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ASSESSMENT REPORT

describing

GEOPHYSICAL SURVEYS

at the

MICK PROPERTY

Mick 1-32 YC43514-YC43545

NTS 116C/07 and 116C/08
Latitude 64°19'N; Longitude 140°29'W

in the

Dawson Mining District
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

STRATEGIC METALS LTD.

by

W. Douglas Eaton, B. Sc. Geology
April 2007

TABLE OF CONTENTS

APPENDICES

FIGURES

TABLES

INTRODUCTION

The Mick property is a volcanogenic massive sulphide (VMS) prospect located in western Yukon Territory. It is owned 100% by Strategic Metals Ltd. This report includes preliminary results of helicopter-borne VTEM and magnetic surveys that were flown in July 2006 by Geotech Ltd. from a temporary base in Dawson City. The author supervised the program and his Statement of Qualifications appears in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The Mick property consists of 32 contiguous mineral claims located in western Yukon at latitude 64°19'N and longitude 140°29'W on NTS map sheets 116C/07 and 116C/08 (Figure 1). The claims are registered with the Dawson Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited, which holds them in trust for Strategic Metals. Claim registration data are listed below and the locations of individual claims are shown on Figure 2.

Claim Number	Grant Number	Expiry Date*
Mick 1-32	YC43514-YC43545	March 9, 2012

* Expiry dates include work that has been filed for assessment credit but not yet accepted.

The claims are situated about 55 km by air northwest of Dawson City. They are crossed by the Clinton Creek Road, a haulage road that serviced the former Clinton Creek asbestos mine. The claims are about 18 km north of the junction between the haulage road and the Top of the World Highway, which extends from Dawson City into Alaska. The Clinton Creek Road is usually open from late spring until late fall, when the ferry across the Yukon River at Dawson City is in operation.

In 2006, the crew and helicopter were based in Dawson City.

PREVIOUS WORK

Claims were first staked in the vicinity of Mickey Creek in 1957 by Canex Aerial Exploration Ltd., which performed hand trenching (Deklerk and Traynor, 2005). There is no public record describing this work or results obtained. Cominco Ltd. restaked the area in 1978 and explored the property with mapping and soil sampling in 1978, soil sampling and bulldozer trenching in 1979 and 1980 and one 183 m diamond drill hole in 1981. YGC Resources Ltd. restaked the property in 1990 and explored it with soil sampling and bulldozer trenching that year and more soil sampling in 1991. Kennecott Canada Inc. optioned the property in 1992 from YGC and carried out geological mapping, soil sampling, MaxMin I-9 EM geophysical surveys and excavator trenching (Archer Cathro, 1992). In 1995 Atna Resources Ltd. performed soil sampling on the west half of the property, under an option agreement with YGC. No further work was carried out and the claims were allowed to lapse. The area was restaked as the current Mick claims by Strategic Metals in March 2006.

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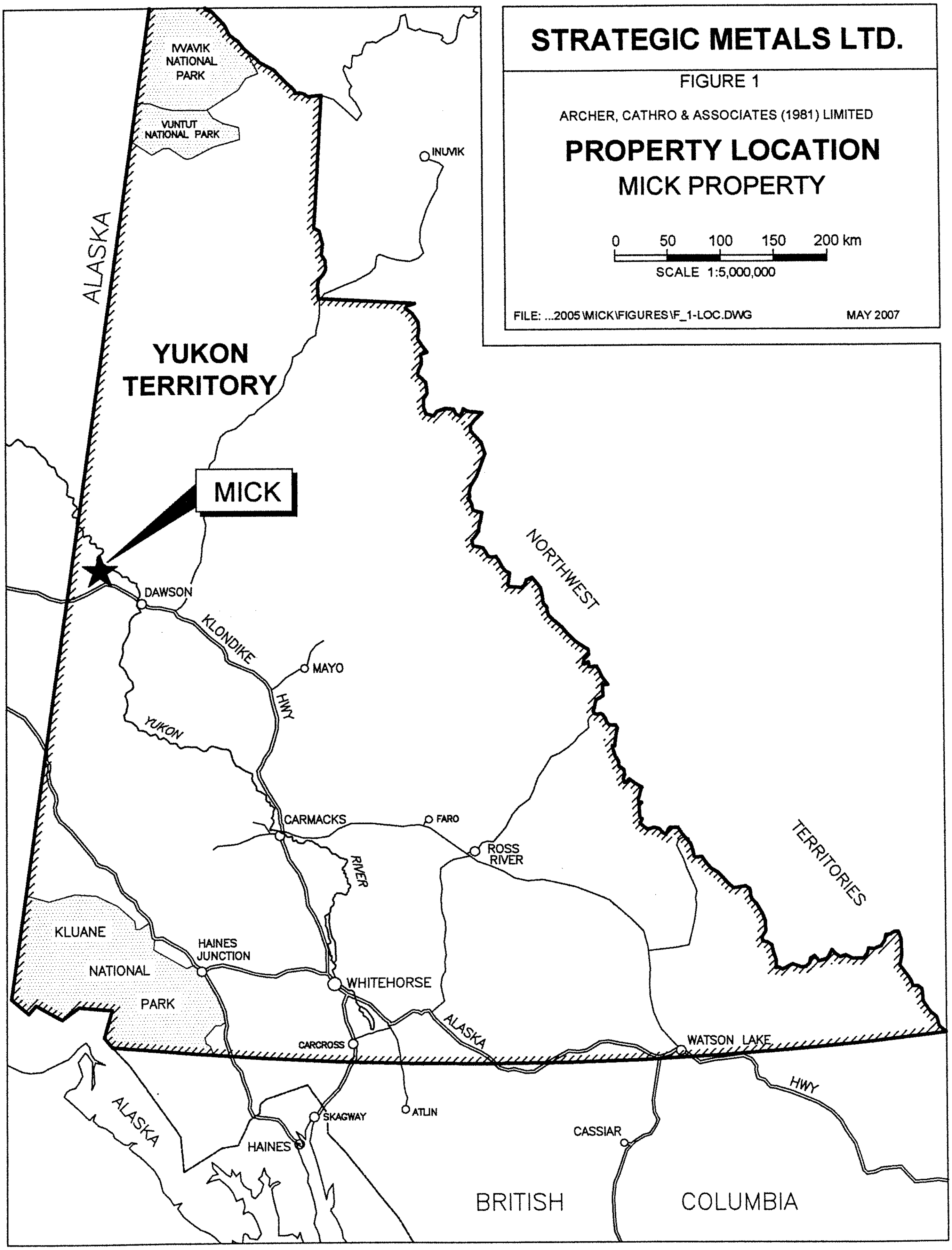
FIGURE 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY LOCATION
MICK PROPERTY

0 50 100 150 200 km
SCALE 1:5,000,000

FILE: ...2005\MICK\FIGURES\F_1-LOC.DWG MAY 2007



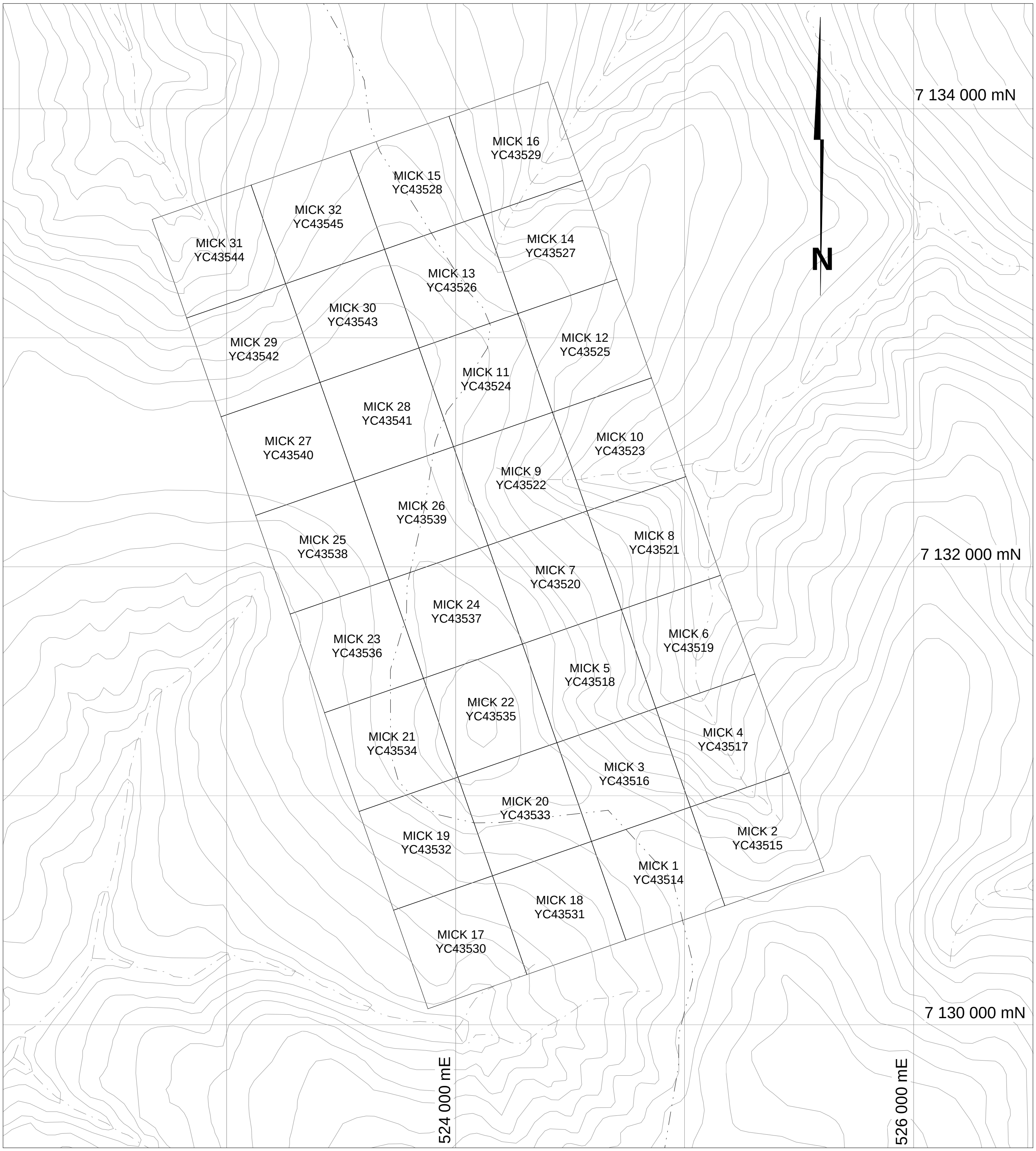


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FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION

MICK PROPERTY

0 1 2 km

UTM Zone 7, NAD83, NTS 116C07 & 08

FILE:../2007/MICK/F2_CLAIM_LOC

DATE: MAY 2007

GEOMORPHOLOGY

The Mick property lies along the spine and east side of a northerly trending ridge. Topography is subdued with elevations locally ranging from 650 to 1100 m above sea level. Relatively gentle slopes in the upper part of the property are vegetated with sub-alpine fir and arctic black birch, giving way to spruce bog and mixed mature balsam, fir and aspen forest as the slope steepens at lower elevations to the east. In 2003 a forest fire partially burned vegetation along the ridge crest.

The Dawson area, west of Tintina Trench, largely escaped Pleistocene glaciation. Residual overburden cover ranges from several centimetres to greater than five metres thick. Bedrock exposures are limited to resistant strata in cliffs along the sides of creeks draining the east part of the property. Outcrop forms less than 1% of the surface area. The soil consists of thick, partially frozen organic rich clay on the relatively gentle upper slopes and better drained residual material on steeper slopes. At surface, sulphide minerals are oxidized and in drill core, oxidation can extend to depths of 80 m or more. Because of this, geochemical expression of base metal mineralization is subdued. Well developed periglacial solifluction of soil horizons results in extended downslope detrital dispersion of geochemical anomalies.

REGIONAL GEOLOGY

The Mick property is located in Yukon-Tanana Terrane (Figure 3). This geologically complex assemblage comprises polydeformed metamorphic rocks derived from a variety of volcanic and sedimentary protoliths that range from Precambrian to Permian in age. Most of the exploration success in Yukon-Tanana Terrane has been in the Finlayson Lake area of southeast Yukon where deposits occurs in at least four stratigraphic intervals that span a Late Devonian to Pennsylvanian-Permian age range. VMS mineralization includes a variety of deposit types, including felsic-hosted and mafic-hosted deposits (Table I).

Table I - VMS deposits of Yukon-Tanana Terrane, southeast Yukon

DEPOSIT	SIZE (10^6t)	Cu (%)	Zn (%)	Pb (%)	Ag (g/t)	Au (g/t)
Felsic-hosted VMS						
Kudz Ze Kayah	13.0	1.0	5.5	1.3	125	1.2
GP4F	1.5	0.1	6.4	3.1	90	2.0
Wolverine	6.2	1.3	12.7	1.6	371	1.8
Mafic-hosted VMS						
Fyre Lake	8.2	2.1	---	---	---	0.7
Ice	4.6	1.5	---	---	---	---

Restoration of the postulated 425 km of right-lateral, post Mid-Cretaceous movement on the Tintina Fault brings the well mineralized Finlayson Lake belt adjacent to the main body of Yukon-Tanana Terrane west of Dawson City (Hunt, 2002). There are close similarities in lithology, structure and U-Pb zircon ages between the two areas (Mortensen, 1990). The geological similarities and the close proximity of the regions after restoration of movement along the Tintina

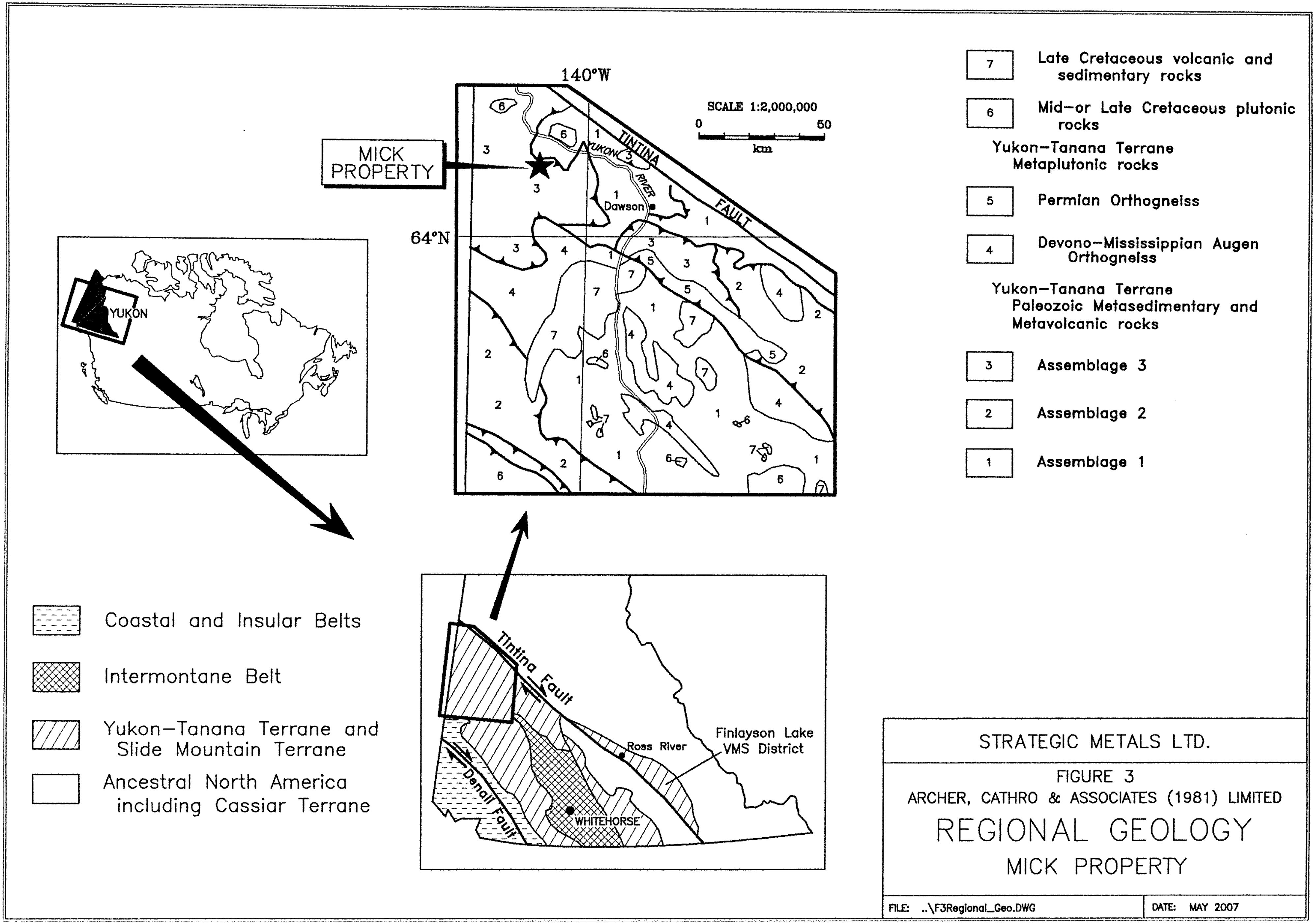

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FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

REGIONAL GEOLOGY

MICK PROPERTY

FILE: ..\F3Regional_Geo.DWG

DATE: MAY 2007

Fault, and the presence of numerous VMS exploration targets in Yukon-Tanana Terrane rocks west of this fault suggest that significant VMS potential extends into west-central Yukon (Figure 4).

Mortensen (1992) divided Yukon-Tanana Terrane in western Yukon into three structural assemblages.

- Nisling Assemblage: a structurally lower package of quartzite and marble of possible Proterozoic and/or Cambrian age,
- Nasina Assemblage: a middle structural package of Late Devonian to Middle Mississippian carbonaceous metasedimentary rocks and mafic- to felsic- metavolcanic rocks; and,
- Klondike Schist: an upper structural package of Mid-Permian felsic metavolcanic and metaplutonic rocks.

PROPERTY GEOLOGY

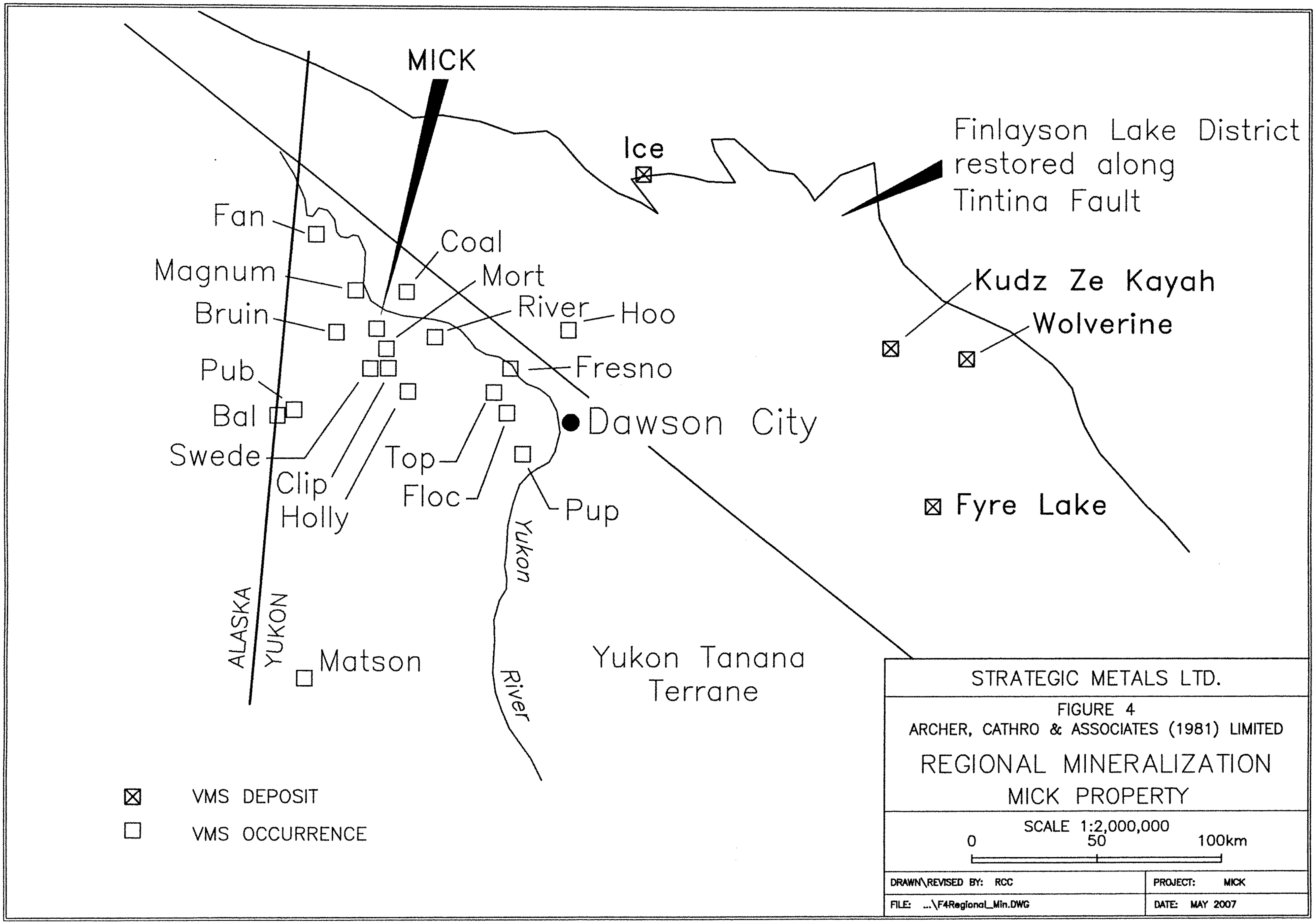
The main area of exploration interest on the Mick property lies within a panel of Nasina Assemblage metasedimentary rocks and felsic metavolcanic rocks that are emplaced over Nisling Assemblage metasedimentary rocks along a southwest-dipping thrust fault (Figure 5). A highly foliated and sheared serpentinite body is emplaced between two strands of the fault in the northeast corner of the property. The first staking in the area in 1957 was over an asbestos occurrence developed in these ultramafic rocks.

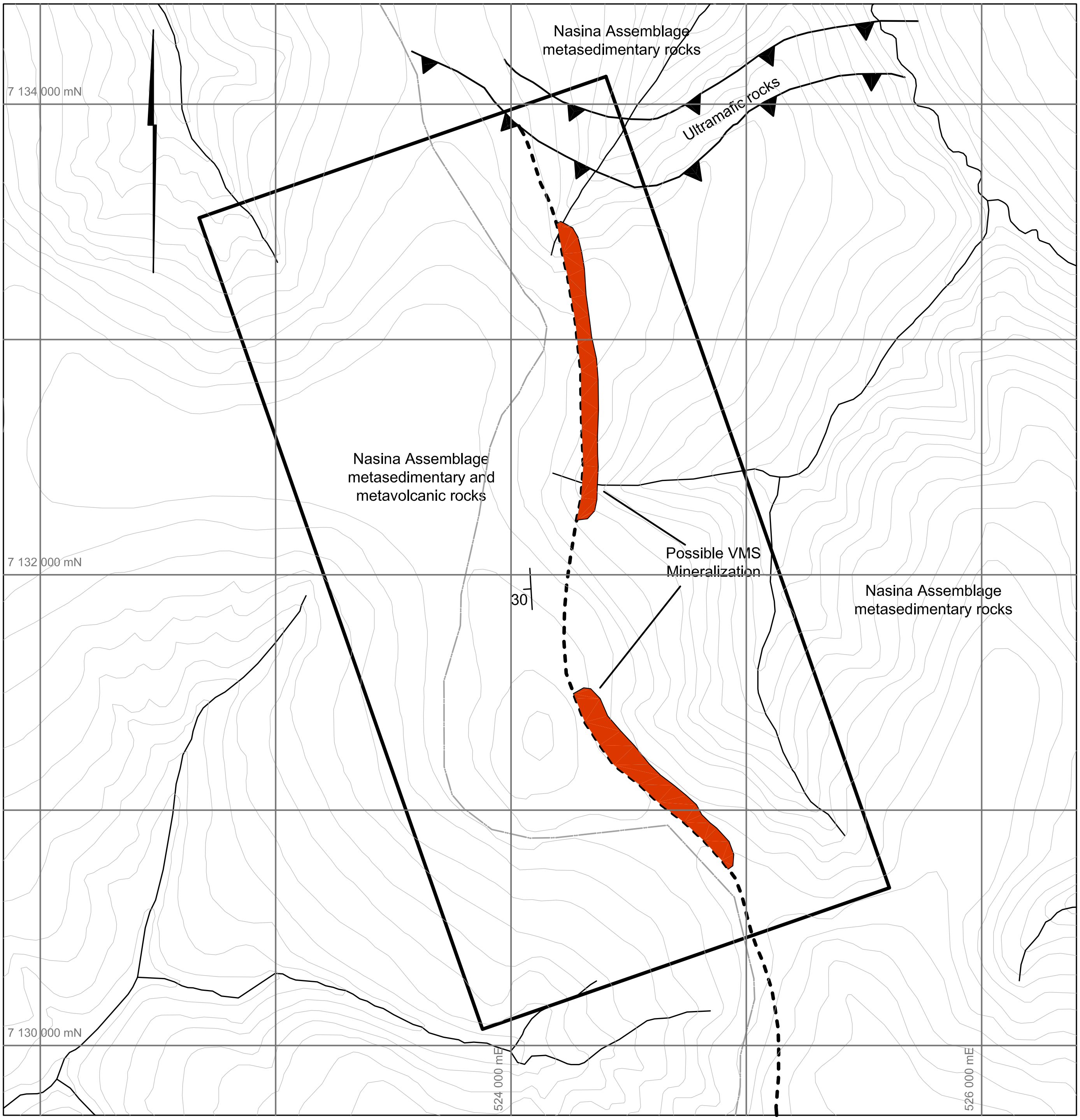
Very little bedrock is exposed on the claim block. Bedrock mapping is restricted to the floors and walls of bulldozer and excavator trenches and exposures along the Clinton Creek road cut on the ridge crest. Results of this work demonstrates that, although bedrock has been deformed by small-scale isoclinal folds, the overall orientation of compositional layering appears to be a homoclinal sequence that strikes north-northwest and dips gently west.

The east half of the property is underlain by graphitic quartz-muscovite phyllite and graphitic quartzite with minor marble that are probably the metamorphosed equivalents of carbonaceous marine clastic sedimentary rocks. This sequence is structurally overlain in the central and west parts of the property by similar rocks with intervals of light brown to golden brown, rusty weathering quartz-muscovite±chlorite schist that are interpreted as metamorphosed intermediate to felsic volcanic units within the dominantly metasedimentary package (Carne, 1991).

GEOCHEMISTRY

A geochemical compilation of the Mick property is shown on Figure 6. Data includes results of soil geochemical surveys by Cominco in 1979 and 1980 (Olfert, 1979 and 1980), by YGC Resources in 1990 (Sax and Carne, 1990) and 1991 (Carne, 1991), and by Atna Resources in 1995 (Schmidt, 1996). A total of 1269 soil samples have been collected on the property by the various operators.
Based on statistical analysis of the combined geochemical data sets by Schmidt (1996), anomalous


MICK
Ice
Finlayson Lake District restored along Tintina Fault
Fan
Magnum
Coal
Mort
Bruin
River
Hoo
Kudz Ze Kayah
Wolverine
Pub
Fresno
Bal
Dawson City
Swede
Clip
Holly
Top
Floc
Pup
Fyre Lake
Yukon
ALASKA
YUKON
Matson
River
Yukon Tanana Terrane
VMS DEPOSIT
VMS OCCURRENCE
STRATEGIC METALS LTD.
FIGURE 4
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
REGIONAL MINERALIZATION
MICK PROPERTY
SCALE 1:2,000,000
0
50
100km
DRAWN\REVISED BY: RCC
PROJECT: MICK
FILE: ...\F4Regional_Min.DWG
DATE: MAY 2007



STRATEGIC METALS LTD.

FIGURE 5

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY GEOLOGY

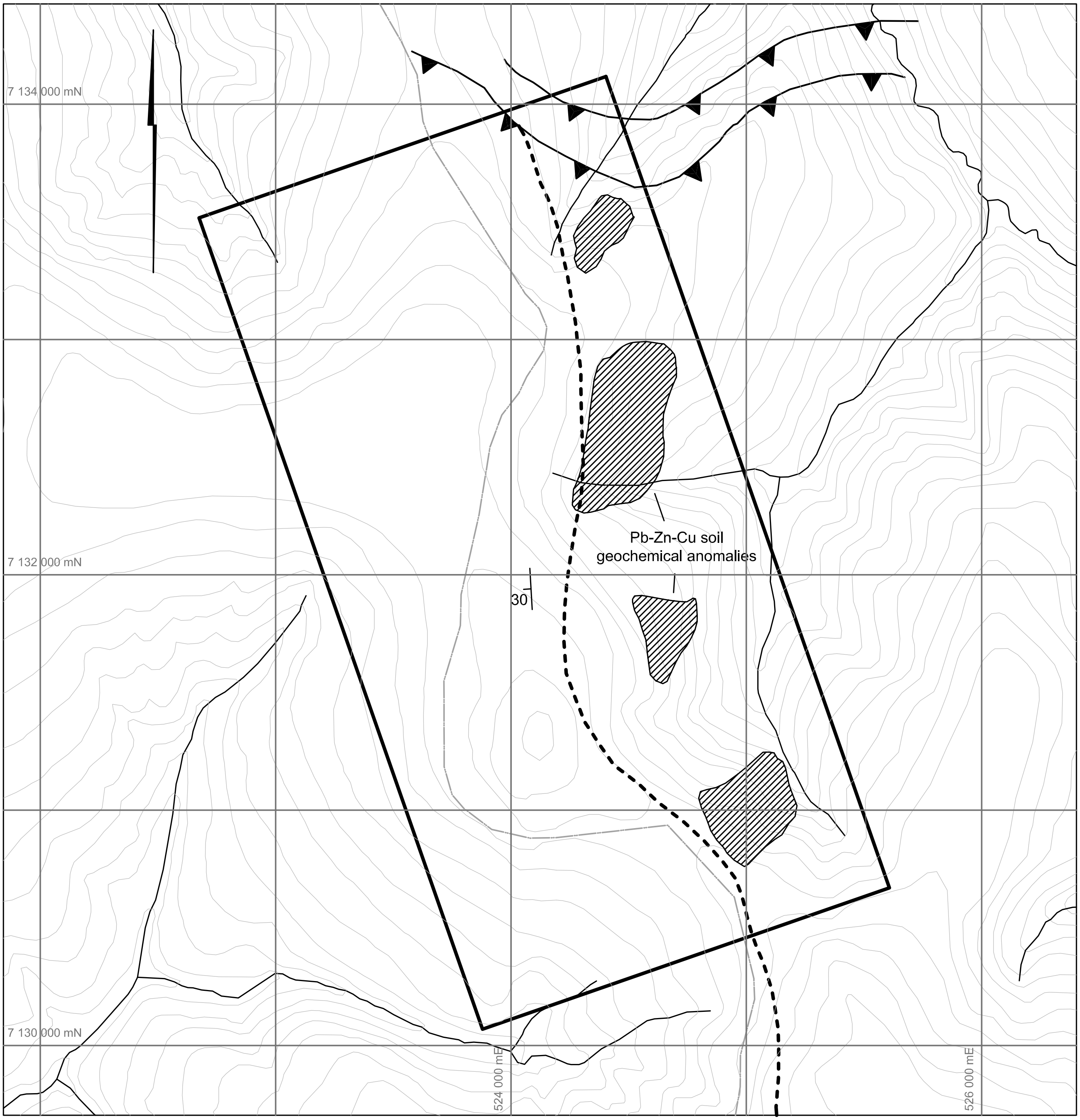
MICK PROPERTY

0 1 2 km

NAD 83 / UTM ZONE 8

FILE: ...2007/MICK/F_5-GEO.DWG

DATE: MAY 2007



STRATEGIC METALS LTD.

FIGURE 6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOCHEMICAL COMPILATION

MICK PROPERTY

0 1 2 km

NAD 83 / UTM ZONE 8

FILE: ...2007/MICK/F_6-CHEM.DWG

DATE: MAY 2007

thresholds for copper, lead and zinc are set at 31 ppm, 42 ppm and 107 ppm, respectively. Three main areas of multi-element soil geochemical response are present along a 3 km distance. The uphill edges of the three anomalies lie immediately downslope of the north-south striking contact between the clastic metasedimentary rocks and the overlying sequence of interlayered metavolcanic rocks and metasedimentary rocks.

The northernmost anomaly is 500 m long in a north-south direction. It extends downslope for a distance of 200 m to the east edge of the sampled area. Copper, lead and zinc values reach maximums of 86, 785 and 460 ppm, respectively.

The central anomaly is the largest and most intense of the three. It extends for a 750 m along strike and 900 m downslope to the edge of the sampled area. Lead and zinc values reach maximums of 1320 and 650 ppm, respectively. The central anomaly is within an area originally sampled by Cominco and copper analyses were not carried out on these samples.

The southern anomaly extends over 900 m in the north-south strike direction, and extend downslope to Mickey Creek. Copper, lead and zinc values range as high as 100, 528 and 1230 ppm, respectively.

MINERALIZATION

Prospecting by Cominco discovered narrow bands of sphalerite and galena mineralization with bedded barite in calcareous graphitic phyllite within soliflucted overburden in bulldozer trenches that were excavated in the central geochemical anomaly, well downslope from the head of that anomaly. A single drill hole intersected a few thin mineralized bands in phyllite but grades were poor, averaging 0.03% lead and 0.34% zinc over 5.2 m. The drill hole was collared downslope from the top of the central geochemical anomaly and tested rocks that form the structural footwall to the apparent source of the anomalous soil response. YGC deepened the Cominco bulldozer trenches and Kennecott extended the trenching uphill with an excavator above the apparent source area of the central anomaly. These programs were not successful at exposing bedrock in high priority areas because of deep, frozen overburden; however, numerous pieces of quartz-muscovite phyllite float mineralized with bands of galena were reported.

2006 GEOPHYSICAL SURVEY

Property wide helicopter-borne VTEM and magnetometer surveys were carried out by Geotech Ltd. of Ontario in July 2006. The VTEM system allows for deep penetration while maintaining high special resolution and resistivity discrimination. Principle geophysical sensors include a VTEM system and a high sensitivity cesium magnetometer. Ancillary equipment included a Global Positioning System (GPS) navigational system and a radar altimeter. The apparatus was flown using an Astar B2 helicopter operated by Trans North Helicopters from its base in Dawson City.

Flight line spacing was 100 m with a nominal terrain instrument clearance of 92 m. Twenty-six measurement gates were used to record receiver decay in a range from 130 to 7540 micro seconds. A three stage filtering process was used to reject major sferic events and reduce system noise. The signal to noise ratio was further improved by the application of a low pass linear digital filter. The sensitivity of the magnetic sensor is 0.02 nano Tesla at a sampling interval of 0.1 seconds. Processing the magnetic data involved the corrections for diurnal variation and tie line levelling.

Preliminary data and maps from Geotech are included as Appendix II. Data compilation and processing are scheduled to be carried out using Geosoft OASIS Montaj and programs proprietary to Geotech. The results were not be available in time for inclusion in this report.

Preliminary examination of the data shows a strong magnetic high directly over the ultramafic body in the northeast corner of the property. A second magnetic high in the southeast corner is unexplained. The strongest VTEM response is over the thrust faults that bound the ultramafic body. Weak VTEM response was obtained to the west (downdip) from the projected surface trace of the horizon that is favourable for VMS mineralization.

DISCUSSION AND CONCLUSIONS

The Mick property is a VMS prospect located within Yukon-Tanana Terrane in western Yukon Territory. Access is excellent, with a government maintained all weather road crossing the property.

The Mick area bears many stratigraphic and structural similarities to the Finlayson Lake region of southeast Yukon where a number of economically significant VMS occurrences have discovered within the past two decades. Restoration of the postulated 425 km of right-lateral, post Mid-Cretaceous movement on the Tintina Fault brings the well mineralized Finlayson Lake belt adjacent to the area where the Mick claims are located.

Exploration on the current Mick claims by four operators since 1978 has identified three relatively strong and multi-element anomalies. These anomalies appear to reflect mineralization in three separate locations within a single stratigraphic horizon that is exposed by erosion along a 3 km long trend. The source area of one of the geochemical anomalies has been investigated with bulldozer and excavator trenching but deep, frozen overburden prevented exposure of the potential source rocks, which appear to be at the base of an interlayered sequence of Upper Devonian to Lower Mississippian metamorphosed felsic volcanic rocks and clastic sedimentary rocks.

The bedrock succession is inferred to have a gentle to moderate dip to the southwest. Previous attempts to evaluate the potential source areas with Horizontal Loop EM and MaxMin EM surveys outlined a number of relatively steeply dipping conductors, which are likely fault zones. The probable shallow to moderate dip of the potential mineralization, coupled with oxidation of sulphide minerals to depths of 80 m below surface, reduces effectiveness of these techniques. The VTEM surveys appear to have identified weak conductors in the favourable areas but detailed evaluation of the data is required to confirm this interpretation.

A program of stratigraphic diamond drilling, designed to intersect the potentially mineralized horizon with a series of short holes collared near the Clinton Creek Road, is strongly warranted as the next phase of exploration. Ten 150 m holes will be an adequate first phase evaluation of the mineralized trend. Specific location and orientation of the holes will be best determined after a full evaluation of the 2006 airborne geophysical data has been carried out.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

W. Douglas Eaton, B. Sc.

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APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, W. Douglas Eaton, geologist, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in North Vancouver, British Columbia, hereby certify that:

1. I graduated from the University of British Columbia in 1980 with a B.Sc. majoring in Geological Sciences.

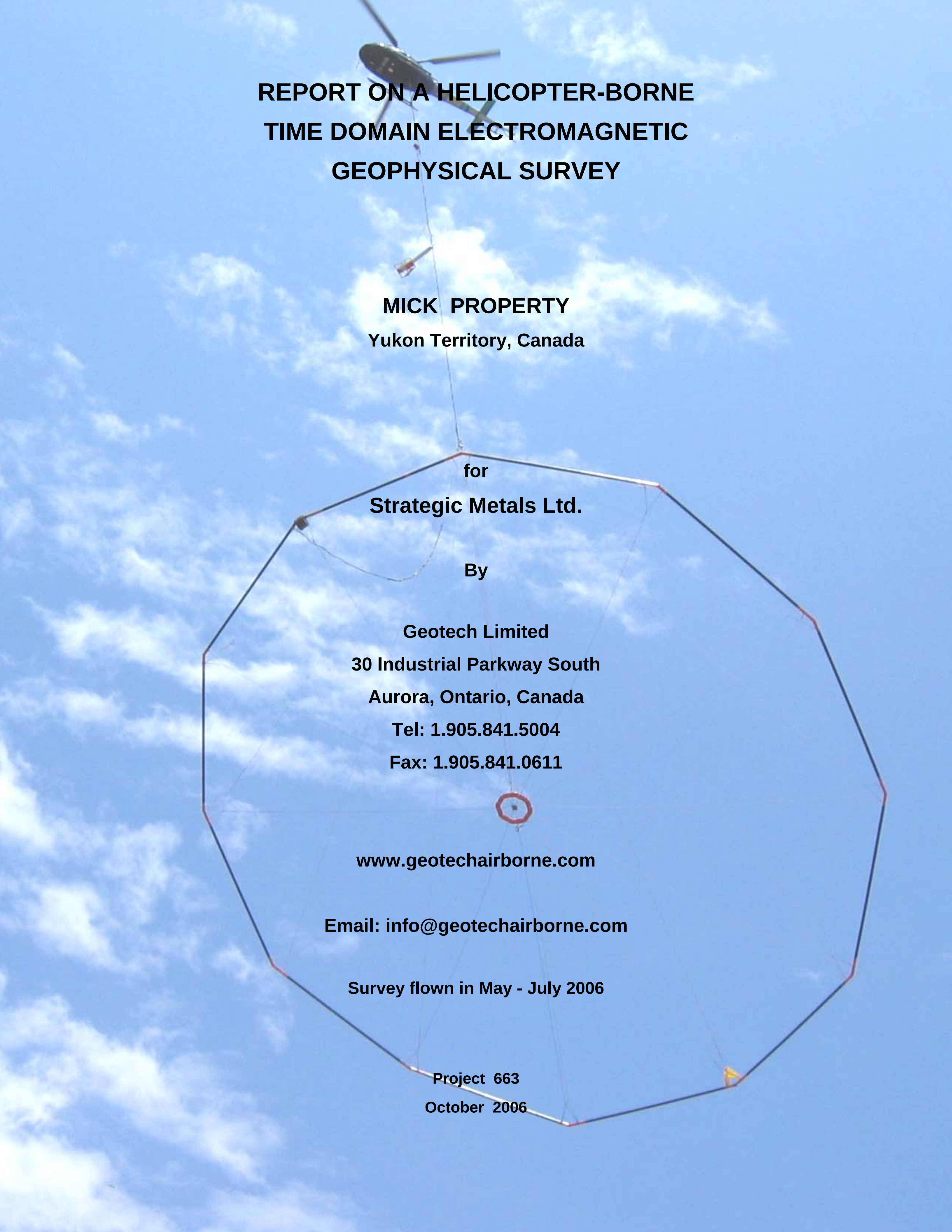
2. From 1971 to present, I have been actively engaged in mineral exploration in British Columbia and Yukon Territory and on June 1, 1981, became a partner in Archer, Cathro & Associates (1981) Limited.

3. I have personally participated in or supervised the field work reported herein and have interpreted all data resulting from this work.

W. Douglas Eaton, B.Sc. Geology

APPENDIX II

GEOPHYSICAL REPORT BY GEOTECH LTD.



REPORT ON A HELICOPTER-BORNE TIME DOMAIN ELECTROMAGNETIC GEOPHYSICAL SURVEY

MICK PROPERTY

Yukon Territory, Canada

for

Strategic Metals Ltd.

By

Geotech Limited

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Aurora, Ontario, Canada

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Survey flown in May - July 2006

Project 663

October 2006

TABLE OF CONTENTS

APPENDICES

REPORT ON A HELICOPTER-BORNE

TIME DOMAIN ELECTROMAGNETIC SURVEY

Mick Property, Yukon Territory, Canada

Executive Summary

During the period of May 20th to July 8th, 2006, Geotech Limited carried out a helicopter-borne geophysical survey for Strategic Metals Ltd. over ten blocks located in the Yukon Territory, Canada, including **Mick Property**.

Principal geophysical sensors included a versatile time domain electromagnetic system (VTEM) and a cesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 2750.77 line-km. were flown, including 126 line-km. for **Mick Property**.

In-field data processing involved quality control and compilation of data collected during the acquisition stage, using the in-field processing centre established at survey bases. Preliminary and final data processing, including generation of final digital data products was done at the office of Geotech Limited in Aurora, Ontario.

The processed survey results are presented as total magnetic field grid and electromagnetic stacked profiles.

Digital data includes all electromagnetic and magnetic products plus positional, altitude and raw data.

1. INTRODUCTION

1.1. General Considerations

These services are the result of the Agreement made between Geotech Limited and Strategic Metals Ltd., to perform a helicopter-borne geophysical survey over the multiple blocks, located in Yukon Territory, Canada, including **Mick Property.**

2750.77 line-km of geophysical data were acquired during the survey.

The survey coordinates for **Mick Property** are as shown in Appendix A.

The crew was based in various locations in Yukon Territory for the acquisition phase of the survey, as shown in Section 2 of this report.

The helicopter was obtained from TransNorth Helicopters for the duration of the survey. Multiple fuel caches were arranged.
Survey flying was completed on July 8th, 2006. Preliminary data processing was carried out daily during the acquisition phase of the project. Final data presentation and data archiving was completed in the Aurora office of Geotech Limited in November 2006.

1.2. Survey and System Specifications

The **Mick Property** survey block was flown at a nominal traverse line spacing of 100 metres.
Tie lines were flown perpendicular to traverse lines at approximately 900 metres, as shown in Section 2 of this report.
Where suitable, survey lines were extended beyond original block boundary to reach the minimum length of 3 km.

Where possible, the helicopter maintained a mean terrain clearance of 80 metres, which translated into an average height of 45 meteres above ground for the bird-mounted VTEM system and 45 metres for the magnetic sensor.

The survey was flown using an Astar B2 helicopter, registration C-GTNU, operated by TransNorth Helicopters Limited. Details of the survey specifications may be found in Section 2 of this report.

1.3. Data Processing and Final Products

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Limited.

Database, grid and maps of final products were presented to Strategic Metals Ltd.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

1.4. Topographic Relief

The **Mick Property** survey block location is shown on the location map (Appendix A), approximately 60 km. NW of Dawson City.

Topographically, the block exhibits a rugged mountainous relief, with an elevation range of 850 metres to 1240 metres above sea level. The survey area is on a mountain ridge, sloping down to the north.

2. DATA ACQUISITION

2.1. Survey Area

The survey block (see location map, Appendix A) and general flight specifications are as follows:

Survey areas	Line /Tie spacing (m)	Line /Tie - km	Line / Tie direction	Line number	Line KM
Mick	100	111.0	N71E	3000 - 3360	125.6
	900	14.6	N19W	3900 - 3930	

Table 1 - Survey block

The survey block boundary is shown in Appendix B.

2.2. Survey Operations

Survey operations were based in several locations in the Yukon Territory for the acquisition phase of the survey, including Dawson City for the **Mick Property.** The following table shows the timing of the various flights.

Mick Property was flown along with other blocks in the same vicinity.

Date	Flights	Production	Block	Crew location	REMARK
20-May		0		Whitehorse	Mobilization to Whitehorse
21-May		0		Whitehorse	Assembly of system
22-May		0		Whitehorse	Helicopter installation, test flight
23-May		0		Teslin	Mobilization to Teslin - no production
24-May		0		Teslin	No production due to weather
25-May	1,2,3	109.5	BAR	Teslin	
26-May	4, 1, 2	161.09	BAR, CONVERT	Teslin	
27-May	7,8	95.62	CONVERT	Teslin	flying aborted – due to weather
28-May	9	18.83	BAR	Teslin	flying aborted – due to weather
29-May		0		Watson Lake	move to Watson lake, prepare fuel cache
30-May	10, 11, 12	118.74	SIM	Watson Lake	
31-May	13, 14, 15	109.46	SIM, 4C	Watson Lake	
01-Jun	16, 17, 18	87.97	4C	Watson Lake	flying aborted – due to rough terrain
02-Jun	19	5.38	SIM	Ross River	Re-flight
03-Jun	20	91.37	TIDD	Ross River	flying aborted – due to weather
04-Jun		0		Ross River	No production due to weather
05-Jun	21, 22, 23	270.54	TIDD	Ross River	
06-Jun	24, 25, 26	194.78	TIDD	Ross River	flying aborted – due to weather
07-Jun	27, 28, 29	269.91	TIDD	Ross River	
08-Jun	30,31	92.81	TIDD	Ross River	rough terrain
09-Jun		0		Ross River	
21-Jun		0		Mayo	Ferry flights, move fuel to MARG
22-Jun		0		Mayo	No production due to weather
23-Jun	1, 2	84.68	MARG	Mayo	flying aborted – due to weather
24-Jun	3,4,5	158.36	MARG	Mayo	
25-Jun	6,7	123.1	MARG	Mayo	
26-Jun		0		Dawson City	No production due to weather
27-Jun		0		Dawson City	No production due to weather
28-Jun	1,2,3	111	MIC	Dawson City	flying aborted – due to weather
29-Jun	3,4	139.51	MIC, MAG	Dawson City	
30-Jun	5,6,7	115.74	MAG	Dawson City	flying aborted – due to weather
01-Jul	7,8	101.59	CN	Dawson City	
02-Jul	9	76.63	CN	Dawson City	flying aborted – due to weather
03-Jul	10, 11	121.16	CN	Dawson City	
04-Jul	1,2	66	PAN	Dawson City	
05-Jul	3	3	PAN	Dawson City	Test flights
06-Jul	4	24	PAN	Dawson City	
07-Jul		0			helicopter inspection
08-Jul		0		Burwash	Burwash Block cancelled due to rough topo

Table 2 - Survey schedule

2.3. Flight Specifications

The nominal EM sensor terrain clearance was 45 m (EM bird height above ground, i.e. helicopter is maintained 80 m above ground). Nominal survey speed was 80 km/hour. The data recording rates of the data acquisition was 0.1 second for electromagnetics and magnetometer, 0.2 second for altimeter and GPS. This translates to a geophysical reading about every 2 metres along flight track. Navigation was assisted by a GPS receiver and data acquisition system, which reports GPS co-ordinates as latitude/longitude and directs the pilot over a pre-programmed survey grid.

The operator was responsible for the monitoring of the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic feature.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer.

2.4. Aircraft and Equipment

2.4.1. Survey Aircraft

An Astar B2 helicopter, registration C-GTNU - owned and operated by TransNorth Helicopters Ltd. was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Geotech Ltd.

2.4.2. Electromagnetic System

The electromagnetic system was a Geotech Versatile Time Domain EM (VTEM) system. The layout of the configuration used for this survey is as indicated in Figure 1 below.

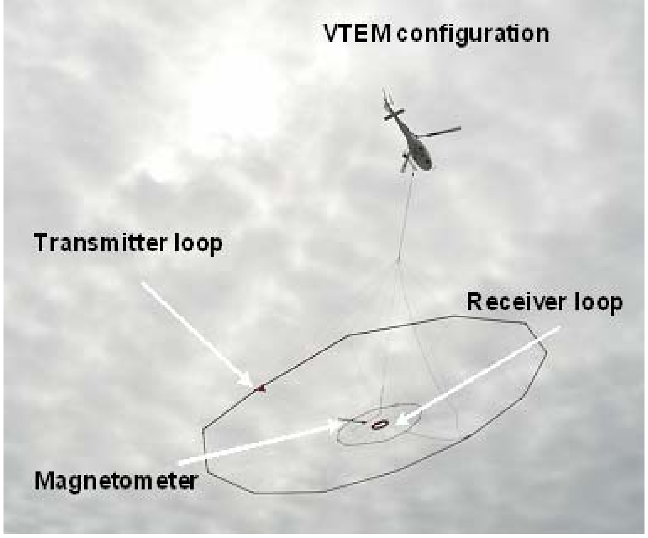


Figure 1 - VTEM Configuration

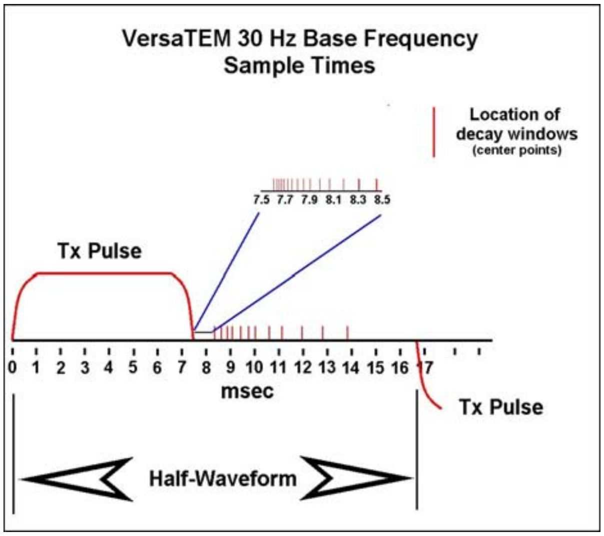


Figure 2 - VTEM sample times

Receiver and transmitter coils are concentric and Z-direction oriented.

The receiver decay recording scheme is shown diagrammatically in Figure 2.

Twenty-six measurement gates were used in the range from 130 μs to 7540 μs, as shown in the following table.

VTEM Decay Sampling scheme (Microseconds)			
Time gate	**Start**	**End**	**Width**
130	120	140	20
150	140	160	20
170	160	180	20
190	180	205	25
220	205	240	35
260	240	280	40
300	280	325	45
350	325	380	55
410	380	445	65
480	445	525	80
570	525	625	100
680	625	745	120
810	745	885	140
960	885	1045	160
1130	1045	1235	190
1340	1235	1470	235
1600	1470	1750	280
1900	1750	2070	320
2240	2070	2450	380
2660	2450	2920	470
3180	2920	3480	560
3780	3480	4120	640
4460	4120	4880	760
5300	4880	5820	940
6340	5820	6860	1040
7540	6860	8220	1360

Table 3 - VTEM decay sampling scheme

Transmitter coil diameter was 26 metres, the number of turns was 4.
Transmitter pulse repetition rate was 30 Hz.
Peak current was 167 A.
Duty cycle was 37%.
Peak dipole moment was 355,000 NIA.

Receiver coil diameter was 1.2 metre, the number of turns was 100.
Receiver effective area was 113 m^2
Wave form – trapezoid.
Recording sampling rate was 10 samples per second.

The EM bird was towed 35 m below the helicopter.

2.4.3. Airborne magnetometer

The magnetic sensor utilized for the survey was a Geometrics optically pumped cesium vapour magnetic field sensor, mounted in a separate bird towed at the same altitude as the EM sensor. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds. The magnetometer sends the measured magnetic field strength as nanoTeslas to the data acquisition system via the RS-232 port.

2.4.4. Ancillary Systems

2.4.4.1. Radar Altimeter

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit.

2.4.4.2. GPS Navigation System

The navigation system used was a Geotech PC based navigation system utilizing a NovAtel's WAAS enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail.
The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.4.3. Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. Contents and update rates were as follows:

DATA TYPE	SAMPLING
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
Radar Altimeter	0.2 sec

Table 4 - Sampling Rates

2.4.5. Base Station

A combine magnetometer/GPS base station was utilized on this project. A Geometrics Cesium vapour magnetometer was used as a magnetic sensor with a bench sensitivity of 0.002 nT. The base station records the magnetic field together with the GPS time at 1 Hz on a base station computer. The base station magnetometer sensor was installed away from electric transmission lines and moving ferrous objects such as motor vehicles. The magnetometer base station's data was backed-up to the data processing computer at the end of each survey day.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

Field

Crew chiefs / Operators: Graeme Lille, Calin Cosma, Brad Marsh

The survey pilot and the mechanic engineer were employed directly by the helicopter operator – TransNorth Helicopters.

Pilots:	Stephen Soubliere,
Mechanical Engineer:	Margo Hager

Office

Data Processing:	Harish Kumar
Data Processing / Reporting:	George Lev
Data Technician:	Maria Jagodkin

Final data processing at the office of Geotech Limited in Aurora, Ontario was carried out under the supervision of Andrei Bagrianski, Data Processing Manager.

Overall management of the survey was carried out from the Aurora office of Geotech Ltd. by Edward Morrison, President.

4. DATA PROCESSING AND PRESENTATION

4.1. Flight Path

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the UTM coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x,y positions from the navigation system. Positions are updated every second and expressed as UTM eastings (x) and UTM northings (y).

4.2. Electromagnetic Data

A three 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 16 point 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 1 second or 20 metres. This filter is a symmetrical 1 sec. linear filter.

The results are presented as stacked profiles of EM voltages for the gate times, in logarithmic scale.

Generalized modeling results of the VTEM system, written by Geophysicist Roger Barlow, are shown in Appendix C.

The VTEM output voltage of the receiver coil is shown in Appendix D.

4.3. Magnetic Data

The processing of the magnetic data involved the correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along the traverse lines. A micro-levelling procedure was then applied. This technique is designed to remove persistent low-amplitude components of flight-line noise remaining after tie line levelling.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of approximately 0.2 cm. at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1. *Survey Report*

The survey report describes the data acquisition, processing, and final presentation of the survey results.

The survey report is provided in two paper copies and digitally in WORD format.

5.2. *Maps*

Final maps were produced at a scale of 1:10,000 for the **Mick Property**. The coordinate/projection system used was the WGS84, UTM zone 7 north. All maps show the flight path trace. Latitude and longitude are also noted on maps.

The following maps are presented to Strategic Metals Ltd. on paper as results of the helicopter-borne geophysical survey carried out over the **Mick Property.**

- Total Magnetic Field contours and colour images
- Logarithmic scale VTEM profiles, Time Gates 0.22 - 6.34 ms

5.3. *Gridded Data*

Total Magnetic Field grid is provided to Strategic Metals Ltd. in Geosoft GRD format. Grid cell size was adjusted to suit the parameters of the individual block.

For traverse line spacing of 100 metres, 10 m grid cell size was used.

5.4. *Digital Data*

There are three (3) main directories,

Data contains a database, grid and maps, as described below.

Report contains a copy of the report in WORD format and appendices in PDF format.

VTEM_fp_GoogleEarth contains kmz file containing flightpath of the Mick Property.
Free version of Google Earth software can be downloaded from,
http://earth.google.com/download-earth.html

- Database in Geosoft GDB format, containing the following channels:

X:	X positional data (metres – WGS84, utm zone 7 north)
Y:	Y positional data (metres – WGS84, utm zone 7 north)
Z:	GPS antenna elevation (metres - ASL) (on the tail of the helicopter)
Gtime1:	GPS time (seconds of the day)
Radar:	Helicopter terrain clearance from radar altimeter (metres - AGL)
DEM:	Digital elevation model (metres)
Mag1:	Raw Total Magnetic field data (nT)
Basemag:	Base station magnetic data (nT)
Mag2:	Total Magnetic field base station corrected data (nT)
Mag3:	Levelled Total Magnetic field data (nT)
C130f:	Raw 130 microsecond time channel ($pV/A/m^4$)
C150f:	Raw 150 microsecond time channel ($pV/A/m^4$)
C170f:	Raw 170 microsecond time channel ($pV/A/m^4$)
C190f:	Raw 190 microsecond time channel ($pV/A/m^4$)
C220f:	Raw 220 microsecond time channel ($pV/A/m^4$)
C260f:	Raw 260 microsecond time channel ($pV/A/m^4$)
C300f:	Raw 300 microsecond time channel ($pV/A/m^4$)
C350f:	Raw 350 microsecond time channel ($pV/A/m^4$)
C410f:	Raw 410 microsecond time channel ($pV/A/m^4$)
C480f:	Raw 480 microsecond time channel ($pV/A/m^4$)
C570f:	Raw 570 microsecond time channel ($pV/A/m^4$)
C680f:	Raw 680 microsecond time channel ($pV/A/m^4$)

C810f:	Raw 810 microsecond time channel ($pV/A/m^4$)
C960f:	Raw 960 microsecond time channel ($pV/A/m^4$)
C1130f:	Raw 1130 microsecond time channel ($pV/A/m^4$)
C1340f:	Raw 1340 microsecond time channel ($pV/A/m^4$)
C1600f:	Raw 1600 microsecond time channel ($pV/A/m^4$)
C1900f:	Raw 1900 microsecond time channel ($pV/A/m^4$)
C2240f:	Raw 2240 microsecond time channel ($pV/A/m^4$)
C2660f:	Raw 2660 microsecond time channel ($pV/A/m^4$)
C3180f:	Raw 3180 microsecond time channel ($pV/A/m^4$)
C3780f:	Raw 3780 microsecond time channel ($pV/A/m^4$)
C4460f:	Raw 4460 microsecond time channel ($pV/A/m^4$)
C5300f:	Raw 5300 microsecond time channel ($pV/A/m^4$)
C6340f:	Raw 6340 microsecond time channel ($pV/A/m^4$)
C7540f:	Raw 7540 microsecond time channel ($pV/A/m^4$)
PLinef:	Power line monitor (linear trend removed)

- Grids in Geosoft GRD format, as follow,

  mic_magfin: Total Magnetic field (nT)

  A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information.

- Maps at 1:10,000 scale in Geosoft MAP format, as follow,

  mic_magfin: Total Magnetic Field image and contours

  mic_EM_LP: Logarithmic scale profiles, Time Gates 0.22 – 6.34 ms

- ASCII file VTEM_WaveForm.xyz in Geosoft format containing the following channel:

  Volt: output voltage of the receiver coil
  (volts, sampling rate 20 microseconds)

- A *readme.txt* file describing the content of digital data, as described above.

6. CONCLUSIONS

A versatile time domain electromagnetic helicopter-borne geophysical survey has been completed over 10 blocks located in the Yukon Territory, Canada, including **Mick Property.**

Total survey line coverage is 2750.77 line kilometres, including 126 line-km. for the **Mick Property.** The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as colour contour maps and stacked profiles.

Final data processing at the office of Geotech Limited in Aurora, Ontario was carried out under the supervision of Andrei Bagrianski, Data Processing Manager.

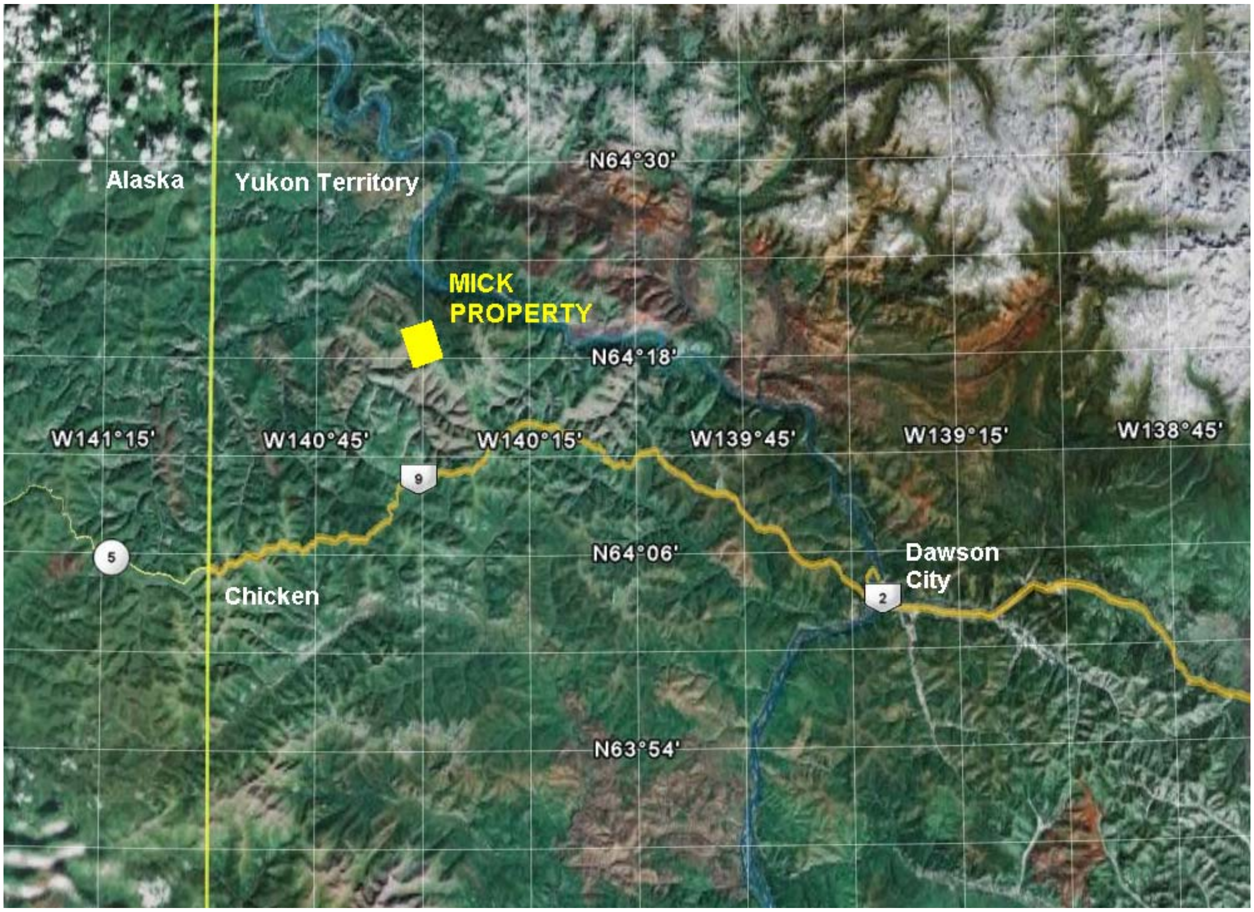
Respectfully submitted,

Marta Orta
on behalf of

George Lev
Geotech Limited
November 8, 2006

APPENDIX A

SURVEY BLOCK LOCATION MAP



APPENDIX B

SURVEY BLOCK COORDINATES

(WGS 84, UTM zone 7N)

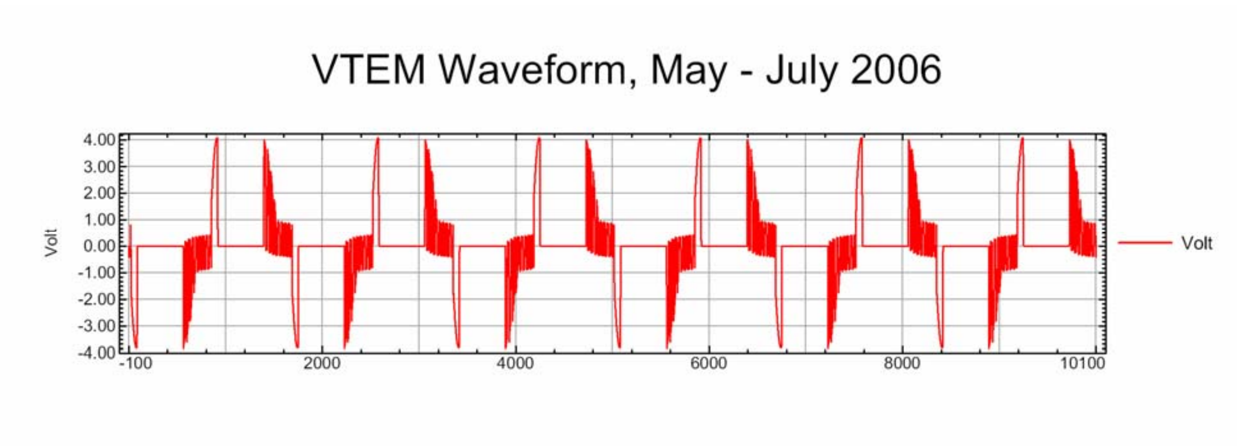
MICK	
522169.3	7133348.6
524899.9	7134283.3
526108.2	7130846.8
523383.3	7129872.5

APPENDIX C

General Modeling Results of the VTEM Stysem

APPENDIX D

VTEM WAVE FORM



GENERALIZED MODELING RESULTS OF THE VTEM SYSTEM

Introduction

The VTEM system is based on a concentric or central loop design, whereby, the receiver is positioned at the centre of a 26.1 metres diameter transmitter loop that produces a dipole moment up to 625,000 NIA at peak current. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end. With a base frequency of 30 Hz, the duration of each pulse is approximately 7.5 milliseconds followed by an off time where no primary field is present.

During turn-on and turn-off, a time varying field is produced (dB/dt) and an electro-motive force (emf) is created as a finite impulse response. A current ring around the transmitter loop moves outward and downward as time progresses. When conductive rocks and mineralization are encountered, a secondary field is created by mutual induction and measured by the receiver at the centre of the transmitter loop.

Measurements are made during the off-time, when only the secondary field (representing the conductive targets encountered in the ground) is present.

Efficient modeling of the results can be carried out on regularly shaped geometries, thus yielding close approximations to the parameters of the measured targets. The following is a description of a series of common models made for the purpose of promoting a general understanding of the measured results.

Variation of Plate Depth

Geometries represented by plates of different strike length, depth extent, dip, plunge and depth below surface can be varied with characteristic parameters like conductance of the target, conductance of the host and conductivity/thickness and thickness of the overburden layer.

Diagrammatic models for a vertical plate are shown in figures A and G at two different depths, all other parameters remaining constant. With this transmitter-receiver geometry, the classic **M** shaped response is generated. Figure A shows a plate where the top is near surface. Here, amplitudes of the duel peaks are higher and symmetrical with the zero centre positioned directly above the plate. Most important is the separation distance of the peaks. This distance is small when the plate is near surface and widens with a linear relationship as the plate (depth to top) increases. Figure G shows a much deeper plate where the separation distance of the peaks is much wider and the amplitudes of the channels have decreased.

Variation of Plate Dip

As the plate dips and departs from the vertical position, the peaks become asymmetrical. Figure B shows a near surface plate dipping 80º. Note that the direction of dip is toward the high shoulder of the response and the top of the plate remains under the centre minimum.

As the dip increases, the aspect ratio (Min/Max) decreases and this aspect ratio can be used as an empirical guide to dip angles from near 90º to about 30º. The method is not sensitive enough where dips are less than about 30º. Figure E shows a plate dipping 45º and, at this angle, the minimum shoulder starts to vanish. In Figure D, a flat lying plate is shown, relatively near surface. Note that the twin peak anomaly has been replaced by a symmetrical shape with large, bell shaped, channel amplitudes which decay relative to the conductance of the plate.

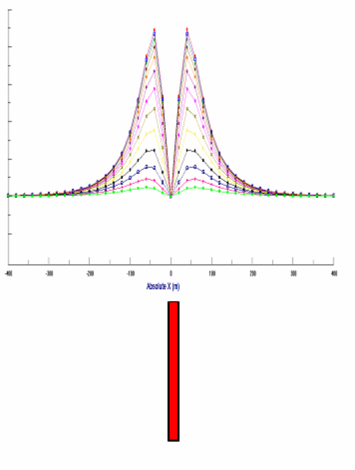
Figure H shows a special case where two plates are positioned to represent a synclinal structure. Note that the main characteristic to remember is the centre amplitudes are higher (approximately double) compared to the high shoulder of a single plate. This model is very representative of tightly folded formations where the conductors were once flat lying.

Variation of Prism Depth

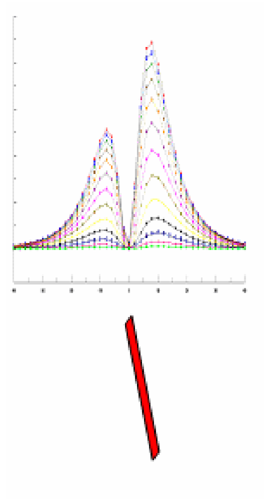
Finally, with prism models, another algorithm is required to represent current on the plate. A plate model is considered to be infinitely thin with respect to thickness and incapable of representing the current in the thickness dimension. A prism model is constructed to deal with this problem, thereby, representing the thickness of the body more accurately.

Figures C, F and I show the same prism at increasing depths. Aside from an expected decrease in amplitude, the side lobes of the anomaly show a widening with deeper prism depths of the bell shaped early time channels.

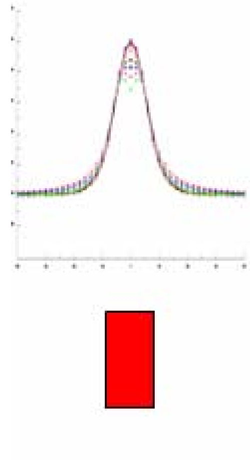
A



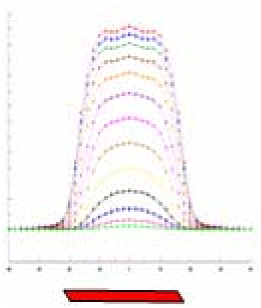
B



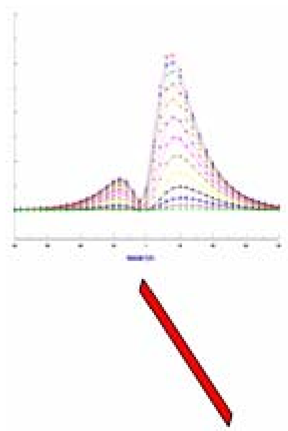
C



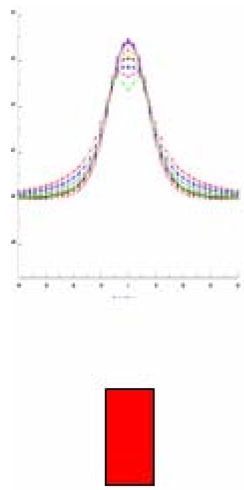
D



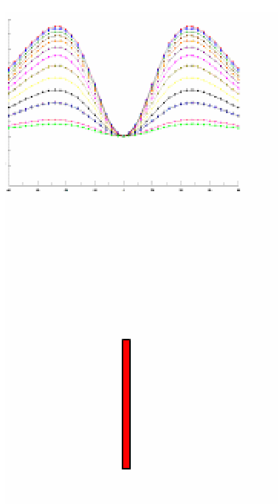
E



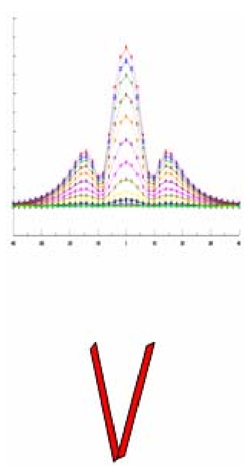
F



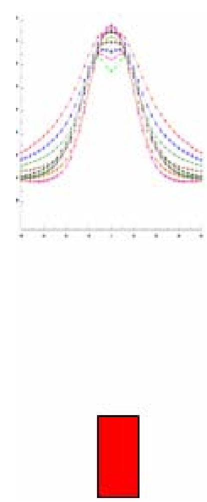
G



H



I



General Modeling Concepts

A set of models has been produced for the Geotech VTEM® system with explanation notes (see models A to I above). The reader is encouraged to review these models, so as to get a general understanding of the responses as they apply to survey results. While these models do not begin to cover all possibilities, they give a general perspective on the simple and most commonly encountered anomalies.

When producing these models, a few key points were observed and are worth noting as follows:

- For near vertical and vertical plate models, the top of the conductor is always located directly under the centre low point between the two shoulders in the classic **M** shaped response.
- As the plate is positioned at an increasing depth to the top, the shoulders of the **M** shaped response, have a greater separation distance.
- When faced with choosing between a flat lying plate and a prism model to represent the target (broad response) some ambiguity is present and caution should be exercised.
- With the concentric loop system and Z-component receiver coil, virtually all types of conductors and most geometries are most always well coupled and a response is generated (see model H). Only concentric loop systems can map this type of target.

The modelling program used to generate the responses was prepared by PetRos Eikon Inc. and is one of a very few that can model a wide range of targets in a conductive half space.

General Interpretation Principals

Magnetics

The total magnetic intensity responses reflect major changes in the magnetite and/or other magnetic minerals content in the underlying rocks and unconsolidated overburden. Precambrian rocks have often been subjected to intense heat and pressure during structural and metamorphic events in their history. Original signatures imprinted on these rocks at the time of formation have, in most cases, been modified, resulting in low magnetic susceptibility values.

The amplitude of magnetic anomalies, relative to the regional background, helps to assist in identifying specific magnetic and non-magnetic rock units (and conductors) related to, for example, mafic flows, mafic to ultramafic intrusives, felsic intrusives, felsic volcanics and/or sediments etc. Obviously, several geological sources can produce the same magnetic response. These ambiguities can be reduced considerably if basic geological information on the area is available to the geophysical interpreter.

In addition to simple amplitude variations, the shape of the response expressed in the wave length and the symmetry or asymmetry, is used to estimate the depth, geometric parameters and magnetization of the anomaly. For example, long narrow magnetic linears usually reflect mafic flows or intrusive dyke features. Large areas with complex magnetic patterns may be produced by intrusive bodies with significant magnetization, flat lying magnetic sills or sedimentary iron formation. Local isolated circular magnetic patterns often represent plug-like igneous intrusives such as kimberlites, pegmatites or volcanic vent areas.

Because the total magnetic intensity (TMI) responses may represent two or more closely spaced bodies within a response, the second derivative of the TMI response may be helpful for distinguishing these complexities. The second derivative is most useful in mapping near surface linears and other subtle magnetic structures that are partially masked by nearby higher amplitude magnetic features. The broad zones of higher magnetic amplitude, however, are severely attenuated in the vertical derivative results. These higher amplitude zones reflect rock units having strong magnetic susceptibility signatures. For this reason, both the TMI and the second derivative maps should be evaluated together.

Theoretically, the second derivative, zero contour or colour delineates the contacts or limits of large sources with near vertical dip and shallow depth to the top. The vertical gradient map also aids in determining contact zones between rocks with a susceptibility contrast, however, different, more complicated rules of thumb apply.

Concentric Loop EM Systems

Concentric systems with horizontal transmitter and receiver antennae produce much larger responses for flat lying conductors as contrasted with vertical plate-like conductors. The amount of current developing on the flat upper surface of targets having a substantial area in this dimension, are the direct result of the effective coupling angle, between the primary magnetic field and the flat surface area. One therefore, must not compare the amplitude/conductance of responses generated from flat lying bodies with those derived from near vertical plates; their ratios will be quite different for similar conductances.

Determining dip angle is very accurate for plates with dip angles greater than 30º. For angles less than 30º to 0º, the sensitivity is low and dips can not be distinguished accurately in the presence of normal survey noise levels.

A plate like body that has near vertical position will display a two shoulder, classic **M** shaped response with a distinctive separation distance between peaks for a given depth to top.

It is sometimes difficult to distinguish between responses associated with the edge effects of flat lying conductors and poorly conductive bedrock conductors. Poorly conductive bedrock conductors having low dip angles will also exhibit responses that may be interpreted as surfacial overburden conductors. In some situations, the conductive response has line to line continuity and some magnetic correlation providing possible evidence that the response is related to an actual bedrock source.

The EM interpretation process used, places considerable emphasis on determining an understanding of the general conductive patterns in the area of interest. Each area has different characteristics and these can effectively guide the detailed process used.

The first stage is to determine which time gates are most descriptive of the overall conductance patterns. Maps of the time gates that represent the range of responses can be very informative.

Next, stacking the relevant channels as profiles on the flight path together with the second vertical derivative of the TMI is very helpful in revealing correlations between the EM and Magnetics.

Next, key lines can be profiled as single lines to emphasize specific characteristics of a conductor or the relationship of one conductor to another on the same line. Resistivity Depth sections can be constructed to show the relationship of conductive overburden or conductive bedrock with the conductive anomaly.