Logistics
Report

For the

High Resolution Helicopter Magnetic and
Gamma-ray Spectrometric Airborne Geophysical Survey

Flown over

TRUE BLUE Property,
Watson Lake Mining District, Yukon

From

True Blue Camp, Yukon

Carried out on behalf of

GREAT WESTERN MINERALS GROUP LTD.
By

New-Sense Geophysics Limited

Toronto, Canada
August 11th, 2010
(HMR05062010-report)

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1. INTRODUCTION

A high sensitivity helicopter magnetic and gamma-ray spectrometric airborne survey was carried out for GREAT WESTERN MINERALS GROUP LTD. (Client) over a property known as True Blue, located ~50Km south of the town of Ross River, Yukon, Canada. New-Sense Geophysics (NSG) flew the survey under the terms of an agreement with Client dated May 6th, 2010 (see Appendix F).

The survey was flown between July 11th and July 18th, 2010. A total of 994 line-kilometers of field magnetic and radiometric data was flown, collected, processed and plotted.

Geophysical equipment was comprised of 1 high-sensitivity Cesium-3 magnetometer mounted in a fixed stinger assemble, and a 1024-channel spectrometer with four downward looking crystals (total 16 liters) and one upward looking crystal (total 4 liters). Airborne ancillary equipment included digital recorders, flux gate magnetometer, radar altimeter and global positioning system (GPS) receiver, which provided accurate real-time navigation and subsequent flight path recovery. Surface equipment included a magnetic base station with GPS time synchronization, and a PC-based field workstation, which was used to check the data quality and completeness on a daily basis.

The technical objective of the survey was to provide high-resolution total field magnetic (TMI) and radiometric maps suitable for anomaly delineation, detailed structural evaluation, and identification of lithologic trends. Fully corrected magnetic and radiometric maps were prepared by New-Sense Geophysics Limited, in their Toronto office after the completion of survey activities.

This report describes the acquisition, processing, and presentation of data for True Blue Property, flown from True Blue Camp, Yukon.

2 SURVEY LOCATION

Datum: NAD83
Projection: Universal Transverse Mercator Zone 8N
Local Datum Transform: North America (all Canada and USA subunits)

Table 1

UTM Zone 8N	
NAD83_X	**NAD83_Y**
639446	6822594
640307	6818994
638893	6817580
637980	6818482
632966	6817328
632462	6819478
628234	6822749
626729	6824500
625654	6827784
627422	6829552
632406	6827073
639446	6822594

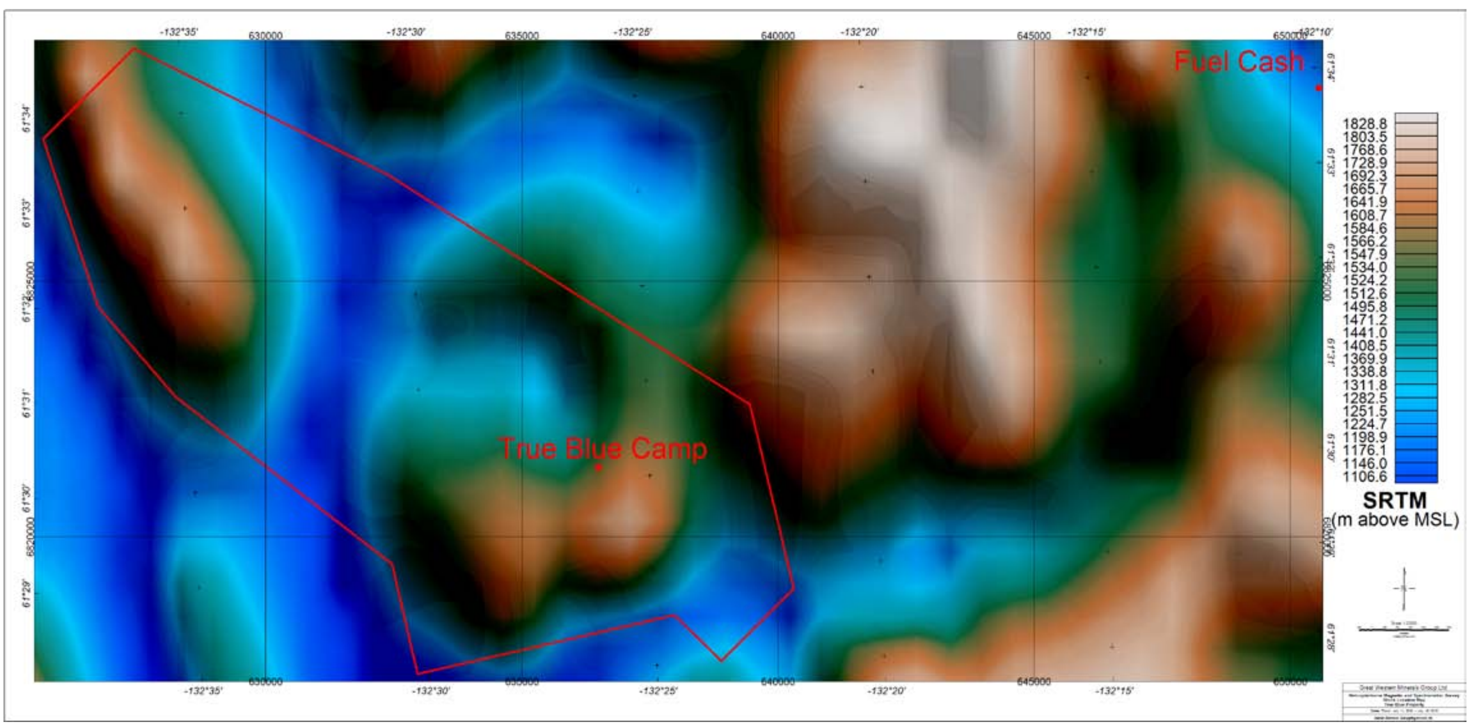


Figure 1. Location map depicting True Blue Survey Block outline in red over Shuttle Radar Topography Mission (SRTM) at ~920m resolution grid. The coordinate system is NAD83, North America (all Canada and USA subunits), Zone 8N.

3. PERSONNEL

3.1 FIELD OPERATIONS

New-Sense Geophysics Ltd.: (Geophysicist)	Chris Evans
Fireweed helicopters, Pilot:	RJ Price

3.2 OFFICE DATA PROCESSING AND OFFSITE QA/QC

QA/QC (NSG):	Andrei Yakovenko
QA/QC (Client representative):	Paul Cartwright
Data Processing and Grids (NSG):	Andrei Yakovenko Chris Evans Sean Plener
Maps (NSG):	Andrei Yakovenko
Logistics Report (NSG):	Andrei Yakovenko

3.3 PROJECT MANAGEMENT

New-Sense Geophysics Ltd.:	Andrei Yakovenko
Great Western Minerals Group Ltd. representative:	Paul Cartwright

4. SURVEY PARAMETERS

Traverse Line spacing:	100 meters
Control Line spacing:	1000 meters
Nominal Terrain clearance:	30 meters
Average Terrain clearance:	41 meters
Navigation:	Global Positioning System
Traverse Line direction:	45, 225 deg.
Control Line direction:	135, 315 deg.
Measurement interval:	0.1 sec for magnetics; 1.0 sec for radiometrics and GPS
Ground speed (average):	103 km/hr
Measurement spacing (average):	2.86 meters/0.1 sec, 28.6 meters/1 sec
Airborne Digital Record:	Line Number Flight Number Radar Altimeter Total Field Magnetics Live Time Thorium counts Potassium counts Uranium counts Upward looking Uranium counts Cosmic counts Down Spectrum Up Spectrum Total Counts Time (System and GPS) Raw Global Positioning System (GPS) data Magnetic compensation parameters (fluxgate mag.)
Base Station Record:	Ambient Total Field Magnetics Raw Global Positioning System (GPS) data Time (System and GPS)

5. AIRCRAFT AND EQUIPMENT

5.1 AIRCRAFT

The aircraft used was a Bell 206B helicopter (C-GFWZ) equipped with a Cesium magnetometer mounted in a fixed stinger assembly and RS-500 airborne spectrometer mounted in the storage compartment. The aviation company providing the aircraft service was Fireweed Helicopters based in Dawson, Yukon, Canada.

5.2 AIRBORNE GEOPHYSICAL SYSTEM

5.2.1 MAGNETOMETER

One Scintrex CS-3 optically pumped Cesium split beam sensor was mounted in a fixed stinger assembly. The magnetometer's Larmor frequency output was processed by a KMAG-4 magnetometer counter, which provides a resolution of 0.15 ppm (in a magnetic field of 50,000 nT, resolution equivalent to 0.0075 nT). The raw magnetic data was recorded at 50 Hz, anti-aliased with 51 point COSINE filter, and resampled at 10 Hz .

5.2.2 MAGNETIC COMPENSATION

The proximity of the aircraft to the magnetic sensor creates a measurable anomalous response as a result of the aircrafts movement. The orientation of the aircraft with respect to the sensor and the motion of the aircraft through the earth's magnetic field are contributing factors to the strength of this response. A special calibration flight, Figure of Merit (i.e., FOM), was flown to record the information necessary to compensate for these effects.

The FOM maneuvers consist of a series of calibration lines flown at high altitude to gain information in each of the required line directions. During this procedure, pitch, roll and yaw maneuvers are performed on the aircraft (typical angle ranges are 10^o pitch, 10^o roll, and 10^o yaw). Each variation is conducted three times in succession (first pitch, then roll, then yaw), providing a complete picture of the aircraft's effects at designated headings in all orientations.

A three-axis Bartington fluxgate magnetometer (recorded at 50 Hz) was used to measure the orientation and rates of change of the magnetic field of the aircraft, away from localized terrestrial magnetic anomalies. The QC Tools digital compensation algorithm was then applied to generate a correction factor to compensate for permanent, induced, and eddy current magnetic responses generated by the aircrafts movements.

5.2.3 GPS NAVIGATION

A U-BLOX RCB-LJ sixteen channel GPS receiver, which is an integral component of the iNAV V3 computer system, was used to run the flight control system and provide precise positioning of the aircraft.

5.2.4 ALTIMETER

A TRA 3500 radar altimeter was mounted inside the stinger. This instrument operates with a linear performance over the range of 0 to 2,500 feet, and records the terrain clearance of the sensors. The raw radar altimeter data was recorded at 50 Hz, anti-aliased with a 21 point COSINE filter, and re-sampled at 10 Hz.

5.2.5 GEOPHYSICAL FLIGHT CONTROL SYSTEM

New-Sense's iNAV V3 geophysical flight control system monitored and recorded magnetometer, spectrometer, altimeter, and GPS equipment performance. Input from the various sensors was monitored every 0.005 seconds for the precise coordination of geophysical and positional measurements. The input was recorded fifty times per second (one time per second in the case of GPS and radiometric data).

GPS positional coordinates and terrain clearance were presented to the pilot by means of a panel mounted indicator display. The magnetometer response, forth difference, altimeter profile and profiles of the radiometric windows were also available on the touch screen display, for real-time monitoring of equipment performance.

5.2.6 SPECTROMETER

The RS-500 Airborne Spectrometer with RSX-5 detector pack, manufactured by Radiation Solutions Inc. (RSI), was used for the survey. The RS-500 spectrometer has a multi-peak gain stabilization algorithm and is capable of recording 1024 channels with accuracy of 0.1 to 10 counts/second.

The RS-500 is connected to a crystal pack comprising four downward looking crystals (16 liters total) and one upward looking crystal (4 liters total). The downward crystals record the radiometric spectrum from 410 KeV to 2810 KeV over 1024 discrete energy windows, as well as from a cosmic ray channel that detects photons with energy levels above 3.0 MeV. From these 1024 channels, the standard Total Count, Potassium, Uranium and Thorium channels are extracted. The upward crystal is used to measure and correct for atmospheric Radon interference. The shock-protected Sodium Iodide (Thallium) crystal package is unheated and automatically stabilizes with respect to the multiple peaks. The RS-500 provides raw data that has been automatically corrected for gain, base level, ADC offset, and dead time.

5.2.7 IDAS DIGITAL RECORDING

The output of the CS-3 magnetometer, fluxgate magnetometer, altimeter, temperature, pressure, GPS coordinates, and time (system and GPS), were recorded digitally on a Compact Flash drive at a sample rate of fifty times per second (one time per second for GPS) by the iNAV V3 system.

5.2.8 PRESSURE AND TEMPERATURE

A Honeywell Precision Pressure Transducer, model PPT0020AWN2VA-A, was used to record the ambient pressure and temperature during the survey. The device was mounted in the stinger. The pressure and temperature outputs units were mbar and degrees Celcius respectively.

5.2.9 SPECTROMETER DIGITAL RECORDING

The output of the RS-500 spectrometer, GPS coordinates, and time (UTC) were recorded digitally on an internal RS-500 flash drive at a sample rate of 1 Hz. After each flight the data were copied and synchronized using UTC clock with the iDAS digital records.

5.3 GROUND MONITORING SYSTEM

5.3.1 BASE STATION MAGNETOMETER

A Scintrex CS-3 optically pumped cesium split beam sensor was used at the base of operations within the airport boundaries, in an area of low magnetic gradient and low/free from cultural electric & magnetic noise sources. The sensitivity and absolute accuracy of the ground magnetometer is +/- 0.01nT. Data was recorded continuously at least every one second throughout all survey operations in digital form on a TC-10 data acquisition system. Both the ground and airborne magnetic readings were synchronized based on the GPS clock.

5.3.2 RECORDING

The output of the magnetic and GPS monitors was recorded digitally on a dedicated TC 10 computer. A visual record of the last three hours was graphically maintained on the computer screen to provide an up to date appraisal of magnetic activity. At the conclusion of each production flight raw GPS and magnetic data were transferred to the main field compilation computer.

5.4 FIELD COMPILATION SYSTEM

A field laptop computer was used for field data processing and presentation. The raw data was imported to Geosoft Oasis montaj for QA/QC and processing purposes. After the data was checked for quality control, the database with uncompensated magnetic readings was exported to QC Tools software package for magnetic compensation and base station data merging purposes. The compensated database was then imported back to Oasis for the subsequent and final processing.

6. PRE-SURVEY SPECTROMETER CALIBRATIONS

Pre-survey calibrations and testing of the RS-500 (SN 5503) airborne gamma-ray spectrometry system were carried out on July 10th, 2010 (at the installation base in Dawson, YT) and July 12th, 13th, 2010 (in the vicinity of True Blue property). For these calibrations and tests, the survey aircraft (registration C-GFWZ) was mobilized in survey configuration. The installed equipment and configurations were selected to conform to contract technical specifications.

Calibration of the spectrometer system is a vital process to airborne gamma-ray spectrometry. The calibration of the spectrometer system involved three tests:

- **Calibration Pad** measurements, which are used to determine the "spectral overlap" (Compton scattering) coefficients. The calibration test was performed within a 12 month period before the survey by the manufacturer (Radiation Solutions Inc.), at its headquarters location in Mississauga, Ontario.

- **Cosmic Flight Test**, which is used to determine the aircraft background values and cosmic coefficients (conducted on July 12th, 2010, in the vicinity of True Blue property).

- **Height Attenuation Test**, which determined the altitude attenuation coefficients (conducted on July 13th, 2010, in the vicinity of True Blue property).

6.1 ENERGY WINDOWS

The airborne radiometric technique requires measurement of count rates for specific energy regions or windows in the natural gamma-ray spectrum. The standard energy regions (in accordance with the International Atomic Energy Agency (IAEA) 323]), and their corresponding channel limits are:

Downward Spectrometer Energy Windows

Designation	Energy Limit (keV)		Channel Limit (inclusive)	
			Unit Values	
	Lower	Upper	Lower	Upper
Total Count (TC)	410	2810	137	937
K	1370	1570	457	523
U	1660	1860	553	620
Th	2410	2810	803	937
U (upward)	1660	1860	553	620
Cosmic	3200	infinity		

6.2 CALIBRATION PAD TEST

The Compton stripping coefficients as provided by RSI are listed below:

Stripping Ratios	**Spectrometer (SN 5503)**	**"normal" values**
Th into U (alpha = a23/a33)	0.284	0.250
Th into K (beta = a13/a33)	0.432	0.400
U into K (gamma = a12/a22)	0.771	0.810
U into Th (a = a32/a22)	0.039	0.060
K into Th (b = a31/a11)	-0.001	0
K into U (g = a21/a11)	0.001	0.003

6.3 COSMIC FLIGHT TEST

In each of the spectral windows, the radiation increases exponentially with height due to radiation of cosmic origin. As well, the aircraft itself contributes a constant background to the count rate. By completing a series of flights within the same region, over a range of altitudes, these background contributions can be determined.

6.3.1 SETUP AND MEASUREMENT PROCEDURE

1. A resolution check was completed at the aircraft base using a Thorium source prior to the cosmic test to insure the sensitivity and accuracy of the spectrometer.
2. Once the aircraft reached the desired altitude (first at ~8500 feet), survey data was recorded for approximately ten minutes.
3. Step 2. was then repeated at the following remaining altitudes: 9500, 10500, and 11,500 feet above sea level.

	Cosmic Test Flight Data (average counts)					
Altitude (ft)	Cosmic	UU	K	U	Th	TC
8500	200	3	22	12	13	293
9500	234	4	25	14	15	334
10500	270	4	28	17	18	378
11500	319	5	30	19	22	429

6.3.2 RESULTS FROM COSMIC FLIGHT TEST

At each altitude, the data for the five windows of interest (Th, K, U, TC, and U upward) were evaluated for quality. The mean values were then extracted and plotted against the cosmic background window (see Appendix A). The result is a linear trend, where the slope and intercept represent the cosmic stripping ratio and the aircraft background respectively. The results from the graphs are summarized below.

Calculated Cosmic and Aircraft Background Coefficients Table

	Cosmic Flight Test Result from	
	Cosmic Stripping	Aircraft Background
K	0.0676	8.9613
U	0.0604	0.0428
Th	0.0668	0
TC	1.146	65.405
UU	0.0153	0.0905

6.4 ALTITUDE ATTENUATION TEST

The height attenuation of the spectrometer systems was calculated by flying a series of passes across a line over flat ground with uniform radioelement ground concentration. The test range was flown by acquiring data on a series of seven passes over a set path, at the following altitudes: 50, 100, 150, 200, 300, 400, 600, 800 and 1000 feet above ground

6.4.1 RESULTS FROM ALTITUDE ATTENUATION TEST

The airborne data from the altitude attenuation test was checked for quality, edited and divided into lines, where each line represents a pass. The radiometric windows were then corrected for background (aircraft and cosmic) and stripped of Compton contributions. After averaging the data for each line, the four windows of interest (K, U, Th, and Total Count) were plotted against the altimeter in order to obtain the height attenuation (see Appendix A). The results were obtained using an exponential regression, where the slope represents the attenuation coefficient and the ‘y’ intercept represents the counts at 0 feet.

Calculated Height Attenuation Coefficient

Element	Altitude attenuation coefficients
K	-0.0082
U	-0.0055
Th	-0.0064
TC	-0.0061

6.5 RADON HOVER TEST

The determination of calibration constants that enable the stripping of the effects of atmospheric radon from the downward-looking detectors through the use of an upward looking detector is divided into two parts:

1) Determining the relationship between the upward and downward looking detector count rates for radiation due to atmospheric radon.

The procedures describing how to determine these calibration factors are documented in IAEA Report #323 on airborne gamma-ray surveying.

The hover tests or test lines normally require many over-water measurements where there are little to no contributions from the ground. Where this is not possible, it is standard procedure to establish a test line/spot over ground where a series of repeat measurements are acquired.

A test area was established over a flat ground near the base of operation. Each day when flying took place the aircraft hovered over the test area for ~5 min. The test results were used to estimate the relationships between the background and cosmic corrected counts in the downward uranium window and in the other four windows (i.e., potassium, thorium, total count and upward uranium) due to atmospheric radon. The following relationship coefficients were calculated and used.

Note: Only the "a" constants were used in the final processing. The "b" constants are normally near zero for over-water calibrations.

auu:	0.2104	Upward Uranium vs down Uranium slope
ak	1.1842	Potassium vs down Uranium slope
at	0.2401	Thorium vs down Uranium slope
ai	13.241	Total Count vs down Uranium slope
buu	-1.4342	Upward Uranium background
bk	71.94	Potassium background
bt	15.736	Thorium background
bi	558.61	Total Count background

2) Determining the relationship between the upward and downward looking detector count rates for radiation originating from the ground using complete survey dataset.

The component of the upward detector count rate originating from the ground depends on the concentration of uranium and thorium in the ground, as are the components of the uranium and thorium down window count rates that originate from the ground (see IAEA Report #323). Consequently the upward detector ground component is related to the downward detector ground components by linear equation:

$$ug = a1Ug + a2Tg$$

Where:

- ug, Ug and Tg are contributions in the windows that originate from the ground.
- a1 and a2 are empirically determined calibration factors

After applying the procedure in determining the a1 and a2 calibration factors, as per IAEA Report # 323, the a1 and a2 were found to be:

a1:	0.073769
a2:	0.022125

6.6 RADIOELEMENT GROUND CONCENTRATIONS AND SYSTEM SENSITIVITIES

The radiometric ground concentrations were measured using a calibrated portable spectrometer (RSI-125) during the same time as the airborne altitude attenuation flight took place. The sensor was positioned one metre above the soil and away from the operators' body in the vicinity of altitude attenuation test strip. Twenty-six 300-second measurements were taken over the length of the calibration range.

The resulting mean radiometric equivalent ground concentrations for the calibration range on July 13, 2010 were as follows:

Radio Element	**Ground Concentration**	
Potassium	1.415	%
Equivalent Uranium	2.381	ppm
Equivalent Thorium	10.665	ppm
Total	60.115	nGy/h

Using these ground concentrations and the altitude attenuation calibration flight data, the System Sensitivities were obtained:

$$S = N/C$$

Were:

- S is the sensitivity for each window
- N is the striped count rate in the window at the survey altitude (i.e, 30m)
- C is the respective ground radioelement concentration.

With the following results:

	Sensitivities @ 30m
K	91.89 cps/%
U	8.23 cps/ppm
Th	3.95 cps/ppm
TC	23.99 cps/nGy/h

7. OPERATIONS AND PROCEDURES

7.1 FLIGHT PLANNING AND FLIGHT PATH

The block outline coordinates (section 2.0) were used to generate pre-calculated navigation files. The navigation files were used to plan flights at the designated traverse line spacing of 100 meters and control lines of 1000 meters.

Preliminary flight path maps and magnetic maps were plotted and updated, to monitor coverage of the survey area.

7.2 BASE STATION

A magnetic base station was established in a magnetically quiet area in the vicinity of the camp (see Figure 2). The base station was placed at Latitude: 61.503623; Longitude: -132.433676.

The base station was monitored to ensure that the diurnal variation was within the peak-to-peak envelope of 20 nT from a long chord distance equivalent to a period of two minutes.

Figure 2. Base station setup images. Left image: GPS antenna. Right-above: Computer, battery. Right-below: CS3 magnetometer sensor head.

7.3 AIRBORNE MAGNETOMETERS

An FOM test of the performance of the CS-3 and fluxgate magnetometers was performed in order to monitor the ability of the system to remove the effects of aircraft motion on the magnetic measurement.

The FOM maneuvers consisted of a series of calibration lines flown at high altitude (10,000+ ft above sea level) to gain information in each of the required line directions. During this procedure, pitch, roll and yaw maneuvers were performed on the aircraft.

The following ranges were used:

Pitch – 15^o
Roll - 10^o
Yaw -10^o

See Appendix B for the FOM results as flown on July 12th, 2010.

7.4 THORIUM RESOLUTION TESTS

In order to monitor the resolution of the crystal pack, a daily a resolution test of the spectrometer was performed in RadAssist (RSX-5 spectrometer interface program) using ~2000 Thorium background counts per crystal.

The results from the resolution tests were always found to be within the contract specifications (See Appendix D for the daily test results).

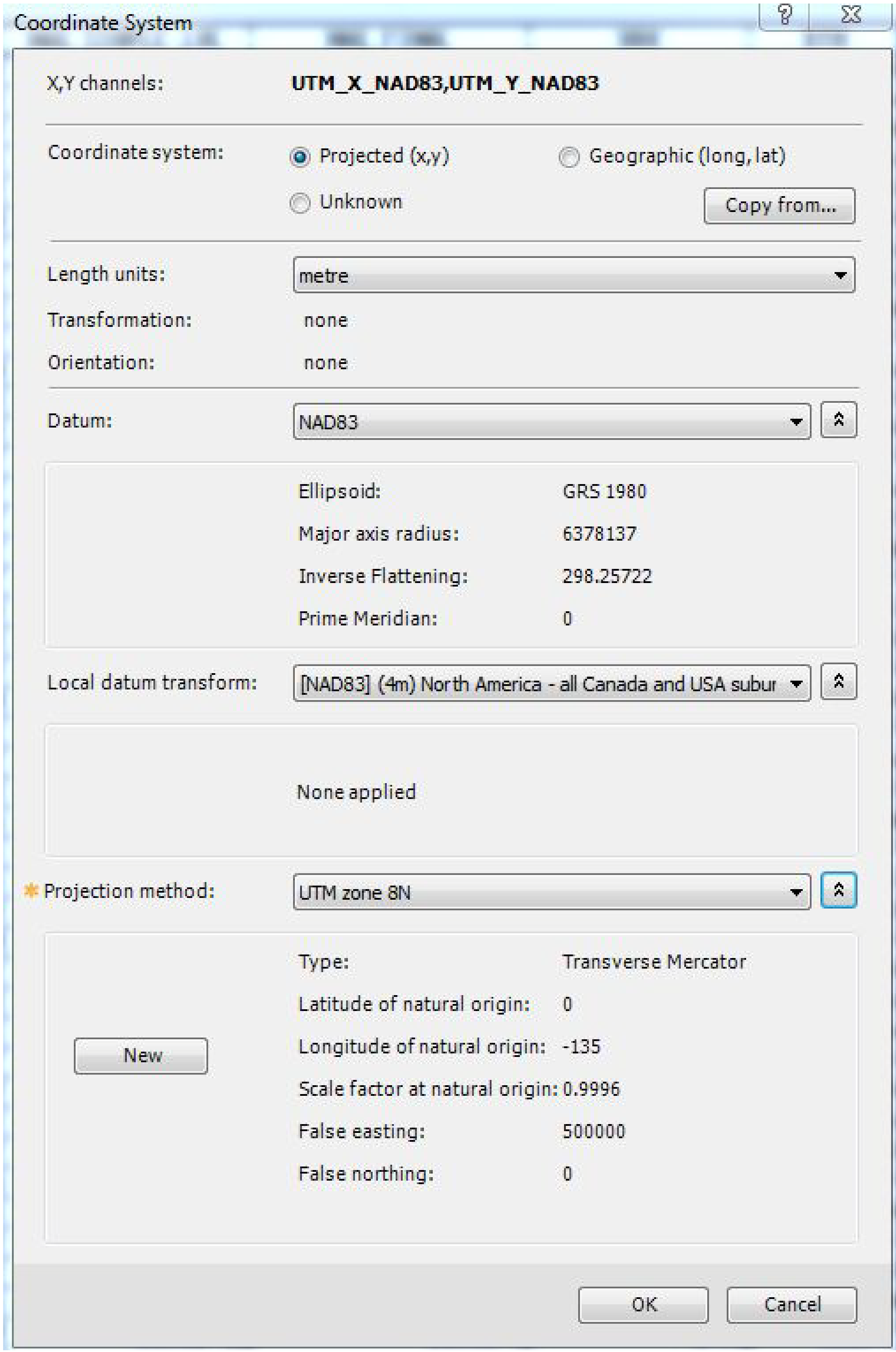
7.5 DATA COMPILATION

Data recorded by the airborne and base station systems was transferred to the field compilation system. As each flight was completed, the following compilation operations were carried out:

7.5.1 FLIGHT PATH CORRECTIONS

The navigational correction process yields a flight path expressed in WGS84, World and transformed to correspond to NAD83 UTM ZONE 8N, North America.

The following projection parameters were used:



All 1.0 Hz GPS records were linearly interpolated and resampled at 10 Hz (0.1 sec) intervals.

7.5.2 DIGITAL TERRAIN MODEL (DTM)

A DTM of the True Blue survey area was produced and included in the database channel DTM.

The DTM data was produced by first adjusting the GPS sensor height to that of the radar altimeter height (lowering GPS height by 2.1m). Next the radar altimeter channel (in meters) was subtracted from the GPS height data producing a raw DTM channel. Due to changing satellite positions (constellation configuration) and varying atmospheric conditions, the receiver may measure slightly varying GPS heights line-to-line. In addition, due to rugged topography the radar altimeter may read inaccurately when the helicopter is in a pitch forward position (example: approach a steep hill) as the radar beam would directed away, down the slope. Because of these inherent errors, the raw DTM channel required leveling.

It was decided to apply a microleveling technique to the raw DTM data developed by Paterson, Grant & Watson Limited and available through Geosoft Oasis montaj as miclev.GX extension. The following key parameters were used:

Line Spacing – 100 m;
Line direction – 45 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 400;
Amplitude Limit: 15, with clip mode
Naudy Filter: 50

The final DTM data were stored under DTM channel name.

7.5.3 MAGNETIC CORRECTIONS

First the 50 Hz aeromagnetic data from Cesium 3 and fluxgate magnetometers were filtered with a 51 cosine anti-aliasing algorithm and re-sampled at 10 Hz. Then the magnetic data from the Cesium 3 magnetometer was compensated for permanent, induced, and eddy current magnetic noise generated by the aircraft using data from the fluxgate magnetometer. The compensated magnetic data were then stored in the MAG_COMP channel.

7.5.3.1 DIURNAL CORRECTIONS

The compensated magnetic data were adjusted to account for diurnal variations. When the magnetic variations recorded at the base station recognized to be caused by man-made sources, (such as equipment, vehicles passing by the sensor), they were removed and gaps interpolated.

Diurnal variations recorded by the base station were filtered with a 31-point low pass filter. The filtered data was then subtracted directly from the aeromagnetic measurements to provide a first order diurnal correction.

After base station removal, the total magnetic field values become very small. To bring the total magnetic measurements back to ‘normal’ values, a project average (i.e., 57220.24nT) from the base station readings was added back to the magnetic data.

The resulting base station corrected data were stored in the MAG_DIURNAL_CORR channel.

7.5.3.2 LAG CORRECTIONS

There are two potential types of Lag offsets when collecting airborne data: time lag and distance lag.

NSG insures that there is no time lag in the data acquisition system by recording unique markers every 1-second based on the GPS time stamp (associated with the EXACT change in GPS positioning). This information is used to realign (if necessary) the individual data records.

The distance lag is determined by dividing the distance from the GPS antenna to the sensor head by the averaged sample rate distance.

9.2m /2.8m per sample = 3.3

A lag of -3 records was applied to the MAG_DIURNAL_CORR channel.

The resulting lag corrected data were stored in the MAG_LAG_CORR channel.

7.5.3.3 HEADING CORRECTIONS

Optically pumped magnetic sensors have an inherent heading error, typically 1 to 2 nT peak-to-peak, as the sensor is rotated through 360 degrees. On flight line directions of the opposite heading, the affect is reasonably predictable.

A heading test flight was flown at magnetically quite area at 10,000+ ft above sea level altitude on July 12, 2010 with the following results.

Direction	Mean on line	Mean in direction	Mean on heading	Error
0				-0.57875
45	57520.53			
45	57522.4	57521.47		1.56
225	57522.92			
225	57526.26	57524.59	57523.03	-1.56
135	57506.99			
135	57509.72	57508.36		2.72
315	57513.36			
315	57514.23	57513.80	57511.08	-2.72

When the above magnetic heading corrections were applied to the dataset (see Figure 3, left image), it was realized that overall those corrections did not work very well for the actual survey data. As a result, the following empirically derived heading corrections were applied (Figure 3, right image).

```
/ Geosoft Heading Correction Table
/=   Direction:real:i
/=   Correction:real
/      Direction   Correction
     0          -0.58
     45          -1.56
     135        2.72
     225       1.56
      315       -2.72
     360       -0.58
```

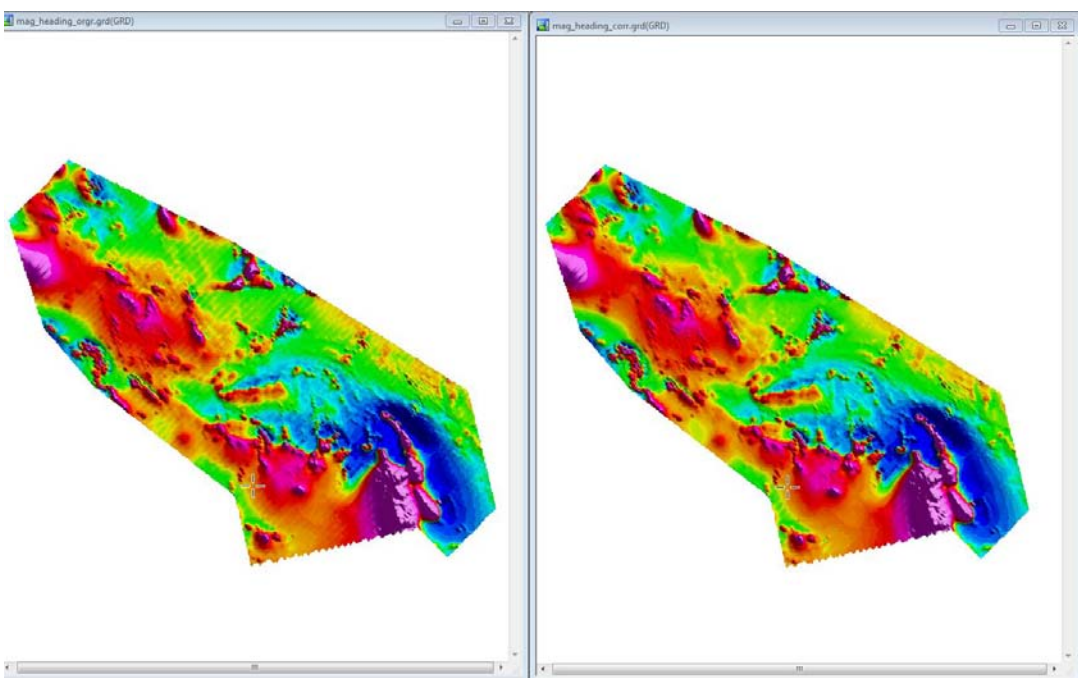


Figure 3. Left image shows a magnetic grid after the original heading corrections were applied and the grid to the right shows after empirically determined heading corrections were applied.

The heading corrected magnetic data were stored in MAG_HEADING_CORR channel.

7.5.3.4 IGRF CORRECTIONS

The total field strength of the International Geomagnetic Reference Field (IGRF) was calculated for every data point, based on the spot values of Latitude, Longitude and altitude, using the 2010 model. This IGRF was removed from the measured survey data on a point-by-point basis from the lag corrected channel.

After IGRF correction the total magnetic field values become negative. To bring the total magnetic measurements back to ‘normal’ values, an average (i.e., 57616.6nT) of IGRF values based on the whole project were added back to the magnetic data.

The resulting IGRF corrected data were stored in the MAG_IGRF_CORR channel.

7.5.3.5 LEVELING CORRECTIONS

First a survey traverse/control line intercepts array/matrix (i.e., Simple Leveling) was created for determining differences in magnetic field at the intersection points. The rugged terrain of the survey block, which caused some line-to-line difference in altitude, and relatively strong magnetic anomalies made magnetic signal at some Traverse/Control line intersection points quite different. Some of those intersection points were manually adjusted in order to reduce line-to-line magnetic differences.

The resulting simple leveled magnetic data were stored in MAG_SIMPLE_LVL channel.

In order to further level magnetic data, it was decided to apply the microleveling technique. The following key parameters were used:

Line Spacing – 100 m;
Line direction – 45 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 400;
Amplitude Limit: 26.89 nT (1 Standard Deviation of Decor. Noise data), with clip mode
Naudy Filter: 100

The resulting data were stored in MAG_FINAL channel.

7.5.4 VERTICAL DERIVATIVE

A 1-st Order Vertical Derivative (VDV) data were calculated using 2D FFT2 algorithm based on MAG_FINAL grid. The resulting VDV grid was then slightly filtered with a Hanning 3x3, with 2 passes, filter and sampled back to the database.

The VDV data were stored under VDV channel.

7.5.5 RADIOMETRIC DATA CORRECTIONS

7.5.5.1 LIVE TIME CORRECTIONS

The spectrometer uses the notion of "live time" to express the relative period of time the instrument was able to register new pulses per sample interval.

The live time correction is applied to the total count, potassium, uranium, thorium and upward uranium channels.

The formula used to apply the correction is as follows:

$$C_{lt} = C_{raw} \times \left(\frac{1000}{LT} \right)$$

Where:

- C_{lt} is the live time corrected channel
- C_{raw} is the raw channel
- LT is the Live Time channel

7.5.5.2 PRE-FILTERING

The cosmic channel data were processed with a 15-point low pass filter to remove spikes.

When Radon corrections were applied, live time, background, and cosmic corrected uranium, thorium, and upward uranium were pre-filtered with 11 point low pass filter.

The radar altimeter channel while recorded at 50Hz was filtered with 21-point COSINE filter and then sampled to 1Hz.

7.5.5.3 AIRCRAFT AND COSMIC BACKGROUND

Aircraft background and cosmic stripping corrections (see section 6.3.7) were applied to the live corrected total count, potassium, uranium, thorium and upward uranium channels using the following formula:

$$C_{ac} = C_{lt} - (ac + bc \times cof)$$

Where:

- C_{ac} is the background and cosmic corrected channel
- C_{lt} is the live time corrected channel
- ac is the aircraft background for this channel
- bc is the cosmic stripping coefficient for this channel
- cof is the filtered cosmic channel

All negative counts after this correction step were replaced with zeroes.

7.5.5.4 RADON CORRECTIONS

Once the survey was completed, the relationships between the counts in the downward uranium window and in the other four windows (i.e., upward uranium, thorium, potassium and total count) due to atmospheric radon were determined using linear regression for the test site (see section 6.5 for the resulting values).

The equations solved for were:

$$ur = auUr + bu$$
$$Kr = akUr + bk$$
$$Tr = atUr + bt$$
$$Ir = aiUr + bi$$

Where:

- ur is the radon component in the upward uranium window
- Kr, Ur, Tr and Ir are the radon components in the various windows of the downward detectors
- the various "a" and "b" coefficients are the required calibration constants

After the "a" coefficients were established, the background and cosmic corrected thorium, uranium and upward uranium data for each line were smoothed with 11 point low pass filter to produce Thf, Uf, and uf respectively. The radon component in the downward uranium window was then determined using the following formula:

$$Ur = (uf - a1 \times Uf - a2 \times Thf + a2 \times bth - bu)/(au - a1 - a2 \times ath)$$

Where:

- Ur is the radon component in the downward uranium window
- uf is the filtered upward uranium
- Uf is the filtered uranium
- Thf is the filtered thorium
- a1, a2 (see section 6.5), au and ath are proportionality factors
- bu and bth are background constants

Note: the "b" background constants are normally near zero for over-water calibrations and as such they were not included in the calculation of Ur.

The effects of radon in the downward uranium are removed by directly subtracting Ur from background and cosmic corrected uranium.

The effects of radon in the Total Count, Potassium, Thorium and upward Uranium are then removed based upon previously established relationships with Ur.

The corrections were applied using the following formula:

$$Crc = Cac - (ac \times Ur + bc)$$

Where:

- Crc is the radon corrected channel
- Cac is the background and cosmic corrected channel
- Ur is the radon component in the downward uranium window
- ac is the proportionality factor and
- bc is the background constant for this channel

All negative counts after this correction step were replaced with zeroes.

7.5.5.5 COMPTON STRIPPING

Following the background and cosmic corrections the potassium, uranium and thorium were corrected for spectral overlap (see section 6.2). First the stripping ratios α , β , and χ were modified according to altitude. Then an adjustment factor based on the reversed stripping ratio (a), uranium into thorium, was calculated.

$$\alpha h = \alpha + hef \times 0.00049$$
$$\beta h = \beta + hef \times 0.00065$$
$$\chi h = \chi + hef \times 0.00069$$

Where:

- α, β, χ are the Compton stripping coefficients
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- hef is the height above ground in meters

The stripping corrections are then carried out using the following formulas:

$$ar = \frac{1}{1 - a\alpha h}$$

$$Th_c = (Th_{bc} - aU_{rc}) \times ar$$

$$U_c = (U_{rc} - Th_{bc}\alpha h) \times ar$$

$$K_c = K_{bc} - \beta h Th_c - \chi h U_c$$

Where:

- U_c, Th_c, and K_c are corrected Uranium, Thorium and Potassium
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- U_{bc}, Th_{bc}, and K_{bc} are background and cosmic corrected Uranium, Thorium and Potassium
- ar is the backscatter correction
- a is the reverse stripping ratio U into Th

All negative counts after this correction step were replaced with zeroes.

7.5.5.6 EQUIVALENT HEIGHT AT STP

The following formula was used to calculate Equivalent Height at STP:

$$H_e = H \times \left(\frac{273.15}{T + 273.15} \right) \times \left(\frac{P}{1013.25} \right)$$

Where:

- H is the observed height
- He is the equivalent height at STP
- T is the temperature in degrees Celsius
- P is the barometric pressure in mbar.

7.5.5.7 ATTENUATION CORRECTIONS

The Total Count, Potassium, Uranium and Thorium data were then corrected to a nominal survey altitude of 30m (see section 6.4.1) using the following equation:

$$Ca = C \times e^{-\mu(h0-he)}$$

Where:

- Ca is the output altitude corrected channel
- C is the input channel
- μ is the attenuation correction for that channel
- he is the STP height
- $h0$ is the nominal survey altitude

Note: Height corrected uranium data were microleveled using the following key parameters:

Line Spacing – 100 m;
Line direction – 45 deg;
Cell size for gridding – 25;
Decorrugation cutoff wavelength – 400;
Amplitude Limit: 15 counts, with clip mode
Naudy Filter: 0

The resulting height corrected data were stored under K_ FINAL, Th_FINAL, U_FINAL, and TC_FINAL channel names.

Note: The radiometric data were processed for the second time with the exception of Radon correction step (sections 7.5.5.1 to section 7.5.5.7 but no section 7.5.5.4). The resulting corrected channels were stored in K_Corr_Radon_in; Th_Corr_Radon_in; U_Corr_Radon_in; and TC_Corr_Radon_in channels.

7.5.5.8 CONVERSION TO APPARENT RADIOELEMENT CONCENTRATIONS

The final step is to convert the corrected potassium (K_FINAL channel), uranium (U_FINAL chanel) and thorium (Th_FINAL channel) to apparent radioelement concentrations (see section 6.6) using the following formula:

$$eE = C_{cor} / s$$

Where:

- eE is the element concentration K(%) and equivalent element concentration of U(ppm) & Th(ppm)
- s is the experimentally determined sensitivity
- Ccor is the fully corrected channel

7.5.5.9 GRIDDING

All the grids were gridded using a bi-directional line gridding method with a grid cell size of 25 meters and Akima interpolation method for across and down line spline.

7.5.5.10 TERNARY IMAGE

The Ternary image map was produced from K_Final, Th_Final, and U_Final grids in Geosoft Oasis montaj using CMY colour table.

8. MAP PRODUCTS AND DIGITAL DATA DELIVERABLES

The following is the list of items delivered to **GREAT WESTERN MINERALS GROUP LTD.**

Hard copy (x2):

- Maps of Total Magnetic Intensity at 1:20,000 scale
- Maps of 1st order Vertical Derivative at 1:20,000 scale
- Maps of Digital Terrain Model at 1:20,000 scale
- Maps of Ternary Image (Th, U and K) at 1:20,000 scale
- Maps of Potassium counts at 1:20,000 scale
- Maps of Thorium counts at 1:20,000 scale
- Maps of Uranium counts at 1:20,000 scale
- Maps of Total Count at 1:20,000 scale
- Logistics Report

Soft copy (x2):

- Grids and maps of Total Magnetic Intensity at 1:20,000 scale
- Grids and maps of 1st order Vertical Derivative at 1:20,000 scale
- Grids and maps of Digital Terrain Model at 1:20,000 scale
- Ternary map of Th, U and K at 1:20,000 scale
- Grids and maps of Potassium counts at 1:20,000 scale
- Grids and maps of Thorium counts at 1:20,000 scale
- Grids and maps of Uranium counts at 1:20,000 scale
- Grids and maps of Total Count at 1:20,000 scale
- Logistics Report
- Magnetics data databases: MAGNETIC_FINAL.gdb (See Appendix C)
- Radiometric data database: RADIOMETRIC_FINAL.gdb (See Appendix C)
- Weekly and Line Progress Report
- Daily Thorium Resolution Tests Results (see Appendix D)

9. SUMMARY

This report describes the logistics of the survey, equipment used, field procedures, data acquisition and presentation of results.

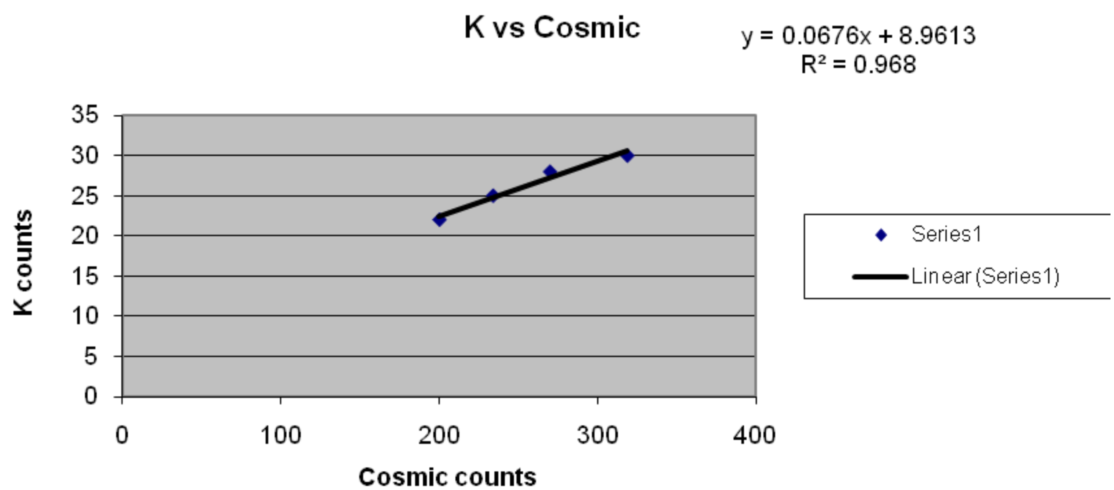
The various maps included with this report display the magnetic and radiometric properties of the survey area. It is recommended that the survey results be reviewed in detail, in conjunction with all available geophysical, geological and geochemical information.

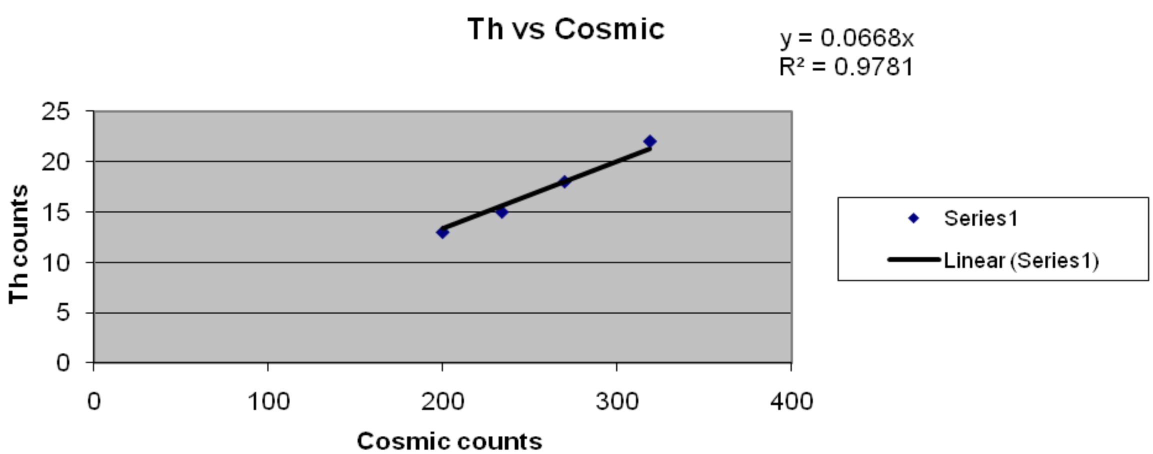
Further processing of the data may enhance subtle features that can be of importance for exploration purposes.

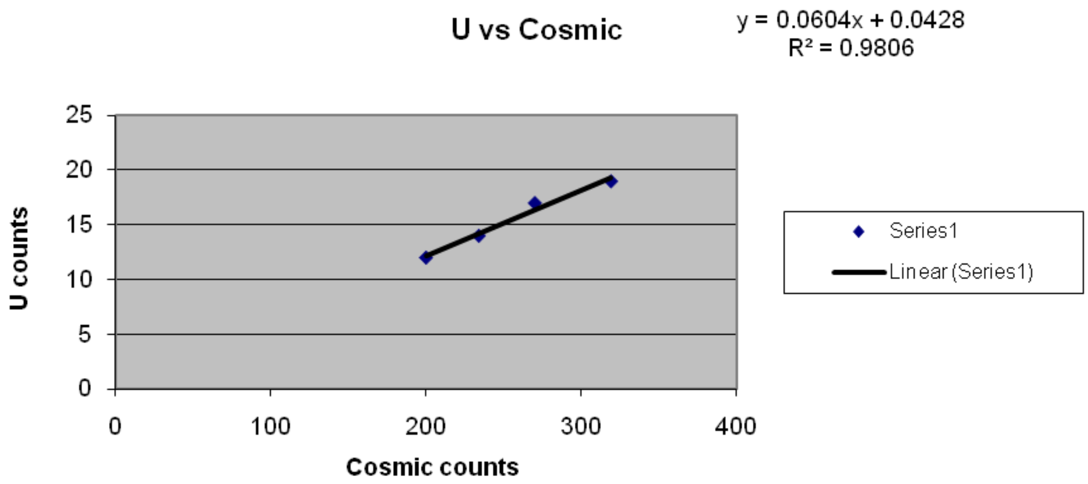
Respectfully submitted,

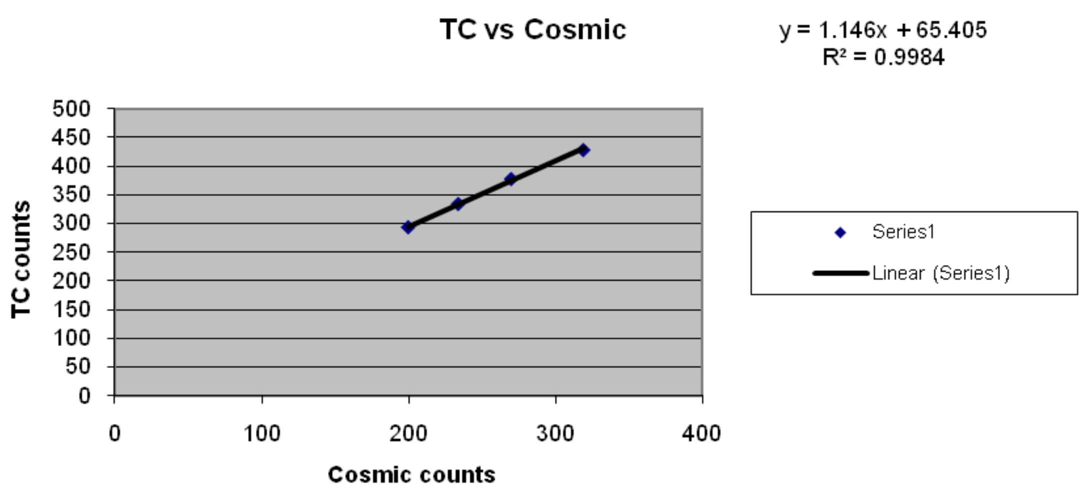
Andrei Yakovenko
New-Sense Geophysics Ltd.
Date: August 11th, 2010

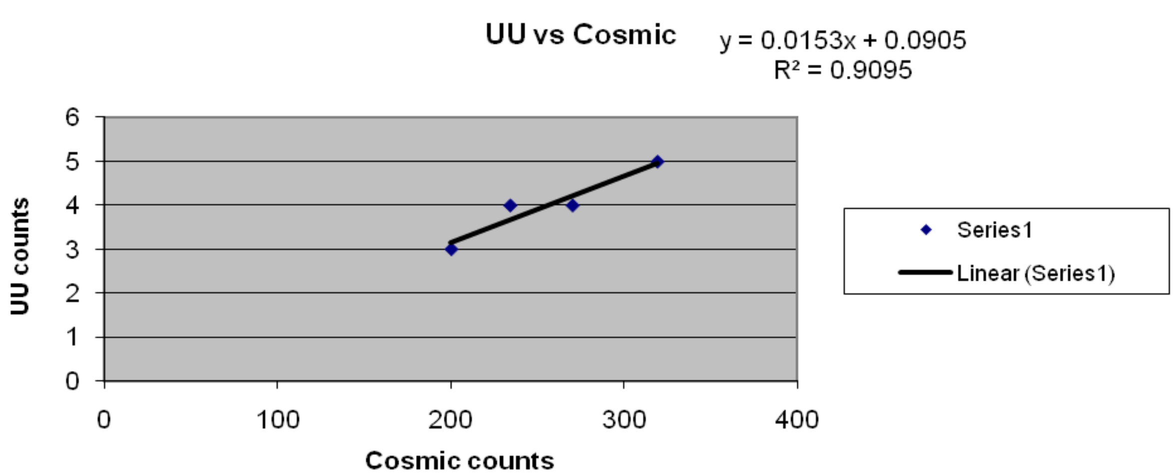
APPENDIX A: BACKGROUND AND COSMIC TESTS CHARTS



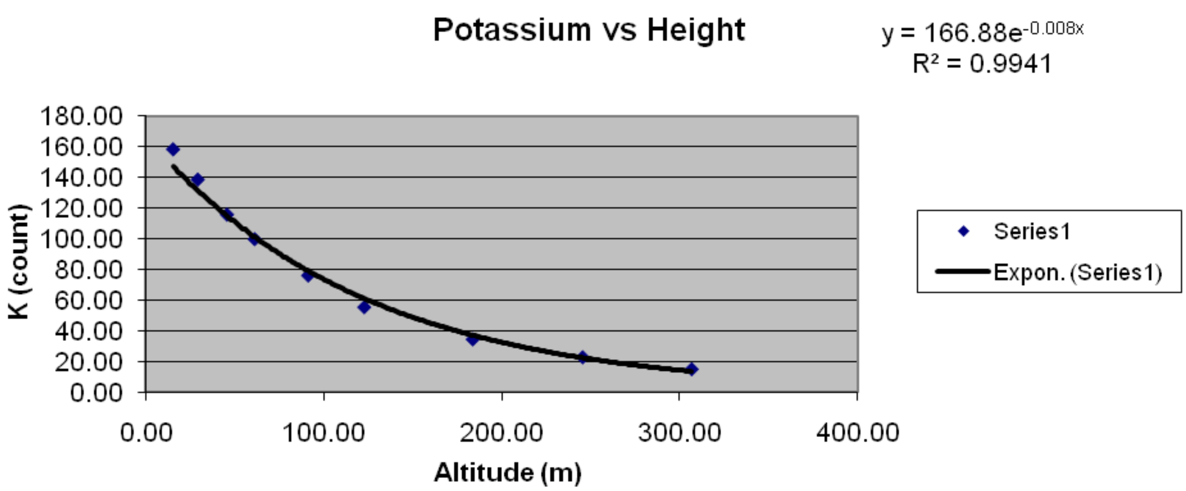


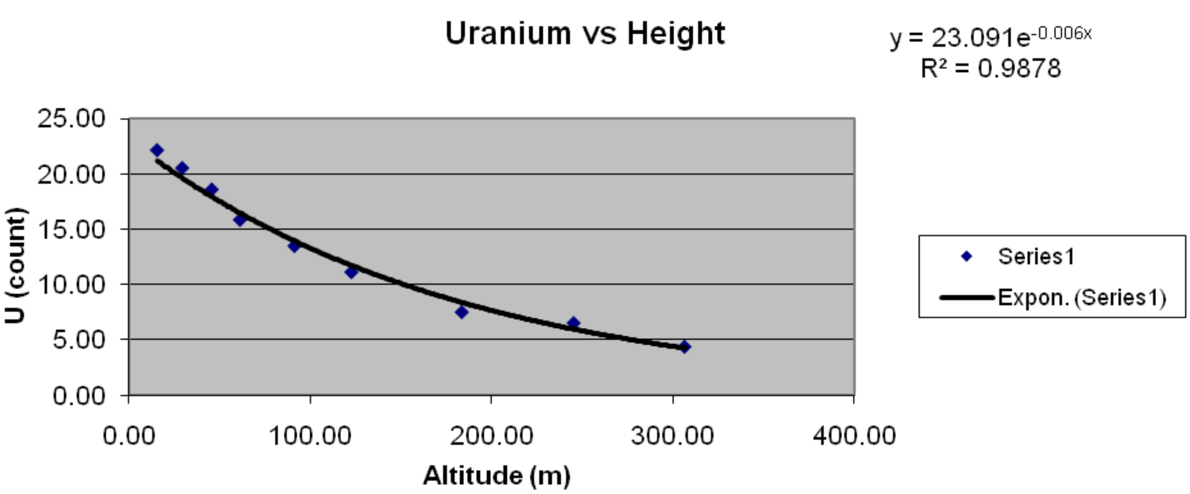

U vs Cosmic
y = 0.0604x + 0.0428
R² = 0.9806
25
20
15
10
5
0
U counts
0
100
200
300
400
Cosmic counts
Series1
Linear (Series1)

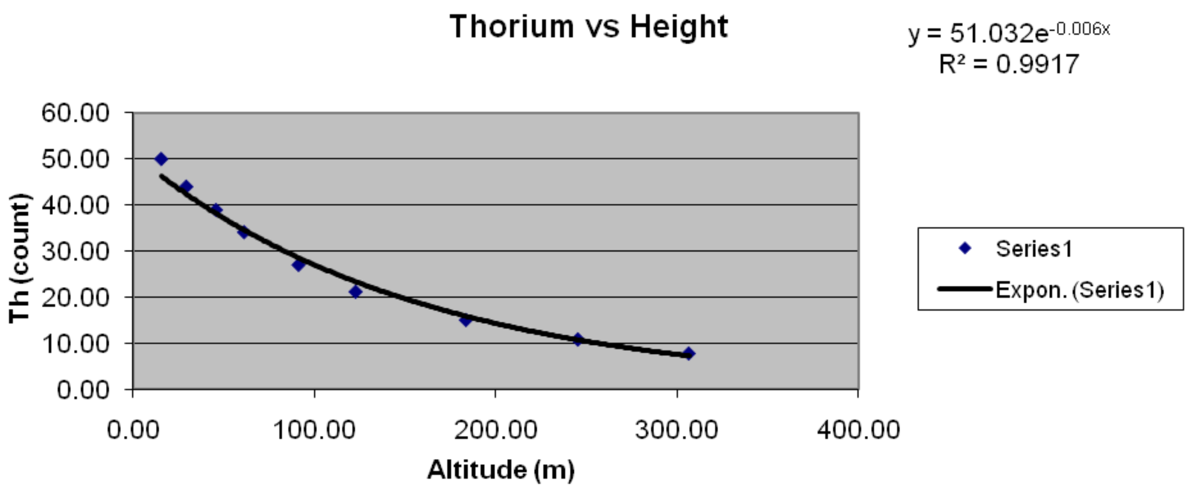

TC vs Cosmic
y = 1.146x + 65.405
R² = 0.9984
500
450
400
350
300
250
200
150
100
50
0
TC counts
0
100
200
300
400
Cosmic counts
Series1
Linear (Series1)

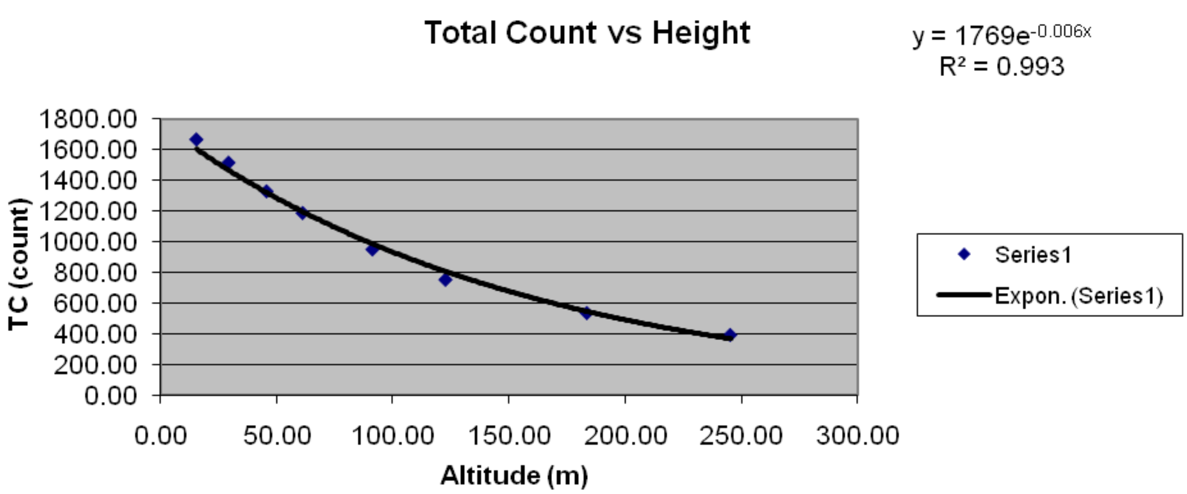

UU vs Cosmic
y = 0.0153x + 0.0905
R² = 0.9095
6
5
4
3
2
1
0
UU counts
0
100
200
300
400
Cosmic counts
Series1
Linear (Series1)

Height Attenuation Test Charts





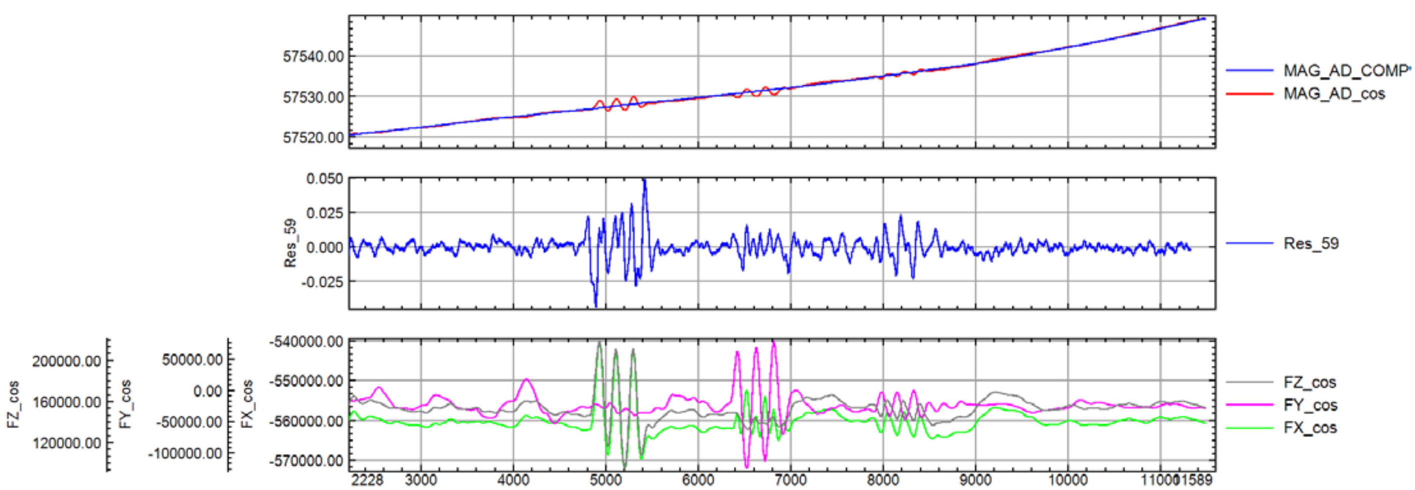

Thorium vs Height
y = 51.032e-0.006x
R² = 0.9917
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Th (count)
0.00
100.00
200.00
300.00
400.00
Altitude (m)
Series1
Expon. (Series1)

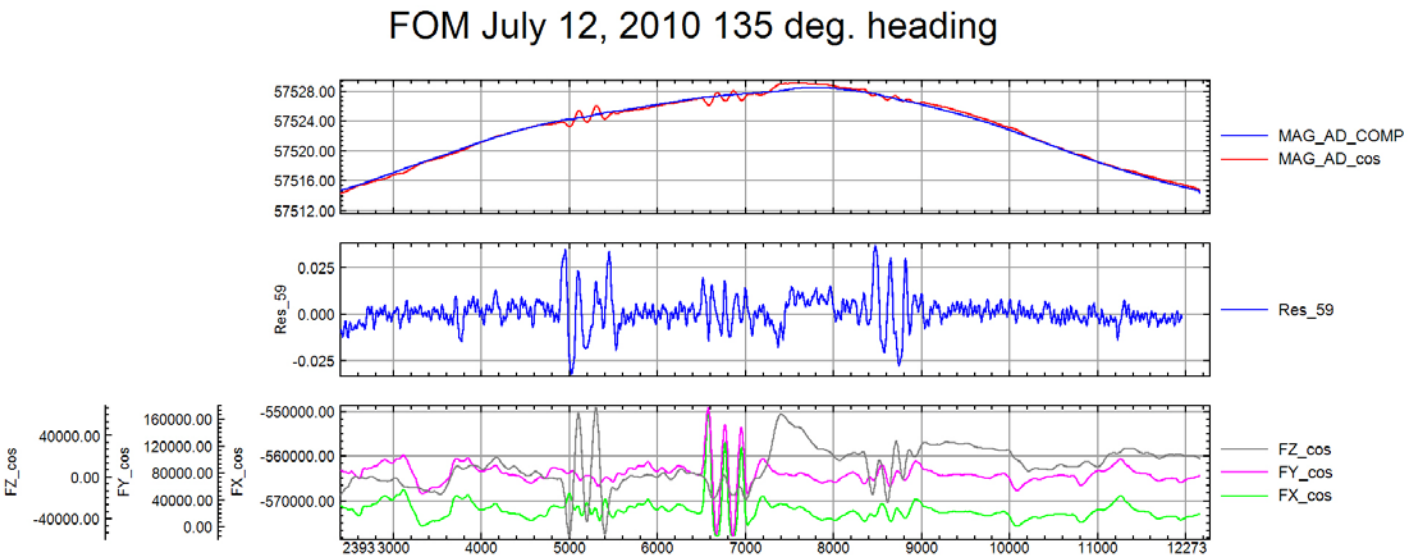

Total Count vs Height
y = 1769e-0.006x
R² = 0.993
1800.00
1600.00
1400.00
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
TC (count)
0.00
50.00
100.00
150.00
200.00
250.00
300.00
Altitude (m)
Series1
Expon. (Series1)

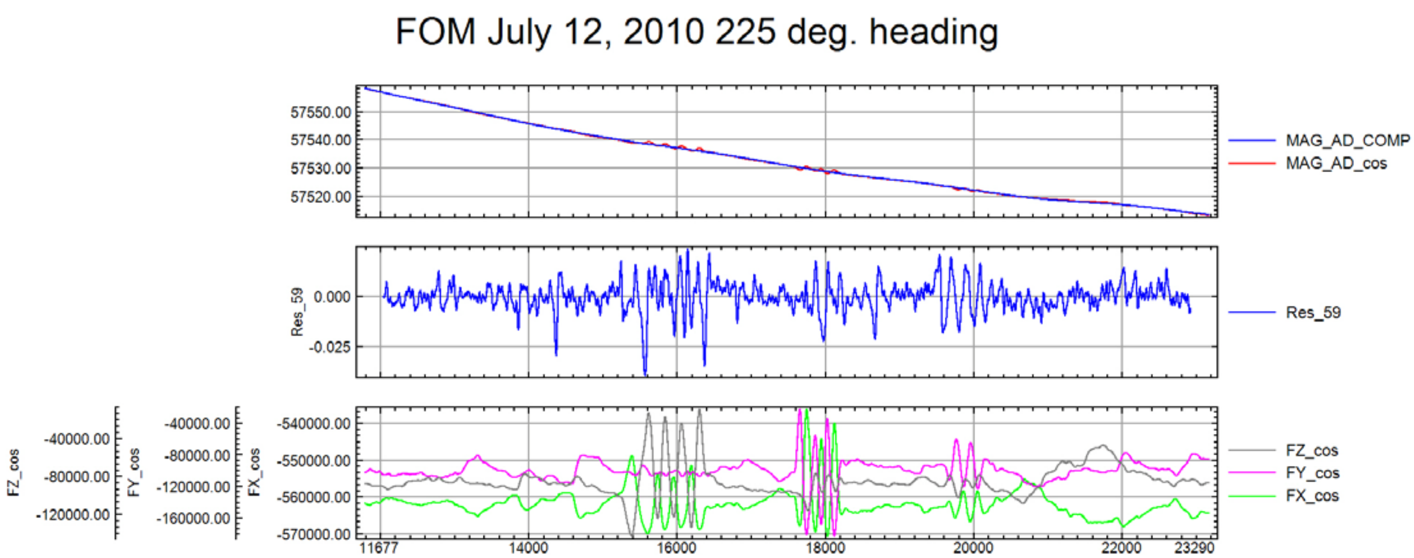
APPENDIX B: FOM RESULTS

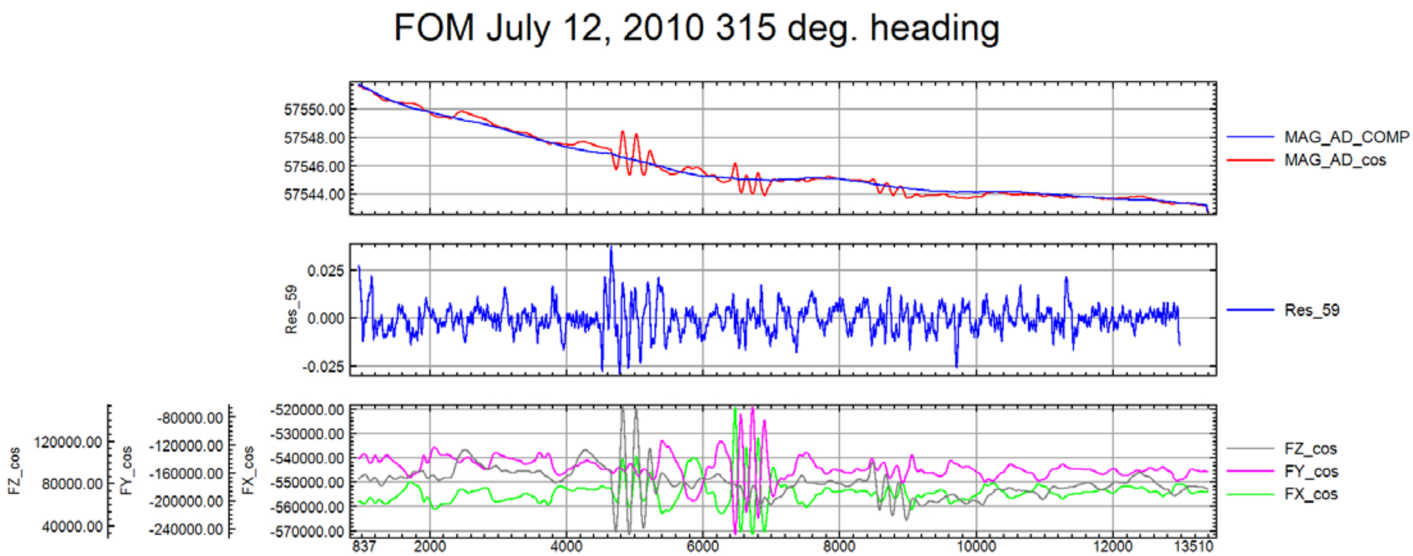
GWMG, Yukon, FOM results, July 12, 2010					
line	**direction**	**pitch**	**roll**	**yaw**	**total**
1000	**45**	0.075	0.030	0.030	0.135
2000	**135**	0.068	0.030	0.063	0.160
3000	**225**	0.050	0.043	0.038	0.130
4000	**315**	0.063	0.025	0.030	0.118
	total	0.255	0.128	0.160	**0.543**

FOM July 12, 2010 45 deg. heading




FOM July 12, 2010 135 deg. heading
57528.00
57524.00
57520.00
57516.00
57512.00
MAG_AD_COMP
MAG_AD_cos
Res_59
0.025
0.000
-0.025
FZ_cos
40000.00
0.00
-40000.00
FY_cos
160000.00
120000.00
80000.00
40000.00
0.00
FX_cos
-550000.00
-560000.00
-570000.00
2393 3000 4000 5000 6000 7000 8000 9000 10000 11000 12273
FZ_cos
FY_cos
FX_cos


FOM July 12, 2010 225 deg. heading
57550.00
57540.00
57530.00
57520.00
MAG_AD_COMP
MAG_AD_cos
Res_59
0.000
-0.025
FZ_cos
-40000.00
-80000.00
-120000.00
FY_cos
-40000.00
-80000.00
-120000.00
-160000.00
FX_cos
-540000.00
-550000.00
-560000.00
-570000.00
11677 14000 16000 18000 20000 22000 23290
FZ_cos
FY_cos
FX_cos



FOM July 12, 2010 315 deg. heading
57550.00
57548.00
57546.00
57544.00
MAG_AD_COMP
MAG_AD_cos
Res_59
0.025
0.000
-0.025
Res_59
FZ_cos
120000.00
80000.00
40000.00
FY_cos
-80000.00
-120000.00
-160000.00
-200000.00
-240000.00
FX_cos
-520000.00
-530000.00
-540000.00
-550000.00
-560000.00
-570000.00
837
2000
4000
6000
8000
10000
12000
13510
FZ_cos
FY_cos
FX_cos

APPENDIX C: DATABASE DESCRIPTIONS

Magnetic Database

Database Name: MAGNETIC_FINAL.gdb
Formats: Geosoft .gdb
Number of Channels: 27

Channel Name	Units	Description
LINE	number	Line number
FLIGHT	number	Flight number
DATE	date	Date flown (YYMMDD)
FIDUCIAL	number	Fiducial count (flight specific)
SYSTEM_CLOCK	milsec	KANA8 (A/D converter) counter
UTM_X_NAD83	meters	UTM East in NAD83, North America, Zone 8N
UTM_Y_NAD83	meters	UTM North in NAD83, North America, Zone 8N
LATITUDE	degrees	GPS latitude, WGS 84, World
LONGITUDE	degrees	GPS longitude, WGS 84, World
GPS_HEIGHT	meters	GPS height (orthometric) above MSL, WGS 84, World
UTC_DAYSEC	decimal seconds	UTC daily second counter (0-86399)
FLUX_X	volts	Fluxgate x-axis
FLUX_Y	volts	Fluxgate y-axis
FLUX_Z	volts	Fluxgate z-axis
RAD_ALT_FT	feet	Radar altimeter, height above ground
MAG_RAW	nT	Raw magnetometer data
MAG_COMP	nT	Compensated magnetometer data
DIURNAL	nT	Base station magnetometer data (filtered with 31point low pass filter)
MAG_DIURNAL_COOR	nT	Base station (diurnal) corrected magnetometer data
MAG_LAG_CORR	nT	Lag corrected magnetometer data
MAG_HEADING_CORR	nT	Heading corrected magnetometer data
IGRF	nT	Calculated IGRF, using 2010 model
MAG_IGRF_CORR	nT	IGRF corrected magnetometer data
TMI_SIMPLE_LVL	nT	Conventionally (simple) leveled magnetometer data
MAG_FINAL	nT	Final (microleveled) magnetometer data (Final TMI)
VDV	nT/m	1st order Vertical Derivative (VDV)
DTM	meters	Calculated DTM channel

Radiometric Database

Database Name: RADIOMETRIC_FINAL.gdb
Formats: Geosoft .gdb
Number of Channels: 34

Channel Name	Units	Description
LINE	number	Line Number
FLIGHT	number	Flight Number
DATE	date	Date flown (YYMMDD)
FIDUCIAL	number	Fiducial count (line specific)
DOS_CLOCK	Decimal seconds	iDAS system clock
UTM_X_NAD83	meters	UTM East in NAD83, North America, Zone 8N
UTM_Y_NAD83	meters	UTM North in NAD83, North America, Zone 8N
LATITUDE	degrees	GPS latitude, WGS 84, World
LONGITUDE	degrees	GPS longitude, WGS 84, World
GPS_HEIGHT	meters	GPS height (orthometric) above MSL, WGS 84, World
UTC_DAYSEC	seconds	UTC daily second counter (0-86399)
RAD_ALT_feet	feet	Radar altimeter, height above ground
PRESSURE	mbar	Ambient pressure output
TEMPERATURE	degrees C	Ambient temperature output
EQUIVALENT_HEIGHT	meters	Equivalent height above ground at STP
DOWN_LIVE_TIME	seconds	Live time channel
RAW_Potassium	counts/sec	Raw Potassium channel
RAW_Thorium	counts/sec	Raw Thorium channel
RAW_Uranium	counts/sec	Raw Uranium channel
RAW_TotCount	counts/sec	Raw Total Count channel
RAW_UpUranium	counts/sec	Raw upward looking crystal Uranium channel
DOWN_COSMIC	counts/sec	Raw Cosmic channel from downward looking crystals
DOWN_SPECTRUM	counts/sec	1024 channel down spectrum
K_Corr_Radon_in	counts/sec	Live Time, Background, Cosmic, Compton Scattering and Altitude Attenuation corrected Potassium counts
Th_Corr_Radon_in	counts/sec	Live Time, Background, Cosmic, Compton Scattering and Altitude Attenuation corrected Thorium counts
U_Corr_Radon_in	counts/sec	Live Time, Background, Cosmic, Compton Scattering and Altitude Attenuation corrected Uranium counts
TC_Corr_Radon_in	counts/sec	Live Time, Background, Cosmic, Compton Scattering and Altitude Attenuation corrected Total Count counts
K_FINAL	counts/sec	Live Time, Background, Cosmic, Radon, Compton Scattering and Altitude Attenuation corrected Potassium counts
Th_FINAL	counts/sec	Live Time, Background, Cosmic, Radon, Compton Scattering and Altitude Attenuation corrected Thorium

		counts
U_FINAL	counts/sec	Live Time, Background, Cosmic, Radon, Compton Scattering and Altitude Attenuation corrected Uranium counts. Note this channel was also microlevled
TC_FINAL	counts/sec	Live Time, Background, Cosmic, Radon, Compton Scattering and Altitude Attenuation corrected Total Count counts
K_percent	%	Estimated ground concentrations of Potassium
eTh	ppm	Estimated ground concentrations of Thorium
eU	ppm	Estimated ground concentrations of Uranium

APPENDIX D: RSX-5 SPECTROMETER (SN 5503): DAILY RESOLUTION TESTS RESULTS

Executed 2010/07/10 00:21:19

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2002	2003	2002	2001	2001	8008
Gain	0.95215	0.953222	0.9754	0.958215	0.946439	-
Peak	871.50 (+/- 0.544)	877.76 (+/- 0.624)	872.79 (+/- 0.620)	870.06 (+/- 0.551)	878.68 (+/- 1.342)	872.34 (+/- 0.316)
FWHM	4.27 (+/- 1.429)	3.84 (+/- 1.588)	4.59 (+/- 1.632)	4.75 (+/- 1.424)	4.44 (+/- 4.025)	4.48 (+/- 0.837)

Executed 2010/07/12 07:21:25

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2019	2016	2004	2020	2001	8059
Gain	0.974258	0.945118	0.974608	0.957009	0.960516	-
Peak	870.22 (+/- 0.474)	876.74 (+/- 0.749)	871.77 (+/- 0.578)	869.84 (+/- 0.581)	869.73 (+/- 1.293)	871.41 (+/- 0.261)
FWHM	4.40 (+/- 1.224)	4.18 (+/- 2.039)	5.29 (+/- 1.539)	4.76 (+/- 1.537)	7.87 (+/- 4.019)	4.82 (+/- 0.667)

Executed 2010/07/12 23:09:22

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2017	2004	2006	2007	2001	8034
Gain	0.966067	0.943367	0.971704	0.950461	0.973719	-
Peak	870.80 (+/- 0.475)	875.73 (+/- 0.858)	873.31 (+/- 0.622)	871.35 (+/- 0.642)	869.21 (+/- 1.196)	872.46 (+/- 0.323)
FWHM	4.30 (+/- 1.230)	5.09 (+/- 2.538)	4.88 (+/- 1.596)	4.63 (+/- 1.738)	7.45 (+/- 3.554)	4.77 (+/- 0.829)

Executed 2010/07/13 10:40:25

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2013	2003	2004	2007	2001	8027
Gain	0.963953	0.939232	0.968435	0.94642	0.970057	-
Peak	870.76 (+/- 0.497)	873.93 (+/- 0.886)	871.64 (+/- 0.740)	869.93 (+/- 0.541)	868.97 (+/- 1.026)	871.30 (+/- 0.309)
FWHM	4.28 (+/- 1.300)	4.86 (+/- 2.498)	4.62 (+/- 1.985)	4.86 (+/- 1.340)	6.58 (+/- 2.946)	4.69 (+/- 0.799)

Executed 2010/07/13 10:43:14

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2025	2016	2021	2003	2092	8065
Gain	0.96709	0.945589	0.970858	0.949499	0.964725	-
Peak	871.35 (+/- 0.468)	864.43 (+/- 1.056)	871.36 (+/- 0.571)	872.12 (+/- 0.542)	877.14 (+/- 0.670)	871.18 (+/- 0.336)
FWHM	4.47 (+/- 1.229)	6.86 (+/- 3.021)	4.97 (+/- 1.519)	4.67 (+/- 1.457)	5.07 (+/- 1.861)	4.81 (+/- 0.886)

Executed 2010/07/14 15:11:20

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2008	2044	2019	2020	2005	8091
Gain	0.965563	0.938079	0.965488	0.946875	0.973279	-
Peak	872.20 (+/- 0.570)	875.68 (+/- 0.797)	874.20 (+/- 0.618)	871.90 (+/- 0.594)	870.98 (+/- 0.813)	873.05 (+/- 0.307)
FWHM	4.38 (+/- 1.538)	4.73 (+/- 2.210)	4.87 (+/- 1.626)	4.95 (+/- 1.558)	6.32 (+/- 2.161)	4.73 (+/- 0.785)

Executed 2010/07/14 15:11:20

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2008	2044	2019	2020	2005	8091
Gain	0.965563	0.938079	0.965488	0.946875	0.973279	-
Peak	872.20 (+/- 0.570)	875.68 (+/- 0.797)	874.20 (+/- 0.618)	871.90 (+/- 0.594)	870.98 (+/- 0.813)	873.05 (+/- 0.307)
FWHM	4.38 (+/- 1.538)	4.73 (+/- 2.210)	4.87 (+/- 1.626)	4.95 (+/- 1.558)	6.32 (+/- 2.161)	4.73 (+/- 0.785)

Executed 2010/07/15 08:03:53

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2047	2015	2018	2001	2035	8081
Gain	0.970224	0.933024	0.962696	0.942361	0.96601	-
Peak	872.47 (+/- 0.539)	872.49 (+/- 0.719)	872.44 (+/- 0.605)	871.98 (+/- 0.579)	871.27 (+/- 0.643)	872.33 (+/- 0.292)
FWHM	4.41 (+/- 1.362)	4.38 (+/- 1.895)	4.66 (+/- 1.526)	4.57 (+/- 1.598)	5.64 (+/- 1.615)	4.47 (+/- 0.769)

Executed 2010/07/15 08:01:24

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2040	2039	2030	2064	2012	8173
Gain	0.962015	0.925595	0.960057	0.938133	0.965784	-
Peak	870.73 (+/- 0.469)	872.67 (+/- 1.011)	873.31 (+/- 0.531)	872.44 (+/- 0.549)	870.05 (+/- 0.969)	872.54 (+/- 0.276)
FWHM	4.39 (+/- 1.195)	5.11 (+/- 2.903)	4.80 (+/- 1.343)	4.92 (+/- 1.396)	6.94 (+/- 2.747)	4.66 (+/- 0.711)

Executed 2010/07/16 10:25:25

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2032	2024	2023	2029	2065	8108
Gain	0.96329	0.930836	0.961423	0.94032	0.964557	-
Peak	870.72 (+/- 0.504)	873.93 (+/- 0.811)	871.28 (+/- 0.607)	871.90 (+/- 0.580)	872.87 (+/- 0.542)	871.87 (+/- 0.314)
FWHM	4.14 (+/- 1.254)	4.89 (+/- 2.229)	4.96 (+/- 1.668)	4.56 (+/- 1.576)	5.52 (+/- 1.408)	4.54 (+/- 0.846)

Executed 2010/07/16 10:22:07

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2039	2013	2019	2052	2001	8123
Gain	0.961365	0.927818	0.959503	0.937973	0.9648	-
Peak	871.54 (+/- 0.431)	875.37 (+/- 0.798)	871.43 (+/- 0.746)	870.90 (+/- 0.555)	867.15 (+/- 0.894)	871.87 (+/- 0.308)
FWHM	4.42 (+/- 1.100)	5.07 (+/- 2.171)	4.81 (+/- 2.068)	4.82 (+/- 1.389)	6.63 (+/- 2.355)	4.74 (+/- 0.793)

Executed 2010/07/17 11:08:52

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2052	2004	2018	2001	2059	8075
Gain	0.9793	0.944143	0.975039	0.952822	0.978745	-
Peak	870.95 (+/- 0.529)	872.72 (+/- 0.774)	871.62 (+/- 0.575)	872.08 (+/- 0.530)	873.57 (+/- 0.687)	871.70 (+/- 0.288)
FWHM	4.56 (+/- 1.346)	5.07 (+/- 2.085)	4.83 (+/- 1.555)	4.92 (+/- 1.418)	5.85 (+/- 1.780)	4.81 (+/- 0.756)

Executed 2010/07/17 11:05:57

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2030	2017	2010	2040	2007	8097
Gain	0.977344	0.94132	0.973822	0.952346	0.97973	-
Peak	870.84 (+/- 0.589)	873.75 (+/- 0.695)	872.55 (+/- 0.461)	871.58 (+/- 0.663)	870.79 (+/- 0.811)	871.91 (+/- 0.225)
FWHM	4.34 (+/- 1.527)	4.85 (+/- 1.948)	4.67 (+/- 1.138)	4.99 (+/- 1.846)	6.84 (+/- 2.242)	4.58 (+/- 0.591)

Executed 2010/07/18 08:08:21

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2019	2021	2017	2015	2064	8072
Gain	0.973542	0.937008	0.969023	0.948606	0.975643	-
Peak	871.51 (+/- 0.420)	872.59 (+/- 0.764)	872.25 (+/- 0.586)	871.37 (+/- 0.578)	873.12 (+/- 0.682)	871.88 (+/- 0.313)
FWHM	4.19 (+/- 1.049)	4.92 (+/- 2.074)	5.11 (+/- 1.505)	4.44 (+/- 1.553)	5.73 (+/- 1.895)	4.64 (+/- 0.799)

Executed 2010/07/18 08:05:57

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2050	2049	2003	2067	2012	8169
Gain	0.973543	0.937245	0.969509	0.947659	0.978577	-
Peak	871.32 (+/- 0.419)	874.23 (+/- 0.752)	873.71 (+/- 0.535)	872.03 (+/- 0.478)	870.68 (+/- 0.825)	872.94 (+/- 0.272)
FWHM	4.06 (+/- 1.057)	4.72 (+/- 2.043)	4.73 (+/- 1.407)	4.66 (+/- 1.256)	6.71 (+/- 2.211)	4.39 (+/- 0.718)

Executed 2010/08/08 21:59:25

Detector	Det 1 - SN:00318	Det 2 - SN:00037	Det 3 - SN:00040	Det 4 - SN:00032	Det 5 - SN:00038	Det 1 + 2 + 3 + 4
Status	Done	Done	Done	Done	Done	Done
Counts	2001	2005	2001	2001	2001	8008
Gain	0.962986	0.953878	0.981236	0.953903	1.021441	-
Peak	871.76 (+/- 0.543)	874.70 (+/- 0.870)	873.30 (+/- 0.602)	871.13 (+/- 0.653)	860.80 (+/- 2.204)	872.82 (+/- 0.324)
FWHM	4.13 (+/- 1.371)	5.75 (+/- 2.547)	4.78 (+/- 1.562)	4.99 (+/- 1.734)	5.91 (+/- 8.576)	4.66 (+/- 0.839)

APPENDIX E: IMAGES OF FINAL MAPS

Image of MAG FINAL Map

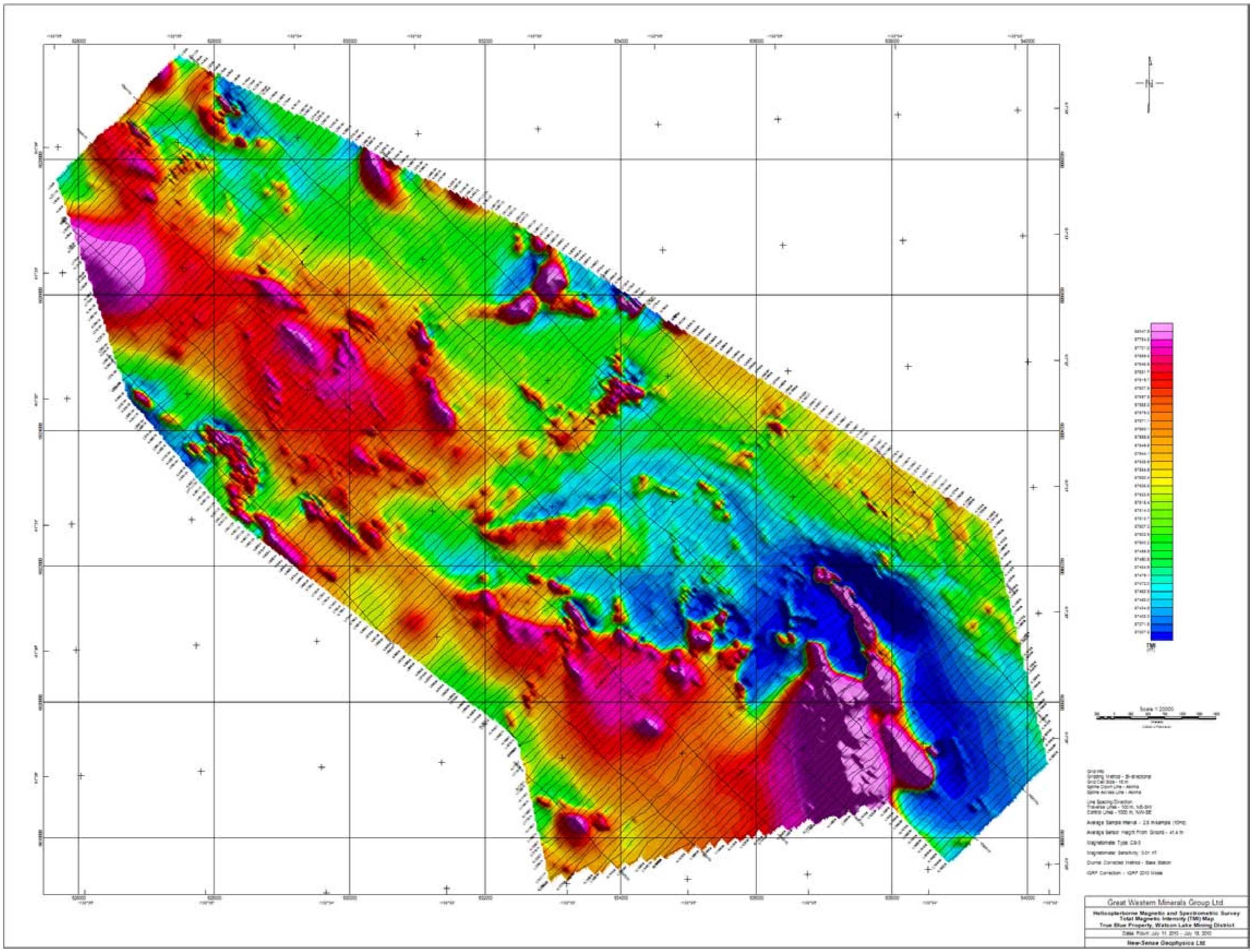


Image of VDV Map

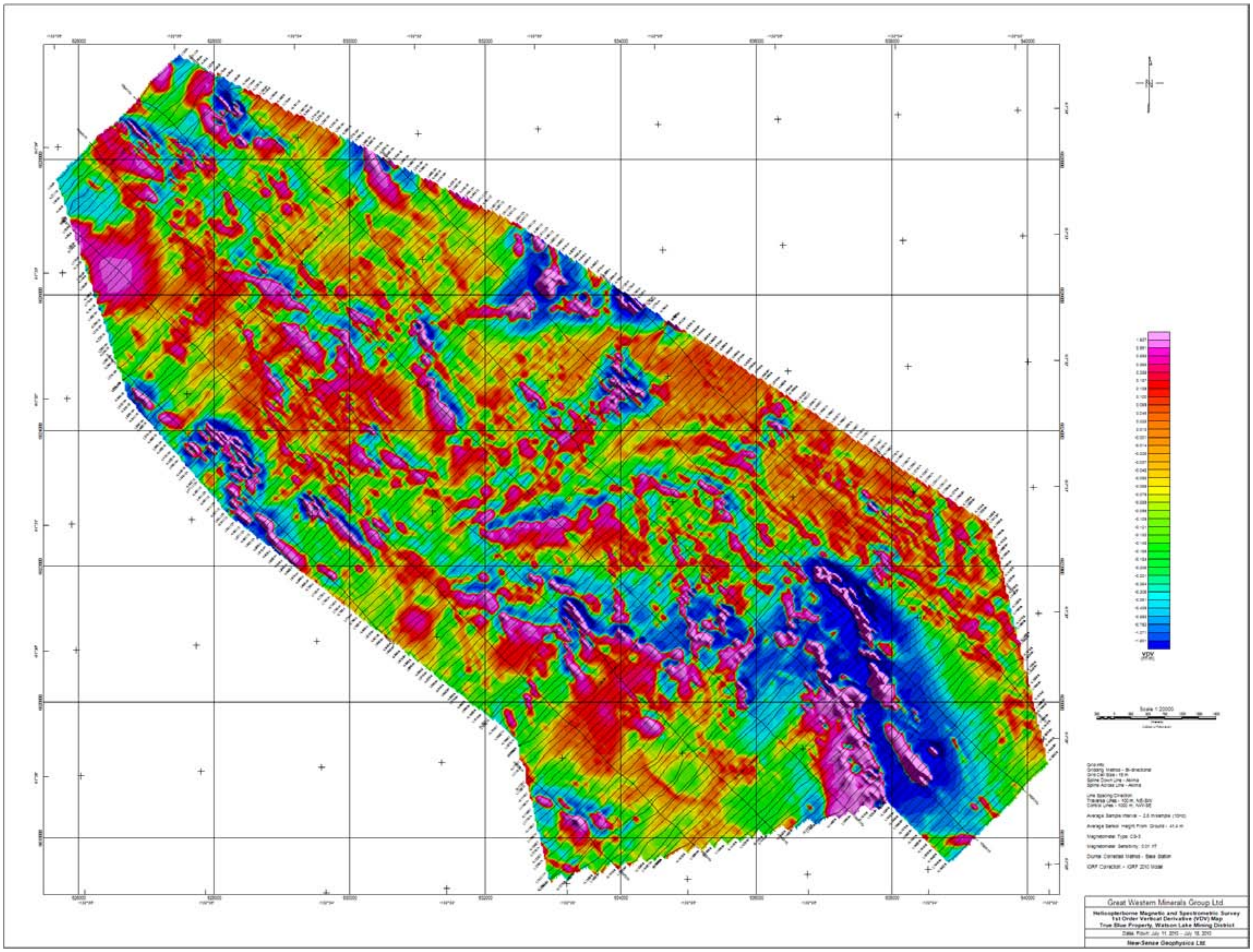


Image of DTM Map

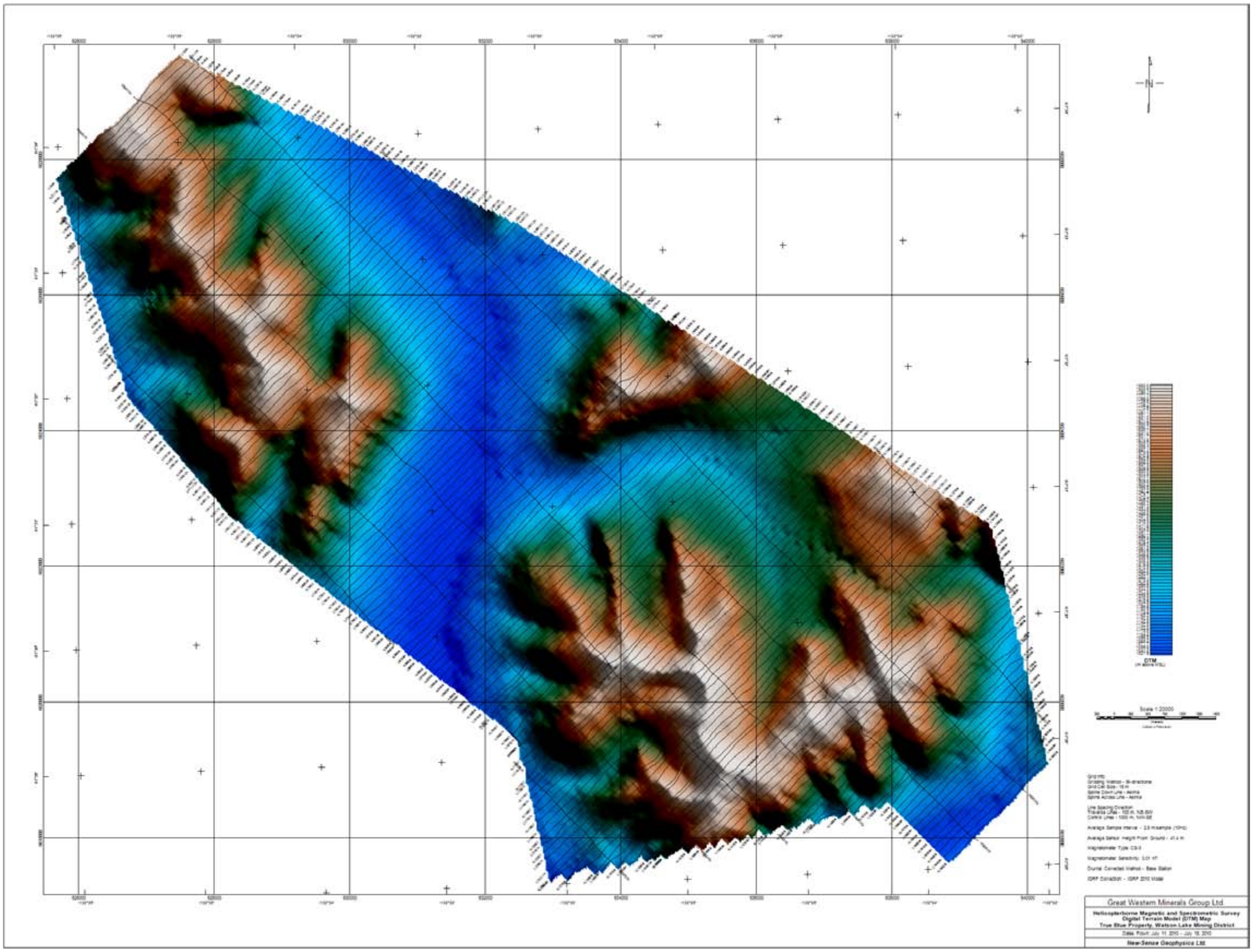


Image of Potassium Map

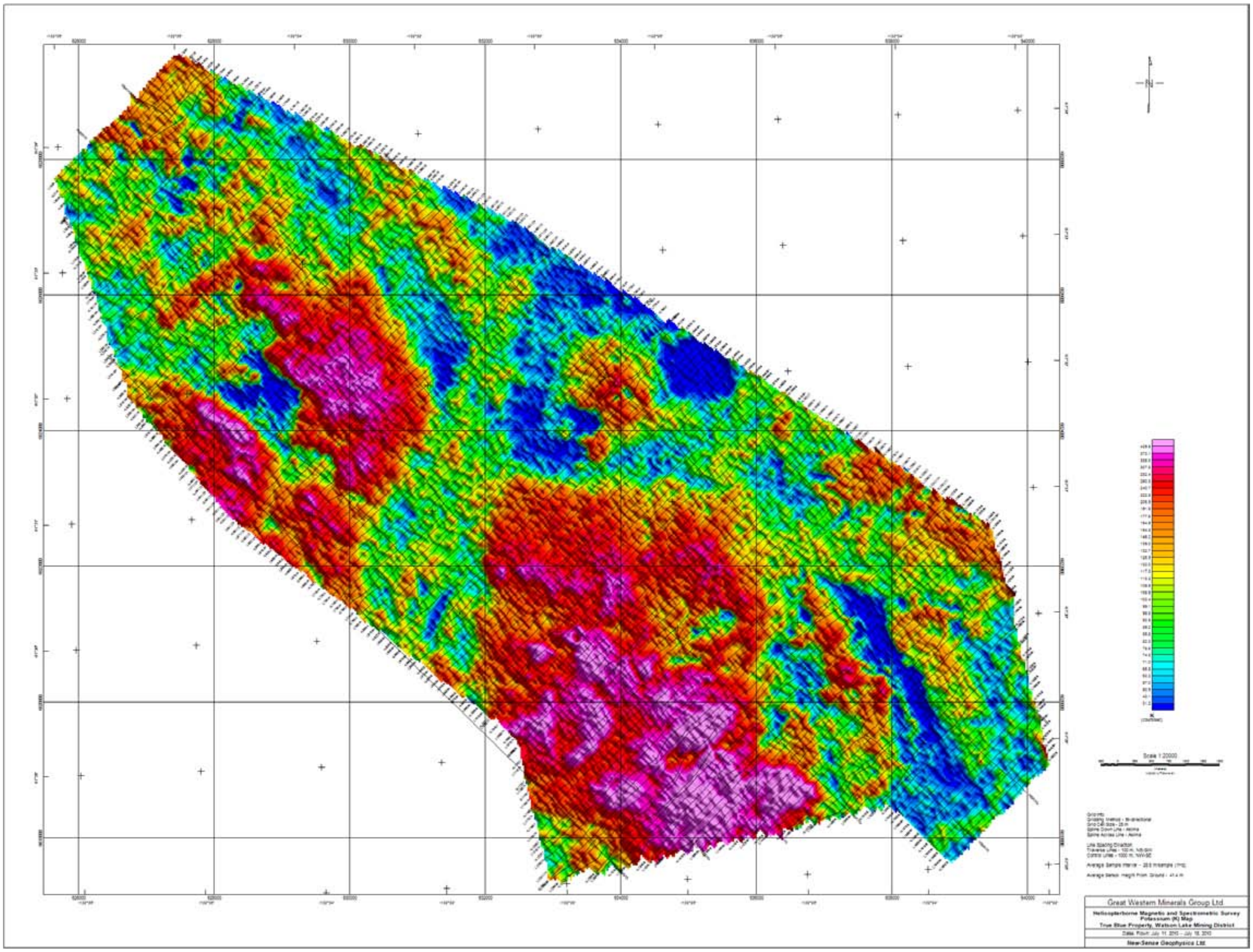


Image of Thorium Map

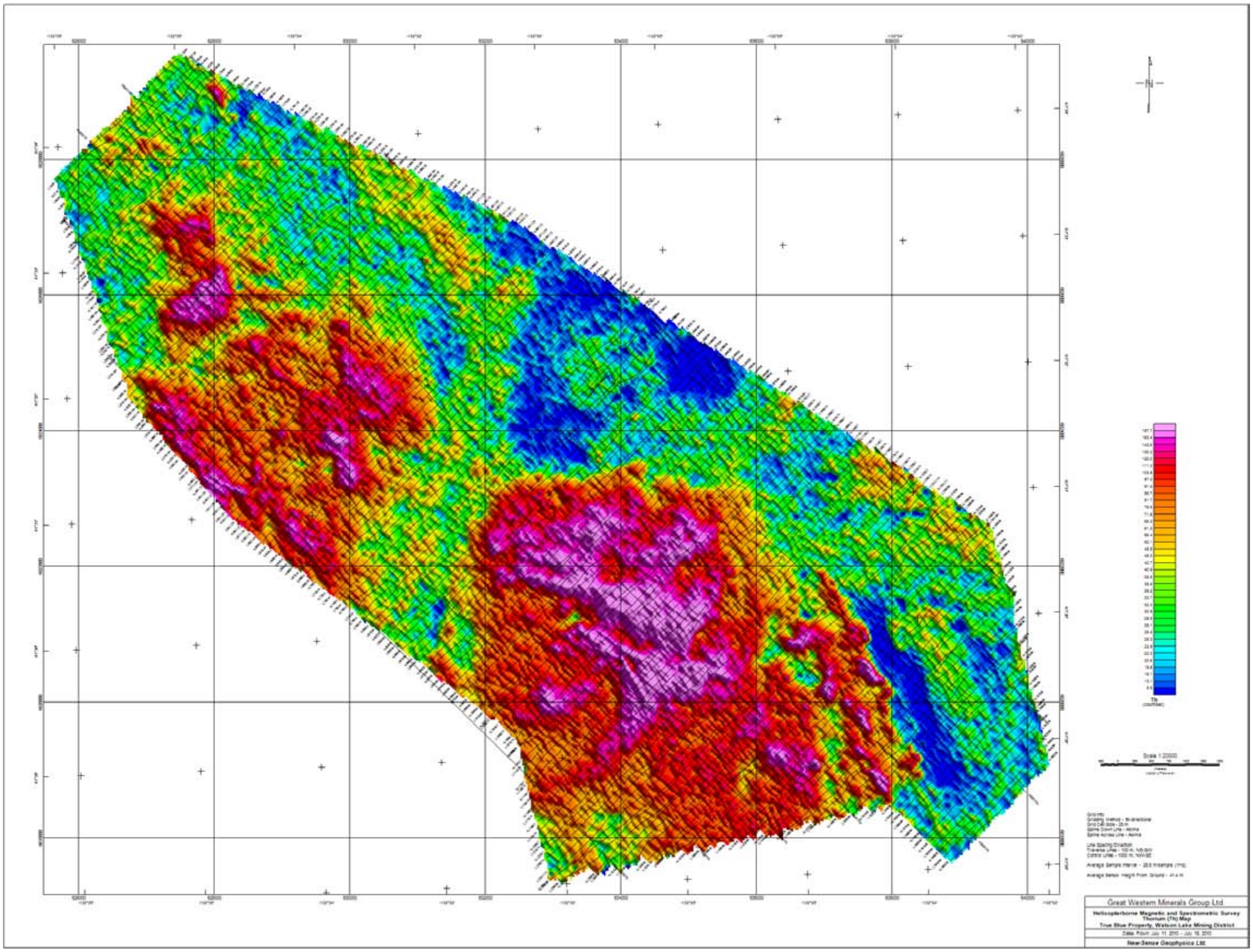


Image of Uranium Map

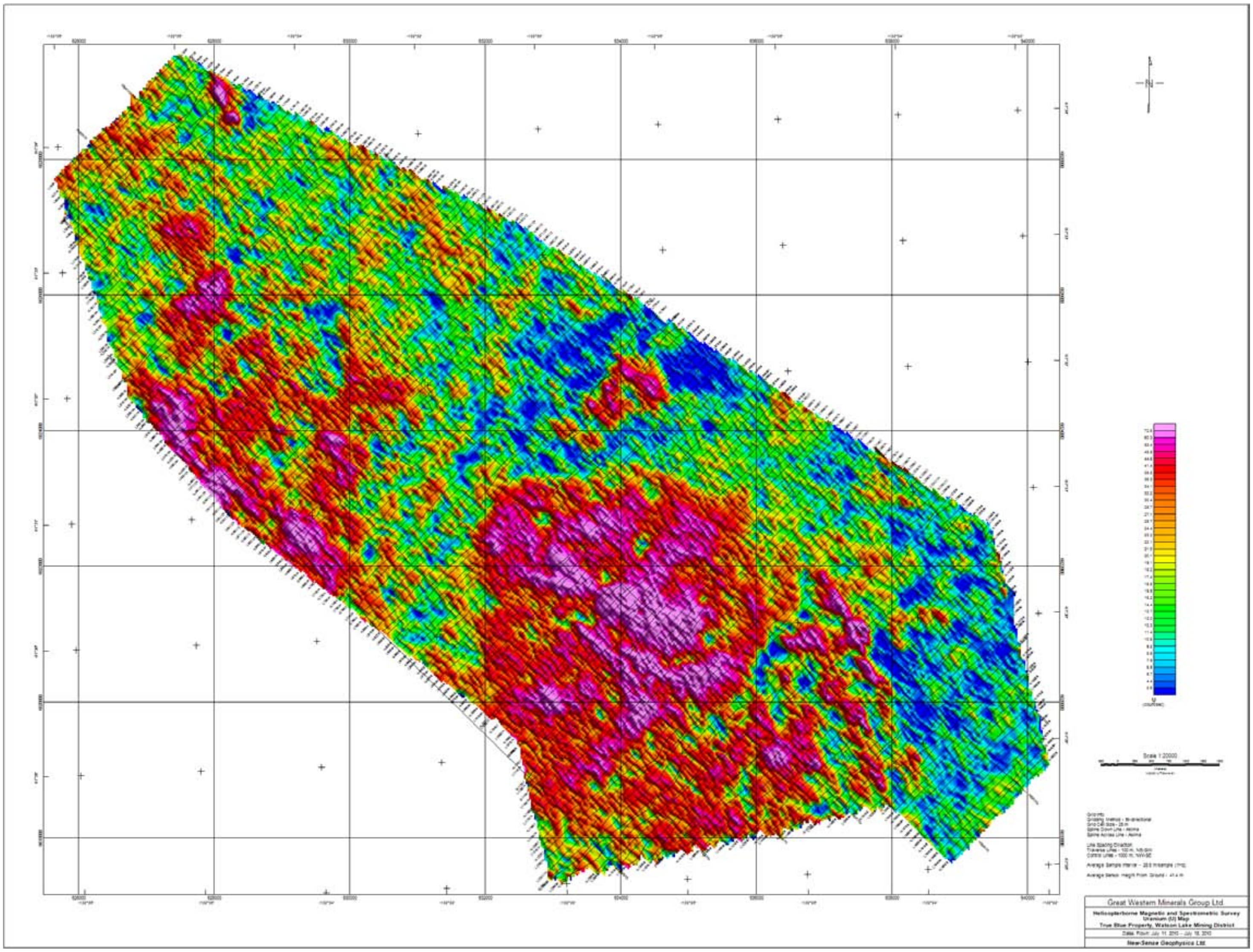


Image of Total Count Map

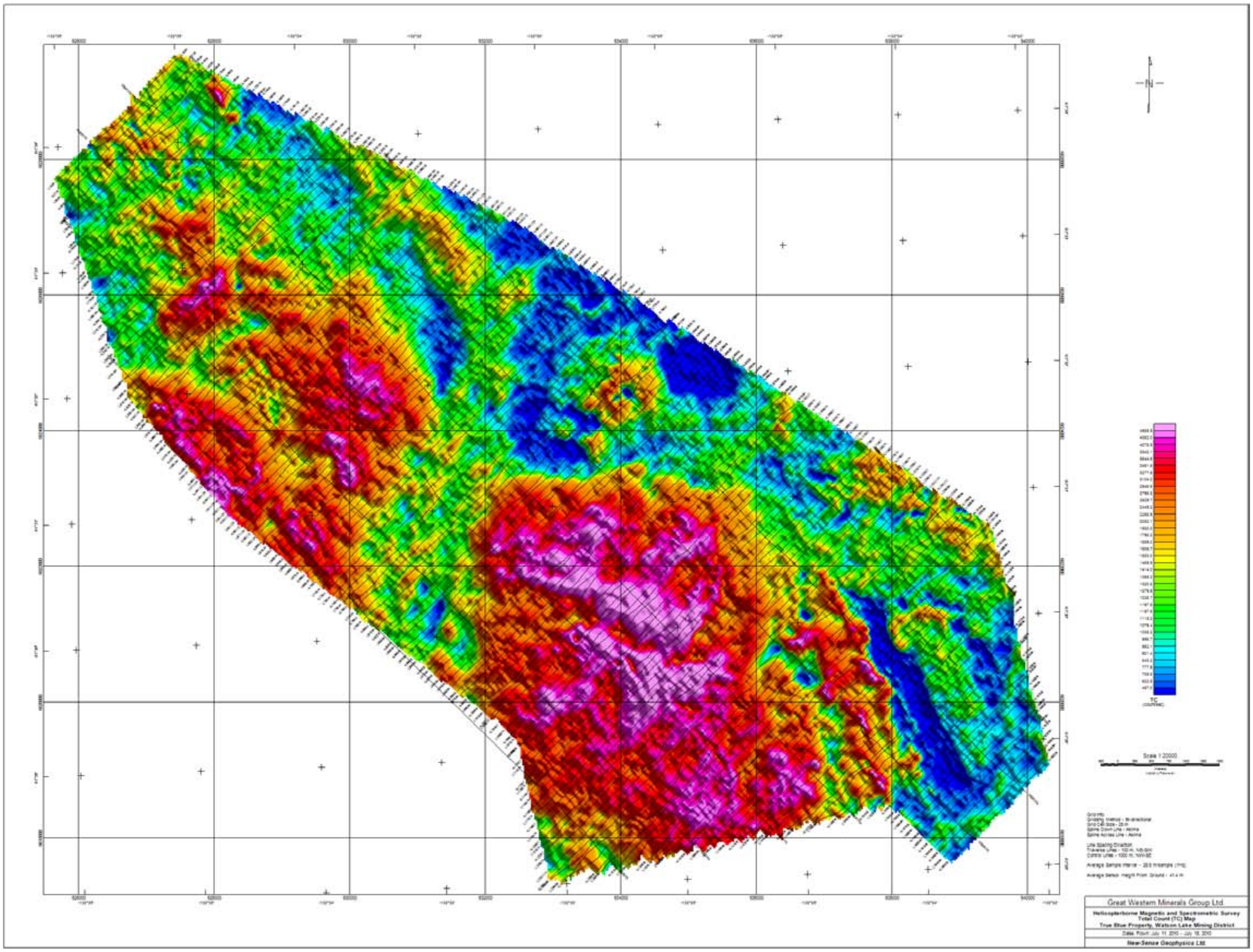
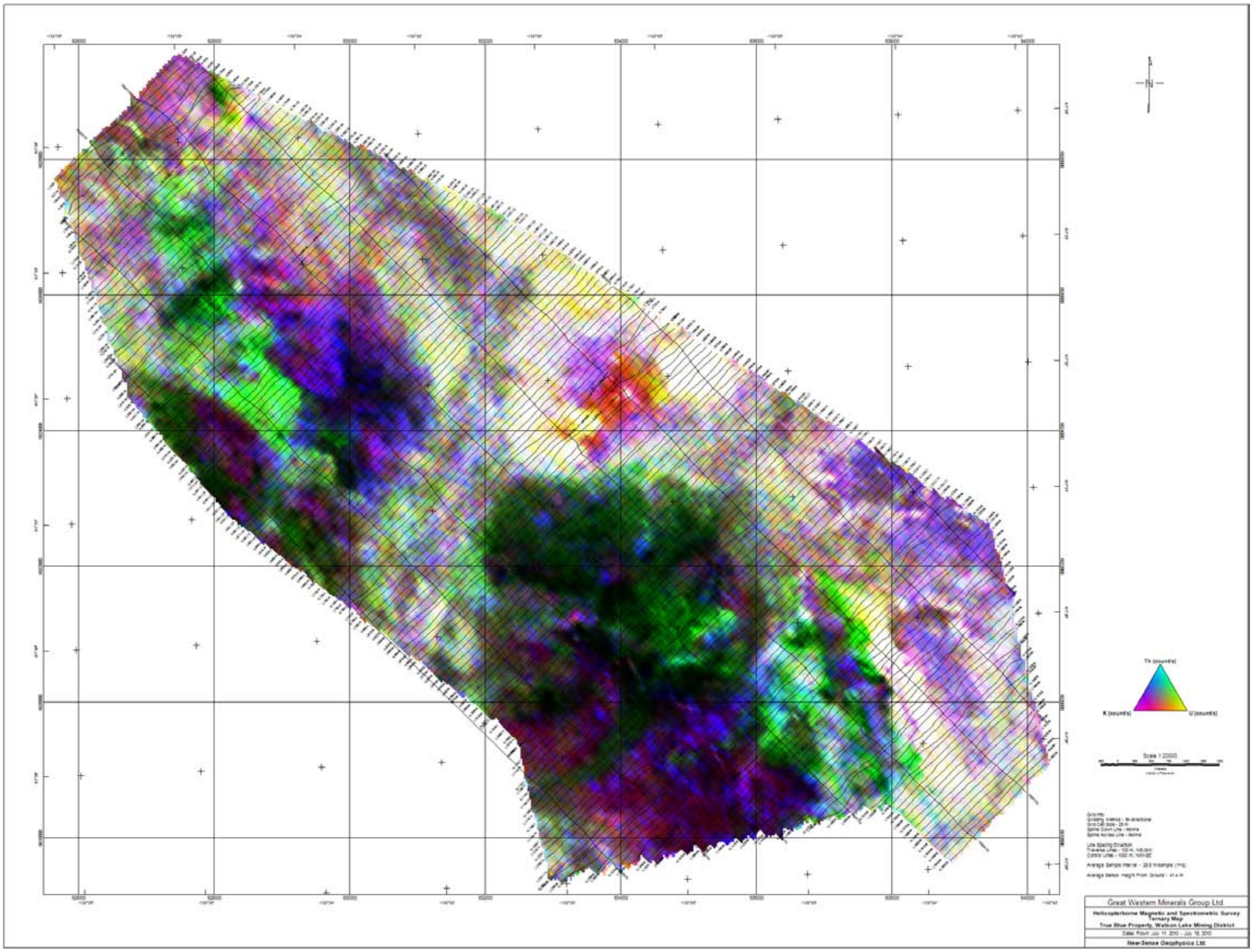


Image of Ternary Map



APPENDIX F: COPY OF THE CONTRACT

New-Sense
Geophysics Limited

CONTRACT
FOR
A HELICOPTERBORNE AEROMAGNETIC AND SPECTROMETRIC SURVEY FOR GREAT WESTERN MINERALS GROUP LTD. PROPERTY, SOUTH OF ROSS RIVER, YUKON, CANADA.

NEW-SENSE GEOPHYSICS LTD. ("NSG"), with its corporate offices at

195 Clayton Drive, Unit 11
Markham, ON, Canada
L3R 7P3

Telephone: (905) 480-1107/ (905) 480-9989
Fax: (905) 480-1207

Offers to carry out airborne geophysical services on behalf of

GREAT WESTERN MINERALS GROUP LTD. ("Client"), with its offices at:

226 Cardinal Crescent
Saskatoon, SK , Canada,
S7L 6H8

Telephone: (306) 659-4500
Fax: (306) 659-4501

Contact: John Pearson, V.P. Exploration

in accordance with the following description, terms and conditions.

TABLE OF CONTESTS

1. COMPANY DESCRIPTION

New-Sense Geophysics (NSG) traces its history through its current founder and president Dr. W.E.S. (Ted) Urquhart. First as Urquhart-Dvorak, which specialized in processing airborne geophysical data, to High-Sense Geophysics, which became one of the largest airborne survey companies in the world, until it was purchased by Fugro of Holland in 2000, and then to Geoexplo Limitada., which specialized in airborne geophysical consulting and quality control. This sequence spans over 30 years and leads us to NSG, continuing on in the tradition of airborne survey innovation and quality airborne data acquisition.

NSG has established its HQ office in Markham, Ontario where it operates out of a new purpose-designed and constructed 3000 square foot facility. Here it designs and manufactures its own operator-less systems made 'field-bullet-proof' by engineer Glenn Slover.

The facility itself is more advanced than what may be found in leading high tech companies anywhere. It is completely wired for production with any processing station able to share information on the internal network and processors and field people in direct voice and data communication anywhere in the world. Highly secure firewall features prevent unauthorized access and fail-safe systems prevent any potential data loss through accident, intent or act of God. Clients with authorization can view the progress of their survey on a 24/7 basis.

The company has five data processing workstations with capacity to expand to twice that. A large inventory of systems and components provides for rapid remediation of field problems with the hardware should any occur. All this equipment is rigorously tested, using the built-in network and permanently installed sensors including GPS antenna signals available to each workbench.

The company works world-wide and presently has a second office of operation in Santiago Chile where equipment is maintained and processing takes place.

The company and its personnel through its many years in airborne surveying, airborne software and hardware development, and airborne survey data processing, has dealt with literally millions of kilometres of airborne data acquired in perhaps 80 countries. NSG itself has flown, processed and interpreted more than three quarters of a million line kilometres since 2005. These have been for multi-national companies (like Rio Tinto, Barrick, Teck, and BHP), to junior mining exploration companies, to governments. All have received their data on time and to their satisfaction. And in all of its history dating back 30 years, the companies owned and run by Dr. Urquhart, who developed the concept and practice of operatorless surveying, have not had a single accident …a perfect safety record.

2. SURVEY AREA

A helicopter borne magnetic and spectrometric survey is to be carried out on the Client's project area located approximately 55 Km south of Ross River, Yukon, Canada (see Table 1 and Figure 1 for the block's coordinates and its location on a map).

Table 1

UTM Zone 8N			
NAD83_X	**NAD83_Y**	**WGS84_X**	**WGS84_Y**
639446	6822594	639446	6822594
640307	6818994	640307	6818994
632966	6817328	632966	6817328
632462	6819478	632462	6819478
628234	6822749	628234	6822749
626729	6824500	626729	6824500
625654	6827784	625654	6827784
627656	6829331	627656	6829331
632406	6827073	632406	6827073
639446	6822594	639446	6822594

Note: the survey will be flown in WGS84, World, UTM Zone 8N and delivered to the client in NAD83, North America, UTM Zone 8N.

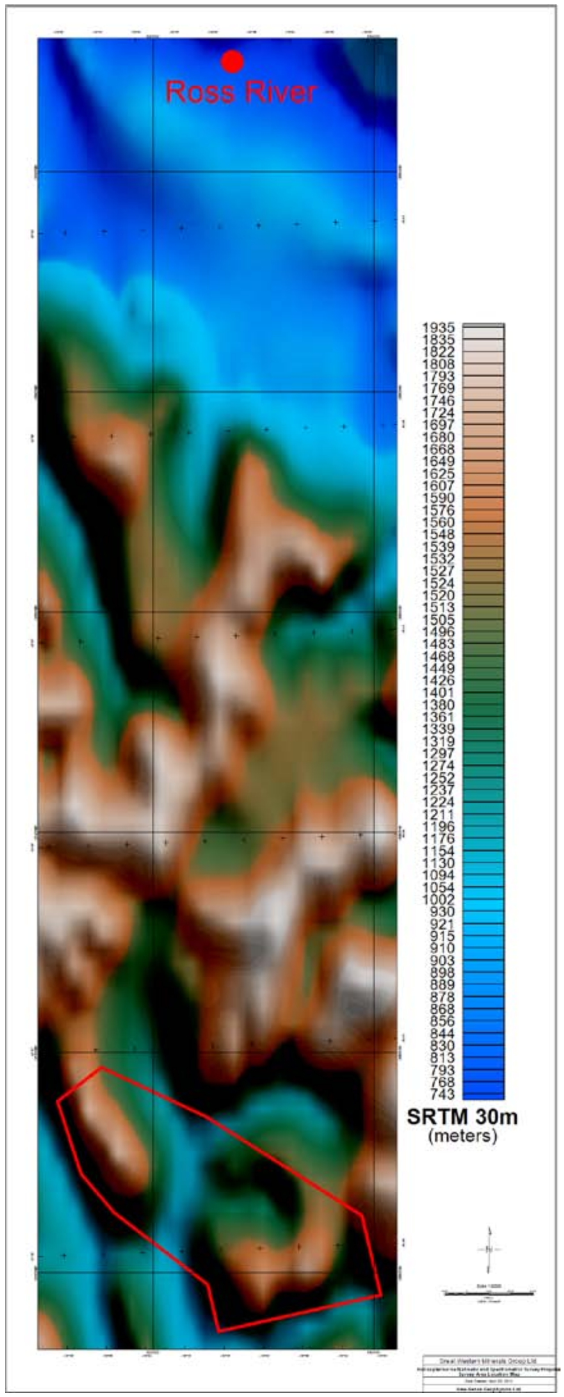


Figure 1. Survey property airborne block outline in red depicted over Shuttle Radar Topography Mission (SRTM). Coordinate System: WGS84, World, UTM Zone 8N.

3. TECHNICAL SPECIFICATIONS FOR AIRBORNE SURVEY

3.1 Traverse and Control Lines Statistics:

Traverse Line Direction:	NE-SW
Traverse Line Interval:	100m
Control Line Direction:	SE-NW
Control Line Interval:	1000 m
Estimated Line KM:	880 L/KM (Traverse)
	90 L/KM (Control)
	970 L/KM (Total)
Mean Terrain Clearance:	30m* nominal
Sampling Interval:	Magnetics 50 Hz/10Hz; Radiometric 1 Hz second
Minimum Line Length:	3 Km

*Note: The 30 meter flight height will be subject to an on-sight safety audit. In any event, the flight height will be subject to pilot safety concerns.

Actual number of survey line kilometers will be those flown and delivered that fall inside the survey boundaries as listed above.

3.3 Tolerances

3.3.1 Traverse line separation

The pilot will fly to the best of his ability to stay within no more the 50% on either side of the theoretical flight path for a distance of 1000 meters unless obstructions or topography require greater deviations for reasons of safety.

There will be no crossing flight lines unless physical obstructions or topography require such deviation for reasons of safety. Such instances will be communicated and discussed with the client representative in writing.

However, if flight-line path deviations are the result of safety concerns, local aviation authority regulations, or military requirements, NSG will not be required to fly fill-in lines.

3.3.2 Control line spacing

Control lines will be surveyed at an average interval as specified, but may be located to avoid, where possible, areas of strong magnetic gradient.

3.3.3 Flight Height

The terrain clearance will be maintained at the planned altitude of 30 meters, subject to the safety requirements, local aviation authority regulations, and/or military requirements.

3.3.4 Missing or Substandard Data

Data will be recorded digitally in the aircraft and at the ground station. Isolated errors, spikes, and short non-sequential gaps consisting of a few points, will be corrected by interpolation.

3.3.5 GPS

GPS will be used for navigation.

3.3.6 Diurnal

Magnetic diurnal activity will be monitored at the base station. If the magnetic activity exceeds 20 nT per 2 minute period, a flight will not depart until the activity has returned to levels below this rate. Once a flight has started it will not be aborted due to diurnal activity.

3.3.7 Speed

The aircraft will maintain a constant airspeed during the survey, with the exceptions where wind direction and/or intensity, or topography will make it impossible to do, while keeping the aircraft safely on line.

3.3. 8 Re-flights

Any flight lines or parts of flight lines with data outside the above tolerances will be considered for re-flights. All re-flown lines or portions of lines will be tied to the closest control lines at both ends.

4. *PAST PERFORMANCE OR EXPERIENCE AND QUALIFICATIONS*

4.1 Organizational experience

NSG provides high quality airborne magnetic/gradiometer and spectrometer surveys using fixed-wing and helicopter platforms. The company is owned and operated by W. E. S (Ted) Urquhart Ph.D. who was the founder and President of High-Sense Geophysics Limited that was sold to Fugro in 2000. After a five-year non-compete period, NSG was inaugurated to re-enter the airborne survey industry to carry on the tradition of providing innovative technologies focusing on collecting the highest quality airborne geophysical data in the safest possible manner.

NSG operates from two offices, one in Markham, Canada where its equipment is manufactured, tested and dispatched throughout the world; the other is in Santiago, Chile where NSG offers airborne geophysical services in Spanish to its South American clients.

NSG has performed airborne geophysical surveys in Africa, North America, Europe, the Middle East and South America. NSG has flown in excess of 700,000 line km in the last 3 years for clients such as major companies like: USGS, BHP Billiton, PG&E, Kennecott, Teck Cominco, Barrick Gold, Kinross, Gold Field, etc.

4.2 References of previous surveys

Dr. V. J. S. (Tien) Grauch, Scientist in charge, *U.S. Geological Survey*
Phone: +1 (303) 236-1393
Email: tien@usgs.gov

Donald Hinks, Project Geophysicist, *Kennecott Exploration Company*
Tel +1 (801) 204 3404
Cell +1 (801) 638 8528
Email: donald.hinks@riotinto.com

Peter Mills, BHP Billiton Ltd.
Tel: + (976) 11 323033 x103
Email: peter.j.mills@bhpbilliton.com

4.3 Qualifications of the personnel and pilots

4.3.1 NSG representative

NSG conducts surveys with an operatorless system and as a result typically sends only one field geophysicist on the job site who possesses good knowledge in not only QC/QA, data processing but in the equipment maintenance as well. At this stage it is planed that NSG representative on the job site would be Mr. Sean Plener with Mr. Andrei Yakovenko being the general project manager under the oversight of Dr. William E. S. (Ted) Urquhart

Field:

Mr. Sean Plener is detail oriented specialist with international and domestic survey and mapping experience and a background in Physical Geography and Earth and Atmospheric Science. Sean has been working with New-Sense since 2007 on both airborne FW and Helicopter total field magnetic and radiometric surveys in different parts of North America and South America.

Geophysicist:

Mr. Yakovenko, Andrei, has been responsible for fixed wing and helicopter airborne operations including permanent, contract, and air crew supervision, logistics, data QA/QC, data processing, and reporting.

He is a tri-lingual, solutions oriented specialist with international and domestic survey and mapping experience, with a background in geology, underwater, land-based archaeology, and geophysics. Currently a Masters candidate in geophysics at McMaster University, Andrei obtained his B.Sc. (Honors) from the University of Toronto. He is skilled in geophysical data processing using Oasis Montaj and coordinating multiple airborne projects. Andrei has authored multiple scientific publications.

Office supervision:

Dr. Urquhart has over 40 years of experience in geophysics, during which time he has been involved in field surveys, operations, management, data quality, safety, data enhancement, compilation and interpretation for various projects throughout the world. Ted was an owner and president of High-Sense Geophysics Ltd. (the third largest geophysical airborne survey company in the world). He has participated in projects as diverse as oil basin studies, mineral and diamond exploration and radioactive satellite fragment recovery. Academically, Ted has conducted research (M.Sc., Ph.D., and professionally) into the correlation of magnetic anomalies with geological factors on both a large and small scale.

5. *NSG'S QUALITY CONTROL*

During data acquisition, the system will be monitored by the field QA/QC personnel to ensure that the equipment is secure and unchanged. If equipment has been noted to shift or a mechanical part of the aircraft has changed, another FOM will be flown.

Base station and survey flight data is collected immediately after each flight and duplicate copies made. Field staff verify completeness of flown lines, note and log any deviations from the flight path, identify (manual & 4th difference algorithm) and remove noise spikes (note: raw data is maintained), magnetic compensated channels created, daily progress report updated and posted for client, complete data set sent to NSG.

The iNAV V3 system, used for both flight and base station systems, store real time data on two independent storage media (hard disk, and a flash memory device). In the event that one of the devices fails or data were corrupted, a backup remains intact.

Post field production is done on a day-by-day basis. After the field data QA/QC process described in sections 7.4.1 and section 7.4.2, the data is sent to NSG's secure FTP. The post field QA/QC and leveling will be done by either Andrei Yakovenko or Dr. Ted Urquhart. The field staff is in contact with the in-house processor every evening to ensure data was received and to discuss previous flights. If there is an issue, the field staff can be reached by cell or satellite phone to make the necessary corrections before production continues. This immediate processing of the data to pre-final stages, benefits the client in three very important ways: First, there are multiple levels of personnel monitoring the survey data in a short period. If something is missed by the field staff, it will be caught by our in-house personnel before the survey progresses much further; second, we can update the client with current pre-final maps so areas of interest can be discussed and in-fills or re-flights can be planned before the survey lines are completed, thereby minimizing standby days; finally, the pre-final maps are ready the day after flying is completed and can be submitted for the clients approval.

The final products will be prepared as to the contract's obligations, section 8, and with Client's consent on all the data processing steps and procedures. A first version of the final products will be delivered to Client or other client representative for a review and approval.

For additional Data Processing and QA/QC information refer to the following sections regarding:

- Procedures including measures for aircraft's aeromagnetic system calibration (refer to sections 7.2.)
- Inflight data acquisition (sections 7.1 (except 7.1.4, 7.1.9, 7.1.10), 7.2, and 7.3)
- Flight path location (section 7.1.7)

- Ground magnetometer data acquisition (section 7.1.4)
- Data processing and map preparation (sections 7.4 and 8)

6. EQUIPMENT SUITABILITY AND CONTINGENCY PLAN

6.1 Availability and quality of proposed data acquisition and processing equipment

Aircraft:

A Bell 206B or similar helicopter provided by Trans North Helicopters based in Whitehorse, Yukon will be used.

The aircraft with its field crew will operate from Ross River airport and be using a certified fuel truck or fuel drums for refueling at Ross River airport and designated fuel cash closer to the survey area.

The aircraft will be limited to VFR flying conditions. All other conditions will be left to the discretion of the pilot in command.

Due to relatively busy helicopter schedule in the summer, the helicopter of choice and its crew will need to be booked as early as possible to insure its availability for the first part of July.

Data Acquisition:

NSG builds and maintains its own proprietary data acquisition systems known as iDAS. The iDAS system features the KroumVS Instraments KMAG4 magnetometer counter and the KANA8 analog to digital converter. The systems are built with a wide range voltage input (9V to 36V) to accommodate a variety of aircraft power supplies.

The iDAS system uses sophisticated software to provide an autonomous "Operatorless" system resulting in a SAFER survey environments by removing the need for an operator on board the aircraft.

The systems will be available within two weeks of the signing of the contract.

For the data processing NSG is using Geosoft Oasis montaj with a number of build in GX scripts.

6.2 Electronic navigation

Pilot Friendly Navigation display (PI) delivers all the navigation and control features necessary for the pilot to safely maintain the highest quality flight line specifications without additional safety risk of having an operator on board the aircraft (see also section 7.1.7).

6.3 Safety Plan

Safety is the number one priority at NSG. NSG is an active member of the International Airborne Geophysics Safety Association (IAGSA)

Prior to mobilizing to the job site, IAGSA Risk Analysis and NSG Job Safety Plan will be prepared in the Markham office. There are areas of the report that require a physical presence on the job site (i.e. reconnaissance flight, identifying local hazards, etc.). At the job site, before each departure, the pilot will contact the local air traffic controller.

Prior to flying the first production line, a safety meeting is held by a NSG representative where each of the reports is explained to all members of the survey crew. A reconnaissance flight will then take place and the IAGSA Risk Analysis and NSG Job Safety Plan will be completed.

Every Sunday, a weekly safety meeting takes place where any and all the safety concerns and issues during the past week are brought to attention and logged to a weekly safety report.

Pilot safety is enhanced by the use of a flight following system that provides updates at 2-minute intervals on the GPS location of the aircraft. This information is monitored in real time on the internet by authorized personnel. In case of an emergency the pilot could press a "Panic Button" connected to the Flight Following and the signal will be transmitted at around 10 sec. intervals or less, which would drastically reduce the search area in a case of emergency landing.

The client will be provided with a login for real time monitoring of aircraft activities through this Flight Following System.

In addition, the Flight Following has an integrated satellite phone that is connected directly to the pilot's headset. This minimizes any distraction to the pilot when sending or answering a call.

Prior to the flight's departure, a NSG representative records all the information regarding the aircraft status, such as time of departure, endurance, fuel level, etc.

Once in the air, NSG representative monitors the aircraft at least once every half hour. In case of internet problems, a call will be given right away to the satellite phone integrated to the pilot's headset and once every hour.

If the flight following signal is lost and the pilot cannot be reached by satellite phone, then NSG's emergency response procedure is initiated (detailed in the NSG Job Safety Plan).

The aviation company will adhere to all the standards and requirements for local approved air operators.

In summary:

- NSG is active members of International Airborne Geophysics Safety association (IAGSA)

- On each job NSG completes both IAGSA Risk Analysis and NSGs Job Safety Plan forms.
- NSG conducts daily safety meetings with the crew before any flying takes place.
- A Flight Following system will accompany NSG iDAS system that provides updates on every 2 minute intervals, which could be monitored through internet access.
- In addition, the Flight Following has an integrated satellite phone that is connected directly to pilot’s headset. Thus minimizing any distraction if pilot decides to send or receive a call.
- The client will be provided with a login for real time monitoring of the helicopter activities through the flight following system.

6.5 Safety Record

No accidents or near accidents have ever occurred at NSG. Since its inception, the company has flown over 45 magnetic and/or radiometric surveys totaling well over half a million line kilometers without an accident.

In addition, High-Sense Geophysics formed in 1993, owned by NSG president Dr. Ted Urquhart, also had an accident-free history. High-Sense rose to become one of the world’s largest airborne survey contractors and had met and exceeded the rigorous safety standards of BHP, Shell, and Phillips, among others. It had performed surveys without incident or accident in difficult areas including Vietnam, China, Mongolia, Mauritania, Democratic Republic of the Congo, Brazil, and Sudan.

7. TECHNICAL APPROACH

7.1 AIRBORNE AND GROUND INSTRUMENTATION

7.1.1 Aircraft Type

The aircraft allocated to conduct this survey is a JetRanger 206B helicopter (or different see Section 6.1) with a fix mount stinger assembly with a Cesium magnetometer mounted in it.

7.1.2 Geophysical Flight Control System

A geophysical flight control system, designed and built by NSG will be provided. This system will control, monitor and record the operation of all the geophysical and ancillary sensors.

7.1.3 Airborne Magnetometer

The magnetometers will be cesium sensors, operated in strap down tail stinger mount. The orientation of the sensor is adjustable, to provide optimum coupling with the earth's field on reciprocal headings. The magnetometer has a sensitivity of better than 0.01 nT at a sampling interval of 0.1 s. The magnetometer has the capability to measure ambient magnetic fields in the range of about 100 to more than 100,000 nT.

The airborne magnetometer is supplemented with an 18-term digital compensation system that uses the input from a 3-axis fluxgate to determine the aircraft's attitude and rate of change with respect to the earth's magnetic field. The compensation system identifies the permanent, induced and eddy current magnetic contributions of the aircraft and provides a correction to be applied to the raw magnetic data to remove the maneuver noise.

A FOM will be calculated by summing the absolute errors of each of the 12 maneuvers and will be less than 3 nT.

7.1.4 Ground Magnetometer

Scintrex Cesium CS3 or GSM19 Proton magnetometers will be operated at the base of operations within or near the survey area in an area of low magnetic gradient and free from cultural noise. The sensitivity of the ground magnetometer will be equal to better than 0.1 nT. Data will be recorded continuously every 1 second (or a rate defined by the client) throughout the survey operations in digital form. Both the ground and airborne magnetic readings are automatically time stamped with GPS time to within 0.005 seconds ensuring a very high degree of correlation based on broadcast GPS satellite time.

7.1.5 Radar Altimeter

A Terra 3500 radar altimeter will be operated in the aircraft throughout the survey to provide ground clearance information. The altitude will be recorded every 0.1 second or better. This instrument has a linear performance over the range of 0 to 2500 feet.

7.1.6 Fluxgate Magnetometer

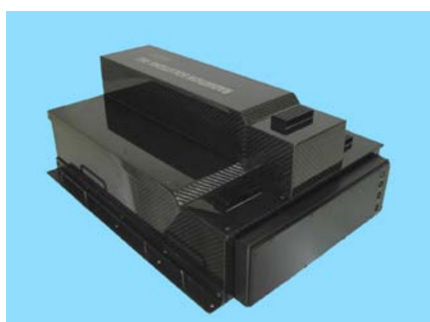
To achieve quality compensation NSG uses a Bartington Mag-03 Three Axis Magnetic Field Sensors. These compact, high performance fluxgate magnetometers with integral electronics provide reliable precision measurements of static and non-static magnetic fields in three orthogonal axes. The magnetometer is mounted inside the stinger assembly.

7.1.7 GPS Navigation

A 16-channel GPS navigation system will be used for navigation and flight path recovery. The Ublox RCB-LJ GPS receiver board is powered by the ANTARIS® positioning engine.

The leading ANTARIS® GPS Engine provides excellent navigation performance under dynamic conditions in areas with limited sky view like urban canyons, high sensitivity for weak signal operation without compromising accuracy, and support of DGPS and multiple SBAS systems like WAAS and EGNOS. The 16 parallel channels and 8192 search bins provide fast start-up times. The aiding functionality accelerates start-up times even further. The low power consumption and FixNow™ power saving mode make this product suitable for handheld and battery-operated devices.

7.1.8 Spectrometer



The RS-500 Airborne Spectrometer with RSX-5 detector pack, manufactured by Radiation Solutions Inc. (RSI), will be used for the survey. The RS-500 spectrometer has a multi-peak gain stabilization algorithm and is capable of recording 1024 channels with accuracy of 0.1 to 10 counts/second.

The RS-500 is connected to a crystal pack comprising four downward looking crystals (16 liters total) and one upward looking crystal (4 liters total). The downward crystals record the radiometric spectrum from 410 KeV to 2810 KeV over 256 discrete energy windows, as well as from a cosmic ray channel that detects photons with energy levels above 3.0 MeV. From these 256 channels, the standard Total Count, Potassium, Uranium and Thorium channels are extracted. The upward crystal is used to measure and correct for atmospheric Radon interference. The shock-protected Sodium Iodide (Thallium) crystal package is unheated and automatically stabilizes with respect to the multiple peaks. The RS-500 provides raw data that has been automatically corrected for gain, base level, ADC offset, and dead time.

A resolution test will be performed before the first and after the last flight each day in order to monitor sensitivity and resolution of the crystal pack.

7.1.9 Field Data Verification System

NSG will provide a complete PC based magnetic map compilation facility, to serve as a field verification system The PC computer based system is equipped with all the software necessary to produce preliminary data images in the field. Data will be provided to the client in a Geosoft format.

The digital data records will be verified at the project site to confirm that data recording has taken place within specifications. All raw digital data recorded in flight and on the ground station magnetometer will be duplicated on site to prevent loss, and stored in separate locations.

In the base where there is e-mail connection, data will be sent on a daily basis for further examination in the head office where areas of infill will be chosen.

7.1.10 Flight Following System

NSG places the highest priority on safety and uses satellite tracking and communication technology to monitor all its survey flights. The aircraft will be equipped with Latitude Technologies Skynode S200, a system that includes satellite phone, flight tracking, and messaging transceiver. This system uses the Iridium satellite network, which provides both voice and data communications between the aircraft and ground stations.

The S200 system can be set up for different time frames; it now automatically updates its position at least once every 2 minutes allowing NSG's field or office staff to monitor the progress of the survey flights. All flight staff are trained in the use and the operation of the S200 system.

During the survey, if the pilot experiences any problems with operation of the survey equipment or encounters any other difficulties, he/she can call the field or office staff for support through the satellite phone, which is integrated into the pilots head set. In the event of flight operations problems, field staff can often troubleshoot and correct difficulties allowing survey flights to continue uninterrupted.

In the event of an emergency the pilot may press the "Panic Button" which will cause the system to immediately transmit the location and heading of the aircraft and will continue to transmit the current position of the aircraft continuously at around 10 sec. intervals until the emergency system is turned off.

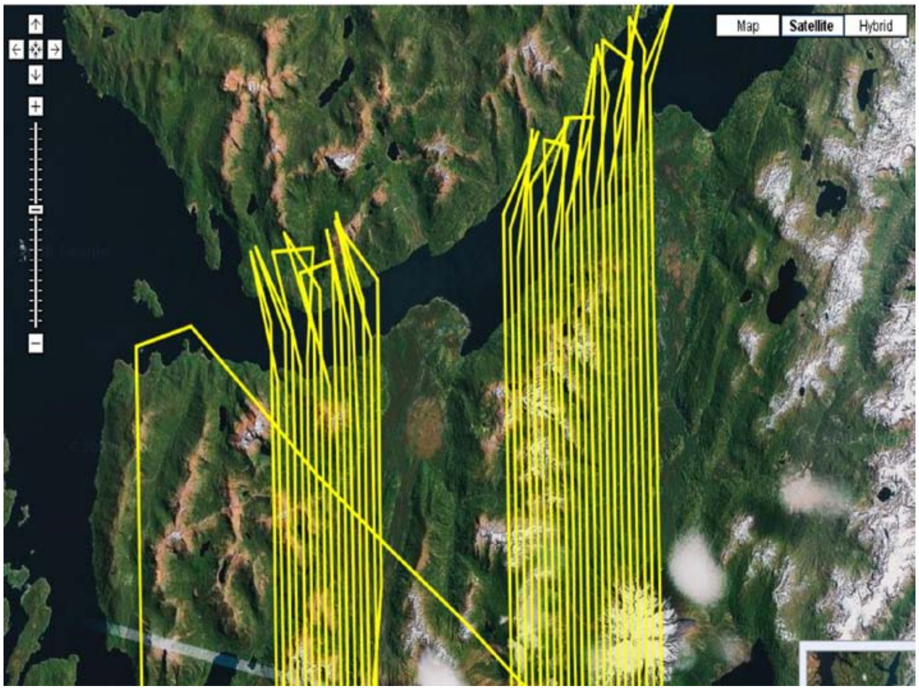


Figure 2. Screenshot of Flight Following Through Internet Web Browser

7.2 INSTRUMENT CHECKS AND CALIBRATIONS

Failure to meet the specifications in any check or calibration test will be cause for corrective action by NSG or approval of the Client before survey operations can be undertaken.

7.2.1 Magnetometer

Figure of Merit (FOM)

A test will be flown on-site prior to the survey to determine the FOM of the installed magnetometer. The system will be flown on the four cardinal headings doing a pitch, roll, and yaw, maneuver on each. The FOM will be calculated by summing the absolute errors of each of the 12 maneuvers and will be less than 3 nT.

7.2.2 Altimeter

Checks of the radar altimeter calibration will be undertaken above the base airstrip or some other suitable location with known elevation and flat terrain.

7.2.3 Radiometric

7.2.3.1 Pre-survey Spectrometer Calibrations and Tests

Calibration of the spectrometer system is a vital process to airborne radiometrics or airborne gamma-ray spectrometry. The calibration of the spectrometer system involved three tests:

- Calibration Pad measurements, which are used to determine the “spectral overlap” (Compton scattering) coefficients. The calibration test is performed within a 12 month period before and/or during the survey by the manufacturer, Radiation Solutions Inc., at its headquarters location in Mississauga, Ontario.

- Cosmic Flight Test, which is used to determine the aircraft background values and cosmic coefficients. A series of high altitude test lines (e.g., 8,000 ft, 9,000, ft, 10,000 ft, and 11,000ft (if capable) above sea level) will be flown in the vicinity of the survey areas.

- Height Attenuation Test, which determines the altitude attenuation coefficients. A series of test lines (e.g., 50 ft, 100, ft, 150 ft, 200, ft, 250 ft, 300 ft, 400, 600 ft, 800 ft, and 1000 ft above ground) over dry and flat ground, will be flown in the vicinity of the survey areas.

7.2.3.2 During-Survey Spectrometer Calibrations and Tests

7.2.3.2.1 Radon Correction Test Line

The determination of calibration constants that enable the stripping of the effects of atmospheric radon from the downward-looking detectors through the use of an upward looking detector is divided into two parts:

1) Determining the relationship between the upward and downward looking detector count rates for radiation originating from the ground.

2) Determining the relationship between the upward and downward looking detector count rates for radiation due to atmospheric radon.

The procedures to determine these calibration factors are documented in IAEA Report #323 on airborne gamma-ray surveying. The calibrations for the first part will be determined as outlined in the report.

The latter case normally requires many over-water measurements where there are little to no contributions from the ground. Where this is not possible, it is standard procedure to establish a test line/spot over which a series of repeat measurements are acquired.

A test area will be established over a flat ground near the base of operation. Each day when flying takes place the aircraft will hover over the test area for 5 min in order to collect data that later could be used to estimate atmospheric radon fluctuations.

7.2.3.2.2 Resolution Daily Tests

The usual measure of the energy-resolution of a spectrometer system uses the “full width at half maximum (FWHM)” of a photo-peak. This is the width of the peak at half the maximum amplitude divided by the energy of the photo-peak.

The overall system resolution based on the Th photo-peak at 2.61 MeV should always be better than 7% on all downward looking crystals. If the resolution changes by more than 1% (eg, 4% to more than 5%) from that measured at the start of the survey, flying operations will be ceased until the source of the problem is found and rectified.

This test is not required with the RS-500 system and will only be performed at the Clients request and upon availability of Th source material.

7.3 DATA RECORDS

7.3.1 Digital Records

The airborne data acquisition system will record the following information digitally in a format that enables the recording of each variable over its full dynamic range:

Fiducial count
GPS UTC time
GPS latitude, longitude, UTM easting, northing and elevation above ellipsoid
Raw magnetic total field
Calibrated radar altimeter output
Three Fluxgate channels
Raw Potassium counts
Raw Thorium counts
Raw Uranium counts
Raw upward-looking Uranium counts
Raw Total Count
Raw Cosmic counts
Live Time
Downward Spectrum

The base station will record the following information digitally in a format that enables the recording of each variable over its full dynamic range.

GPS time (used as fiducial number)
GPS raw satellite range information
Raw magnetic total field

All survey parameters including raw magnetic total field, electronic positioning, radar altimeter, and time and fiducial markers will be recorded digitally during data acquisition in flight. The magnetic base station will record total magnetic field and GPS time.

The data acquisition system organizes the data in a form directly suited to building the processing database. This digital file structure has for each traverse and control line a unique line number and segment number. The base station magnetic profile and GPS coordinates are added to the database using GPS time for alignment.

7.4 DATA COMPILATION AND MAP PRESENTATIONS

The NSG Field-Mapper PC based computer compilation system will be used to process the collected geophysical data on-site as the survey progresses. The 'on-site' processing will enable the Client to review the magnetic data to evaluate targets to make a qualified decision regarding any changes to the survey quantity and size. This will allow the selection of "in-fill" or area extensions. The preliminary data will be sent via FTP site (assuming reasonable speed internet connection is available) for the client's review at least once a week (more often should the client require).

7.4.1 Magnetic

7.4.1.1 Field Data Processing

After collecting flight and base station data, flight data will be imported to Oasis montaj using a NSG template that includes all project data channels. Next flight data will be windowed to only include flight path data within the survey block using custom NSG script that will be developed for the Woodjam survey area.

Magnetic flight data from the tail will then be duplicated to ensure original raw data is not modified in any way. Profiles for the duplicated channels are then checked for visible noise spikes. Any noise spikes are then cleaned manually and interpolated. From there, field staff will run an automated script that will look for any missed noise spikes. This automated script employs a 4th difference algorithm to identify noise spikes in magnetic data. After other channels (radio altimeter, flux gate profiles etc.) are inspected for normal behavior that database is prepared for magnetic compensation. Using QC Tools, compensation coefficients are applied to the cleaned magnetometer channel and the database is saved.

From here, NSG staff will import base station data into Oasis montaj using a NSG template. Base station data is duplicated to maintain a raw channel and then checked for visible noise spikes. After noise spikes have been removed and interpolated, a 101 (or other job specific) low pass filter is applied to base station magnetic channel and the database is saved.

Next, the flight and base station databases are merged, synchronized (using the GPS clock channel recorded by both systems), compressed, encrypted and sent to NSG's secure server in Toronto, for in-office QA/QC and processing procedure.

NSG field staff from there will updated and complete all daily logs (weekly progress report, daily procedures checklist, weekly summary meeting etc.).

7.4.1.2 Post-Field

As the data being received from the field on day-to-day basis it is reviewed for QA/QC once again to insure that nothing got missed in the field. The data is checked for quality of magnetic signal from all sensors, including the base station magnetometer, fluxgate magnetometer, radar altimeter, line deviations etc. The profiles of the above data are plotted and checked on line-by-line basis. Algorithms like 4th-difference are used to check the CS3 signal.

After the data has been QA/QC checked it is merged with an ongoing master database. Where the following data processing steps take place:

1) Diurnal correction - subtracted directly from the aeromagnetic measurements to provide a first order diurnal correction. The mean of base station readings is added back to the data.
2) Heading error correction - using pre-constructed heading table.
3) Lag correction – to correct for sensor-to-GPS offset.
4) Simple Leveling - a survey line/control line network will be created in order to determine differences in magnetic field at the line intercepts. The differences will be calculated and tabulated, then used to guide subsequent manual leveling on any lines or line segments which required adjustments. See image below for an example of contour Total Magnetic Intensity (TMI) map produced after Simple Leveling was applied.
5) Microleveling – depending on the Simple Leveling results a Microleveling might be needed in order to further correct the data for linear line-to-line noise. The technique used will be the one developed by Paterson, Grant &

Watson Limited and available through Geosoft Oasis montaj with the mutually accepted parameters.

6) IGRF correction - The total field strength of the International Geomagnetic Reference Field (IGRF) 2005 model will be calculated for every data point, based on the spot values of latitude, longitude and GPS altitude, using the 2005 model. This IGRF will be removed from the measured survey data on a point-by-point basis. The mean of IGRF readings is added back to the data.

7.4.1.3 Magnetic data filtering and gridding

A small (e.g., 7-11 Low Pass or 11-21 points cosine at 10Hz data) filter may be applied on the raw data to smooth out some small high frequency noise.

The TMI grid will be produced using bi-directional gridding technique, with 20 m cell size (or other suitable size depending on liner spacing) and Akima spline across and down lines.

7.4.2 Radiometric

7.4.2.1 Field Data Processing

After collecting flight data, the radiometric data will be imported to Oasis montaj using a NSG template that includes all project data channels. Next flight data will be windowed to only include flight path data within the survey block. After, an in house-developed radiometric processing GX will be run on the database, which will apply the following corrections:

7.4.2.1.1 Pre-filtering

The cosmic and radar altimeter channels will be processed with a 10-20 point and 5 point low pass filter respectively to remove spikes.

7.4.2.1.2 Live Time correction

All the elements including upward looking Uranium and Total Count will be corrected for Live Time using the following formula:

Clt = Craw x (1000/LT)

Where:

- Clt is the live time corrected channel
- Craw is the raw channel
- LT is the Live Time channel

7.4.2.1.3 Aircraft and Cosmic Background

Aircraft background and cosmic stripping corrections will be applied to the Total Count, Potassium, Uranium, Thorium and upward Uranium channels using the following formula:

$$Cac = Clt - (ac + bc \times Cosf)$$

Where:

- Cac is the background and cosmic corrected channel
- Clt is the live time corrected channel
- ac is the aircraft background for this channel
- bc is the cosmic stripping coefficient for this channel
- $Cosf$ is the filtered cosmic channel

All negative counts after this correction step will be replaced with zeroes.

7.4.2.1.4 Radon Correction

Note: no radon corrections will be applied during the survey. The following is the radon correction description that will be applied after the survey is completed. Until then the various radon coefficients and constants will simply be replaced with 0.

The background and cosmic corrected Thorium, Uranium and upward Uranium data for each line will be smoothed with Hanning filter to produce Thf, Uf, and uf respectively. The radon component in the downward uranium window will then be determined using the following formula:

Ur = (uf – a1 x Uf – a2 x Thf +a2 x bth – bu)/(au – a1 – a2 x ath)

Where:

- Ur is the radon component in the downward uranium window
- uf is the filtered upward uranium
- Uf is the filtered uranium
- Thf is the filtered thorium
- a1, a2, au and ath are proportionality factors and
- bu and bth are background constants

The effects of radon in the downward uranium are removed by directly subtracting Ur from Uac. The effects of radon in the Total Count, Potassium, Thorium and upward Uranium are then removed based upon previously established relationships with Ur. The corrections are applied using the following formula:

Crc = Cac - (ac x Ur + bc)

Where:

- Crc is the radon corrected channel
- Cac is the background and cosmic corrected channel
- Ur is the radon component in the downward uranium window
- ac is the proportionality factor and
- bc is the background constant for this channel

All negative counts after this correction step will be replaced with zeroes.

7.4.2.1.5 Compton Stripping

Following the radon corrections for Uranium and Total Count, the potassium, uranium and thorium will be corrected for spectral overlap. First the stripping ratios α, β, and χ were modified according to altitude. Then an adjustment factor based on the reversed stripping ratio (a), uranium into thorium, was calculated.

$$\alpha h = \alpha + hef \times 0.00049$$

$$\beta h = \beta + hef \times 0.00065$$
$$\chi h = \chi + hef \times 0.00069$$

Where:

- α, β, χ are the Compton stripping coefficients
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- hef is the height above ground in meters

The stripping corrections are then carried out using the following formulas:

$$ar = \frac{1}{1 - a\alpha h}$$

$$Th_c = (Th_{bc} - aU_{rc}) \times ar$$

$$U_c = (U_{rc} - Th_{bc}\alpha h) \times ar$$

$$K_c = K_{bc} - \beta h Th_c - \chi h U_c$$

Where:

- U_c, Th_c, and K_c are corrected Uranium, Thorium and Potassium
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- U_{bc}, Th_{bc}, and K_{bc} are background and cosmic corrected Uranium, Thorium and Potassium
- ar is the backscatter correction
- a is the reverse stripping ratio U into Th

All negative counts after this correction step will be replaced with zeroes.

7.4.2.1.6 Attenuation Corrections

The Total Count, Potassium, Uranium and Thorium data will then be corrected to a nominal survey altitude according to the equation:

$$Ca = C \times e^{-\mu(h0-h)}$$

Where:

- Ca is the output altitude corrected channel
- C is the input channel
- μ is the attenuation correction for that channel
- h is the radar altimeter height, in metres
- $h0$ is the nominal survey altitude used as datum

All negative counts after this correction step will be replaced with zeroes.

7.4.1.3 Office Data Processing

All of the above calibration procedures, tests and corrections applied in the field will be reviewed for QA/QC by assigned office QA/QC and data processing person .

7.4.1.4 Radiometric grids

Grids of Potassium, Thorium, Uranium and Total Count will be produced using bi-directional gridding technique, with 20 m cell size (or other suitable size) and Akima spline across and down lines.

8. *FINAL PRODUCTS*

The following is the list of items that will be delivered to the Client:

Hard copies (2 copies):

- Ternary map of Th, U and K (1:20,000 scale)
- Map of Potassium (1:20,000 scale)
- Map of Thorium (1:20,000 scale)
- Map of Uranium (1:20,000 scale)
- Map of Total Count (1:20,000 scale)
- Map of Total magnetic Intensity (1:20,000 scale)
- 1st order Vertical Derivative (1:20,000 scale)
- Digital Terrain Model (1:20,000 scale)
- Final Logistics Report

Soft copies (2 copies):

- Ternary map of Th, U and K at 1:20,000 scale
- Grid and map of Total Magnetic Intensity at 1:20,000 scale
- Grid and map of Potassium counts at 1:20,000 scale
- Grid and map of Thorium counts at 1:20,000 scale
- Grid and map of Uranium counts at 1:20,000 scale
- Grid and map of Total Count at 1:20,000 scale
- Grid and map of 1st order Vertical Derivative at 1:20,000 scale
- Grid and Map of Digital Terrain Model at 1:20,000 scale
- Final Logistics Report
- Radiometric data database in Geosoft gdb format including all raw data and height corrected Potassium, Thorium, Uranium, and Total Count
- Magnetics data database in Geosoft gdb format including raw data, base station, compensated, base station corrected, IGRF corrected, heading corrected, lag corrected, simple leveled, and microleveled (optional) total field.
- Database and channel descriptions file in Excel format
- Weekly and Line Progress report

9. TIME SCHEDULE

The project is scheduled to start at the end of June or beginning of July 2010. In any event, NSG will require 3 to 4 weeks after the signing of the contract in order to make equipment and staff available and insure successful permitting. The start date will also depend on availability of the helicopter.

10. TERMINATION

In the event that the geophysical platform or equipment becomes inoperable, NSG will proceed with diligence to rectify the problem within a reasonable period of time. If within the aforementioned period of time NSG fails to rectify the problem, the Client may, at their discretion, terminate the work under this Proposal in full or in part. In the event of such termination, the Client shall be obliged to pay NSG for services rendered only up to the date of receipt of a written notice of such termination and for documented expenses incurred by NSG prior to the date of receipt of termination notice, and for reasonable cancellation and demobilization costs.

11. LOCAL LICENSES, PERMITS AND CUSTOMS

Client will take the responsibility for obtaining all local licenses and permits required to perform the services. Out of pocket costs for permitting will be reimbursed by the client.

12. CHARGES

Survey and Map Production	CAD $89.05 L/KM
Mobilization/De-mobilization to project:	CAD $ 13,000.00

A standby of a residual helicopter daily minimum will be charged to the client for any days when surveying cannot be accomplished due to any reason outside control of NSG.

Note: These prices are net of all local taxes (e.g., GST or HST if applicable).

13. GENERAL CONDITIONS

NSG will carry out the agreed services in a proper and workmanlike manner with a high standard of safety and in accordance with the laws, rules and regulations applicable to the project location.

At all times during the term of this Proposal, the NSG or its subcontractors shall carry and maintain at its own expense, work insurance protection of the kinds and in the minimum amounts set forth below:

13.1 NSG Liability Insurance

- Employer's Liability and Workmen's Compensation insurance to cover employees furnished by NSG including:

  (a) Statutory Workmen's Compensation benefits in compliance with the laws of the state, province or country in which the aircraft operations under this Proposal will be performed;

  (b) Employer's Liability to have limits of not less than $5,000,000 per person, and $5,000,000 per accident;

  (c) Employer's Liability applicable to all provisions outlined above with limits not less than $5,000,000 each person, $5,000,000 each occurrence.

- Comprehensive General Liability Insurance. Such insurance shall cover all operations in all provinces, states and countries in which the aircraft operation or services may be performed by NSG hereunder and shall include the following:

  (a) Limits of liability: not less than $5,000,000 for death or injury of any one person, $5,000,000 in the aggregate for all persons injured or killed as the result of any one accident, and $5,000,000 for loss of or damage to property resulting from any one accident.

  (b) Contractual liability coverage for NSG's obligations hereunder;

14. PAYMENT TERMS

Total estimated cost:

Mobilization/De-mobilization to project:	CAD$ 13,000.00
Survey and Map Production (~970Km @ $ 89.05 L/Km):	CAD$ 86,378.50 L/KM
Estimated Total:	CAD$ 99,378.50

Note: These prices are net of all local taxes.

Payment Schedule

An initial payment, due on signing:	20% of selected survey Plan price
A second payment, on the mobilization to the job site:	30% of selected survey Plan price
Third payment, due on completion of flying:	40% of selected survey Plan price
On delivery of final maps and reports:	Balance

Note: These prices are net of all local taxes.

All invoices are due and payable upon submission at the Client's address indicated in Section 1 of this Survey Agreement. A service charge of 0.4 % per week on unpaid balance is payable on all overdue accounts.

The payment schedule is subject to negotiation should the proposed schedule not conform to the client's norms and regulations.

Funds will be paid by wire transfer to:

In CAD Funds

Beneficiary:	New-Sense Geophysics Limited
Bank:	The Bank of Nova Scotia
Account #:	02011
Transit #:	11452
Institution Code:	002
Swift:	NOSCCATT
ABA Routing:	026002532
Address:	880 Eglinton Avenue E. at Laird Drive Toronto, Ontario, M4G 2L2, Canada

NEW-SENSE GEOPHYSICS

Name (print): Andrei Yakovenko

Title: V.P. Operations

Date: May 6, 2010

Signature:

GREAT WESTERN MINERALS GROUP

Name (print): John Pearson

Title: V.P. Exploration

Date: May 5, 2010

Signature: John G. Pearson