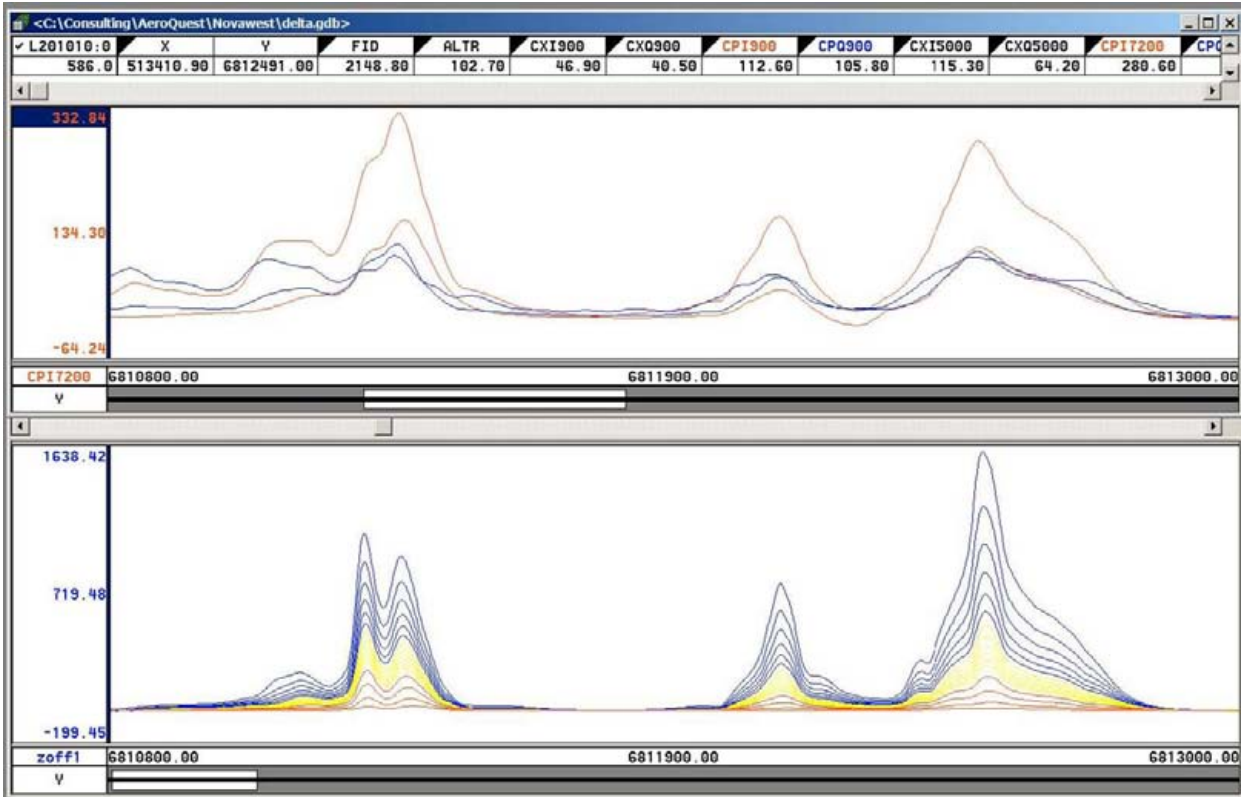


Figure 6. Comparison between Dighem HEM (upper) and AeroTEM (lower) surveys flown in the Raglan area. The AeroTEM responses appear to be more discrete, suggesting that the data is not as heavily filtered as the HEM data. The S/N advantage of AeroTEM over HEM is about 5:1.

Aeroquest Limited is grateful to the following companies for permission to publish some of the data from their respective surveys: Wolfden Resources, FNX Mining Company Inc, Canadian Royalties, Nova West Resources, Aurogin Resources, Spectrem Air. Permission does not imply an endorsement of the AeroTEM system by these companies.

APPENDIX 5: AeroTEM Instrumentation Specification Sheet

AEROTEM Helicopter Electromagnetic System

System Characteristics

- Transmitter: Triangular Pulse Shape Base Frequency 150 Hz
- Tx On Time - 1,150 (150Hz) μ s
- Tx Off Time - 2,183 (150Hz) μ s
- Loop Diameter - 5 m
- Peak Current - 250 A
- Peak Moment - 38,800 NIA
- Typical Z Axis Noise at Survey Speed = 5 nT peak to peak
- Sling Weight: 270 Kg
- Length of Tow Cable: 40 m
- Bird Survey Height: 30 m nominal

Receiver

- Two Axis Receiver Coils (x, z) positioned at centre of transmitter loop
- Selectable Time Delay to start of first channel 21.3 , 42.7, or 64.0 ms

Display & Acquisition

- AERODAS Digital recording at 128 samples per decay curve at a maximum of 300 curves per second (26.455 μ s channel width)
- RMS Channel Widths: 52.9, 132.3, 158.7, 158.7, 317.5, 634.9 μ s
- Recording & Display Rate = 10 readings per second.
- On-board display - six channels Z-component and 1 X-component

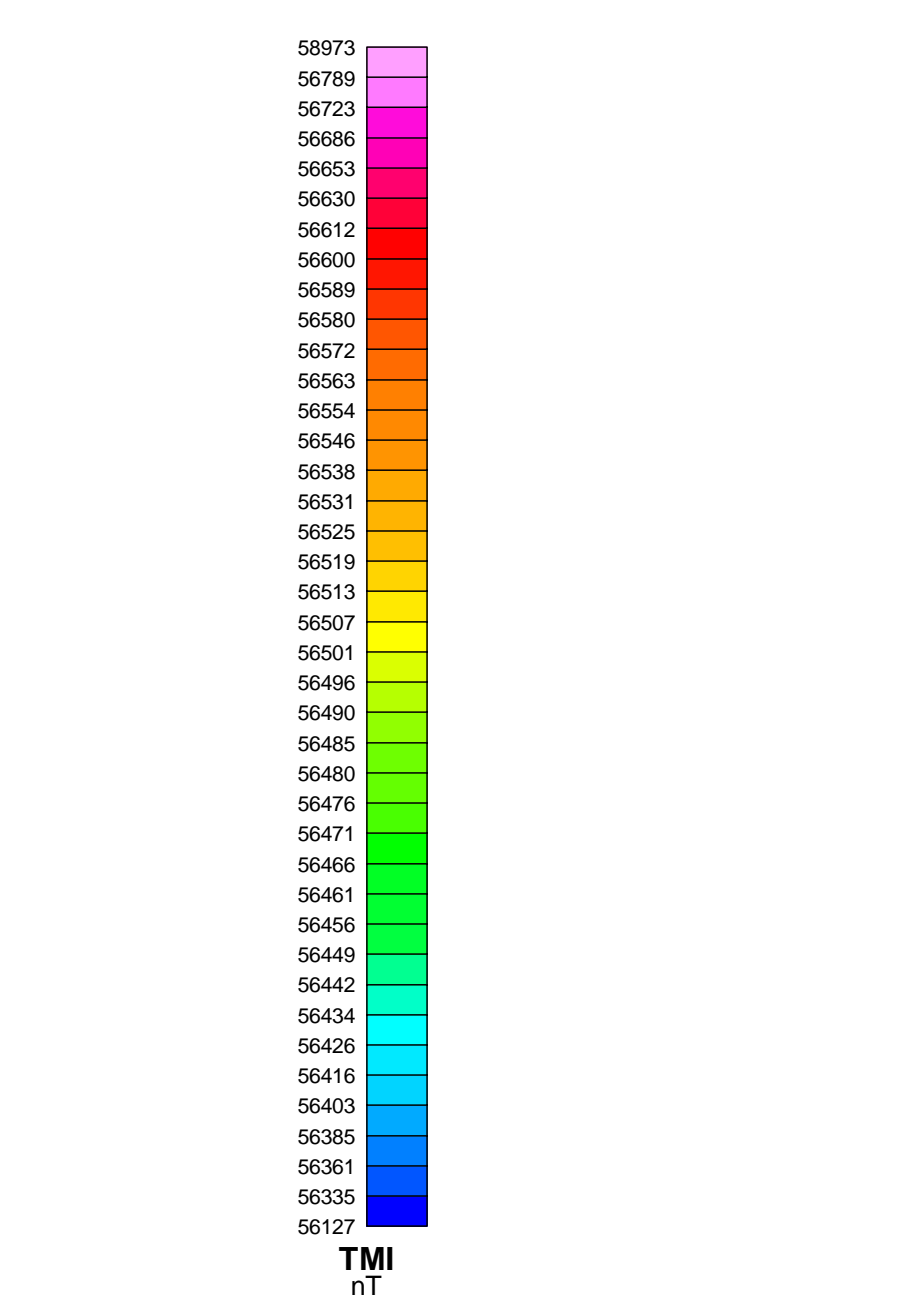
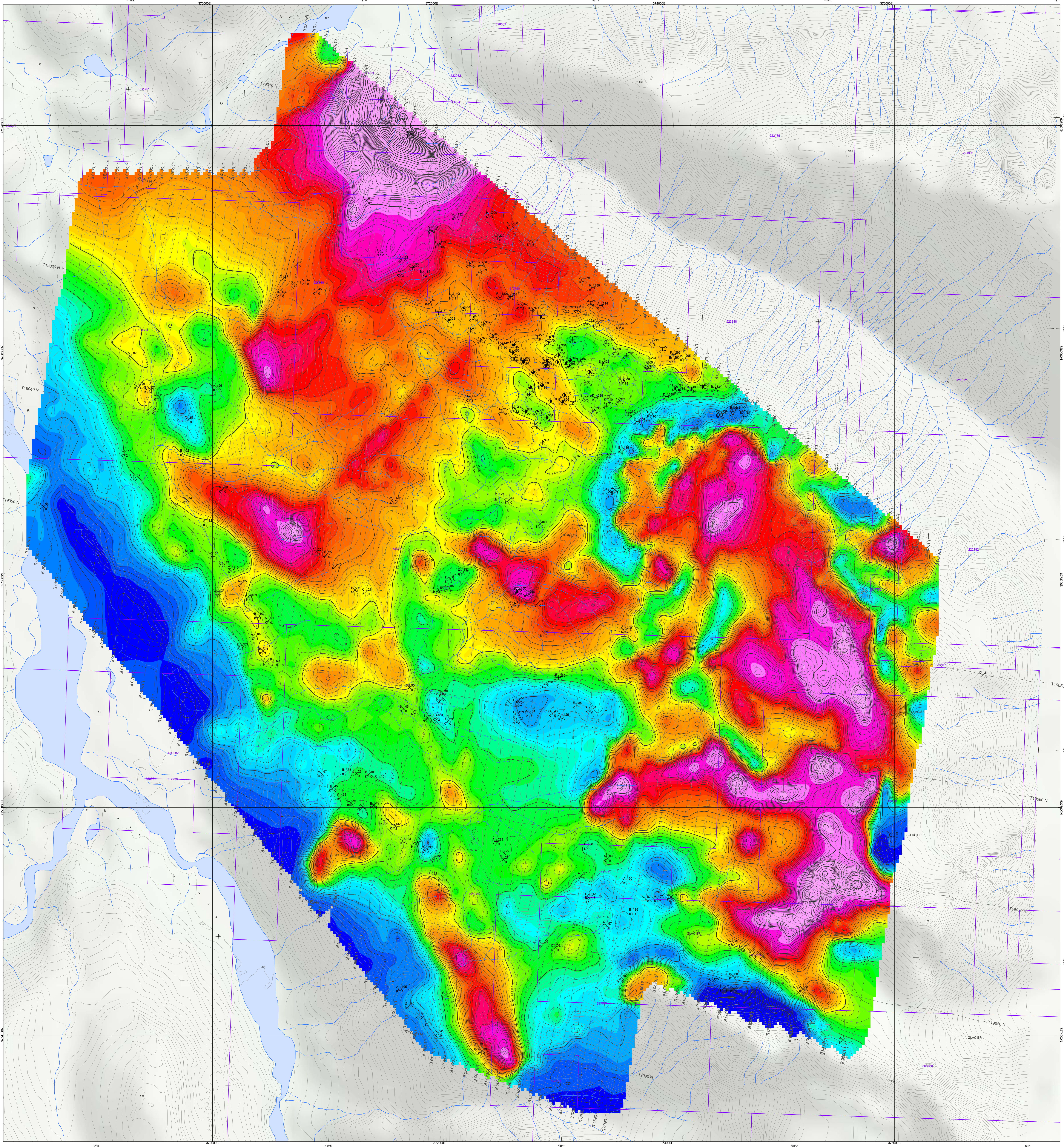
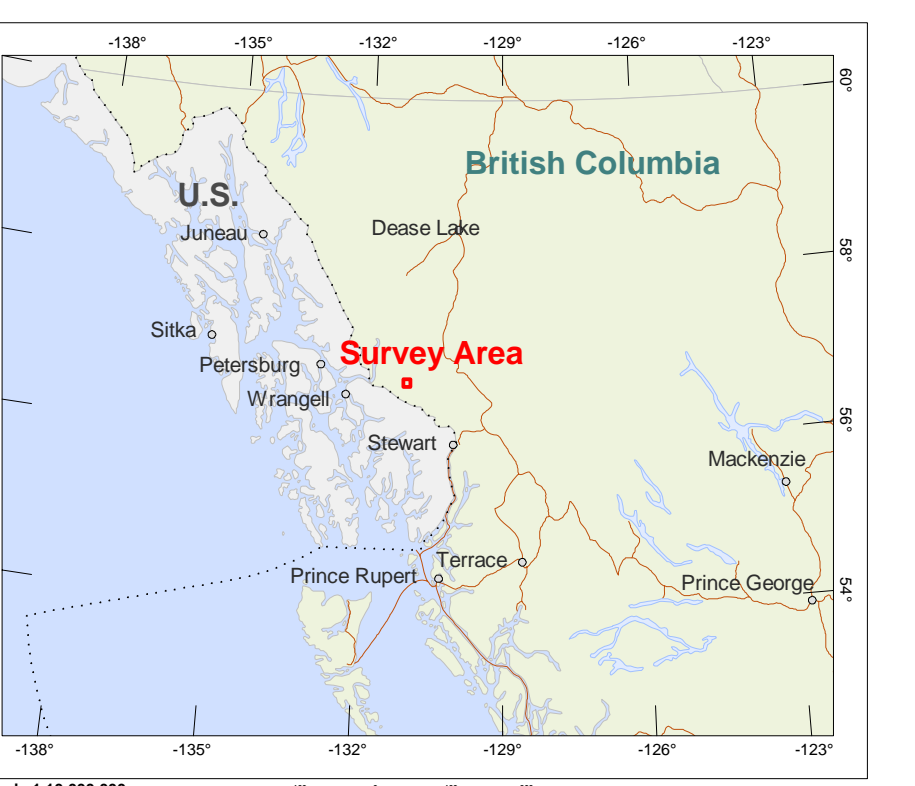
System Considerations

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 requires dynamic compensation. 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.

Tel: +1 905 693-9129. Fax: +1 905 693-9128.

Email: sales@aeroquestsurveys.com

The topographic data base (BC 1:25000) TMI data was supplied by the client. Background map data from NAD83 data. Inset data derived from Natural Resources Canada Atlas of Canada Base Map. This map accompanies the technical report entitled Report on a Inducement Magnetic and Electromagnetic Survey, Iskut Survey, Eskey Creek Area, British Columbia, by Aeroquest Limited, September 2006.



TMI Contour Interval
 Minimum 10mT
 50 & 250mT
 1000mT

Off-Time Anomaly Symbols

- 5-105
- 10-205
- 20-355
- 35-505
- 5-105
- 1-55
- -15

Cultural Sources

- anomaly label A 125 (decay constant (s))
- off-time conductance (S)
- rock/brick source

SURVEY SPECIFICATIONS
 Survey Date: July 14-18 & 19, 2006
 Traverse line spacing: 100 metres
 Traverse line direction: 10° Azimuth (N-S)
 Nominal EMI height: 30 metres
 Aircraft: Aerostar A-Star 200B2 (C-FPTG)
INSTRUMENTATION
 Data acquisition: ADAS & RMS DGR-33
 Magnetometer: Geometrics G-824 cesium vapour
 Installation: On top of EMI
 Sensitivity: 500 nanoTesla
 Electromagnetic: AeroTEM System (ECHO)
 Configuration: Towed bird
NAVIGATION
 Navigation: Differential Global Positioning System (DGPS)
 Navigation equipment: ADNAV with MID-TECH R9400p receiver
 Radar altimeter: Terra TRX-300 (TR-30)
DATA PROCESSING
 Magnetic: datum, tie-line and micro-leveling corrections
POSITIONING
 Datum: NAD83
 Merit Azis: 637637.000
 Elevation: 0.081819191
MAP PRODUCTION
 Projection: Universal Transverse Mercator
 Central Meridian: 129°W (Zone 9)
 Central Scale Factor: 0.9996
 False Easting/Northing: 500,000m/0m

scale 1:10,000

Spirit Bear Minerals Ltd.
 Eskey Creek Area, British Columbia
TOTAL MAGNETIC INTENSITY

Iskut Block
 NTS 104B10, 104B11

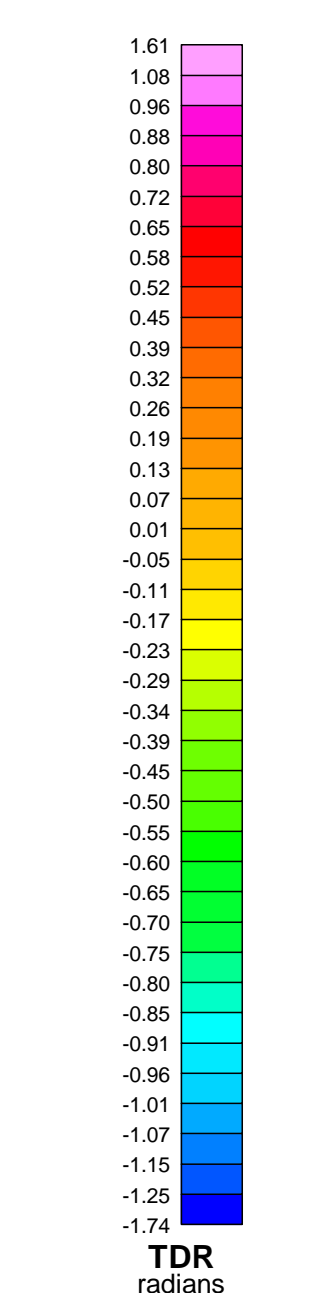
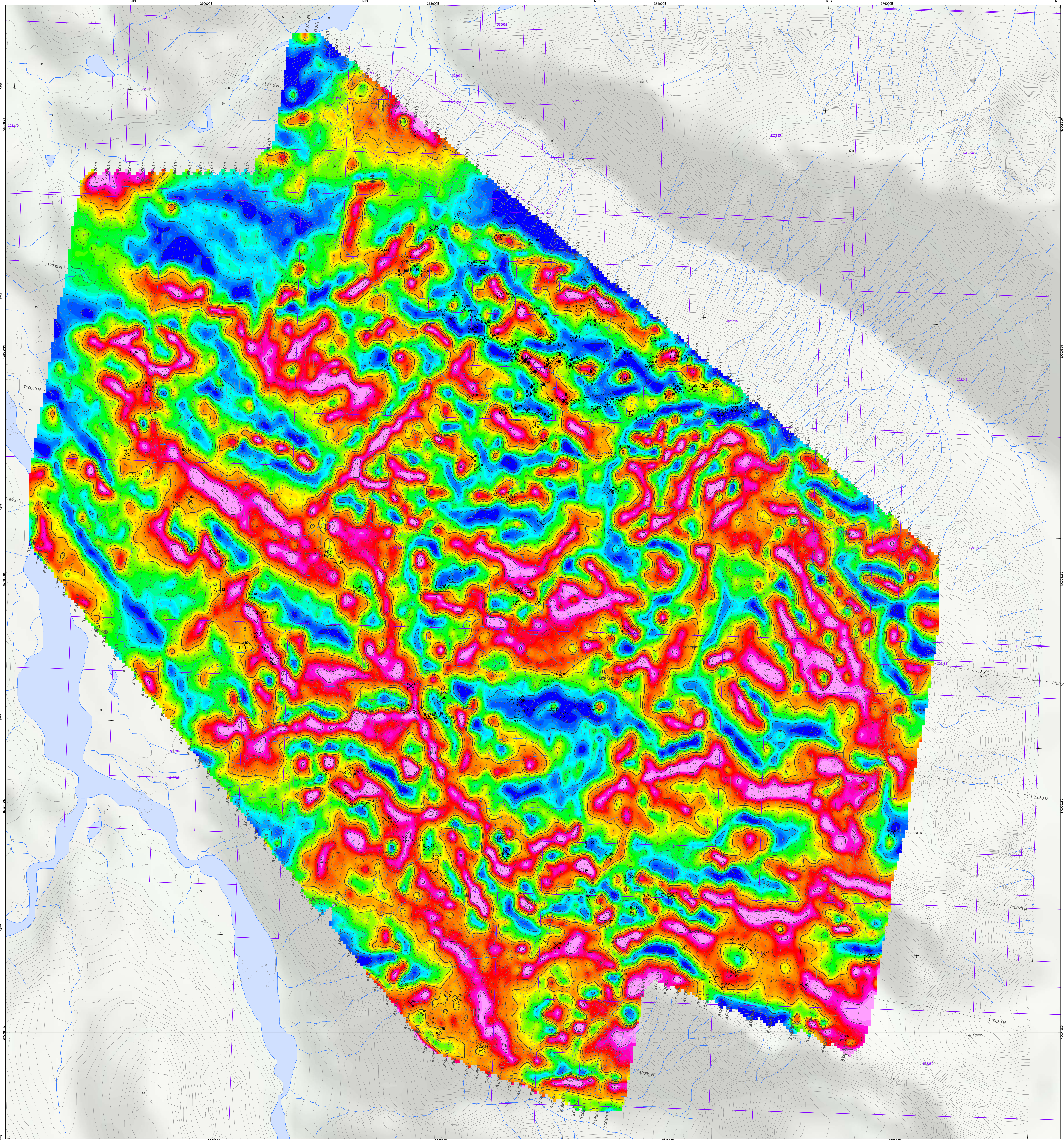
AEROQUEST LIMITED
 4840 Main St. East
 Mission, BC, CANADA V2T 3Z3
 Tel: 250.929.7100 Fax: 250.929.7105
 www.aeroquest.com

September 2006 TMI Iskut

The topographic data base BC 1:25000 TM16 geosides supplied by the client. Background data derived from NAD83 datum. Inset data derived from Natural Resources Canada Atlas of Canada Base Map.

This map accompanies the technical report entitled Report on a Magnetotelluric and Electromagnetic Survey, East Survey, Eskay Creek Area, British Columbia, by Aeroquest Limited, September 2006.

Grid North
NAD83 Zone 9



TDR Contour Interval
0.25 raiadians
1 raiadians
5 raiadians

On-Time Anomaly Symbols

- 4005
- 36065
- 20365
- 10295
- 5105
- 145
- 115

Cultural Features

- anomaly label
- off-time conductance (S)

SURVEY SPECIFICATIONS

- Survey from: July 14-16 & 19, 2006
- Traverse line spacing: 100 metres
- Traverse line direction: 10° Azimuth (N-S)
- Nominal EM bed height: 30 metres
- Antenna: Aerometrics A-Star 300B2 (C-FP10)

INSTRUMENTATION

- Data acquisition: ACAS & RMS DOR-33
- Magnetometer: Geometrics G-433A cesium vapour
- Installation: On rail of EM bed
- Severity: 011 northwesterly
- Electromagnetics: AeroTEM II System (ECHO)
- Configuration: Towed trail

NAVIGATION

- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH RS400p receiver
- Radar Altimeter: Terra TRADOUTRI-30

DATA PROCESSING

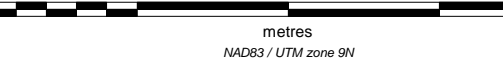
- Magnetics: dual, inline and micro-leveling corrections

POSITIONING

- Datum: NAD83
- Map Area: 0278107.000
- Elevation: 0.081819191

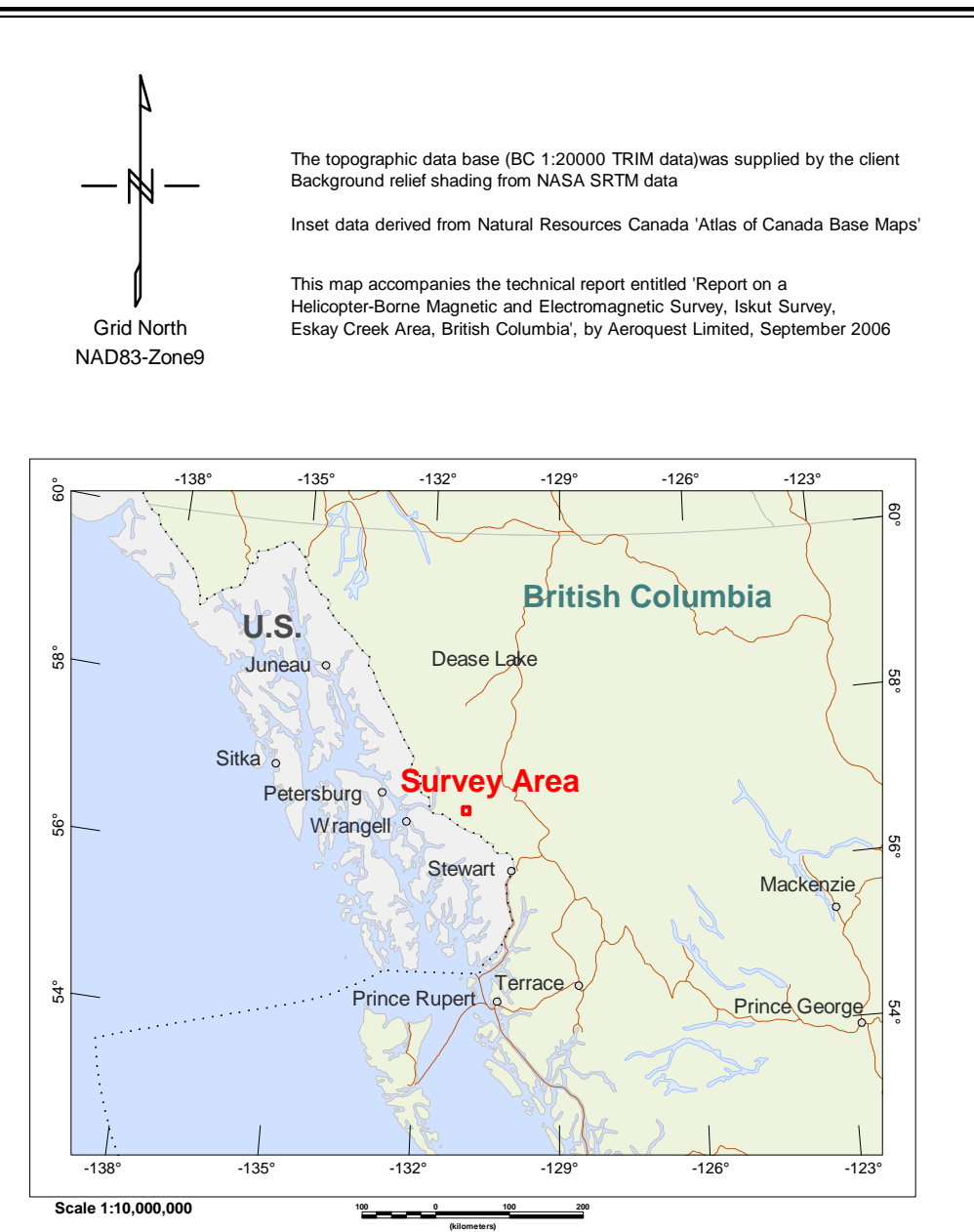
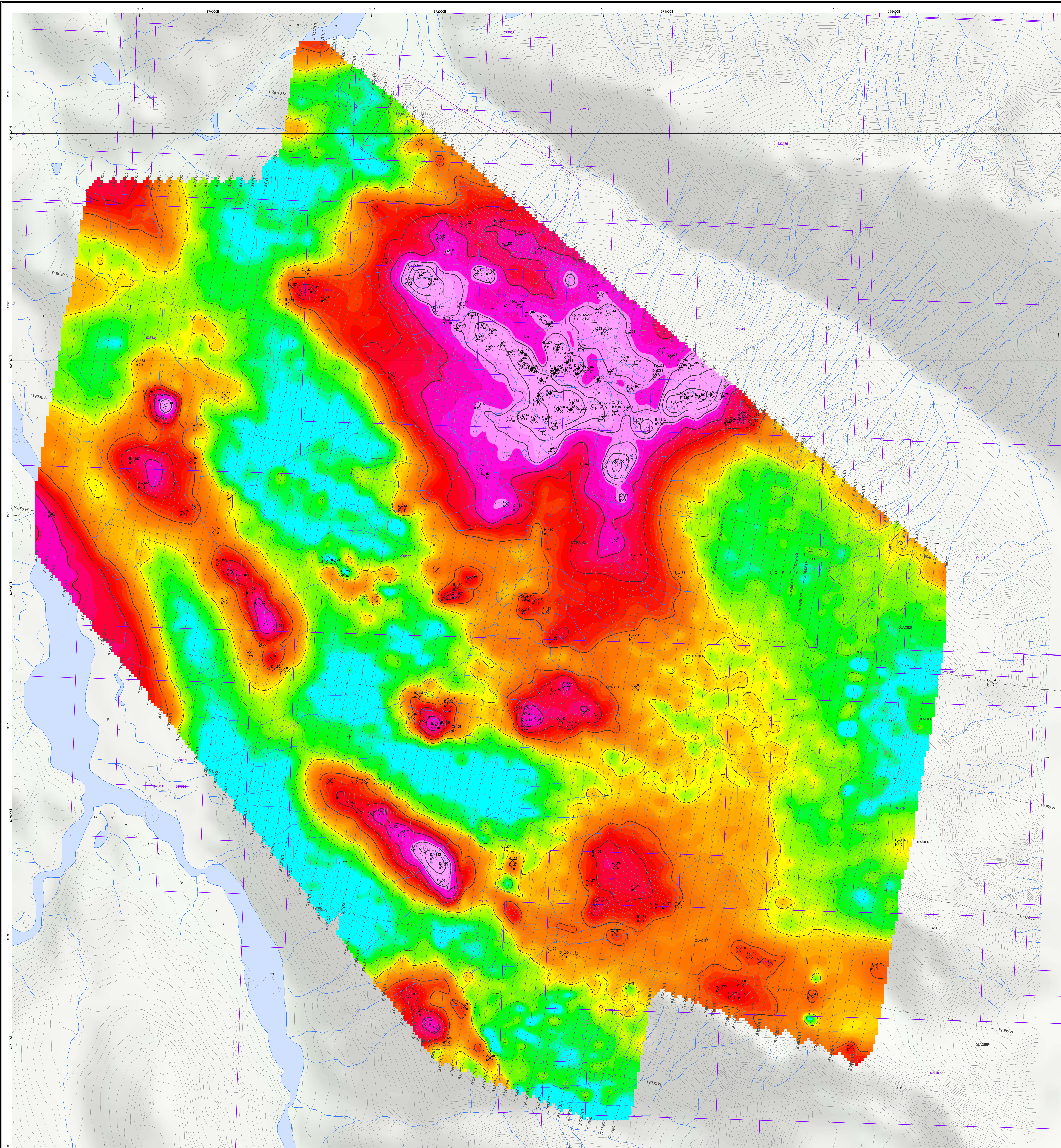
MAP PROJECTION

- Projection: Universal Transverse Mercator
- Central Meridian: 120°W (Zone 9)
- Central Scale Factor: 0.9998
- False Easting (m): 500,000.00m



Spirit Bear Minerals Ltd.
Eskay Creek Area, British Columbia
**TILT DERIVATIVE
OF TMI**
Iskut Block
NTS 104B10, 104B11

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Milton, ON, CANADA L7T 3Z5
Tel: 905.884.8100 Fax: 905.884.8104
www.aeroquest.com



Z1OFF nT/s
633.9
62.2
421.0
386.4
207.7
155.1
102.3
94.2
77.4
65.8
56.9
48.9
43.2
38.1
35.1
31.5
29.3
27.0
24.1
22.9
21.2
19.7
18.0
16.5
15.6
14.2
12.8
11.3
10.3
9.2
8.4
7.2
6.4
5.4
4.8
3.8
2.7
1.8
0.8
0.5

Z1OFF Contour Interval

- 10nT/s
- 20nT/s
- 50nT/s

Off-Time Anomaly Symbols

- >50S
- 35-60S
- 20-35S
- 10-20S
- 5-10S
- 1-5S
- <1S
- Cultural Sources

anomaly label

- decay constant (µs)
- study area source
- off-time conductance (S)

SURVEY SPECIFICATIONS:

- Suney flown July 14 & 18, 11, 2008
- Traverse line spacing: 100 metres
- Traverse line direction: 10° Azimuth (N-S)
- Normal flight height: 30 metres
- Aircraft: Aerospacelab A-Star 350R2 (C-FPTG)

INSTRUMENTATION:

- Data acquisition: ADAS & RMS DGR-33
- Magnetometer: Geometrics G-824 cesium vapour
- Insulation: Orinair of 504 feet
- Sensitivity: 2001 nanoTesla
- Electromagnetic Interference (EMI) System (ECHO)
- Configuration: Toward bird

NAVIGATION:

- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH R4000 receiver
- Flight Altitude: Terrain TRK3000TH-30

DATA PROCESSING:

- Magnetic: digital, inline and micro-beaming corrections

POSITIONING:

- datum: NAD83
- Map Area: 6378137.000
- Eccentricity: 0.081819191
- MSP PROJECTION: Universal Transverse Mercator
- Central Meridian: 129°W (Zone 9)
- Central Scale Factor: 0.9999
- False Easting/Northing: 500,000m/0m

scale 1:10,000

Spirit Bear Minerals Ltd.
 Eskay Creek Area, British Columbia
AEROTEM Z1 OFF-TIME

Iskut Block
 NTS 104B10, 104B11

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September 2008 ZOFF Iskut