GEOPHYSICAL ASSESSMENT REPORT
On The

Byng Property

Claims Byng 1 to Byng 20

Grant Numbers YC40951 to YC40964

NTS 105D/16
534600E, 755620N UTM Zone 8
WHITEHORSE MINING DISTRICT

REGISTERED ONWER
Archer, Cathro & Associates (1981) Ltd

Work Done By
New Shoshoni Ventures Ltd.
Derrick Strickland, P. Geo.,

November 6th , 2006.

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1.0 INTRODUCTION

New Shoshoni Ventures Ltd undertook an airborne geophysical program on the Byng property. The Byng property is located approximately 45 kms north east of Whitehorse. The property is centered at latitude 60° 56'N and longitude 134° 21'W. The property consists of 20 claims and occupies NTS sheet 105D16.

The Geophysical survey was undertaken during the month of July of 2006. The July 2006 program resulted in the flying of 98.2 line kilometres of versatile time domain electromagnetic system (VTEM) and a cesium magnetometer at a costs associated with the program is $28,016.00. See Appendix 2 for the Geophysical report.

2.0 LOCATION ACCESS, CLAIMS, AND EXPENDITURES

The Byng property is located approximately 45 kms north east of Whitehorse. The property is centered at latitude 60° 56'N and longitude 134° 21'W (Figure 1). The property consists of 20 claims and occupies NTS sheet 105D16 (Figure 2 and Table 1) and can be assessed via helicopter from Whitehorse.

Expenditures of $28,016 were incurred on the property during the July 2006 field program (Appendix 1). Expenditure are applied to the claims as shown in Table 2. Upon acceptance of this report, all claims will be advanced for 5 years.

Figure 1 - General Location of the Byng Property

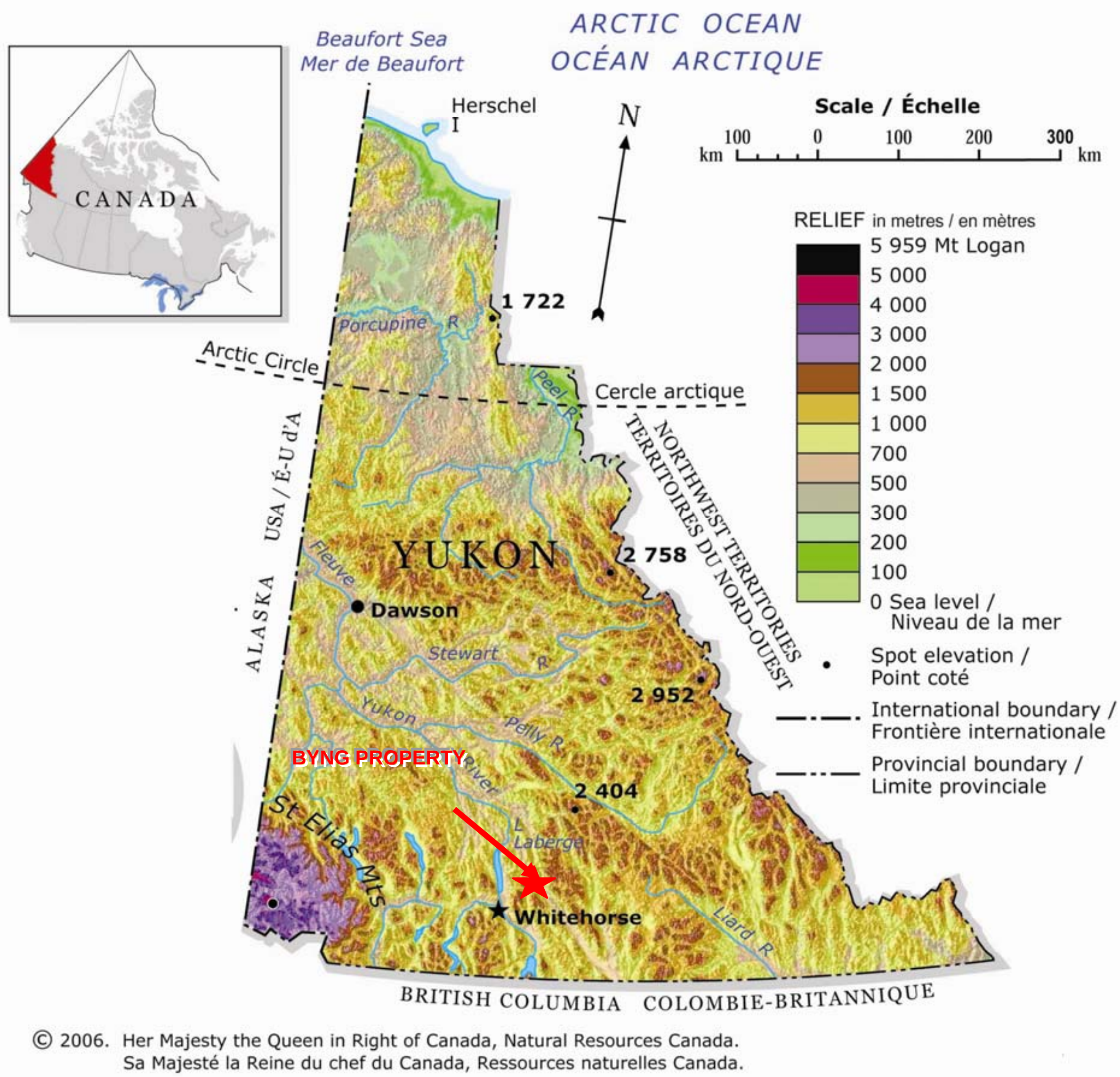


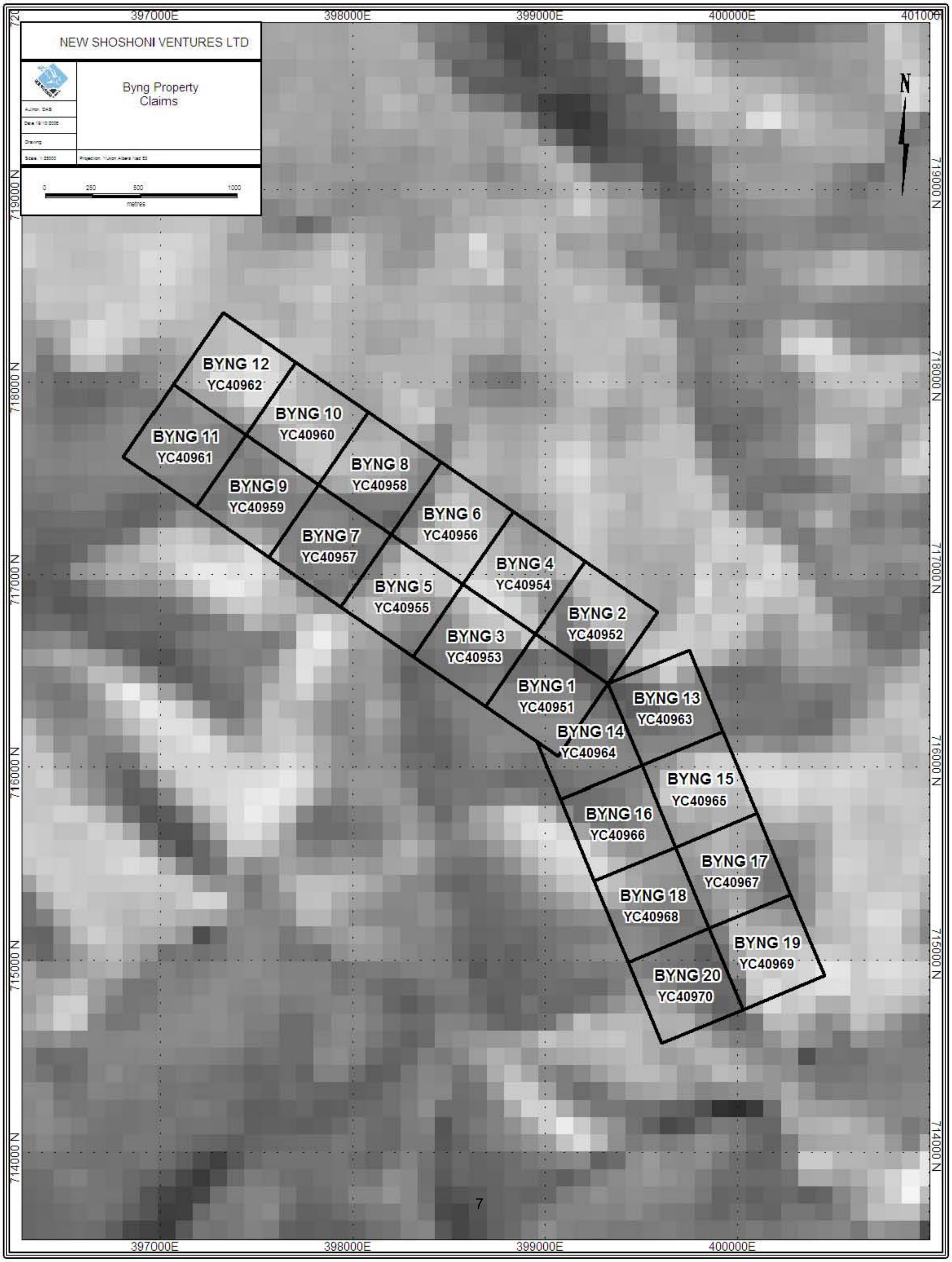
Table 1 –Byne Property Claims and Grant Numbers

Claim Number	Grant Number	NTS	Expiry Data	District	Claim Owner	Word Done by.
BYNG 1	YC40951	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 2	YC40952	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 3	YC40953	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 4	YC40954	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 5	YC40955	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 6	YC40956	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 7	YC40957	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 8	YC40958	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 9	YC40959	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 10	YC40960	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 11	YC40961	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 12	YC40962	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 13	YC40963	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 14	YC40964	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 15	YC40965	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 16	YC40966	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 17	YC40967	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 18	YC40968	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 19	YC40969	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd
BYNG 20	YC40970	105D/16	10/11/2006	Whitehorse	Archer, Cathro & Associates (1981) Ltd	New Shoshoni Ventures Ltd

Table 2 –Byne Property Expenditures Disbursement by Claim

Grant Number	Claim Name	Proportion Entire Property	Cost to be Applied to Each Claim
YC40951	BYNG 1	5.1%	$ 1,421.74
YC40952	BYNG 2	5.1%	$ 1,421.74
YC40953	BYNG 3	5.1%	$ 1,421.74
YC40954	BYNG 4	5.1%	$ 1,421.74
YC40955	BYNG 5	5.1%	$ 1,421.74
YC40956	BYNG 6	5.1%	$ 1,421.74
YC40957	BYNG 7	5.1%	$ 1,421.74
YC40958	BYNG 8	5.1%	$ 1,421.74
YC40959	BYNG 9	5.1%	$ 1,421.74
YC40960	BYNG 10	5.1%	$ 1,421.74
YC40961	BYNG 11	5.1%	$ 1,421.74
YC40962	BYNG 12	5.1%	$ 1,421.74
YC40963	BYNG 13	5.1%	$ 1,421.74
YC40964	BYNG 14	3.6%	$ 1,003.01
YC40965	BYNG 15	5.1%	$ 1,421.74
YC40966	BYNG 16	5.1%	$ 1,421.74
YC40967	BYNG 17	5.1%	$ 1,421.74
YC40968	BYNG 18	5.1%	$ 1,421.74
YC40969	BYNG 19	5.1%	$ 1,421.74
YC40970	BYNG 20	5.1%	$ 1,421.74
Totals		**100%**	**$28,016**

Figure 2 - Claim Map, Byng Property



3.0 PROPERTY GEOLOGY AND HISTORY

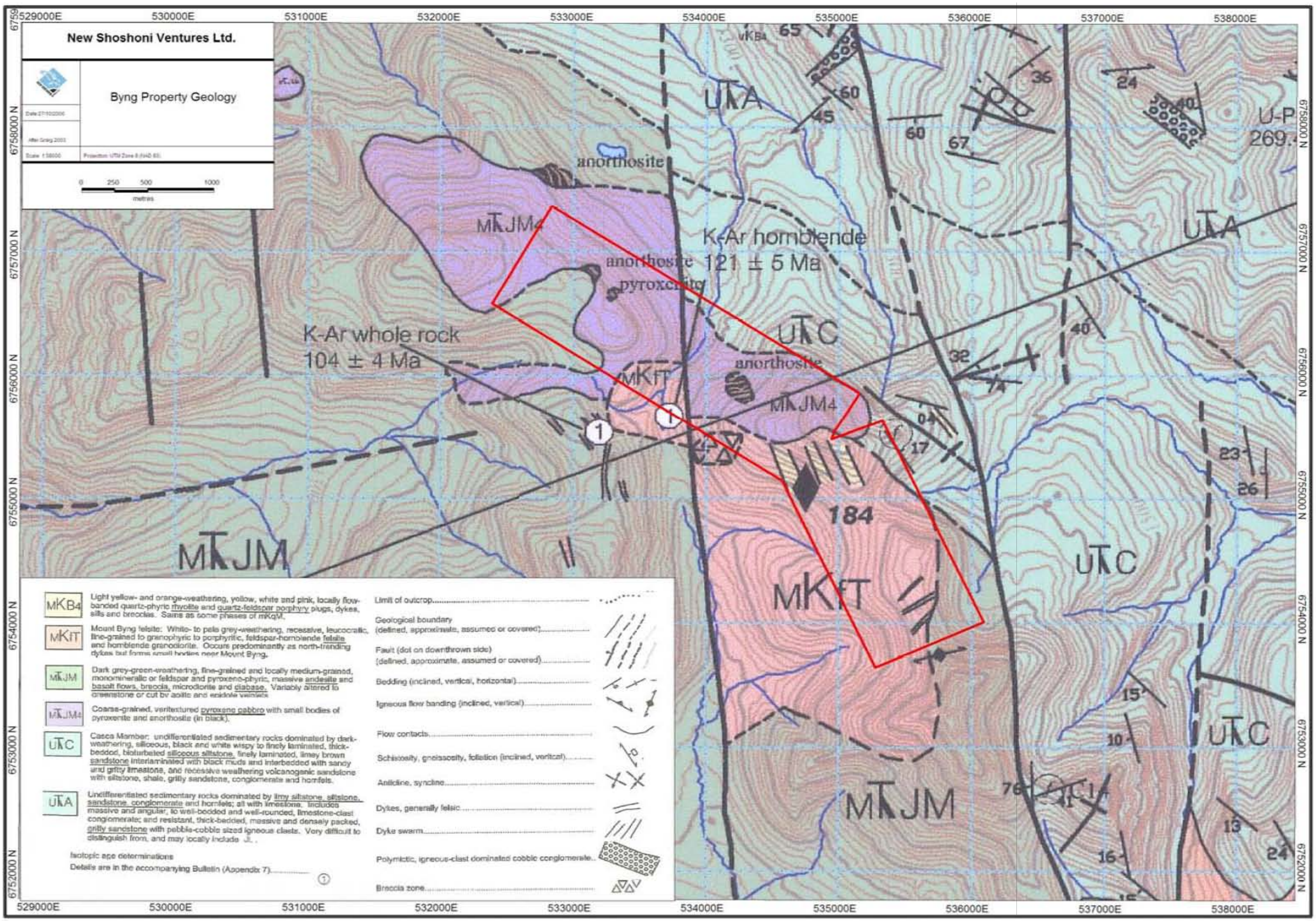
The Byng property is underlain by the Mid Cretaceous Mount Byng felsite in the south and Upper Triassic rocks Joe mountain formation in the north. The Mount Byng felsite intrudes the Upper Triassic Lewes River Group Aksala Formation limy siltstone. The intrusive event is associated with the Telslin Plutonic Suite with an age of 120 ma. The Byng felsite is leucocratic fine grained to porphyritic feldspar-hornblende felsite and hornblende granodiorite. North trending Byng Creek Volcanics dykes cross cute the Mount Byng felsite. (Figure 3)

The property has the Byng Showing (number 184 on Figure 3). The Byng showing has a reported 33.2 g/t Au, 139.5 g/t Ag and 6.53% Cu, with trench samples as high as 126.8 g/t Au. These values occur in a rusty weathering chalcedony breccia is associated with a north trending rhyolite dyke. The showing consists of a ridge of brecciated Middle Triassic Joe Mountain Volcanics that is cut by rhyolite dyke and Mt Byng felsite. Strong arsenopyrite mineralization occurs in the carbonate-epidote matrix of the breccia in the northeast corner of the ridge. In August 1995 the showing was restaked within Carlyle's BC claims. Carlyle undertook work in the showing from 1995 to 1996.

4.0 2006 GEOPHYSICAL PROPGRAM

During the period of July 18th to July 24th, 2006, Geotech Limited carried out a helicopter-borne geophysical survey for New Shoshoni Ventures Ltd. over a the Byng Property located 40 km North -East of Whitehorse, Yukon Territory, Canada. A total 98.2 flown line-km. of geophysical data were acquired during the survey.

Figure 3 - Geology of the Byng Property Claims (from Hart, 2003).



5.0 CONCLUSIONS AND RECOMMENDATIONS

New Shoshoni Ventures Ltd undertook an airborne geophysical program on the Byng property. The Byng property is located approximately 45 kms north east of Whitehorse. The property is centered at latitude 60° 56'N and longitude 134° 21'W. The property consists of 20 claims and occupies NTS sheet 105D16.

The Byng showing on the property has reported samples as high as 126.8 g/t Au. That occur in rusty weathering chalcedony breccia is associated with a north trending rhyolite dyke.

Recommended future work for the property is as follows:

- Compile all the available data including government and assessment reports. Once this is done incorporate all the information in the appropriate GIS programme to develop future exploration programs.

- Re-evaluate the Byng showing using the 3D inducted polarization

6.0 REFERECES

CARLYLE, L.W., (1987) Report on the 1987 Work Program BM Claims, Mt. Byng Area Assessment Report #091940

CARLYLE, L.W., (1989) Report on the 1989 Work Program BM Claims, Mt. Byng Area Assessment Report #092714

CARLYLE, L.W., (1991) Report on the 1991 Work Program BM Claims, Mt. Byng Area. Assessment Report #092951

CARLYLE, L.W., (1994) Report on the 1994 Work Program BM Claims, Mt. Byng Area. Assessment Report #093244.

CARLYLE, L.W., (1996) Report on the 1996 Work Program BM Claims, Mt. Byng Area. Assessment Report #093544

CARLYLE, L.W., (1998) Report on the 1998 Work Program BM Claims, Mt. Byng Area. Assessment Report #093906

Hart C, Hunt J. (2003) Geology of Mount M'Clintock map area (NTS 105D/16) soutern Yukon (1:50,000 scale). Yukon Geological Survey Energy, Mines and Resources, Yukon Territorial Government

7.0 STATEMENT OF QUALIFACTIONS

I, Derrick Strickland, of 5-236 West 12th Ave, in the City of Vancouver in the Province of British Columbia do hereby certify that:

1. I am a Consulting Geologist working in Vancouver, British Columbia. Who was hired to managed the geophysical program on the Byng Claims in the Yukon.

2. I hold an Masters of Business Administration (2001) and Bachelor of Science in Geology (1993)

3. I have been employed in the mineral exploration industry since 1987 and have practiced my profession since graduation.

4. I am a member in good standing with Association of Professional Engineers, Geoscientist of British Columbia.

5. The assessment costs presented in this report are true and accurate to the best of my knowledge.

DATED at Vancouver, British Columbia, this 6th day of November, 2006

Derrick Strickland, MBA, P.Geo.

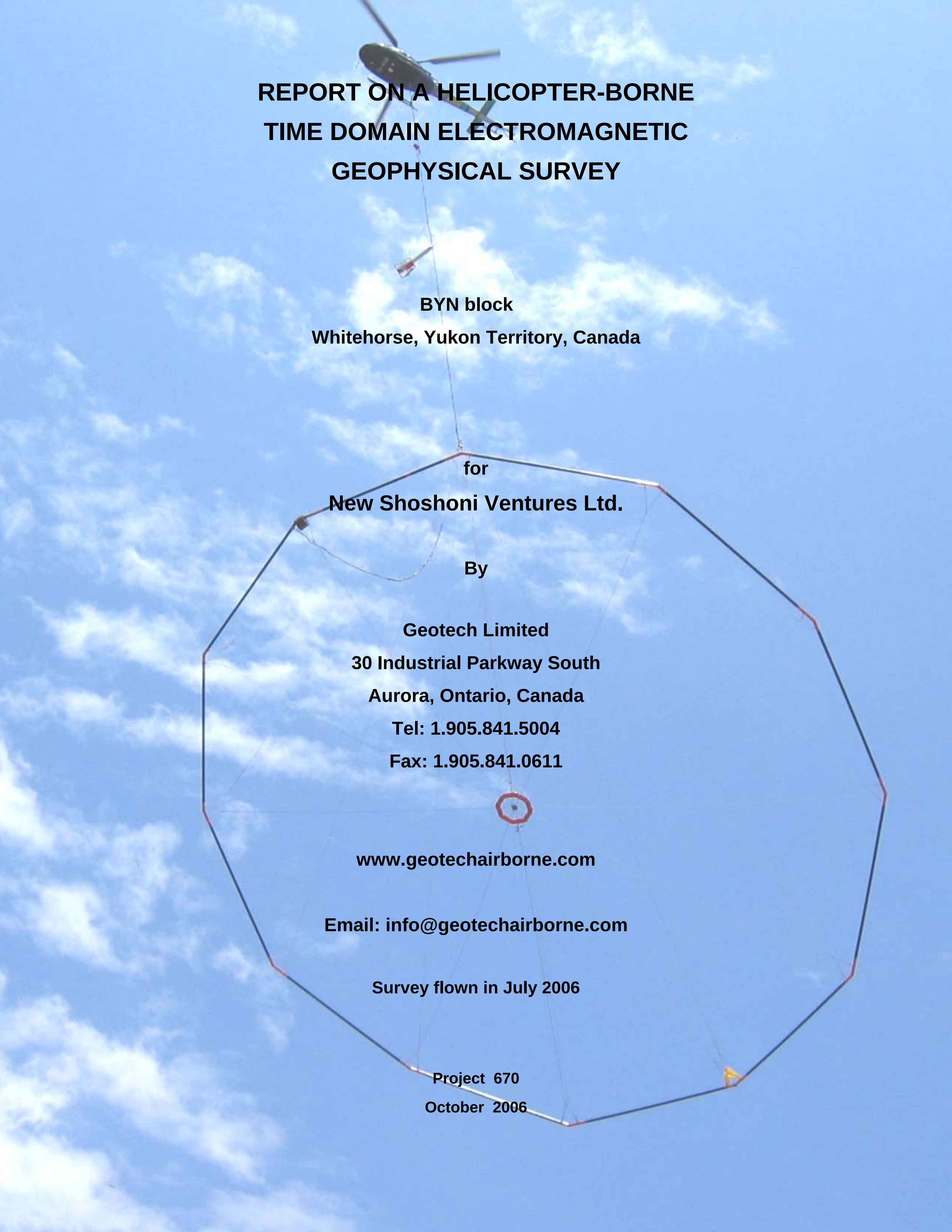
PROFESSIONAL
PROVINCE OF
D. A. STRICKLAND
#27879
BRITISH COLUMBIA
GEOSCIENTIST

Appendix 1:
Statement of Expenditures

Statement of Expenditures

2006 Airborne Geophysics Costs	Amount
98.2 Line Kilometers @ $145.00	$14,239.00
Helicopter Mobe	$582.21
Crew Mobe/Demobe	$776.28
Extra Helicopter Ferries	$1,455.53
Stand By Charges	$4,269.57
Helicopter Fuel Charges	$1,453.40
Sub Total	**$22,776.00**
Project Planning and Management-Derrick Strickland	$2,000.00
Assessment Report Generation	$2,000.00
Maps for Assessment Report	$240.00
Sub Total	**$4,240.00**
Total	**$28,016.0**

Appendix 2:
GEOTECH REPORT



REPORT ON A HELICOPTER-BORNE TIME DOMAIN ELECTROMAGNETIC GEOPHYSICAL SURVEY

BYN block

Whitehorse, Yukon Territory, Canada

for

New Shoshoni Ventures Ltd.

By

Geotech Limited

30 Industrial Parkway South

Aurora, Ontario, Canada

Tel: 1.905.841.5004

Fax: 1.905.841.0611

www.geotechairborne.com

Email: info@geotechairborne.com

Survey flown in July 2006

Project 670

October 2006

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APPENDICES

REPORT ON A HELICOPTER-BORNE
TIME DOMAIN ELECTROMAGNETIC SURVEY

BYN BLOCK project, Whitehorse, Yukon Territory, Canada

Executive Summary

During the period of July 18th to July 24th, 2006, Geotech Limited carried out a helicopter-borne geophysical survey for New Shoshoni Ventures Ltd. over a block located North -East of Whitehorse, Yukon Territory, Canada.

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 98.2 line-km were flown.

In-field data processing involved quality control and compilation of data collected during the acquisition stage, using the in-field processing centre established at Whitehorse, Yukon Territory. Preliminary and final data processing, including generation of final digital data products were 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 New Shoshoni Ventures Ltd., to perform a helicopter-borne geophysical survey over the ATA and BYN blocks, located approximately 40 km ENE, respectively, of Whitehorse, Yukon Territory, Canada.

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

The survey block are as shown in Appendix A.

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

The helicopter was based at the TransNorth base? in Whitehorse for the duration of the survey. Survey flying was completed on July 24th, 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 October 2006.

1.2. Survey and System Specifications

The survey blocks were flown at nominal traverse line spacing of 100 metres.
Tie lines were flown perpendicular to traverse lines at 1300 metres spacing in the BYN block.

Where possible, the helicopter maintained a mean terrain clearance of 80 metres, which translated into an average height of 45 metres 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 New Shoshoni Ventures 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 survey blocks are located approximately 40 km NE /ENE of Whitehorse, Yukon Territory.

Topographically, the blocks exhibit mountainous relief, with elevation range approximately from 1000 metres to 2100 metres above sea level.
Mountain ridges alternate with deep valleys, slopes in general very steep.

2. DATA ACQUISITION

2.1. *Survey Area*

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

Survey block	Line spacing (m)	Area (Km^2)	Line-km	Flight direction	Line number
BYN Block	100	7.6	77.4	N45ºE	L 2000 - 2480
	1300		9.8	N45º	T 2900 - 2910
Total flown			98.2		
***Total billed**			98.2		

Table 1 - Survey blocks

* 3km or less lines, billed as 3 km.
Survey block boundaries are as shown in Appendix B.

2.2. *Survey Operations*

Survey operations were based in Whitehorse, Yukon Territory for the acquisition phase of the survey.
The following table shows the timing of the flying.

Date	Crew Location	Flight #	Km flown	Comments
18 July	Whitehorse			Mobilization to job site
19 July	Whitehorse	1, 2	47.3	BYN (Standby Day)
20 July	Whitehorse			No data bad weather (Standby day)
21 July	Whitehorse			No data bad weather (Standby day)
22 July	Whitehorse	3,4,	50.9	BYN
Total flown			98.2	
Total billed			98.2	

Table 2 - Survey schedule

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2.4. *Aircraft and Equipment*

2.4.1. Survey Aircraft

An Astar B2 helicopter, registration C-GTNU - owned and operated by Trans North 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 two configuration used for this survey is as indicated in Figure 1 below.

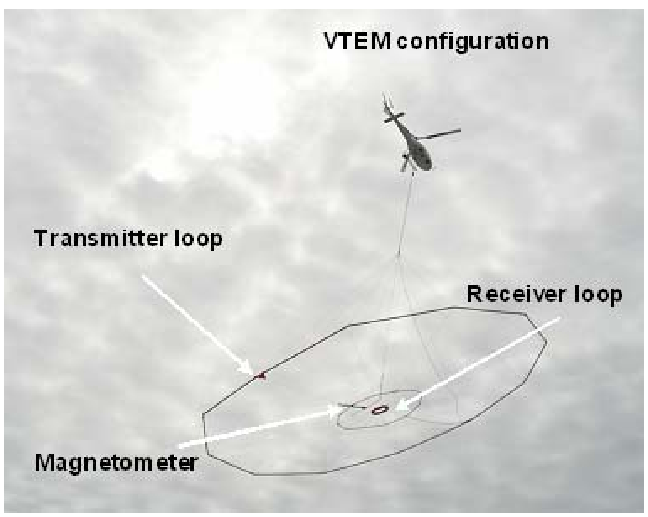

Figure 1 - VTEM Configuration

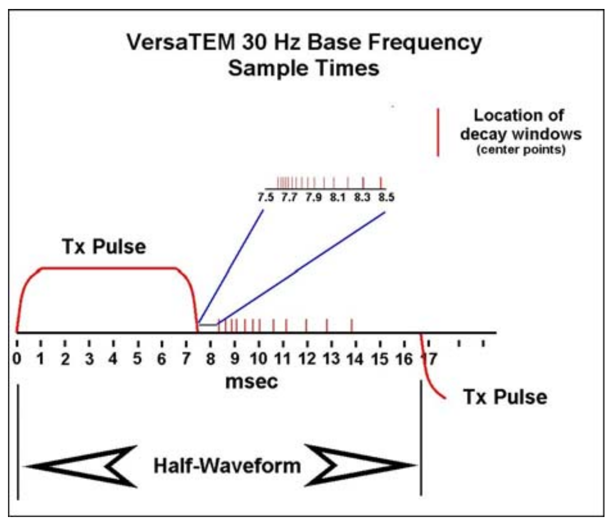

Figure 2 - VTEM sample times

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

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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 sensitivity of 0.001 nT. The base station was recording 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

Operator:	Vagner Aleixo

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

Pilot:	Steve Shaw
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 PDF format.

5.2. Maps

Final maps were produced at a scale of 1:10,000. The coordinate/projection system used was the WGS84, UTM zone 8 north. All maps show the flight path trace. Latitude and longitude are also noted on maps.

The following maps are presented to New Shoshoni Ventures Ltd. on paper as results of the helicopter-borne geophysical survey carried out over BYN block.

- 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 New Shoshoni Ventures Ltd. in Geosoft GRD format. Grid cell size of 10 metres was used.

5.4. Digital Data

There are two (2) main directories,

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

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

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

X:	X positional data (metres – WGS84, utm zone 8 north)
Y:	Y positional data (metres – WGS84, utm zone 8 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,

  BYN_Mag : 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,

  BYN_MAG Total Magnetic Field image and contours

  BYN_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 BYN block project, located north of Whitehorse, Yukon Territory, Canada.

The total area coverage is 7.8 km^2. Total survey line coverage is 98.2 flown line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as colour contour maps and stacked profiles at a scale of 1:10,000.

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

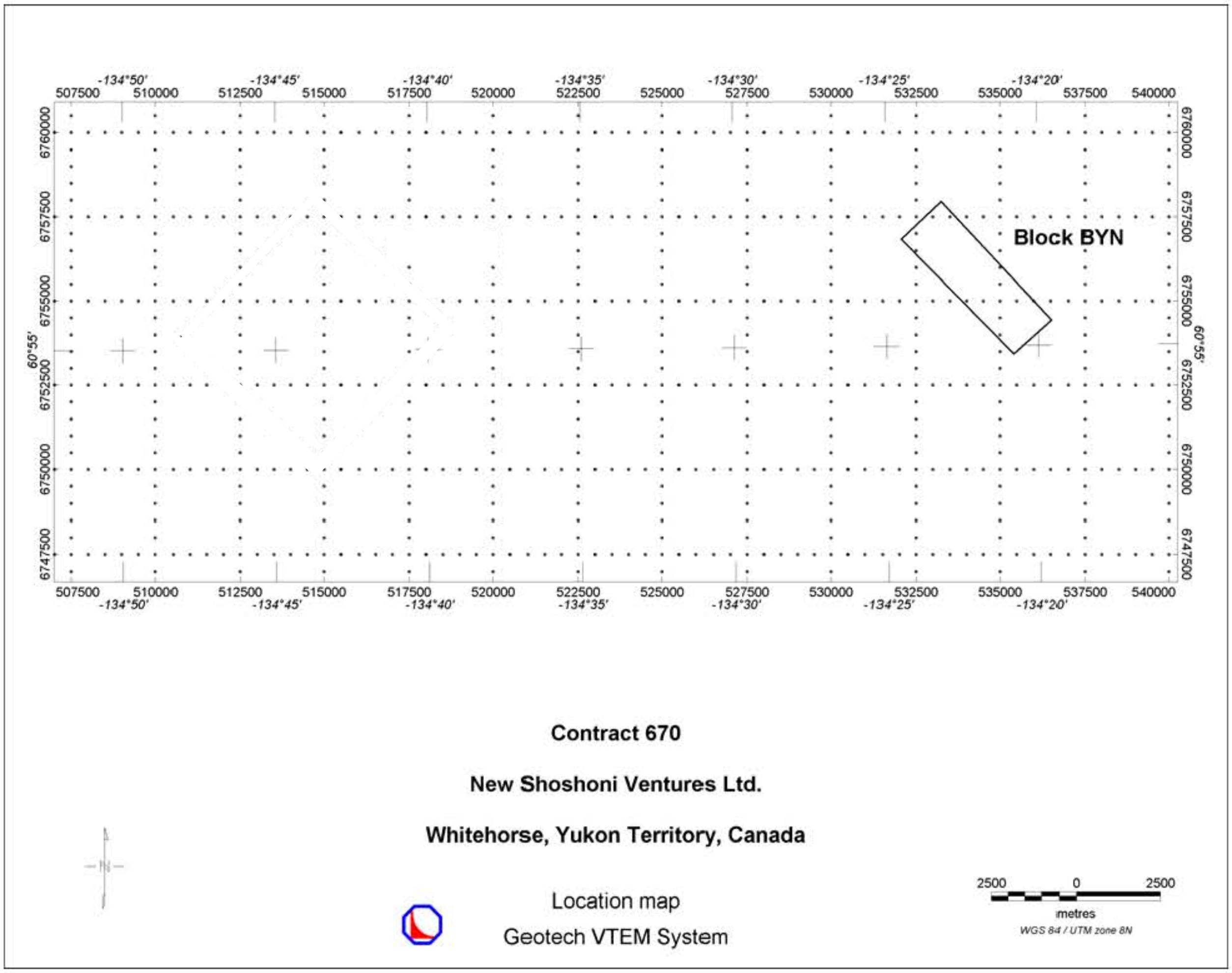
Respectfully submitted,

Marta Orta
on behalf of

George Lev
Geotech Limited
October, 2006

APPENDIX A

SURVEY BLOCK LOCATION MAP



APPENDIX B

SURVEY BLOCK COORDINATES

(WGS 84, UTM zone 8N)

BYN block

UTM eastings (x)	UTM northings (y)
532081.22	**6756814.16**
533251.33	**6757943.36**
536537.29	**6754435.91**
535436.33	**6753435.48**

APPENDIX C

General Modeling Results Of The VTEM System

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.

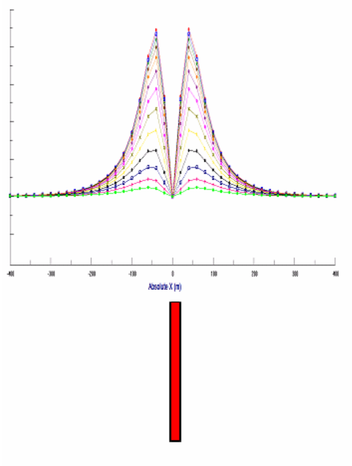
Figure H shows a special case where two plates are positioned to represent a synclinal structure. Note that the main characteristic to remember is the centre amplitudes are higher (approximately double) compared to the high shoulder of a single plate. This model is very representative of tightly folded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

Variation of Prism Depth

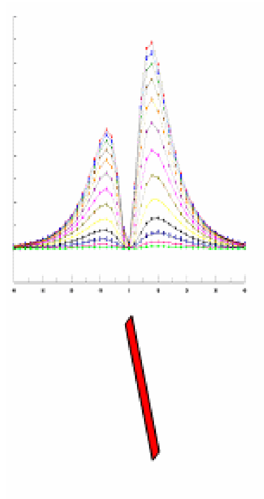
Finally, with prism models, another algorithm is required to represent current on the plate. A plate model is considered to be infinitely thin with respect to thickness and incapable of representing the current in the thickness dimension. A prism model is constructed to deal with this problem, thereby,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

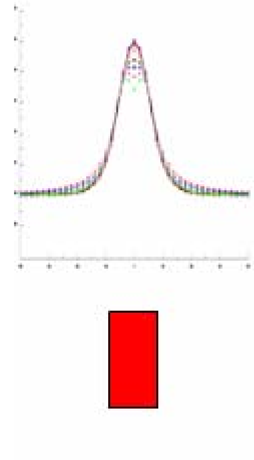
A



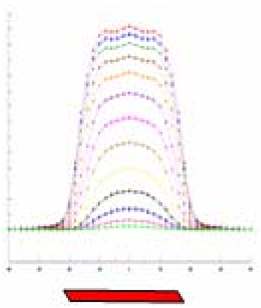
B



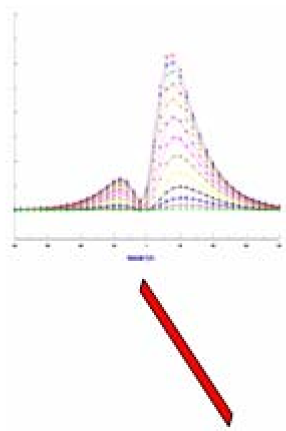
C



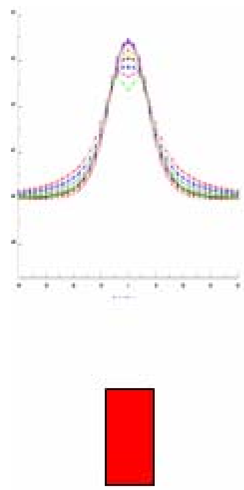
D



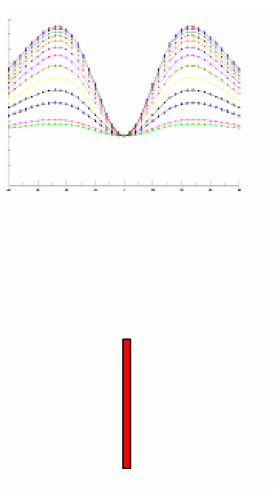
E



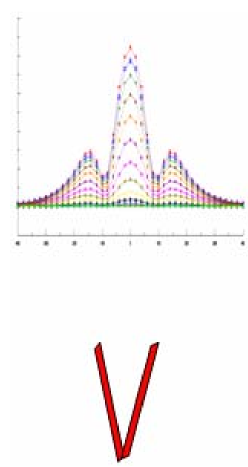
F



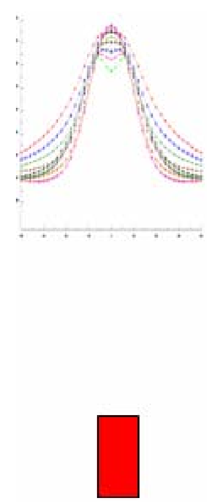
G



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.

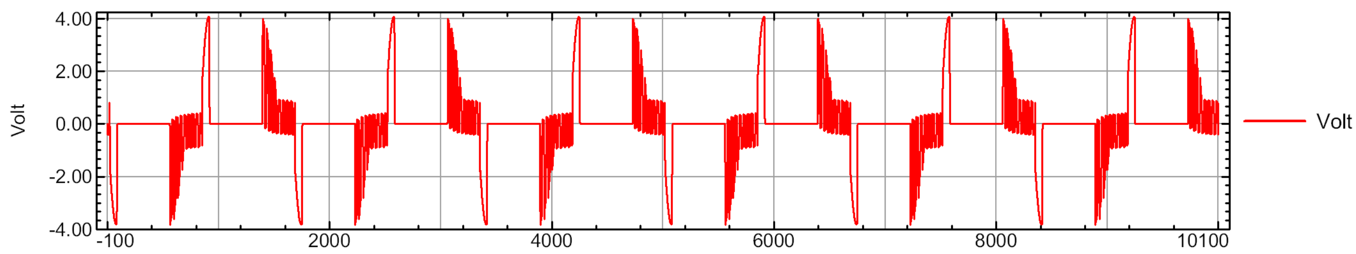
Next, stacking the relevant channels as profiles on the flight path together with the second vertical derivative of the TMI is very helpful in revealing correlations between the EM and Magnetics.

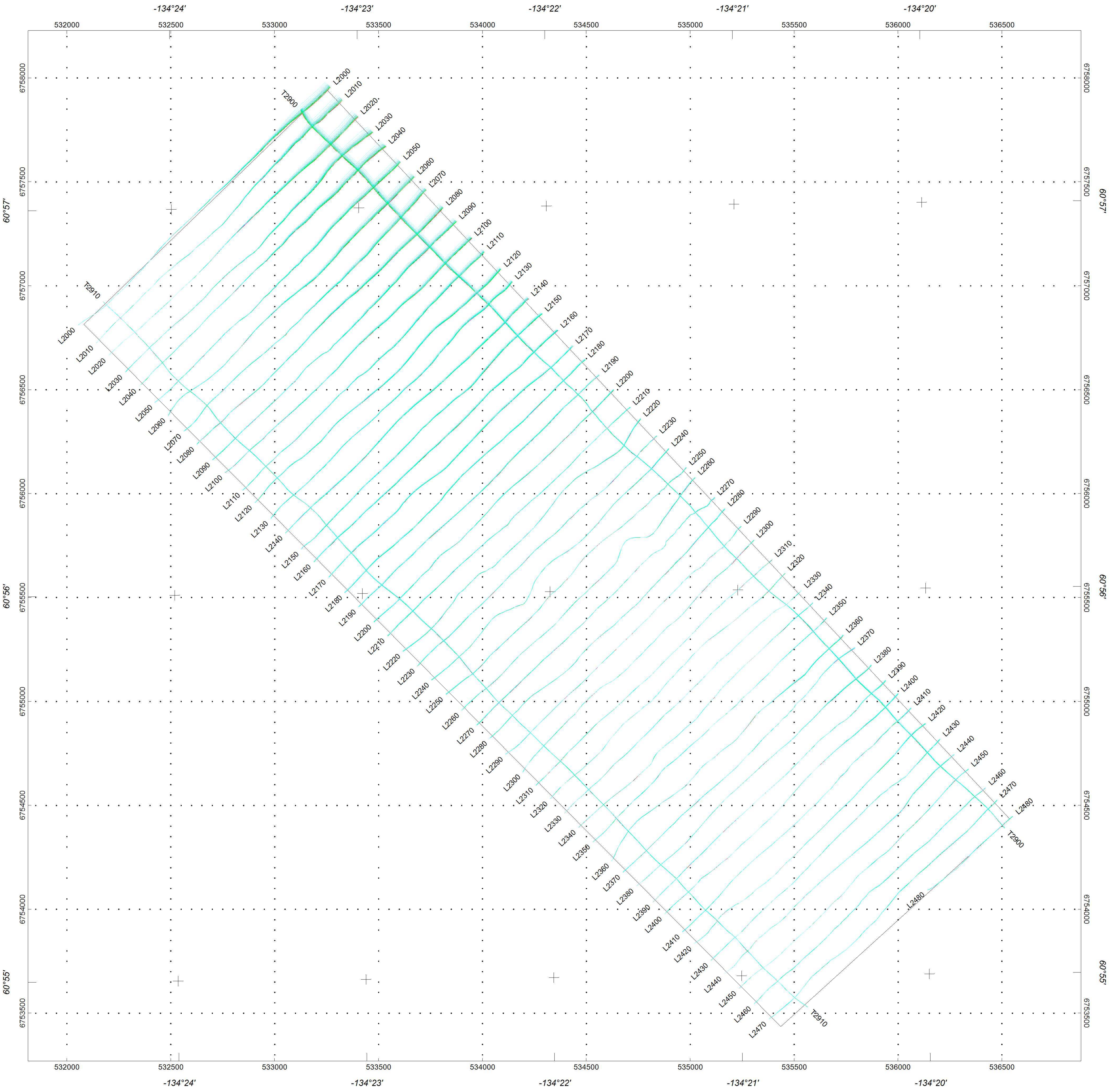
Next, key lines can be profiled as single lines to emphasize specific characteristics of a conductor or the relationship of one conductor to another on the same line. Resistivity Depth sections can be constructed to show the relationship of conductive overburden or conductive bedrock with the conductive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

APPENDIX D

VTEM WAVE FORM

VTEM Waveform, July 2006





SURVEY SPECIFICATIONS:
Survey date: July 2006
Traverse Line Spacing: 100 metres
Traverse line direction: N45°E
Nominal terrain clearance: 80 metres
Nominal EM bird height: 45 metres
Nominal Magnetic bird height: 45 metres
Aircraft: Astar B2 helicopter, Registration: C-GTNU

INSTRUMENTATION
Data acquisition: Geotech Acquisition System
Electromagnetics: VTEM system
Base frequency: 30Hz
Transmitter Loop diameter: 26 metres
Dipole Moment 355,000 NIA
Transmitter Wave Form: Trapezoid
Transmitter Pulse Width: 7.5 ms
Magnetometer: Geometrics G-823A cesium vapour
Resolution: 0.02 nT at 10 samples/sec

NAVIGATION:
Equipment: NovAtel GPS card
Radar altimeter: Terra TRA3000/TRI-30

Profiles scale 1 mm = 0.1 pV/A/m^4

(Linear between +/-0.2 pV/A/m^4
logarithmic above 0.2 pV/A/m^4)

0.22 ms
0.26 ms
0.30 ms
0.35 ms
0.41 ms
0.48 ms
0.57 ms
0.68 ms
0.81 ms
0.96 ms
1.13 ms
1.34 ms
1.60 ms
1.90 ms
2.24 ms
2.66 ms
3.18 ms
3.78 ms
4.46 ms
5.30 ms
6.34 ms

Scale 1:10000
100 0 100 200 300 400 500
metres
WGS 84 / UTM zone 8N

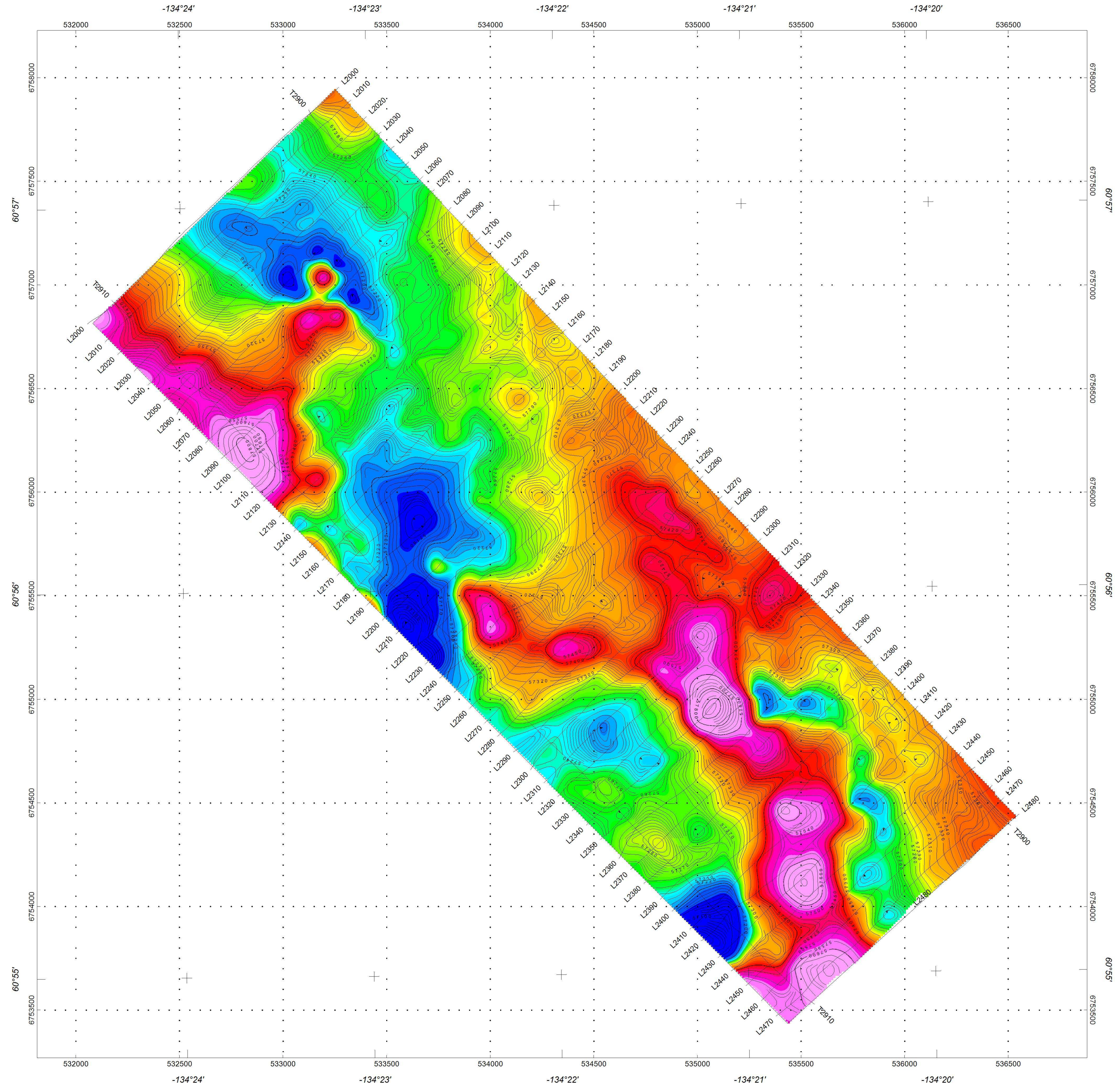
New Shoshoni Ventures Ltd.
Block BYN
Yukon Territory

Geotech VTEM System
Linear-Logarithmic scale Profiles
Time Gates 0.22 - 6.34 ms

Flown and processed by Geotech Ltd.
30 Industrial Parkway South,
Aurora, Ontario, Canada L4G 3W2
www.geotechairborne.com

October 2006

Project 670



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Transmitter Wave Form: Trapezoid
Transmitter Pulse Width: 7.5 ms
Magnetometer: Geometrics G-823A cesium vapour
Resolution: 0.02 nT at 10 samples/sec

NAVIGATION:

Equipment: NovAtel GPS card
Radar altimeter: Terra TRA3000/TRI-30

Magnetic field (nT)

Contour intervals:
2 nT
10 nT
50 nT

Scale 1:10000

100 0 100 200 300 400 500
metres

WGS 84 / UTM zone 8N

New Shoshoni Ventures Ltd.
Block BYN
Yukon Territory

Geotech VTEM System
Total Magnetic Field Map

Flown and processed by Geotech Ltd.

30 Industrial Parkway South
Aurora, Ontario, Canada
www.geotechairborne.com

October 2006

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