

High-Resolution Airborne Geophysical Report on the Yellow Claims

Grant Numbers: YC87802 To YC87897,

YC88135 To YC88136,

YC88147 To YC88150 And

YC88157 To YC88220

1150-05

NTS ~~150-05~~

Claims centered on UTM:

571000E, 7017000N

Registered Owner: Selene Holdings LLP

Dawson Mining District

Yukon Territory

Dates work performed:

Between June 22nd and August 2nd 2010

Prepared for Kinross Gold Corporation by Lucy Hollis

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EXECUTIVE SUMMARY

The Yellow group of claims (166 in total) is owned by Selene Holdings LLP. (100%) and cover approximately 3469.4 Ha. The property is located approximately 60 km south of Dawson City, in the Yukon Territory of Canada. The project area is primarily underlain by deformed and regionally metamorphosed greenschist to amphibolite facies metasedimentary and metaigneous rocks of Palaeozoic and Proterozoic age (Mortensen, 1992; Dusel-Bacon, 2006). During 2010 Selene Holdings LLP/Kinross Gold Corporation contracted a high-sensitivity airborne magnetic and gamma-ray spectrometric survey out to New-Sense Geophysics Ltd. covering the Yellow Claim Block. A total of 587 km of airborne geophysical lines were flown over the Yellow claim block. The airborne geophysical survey yielded a number of final products; including Total Magnetic Intensity and 1st Order Vertical Derivative images with magnetic anomalies and magnetic lineaments delineated. The spectrometric survey, comprising the radioelements K, U and Th produced several high areas on the Claim Block which require further correlation with bedrock geology. Further geological mapping and prospecting, in conjunction with geochemical surveys are warranted to define further mineralized targets on the Yellow claims.

1.0 INTRODUCTION

This report describes the logistics of the survey, equipment used, field procedures, data acquisition and results and interpretations for a high sensitivity helicopter magnetic and gamma-ray spectrometric survey carried out on the Yellow Claims, located in the Yukon Territory, Canada. The survey was conducted between June 22nd and August 2nd 2010 by New-Sense Geophysics Ltd. The survey was conducted in a Northwest-Southeast direction. A total of 587 km of survey line was flown over the Yellow Claims. Data processing undertaken by New-Sense Geophysics Ltd. involved data compilation, gridding and contouring of geophysical data collected. The proximity and similarity of geology of the Yellow Claims to the recently discovered Golden Saddle Deposit makes the area prospective for mineral exploration.

Unless otherwise stated the coordinate system used is NAD 83, North America (all Canada and USA subunits), Zone 7N.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS

No historic hard rock mining is known to have occurred on the Yellow claims.

3.0 PROPERTY INFORMATION

The Yellow Group of claims is located in the Dawson Mining District of the Yukon Territory, Canada (Figure 1). The Claims are located approximately 60 km south of Dawson City, Yukon, Canada.

The Yellow group of claims comprises 166 full-size quartz claims (Figure 2). The claims are registered with the Dawson Mining Recorder and are now owned 100% by Selene Holdings LLP. The Yellow Group of quartz claims are shown on Yukon Quartz NTS mapsheets 1150-05. A full list of claim data is outlined in Appendix 1.

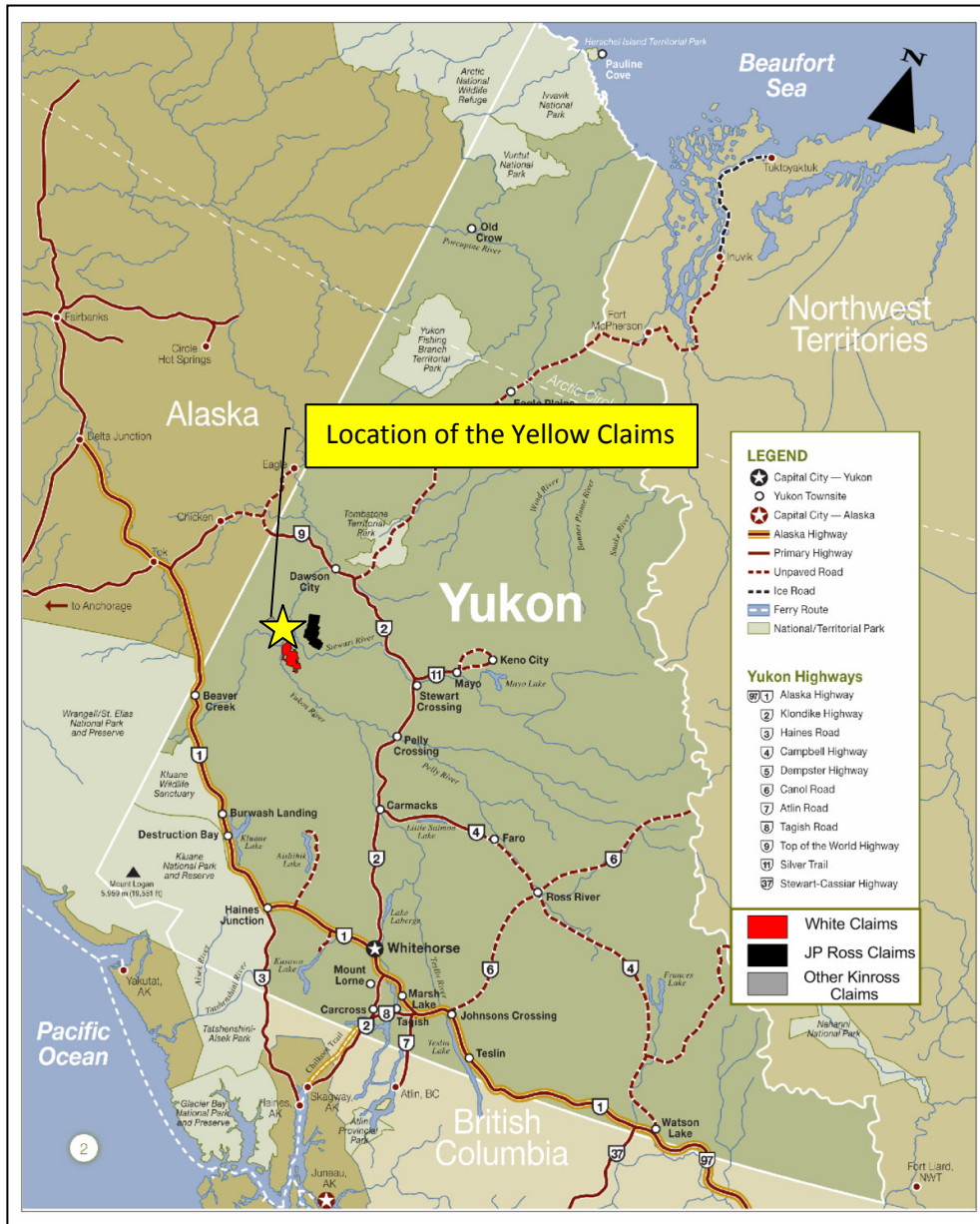


Figure 1: Location map showing the study area: Yellow Claims (Yellow star) located approximately 60 km south of Dawson City, Yukon.

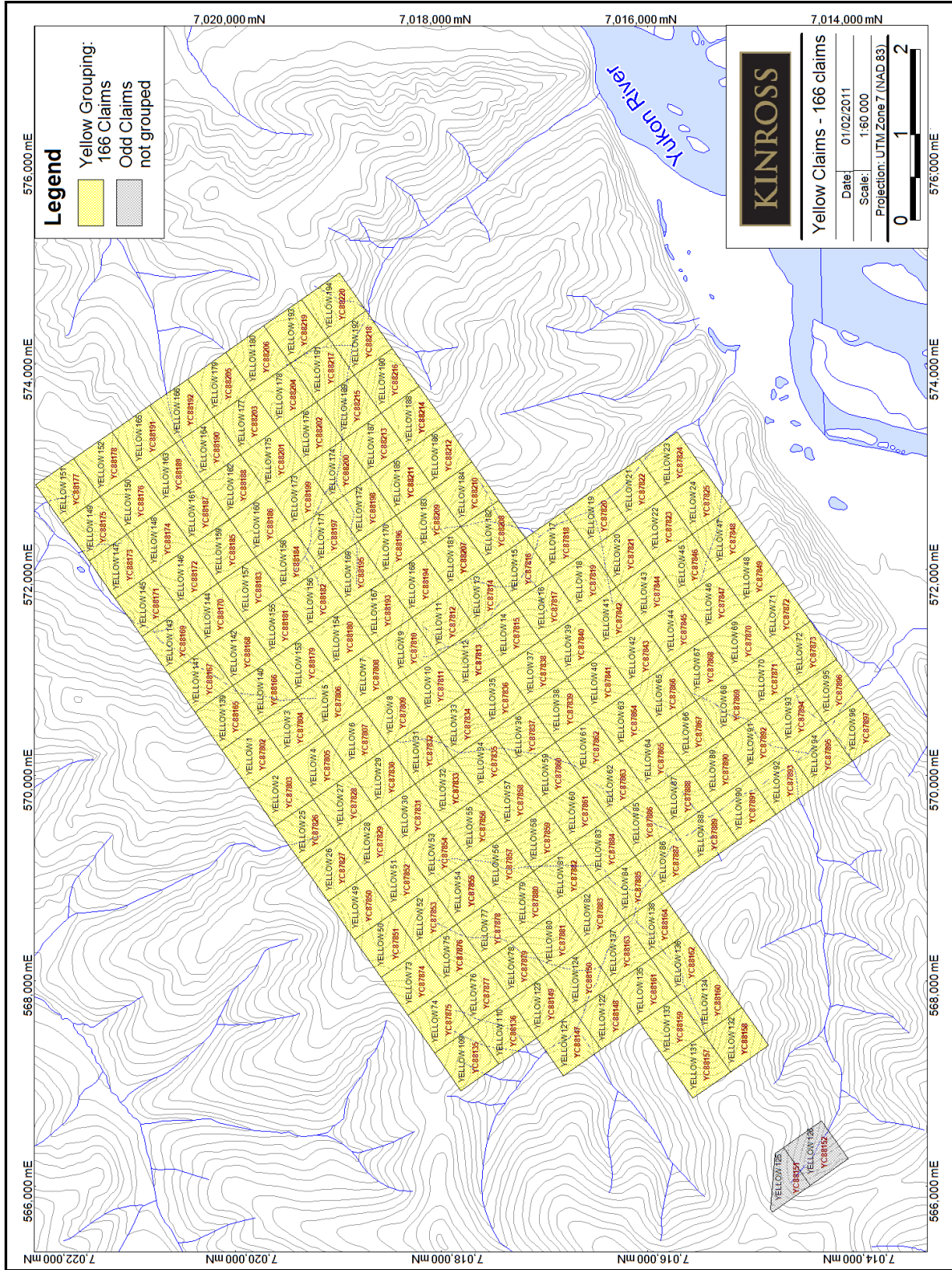


Figure 2: Map showing the Yellow claim group and adjoining and surrounding claims

3.1 Adjacent Claims

The Yellow Claims are surrounded by numerous adjacent claims. These adjacent claims are shown on Figure 3.

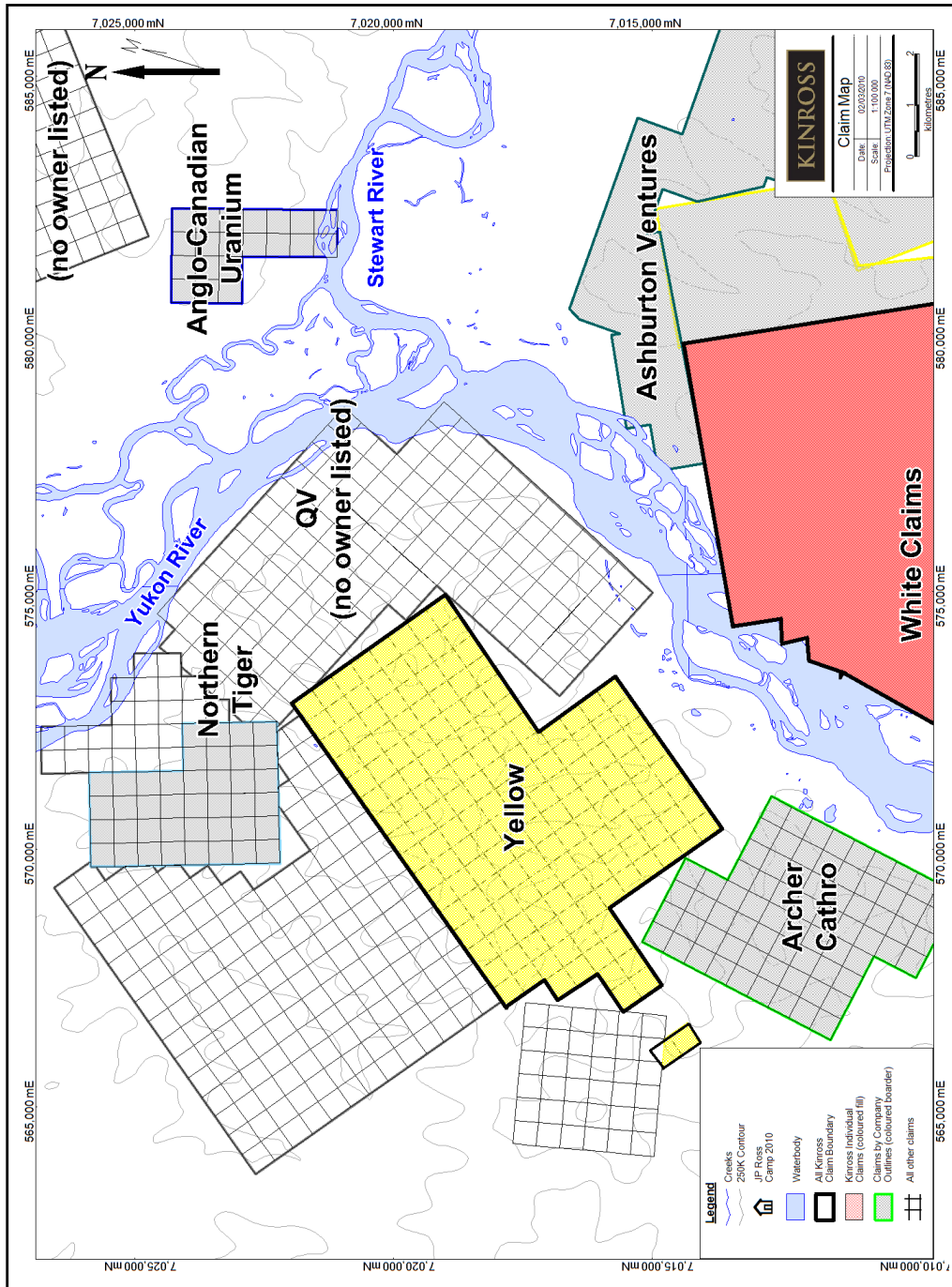


Figure 3: Map outlining the Yellow claim group and all adjoining and surrounding claims

3.2 Physiography

The property is located in the White Gold District of the Yukon Territory, Canada. It is characterized by plains incised by streams into V-shaped valleys with interconnecting ridges. Elevation ranges from 1100 feet at the sides of the rivers (Yukon River) to 4100 feet at ridge tops. The tree line is at approximately 1200 metres. The Yellow Group claims are located approximately 20 km northwest of the Golden Saddle Deposit. The Yukon River is located approximately 2 km south of the property. The area escaped the last two episodes of glaciation.

3.3 Climate

The climate in the Yukon is characterized by low precipitation and a wide temperature range. Winters are cold, and temperatures of -30°C to -40°C are common. Summers are moderately cool to hot, with daily high temperatures of 10°C to 25°C. The property is typically free of snow from late May to the end of September, and the creeks keep flowing from May until October.

3.4 Accessibility

Thistle Creek airstrip is located approximately 25 km to the southeast of the Yellow Claims. From here access to the Yellow property is primarily by helicopter from Thistle Creek airstrip. Fixed-wing aircraft were used for lighter supplies and to fly personnel from Dawson City. The flight time between Dawson City and Thistle Creek is approximately 30 minutes. Helicopters were used throughout the field season to support the field crews.

4.0 REGIONAL GEOLOGY

The Yellow Claims are located within the Yukon-Tanana Terrain (YTT), which spans part of the Yukon Territory and east-central Alaska. This terrane is part of the Intermontane Superterrane, and is bounded to the northeast by the right-lateral Tintina-Kaltag and to the southwest by the Denali-Farewell fault systems. The Yukon-Tanana Terrane is composed of deformed and regionally metamorphosed greenschist to amphibolite facies metasedimentary and metaigneous rocks of Palaeozoic and Proterozoic age (Mortensen, 1992; Dusel-Bacon, 2006).

4.1 Property Geology

The basement rocks in the White Gold District consist of Palaeozoic schist and gneisses that underwent Palaeozoic deformation, metamorphism, and pervasive recrystallization (Mackenzie *et al.*, 2010). The Yellow Claims are underlain by an interlayered Paleozoic sequence that includes Devonian - Mississippian clastic sedimentary rocks, mafic and felsic volcanic rocks, and intrusive rocks (Mortensen 1990). Regionally the rocks have a strong pervasive foliation made up of at least one early foliation (S1) that has been isoclinally folded and transposed into a second penetrative S2 foliation (Mackenzie 2010). The peak of metamorphism was in the late Permian.

The regional-scale mapping by Ryan and Gordey (2004) shows large areas of the mapped area dominated by grey gneiss, quartz-mica schist and amphibolite rock units (Figure 4). Late metamorphic, latest Permian cm to m-scale felsic dikes cut the foliation at low angle and are only weakly foliated

(Mortensen, pers. comm.). These rocks have been intruded by late metamorphic felsic dikes and lower metamorphic grade early Jurassic granodiorite intrusive rocks. The surrounding area is punctuated by Eocene porphyry intrusive dikes and sills (Figure 4).

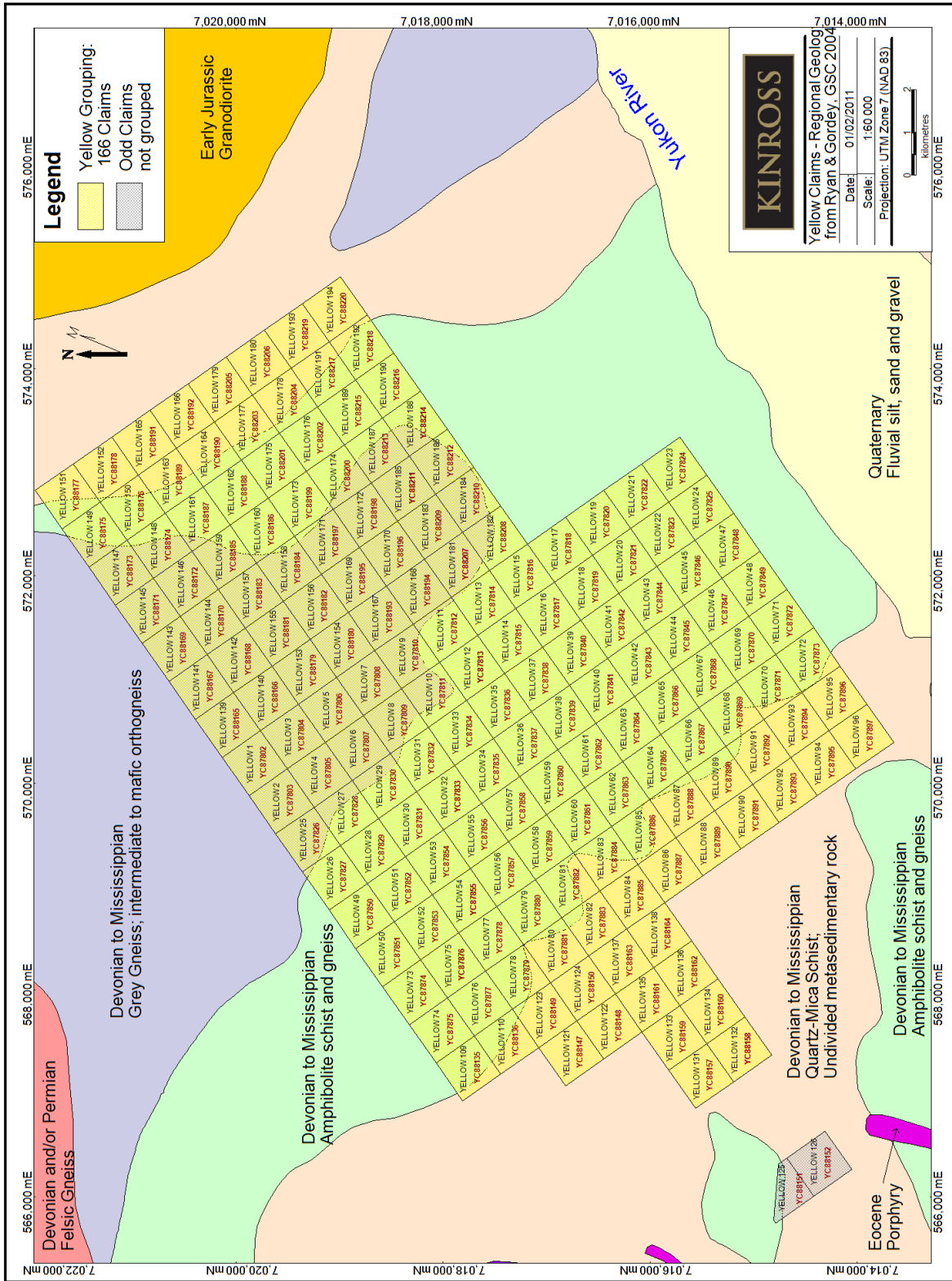


Figure 4: Location map of the Yellow Claims with 2004 Ryan and Gordey GSC Geology map underlain

5.0 DESCRIPTION OF GEOPHYSICAL DATA COLLECTED

A high sensitivity helicopter magnetic and gamma-ray spectrometric survey was carried out for Selene Holding LP (Kinross Gold Corp.) over a project area and series of claims known as the Yellow block which are located ~60 km south of Dawson City, Yukon, Canada.

The survey was flown by New-Sense Geophysics (NSG) under the terms of an agreement with the client dated June 1st, 2010. The survey was flown between June 22nd and August 2nd 2010. A total of 587 km of magnetic and radiometric survey lines were flown over the Yellow claim block.

The Yellow claim block Coordinates are presented below in Table 1:

UTM Nad 83 Zone 7N			
NAD 83_X	NAD 83_Y	WGS84_X	WGS84_Y
572870	7021968	572870	7021968
574924	7018789	574924	7018789
572341	7017199	572341	7017199
573400	7015609	573400	7015609
570353	7013622	570353	7013622
569029	7015212	569029	7015212
567571	7014351	567571	7014351
566313	7016205	566313	7016205
567306	7016934	567306	7016934
566909	7017663	566909	7017663
566777	7017861	566777	7017861
572937	7021968	572937	7021968

Table 1: Block coordinates for the Yellow Claim Block.

Survey Parameters:

Traverse Line spacing:	75 m
Control Line spacing:	750 m
Nominal Terrain clearance:	30 m
Average Terrain clearance:	37.6 m (Yellow block)
Navigation:	Global Positioning System
Traverse Line Direction:	56, 236 deg.
Control Line Direction:	146, 326 deg.
Measurement Interval:	0.1 sec for magnetic

	1.0 sec for radiometrics and GPS
Ground speed (average):	83 km/h (Yellow block)
Measurement spacing (average):	2.3 metres/0.1 sec, 23.0 metres/1 sec (Yellow block)
Airborne Digital Record:	Line Number
	Flight Number
	Radar Altimeter
	Total Field Magnetism
	Live Time
	Thorium counts
	Potassium counts
	Uranium counts
	Upward looking Uranium counts
	Cosmic counts
	Down Spectrum
	Total Counts
	Time (System and GPS)
	Raw Global Positioning System (GPS)
	Magnetic compensation parameters (fluxgate mag.)
Base Station Record:	Ambient Total Field Magnetism
	Raw Global Positioning System (GPS) data
	Time (System and GPS)

6.0 PERSONNEL

6.1 Field Operations

New-Sense Geophysics Ltd., Geophysicist: Sean Plener

New-Sense Geophysics Ltd., Geophysicist: Chris Evans

Fireweed Helicopter, Pilot: Brent Vansickle

Fireweed Helicopters, Pilot: RJ Price

6.2 Office data processing and Offsite QA/QC

QA/QC, Maps, Logistics Report (NSG): Andrei Yakovenko

QA/QC (Bob Ellis EGG Inc.): Bob Ellis

Data Processing and Grids: Andrei Yakovenko, Sean Plener, Chris Evans

6.3 Project Management

New-Sense Geophysics Ltd.: Andrea Yakovenko

Bob Ellis EGG Inc. (client representative): Bob Ellis

Kinross Gold Corp.: Jean-Pierre Londero

7.0 METHOD OF COLLECTION

7.1 Aircraft and Equipment

The aircraft used was a Bell 206B 3 helicopter (C-FFWH) equipped with a Cesium magnetometer mounted in a fixed stinger assembly and RS-500 airborne spectrometer mounted in the storage compartment. Fireweed Helicopters based in Dawson City, Yukon, Canada provided the aircraft service.

7.2 Airborne Geophysical System

7.2.1 Magnetometer

One Scintrex CS-3 optically pumped Cesium split beam sensor was mounted in a fixed stinger assembly. The magnetometer's Lamor frequency output was processed by a KMAG-4 magnetometer counter, which provides 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 re-sampled at 10 Hz.

7.2.2 Magnetic Compensation

The proximity of the aircraft to the magnetic sensor creates a measurable anomalous response as a result of the aircraft's movement. The orientation of the aircraft with respect to the sensor and the motion of 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 those effects.

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 aircraft's movements.

7.2.3 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.

7.2.4 Altimeter

A TRA 3500 radar altimeter was mounted inside with 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-analyzed with a 21 point COSINE filter and re-sampled at 10 Hz.

7.2.5 Geophysical Flight Control System

New Senses's iNAW 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.

7.2.6 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.

7.2.7 Idasdigital 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.

7.2.8 Pressure and Temperature

A Honeywell Precision Pressure Transducer, model PPT0020AWN2V A-A, was used to record the ambient pressure and temperature during the survey. The device was mounted in the helicopter stinger. The pressure and temperature outputs units were mbar and degrees Celsius respectively.

7.2.9 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 1Hz. After each flight the data were copied and synchronized using UTC clock with the iDAS digital records.

7.3 Ground Monitoring System

7.3.1 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 and magnetic noise sources. The sensitivity and absolute accuracy of the ground magnetometer is ± 0.01 nT. 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.

7.3.2 Recording

The outputs of the magnetic and GPS monitors were 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.

7.3.3 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 checking for quality control, the database and uncompensated magnetic readings were exported to QC Tools software package for magnetic compensation and base station merging purposes.

8.0 PRE-SURVEY SPECTROMETER CALIBRATIONS

Pre-survey calibrations and testing of the RS-500 (SN 5516) airborne gamma-ray spectrometry system were carried out on June 21st, 2010 (at the installation base in Dawson, YT) and June 24th, 25th, 2010 (in the vicinity of the White Gold project property). For these calibration and tests the survey aircraft and configurations were selected to conform to contract technical specifications. Calibration of the spectrometer involved:

- **Calibration Pad measurements**, which are used to determine the “spectral overlap” coefficients. The calibration test was performed within a 12 month period before the survey by the manufacturer (Radiation Solutions Inc.).
- **Cosmic Flight Test**, which was used to determine the aircraft background values and cosmic coefficients (conducted on June 24th, 2010).
- **Height Attenuation Test**, which determined the altitude attenuation coefficients.

8.1 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), and their corresponding channel limits are shown in Table 2:

Designation	Energy Limit (keV)		Channel Limit (inclusive)	
	Lower	Upper	Unit Values	
			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		

Table 2: Downward Spectrometer Energy Windows

8.2 Calibration Pad Test

The Compton stripping coefficients as provided by RSI are listed in Table 3:

Stripping Ratios	Spectrometer (SN 5516)	'normal' values
Th into U ($\alpha = a_{23}/a_{33}$)	0.271	0.250
Th into K ($\beta = a_{13}/a_{33}$)	0.396	0.400
U into K ($\gamma = a_{12}/a_{22}$)	0.75	0.810
U into Th ($a = a_{32}/a_{22}$)	0.045	0.060
K into Th ($b = a_{31}/a_{11}$)	0	0
K into U ($g = a_{21}/a_{11}$)	0	0.003

Table 3: Compton Stripping Coefficients

8.3 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 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 (Appendix A).

8.3.1 Setup and measurement procedure

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.

Once the aircraft reached the desired altitude (first at ~8000 feet), survey data were recorded for approximately ten minutes. This was then repeated at 9 000, 10 000, 11 000, and 12 000 feet above sea level (Table 4).

Cosmic Test Flight Data (average counts)						
Altitude (ft)	Cosmic	UU	K	U	Th	TC
8144	172	3	18	10	11	243
9132	223	4	22	13	15	309
10135	259	4	25	15	17	353
11136	304	5	28	18	21	405
12074	353	6	32	20	24	463

Table 4: Cosmic Test Data

8.3.2 Results from Cosmic Flight Test

At each altitude, the raw 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. The results from the graphs (Appendix A) are summarized in Table 5.

Cosmic Flight Test Result from		
	Cosmic stripping	Aircraft Background
K	0.0767	4.8767
U	0.0564	0.4234
Th	0.0674	0
TC	1.2101	37 313
UU	0.0159	0.2207

Table 5: Calculated Cosmic and Aircraft Background Coefficients

8.4 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: 100, 150, 200, 250, 300, 400, 600, 800 and 1000 feet above ground.

8.4.1 Results from Altitude Attenuation Test

The airborne data from the altitude attenuation test was checked for quality. 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 (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 (

Table 6).

Element	Altitude attenuation coefficients
K	-0.0079
U	-0.005
Th	-0.0081
TC	-0.0062

Table 6: Calculated Height Attenuation Coefficient

8.5 Radon Hover Test

The determination of calibration constants that enable the stripping of the effects of the 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. Two test areas were established over an area of flat ground near the base of operations at the White Camp. Each day the aircraft hovered over the test area for ~5 minutes.

a_{uu}	0.2633	Upward Uranium vs down Uranium slope
a_k	0.9498	Potassium vs down Uranium slope
a_T	0.1179	Thorium vs down Uranium slope
a_i	15.302	Total Count vs down Uranium slope
b_{uu}	-0.8826	Upward Uranium background
b_k	39.014	Potassium background
b_T	6.7828	Thorium background
b_i	255.86	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 Upward detector ground component is related to the downward detector ground components by linear equation:

$$u_g = a_1 x U_g + a_2 x T_g$$

Where:

- u_g, U_g and T_g are contribution in the windows that originate from the ground.
- a_1 and a_2 are empirically determined calibration factors.

The procedure, as per IAEA Report # 323, in determining the a_1 and a_2 factors was applied to the survey block dataset with the following results (Table 7):

a_1	0.037892
a_2	0.029686

Table 7: Yellow Block a_1 and a_2 factors

9.0 OPERATIONS AND PROCEDURES

9.1 Flight Planning and Flight Path

The block outline coordinates (Table 1) were used to generate pre-calculated navigation files. The navigation files were used to plan flights at the designated traverse line spacing of 75 m and control lines of 750 m.

9.2 Base Station

Magnetic base stations were established in magnetically quiet areas in the vicinity of the Ross camp (at latitude 63.433016; Longitude: -139.121826) (Figure 5).



Figure 5: Base Station setup located at the White Gold Camp

9.3 Airborne Magnetometers

An FOM test 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 (10,000ft+ above sea level). During this procedure, pitch, roll and yaw maneuvers were performed on the aircraft.

The following ranges were used:

Pitch: 10-15°

Roll: 10-15°

Yaw: 10-15°

See Appendix B for the FOM results as flown on June 22nd, June 29th, 2010 and were used to compensate the magnetic data.

10.0 DATA COMPILATION

10.1 Flight Path Corrections

The navigational correction process yields a flight path expressed in WGS84, World and transformed to correspond to NAD 83 UTM ZONE 7N, North America. The flight line path for the airborne geophysical survey is shown in Figure 6.

10.2 Thorium Resolution Tests

A daily resolution test was carried out in order to monitor the resolution of the spectrometer. The results from the resolution tests were always found to be within the contract specifications.

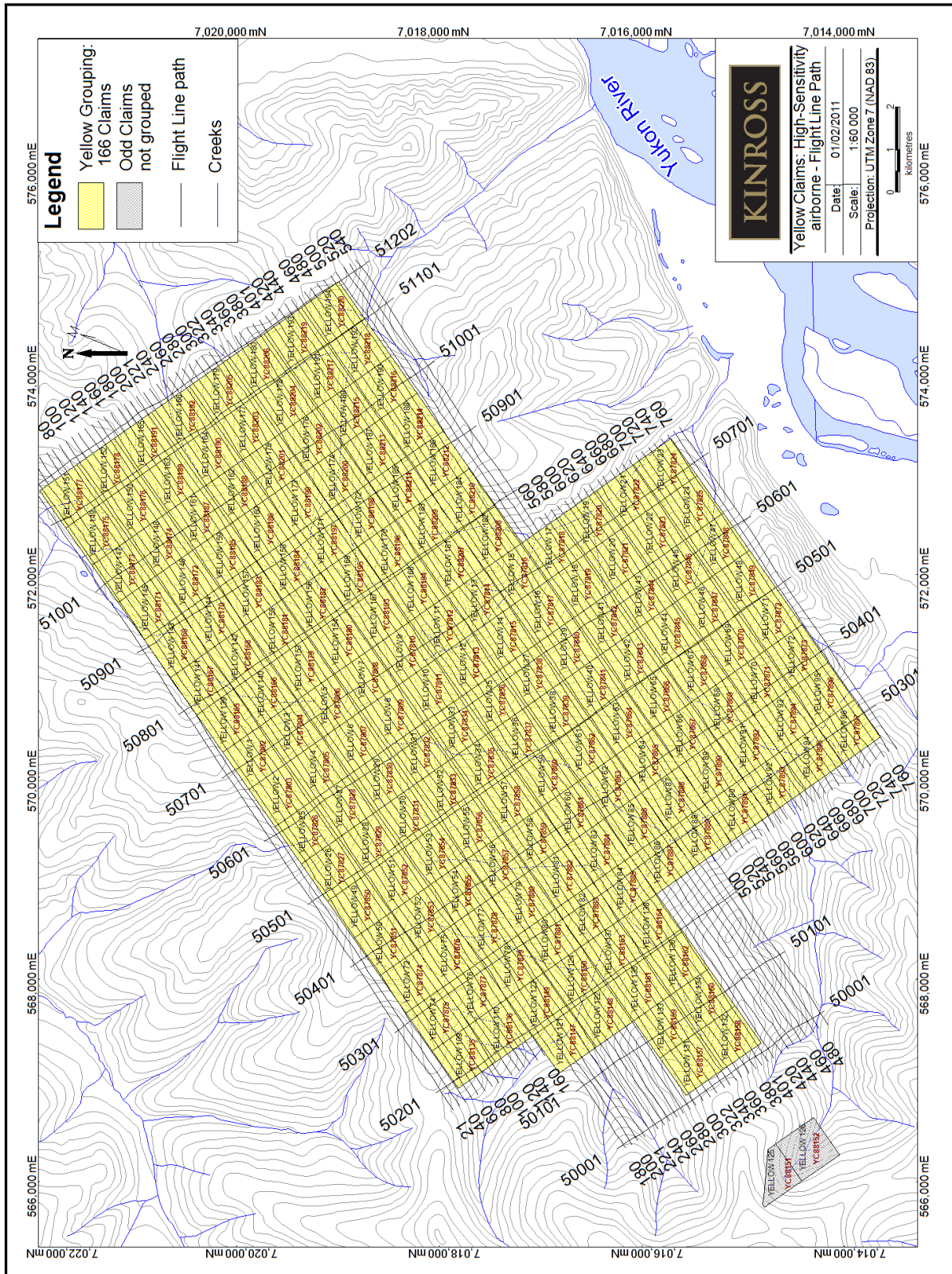


Figure 6: Flight Line Path for Airborne Geophysical survey over the Yellow Group of Claims (166 claims)

10.2 Digital Terrain Model (DTM)

The DTM data was produced by first adjusting the GS sensor height to that of the radar altimeter height (lowering GPS height by 2.1 m). Next the radar altimeter channel (in metres) was subtracted from the GPS height data producing a raw DTM channel. Next the radar altimeter channel (in metres) was subtracted from the GPS height data producing a raw DTM channel. Because of inherent errors, the raw DTM channel required leveling. The following key microlevelling parameters were used (Table 8):

Block Name	Line Spacing (m)	Line Direction (deg.)	Grid Cell Size (m)	Decorrugation Cutoff (m)	Amplitude Limit (nT)	Amplitude Limit Mode	Naudy Filter Limit
Yellow	75	56	15	300	15	Clip	0

Table 8: DTM microlevelling parameters

The DTM contours produced from data collected during the airborne geophysical survey across the Yellow claim block are shown in Figure 7 and the final contoured and coloured DTM image shown in Figure 8.

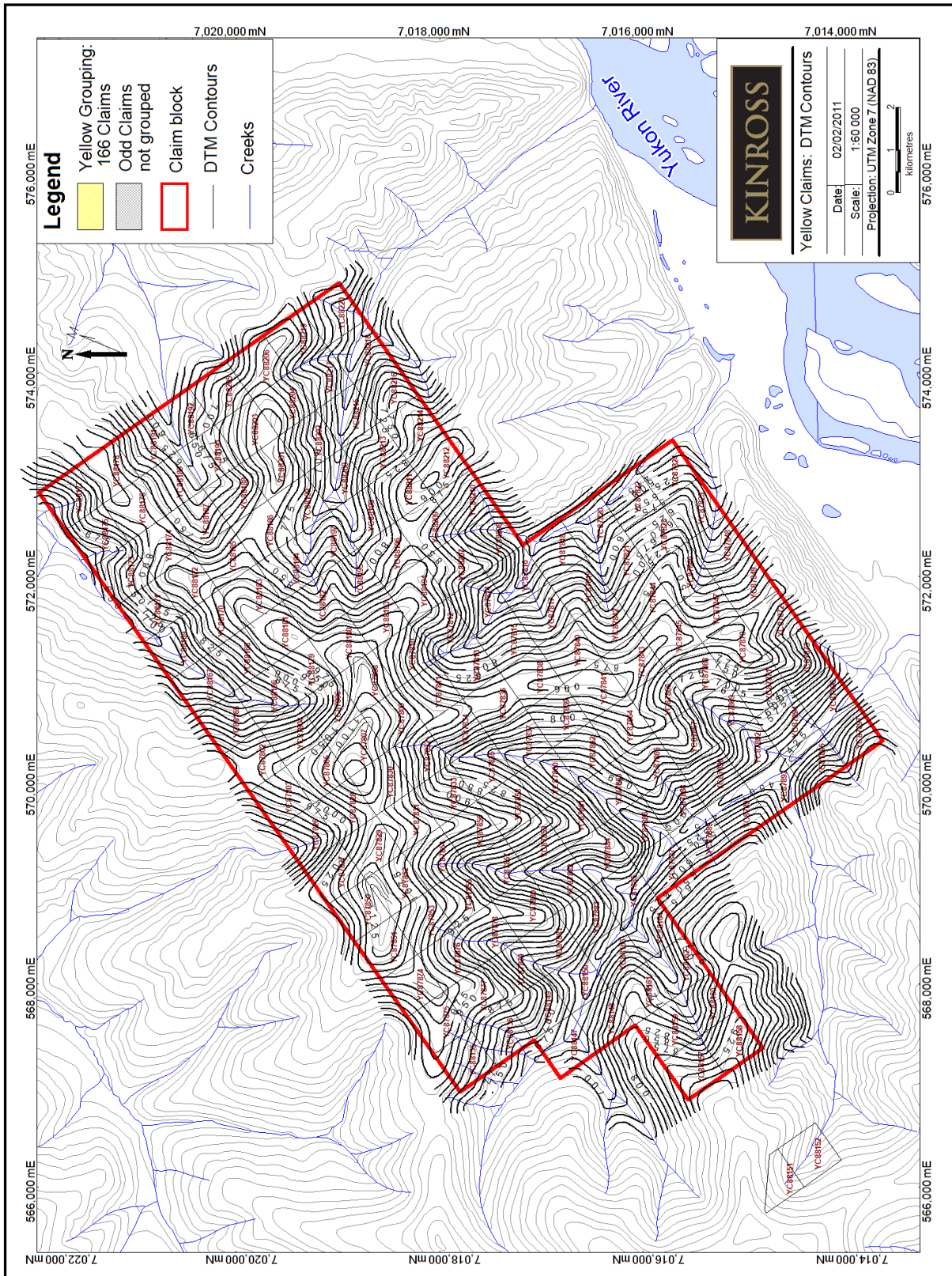


Figure 7: Digital Terrain Model (DTM) Contours produced for the Yellow Claim Block

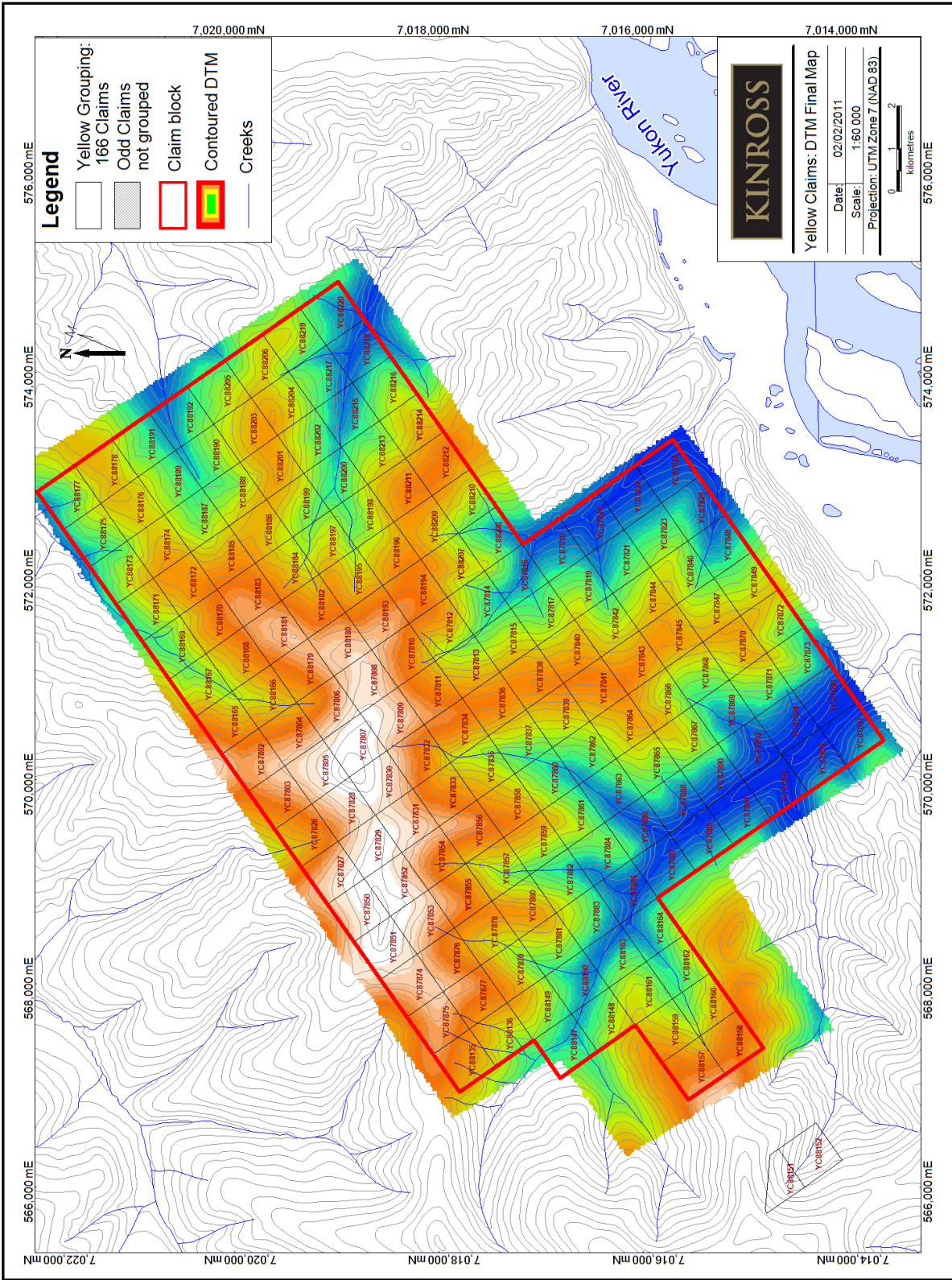


Figure 8: Map showing the final contoured Digital Terrain Model (DTM) map for the Yellow Claim Block

10.3 Magnetic Corrections

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.

10.3.1 Diurnal Corrections

The compensated magnetic data were adjusted to account for diurnal variations. When the magnetic variation recorded at the base station recognized to be caused by manmade 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 101-point low pass filter. The filtered data was then subtracted directly from the aeromagnetic measurements to provide 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, project averages were added back to the magnetic data (Table 9).

Block Name	Average Readings (nT)
Yellow	57544.27

Table 9: Base Station Project Averages Per Block

10.3.2 Lag Corrections

There are two potential types of Lag offsets when collecting airborne data: time lag and distance lag. The distance lag is determined by dividing the distance from the GPS antenna to the sensor head by the averaged sample rate distance (Table 10).

Block Name	Distance from GPS Antenna to Sensor Head (m)	Average Sample Interval (m)	Lag Applied to Magnetic Data (records)
Yellow	9.2	2.3	-4

Table 10: Lag Corrections for Yellow Block

10.3.3 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.

Two heading test flights were flown at magnetically quiet area at 10,000 +ft above sea level altitude on June 24th and June 29th, 2010 with the following results (Table 11 and Table 12):

Line	Direction (deg.)	Mean on line (nT)	Mean in direction (nT)	Mean on heading (nT)	Error (nT)
	0				2.547
15	56	57157.66	57157.26	57155.40	-1.86
17	56	57156.85			
14	236	57153.20	57153.55		1.86
16	236	57153.89			
24	146	57160.55	57160.58	57155.36	-5.22
26	146	57160.61			
25	326	57150.24	57150.14		5.22
27	326	57150.04			

Table 11: Heading Test Flight Results: June 24th, 2010

Line	Direction (deg.)	Mean on line (nT)	Mean in direction (nT)	Mean on heading (nT)	Error (nT)
					-3.55
22	56	57235.40	57235.36	57232.95	-2.41
24	56	57235.32			
23	236	57228.86	57230.55		2.41
25	236	57232.23			
14	146	57227.91	57227.61	57231.85	4.24
16	146	57227.30			
13	326	57235.21	57236.09		-4.24
15	326	57236.97			

Table 12: Heading Test Flight Results: June 29th, 2010

Line Direction				
FLT #	56 deg.	236 deg.	146 deg.	326 deg.
59	-0.5	0.5		
61	-1.5	1.5		
62	-0.5	0.5		
63	-1.5	1.5	4.24	-4.24

Table 13: Empirically Determined Heading Errors: Yellow Block

10.3.4 IGRF Corrections

The total field strength of the International geomagnetic Reference Field (IGRF) was calculated for every data point, based on spot values of Latitude, Longitude and altitude. 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. The bring the total magnetic measurements back to 'normal' values an average of IGRF values based on the whole project were added back to the magnetic data (Table 13 and Table 14,).

Block Name	Average Readings (nT)
Yellow	57306.37

Table 14: IGRF Averages for the Yellow Block

10.3.5 Leveling Corrections

After the data were corrected for IGRF, a survey control line intercepts matrix was created for determining differences in magnetic field at the intersection points. The same key parameters were used as shown in Table 8.

10.4 Vertical derivative

A 1-st Order vertical Derivative (VDV) data were calculated using 2D FFT2 algorithm based on final TMI grid. The resulting VDV grid was the filtered with a Hanning 3x3, with 2 passes, filter and sampled back to the database (Figure 9).

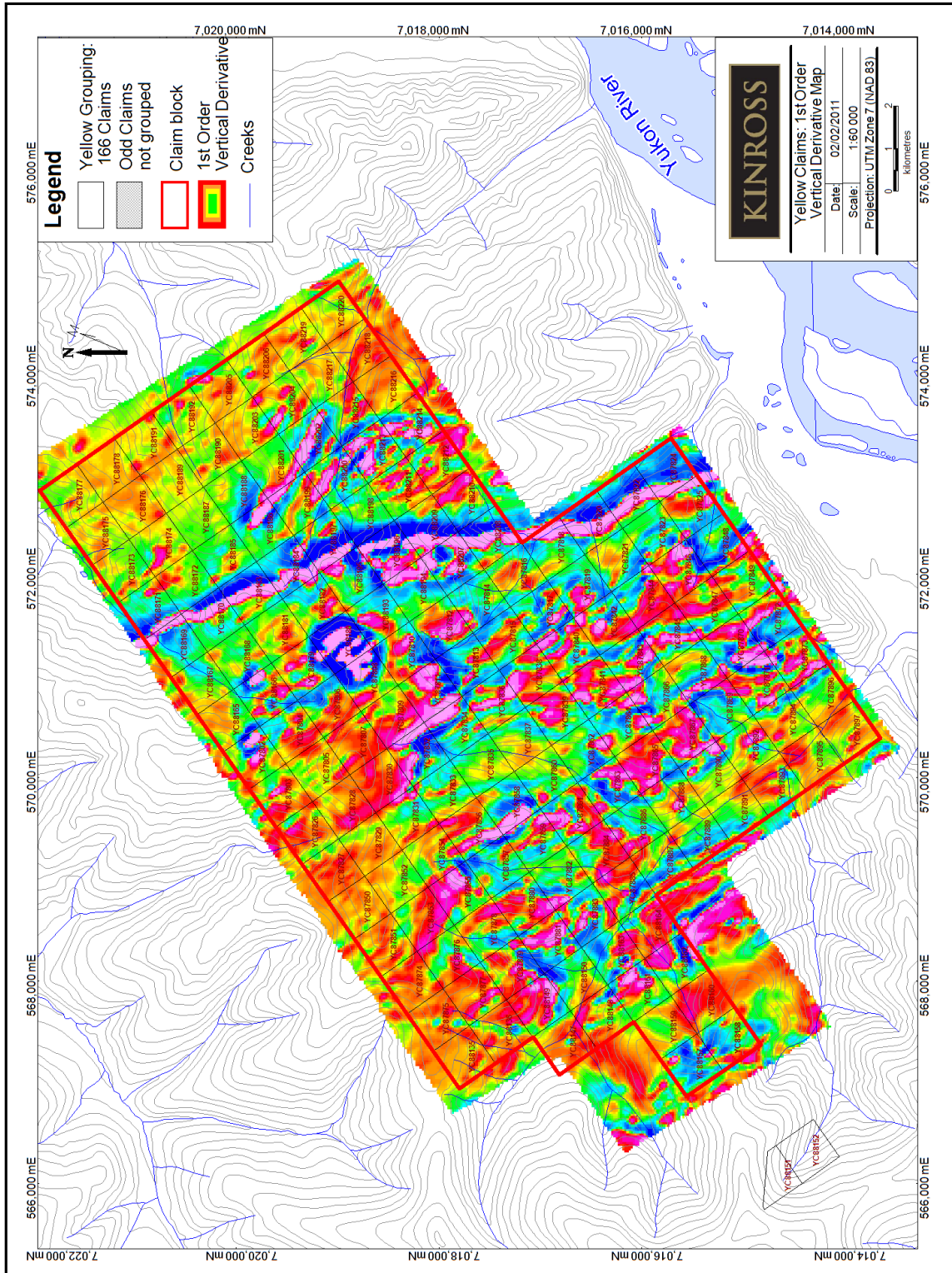


Figure 9: Map of the Yellow Block showing the final 1st-Order Vertical Derivative (VDV) Map

10.5 Radiometric Corrections

10.5.1 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

10.5.2 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, 11 and 21 point low pass filters respectively. The radar altimeter channel while recorded at 50Hz was filtered with 21-point COSINE filter and then sampled to 1Hz.

10.5.3 Aircraft and Cosmic Background

Aircraft background and cosmic stripping corrections 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.

10.5.4 Radon Correction

The relationships between the counts in the downward uranium window and on the four other windows (i.e., upward uranium, thorium, potassium and total count) due to atmospheric radon were determined using linear regression for the test site

The equations solved were:

$$u_r = a_u \times U_r + b_u$$

$$K_r = a_K \times U_r + b_K$$

$$T_r = a_T \times U_r + b_T$$

$$I_r = a_I \times U_r + b_I$$

Where:

- u_r is the radon component in the upward uranium window
- K_r , U_r , T_r and I_r are the radon components in the various windows of the downward detectors
- The various “a” and “b” coefficients are the required calibration constants

The radon component in the downward uranium window was then determined using the following formula:

$$U_r = \frac{(u_f - a_1 \times U_f - a_2 \times Th_f + a_2 \times b_r - b_u)}{(a_u - a_1 - a_2 \times a_r)}$$

Where:

- U_r is the radon component in the downward uranium window
- u_f is the filtered upward uranium
- U_f is the filtered uranium
- Th_f is the filtered thorium
- a_1 , a_2 are proportionality factors
- b_u and b_r are background constants

10.5.5 Compton Stripping

Following the background and cosmic corrections (above) the potassium, uranium and thorium were corrected for spectral overlap.

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

$$ar = \frac{1}{1-aa_h}$$

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

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

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

Where:

- U_c , Th_c , and K_c are corrected Uranium, Thorium and Potassium
- ah , βh , and χh are the height corrected Compton stripping coefficients
- U_{rc} , 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 were replaced with zeroes.

10.5.6 Attenuation Corrections

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

$$C_a = C \times e^{-\mu(h-h_0)}$$

Where:

- C_a is the output altitude corrected channel
- C is the input channel
- μ is the attenuation correction for that channel
- h_e is the STP height
- h_0 is the nominal survey altitude

10.5.6.1 Leveling of Attenuation Corrected data

The altitude attenuation corrected data for all the Traverse lines were further microleveled with the following key parameters:

Block Name	Line Spacing (m)	Line Direction (deg.)	Grid Cell Size (m)	Decorrugation Cutoff (m)	Amplitude Limit (nT)	Amplitude Limit mode	Naudy Filter Limit
Yellow	75	56	15	300	15	Clip	100

Table 15: Uranium microlevelling parameters

Block Name	Line Spacing (m)	Line Direction (deg.)	Grid Cell Size (m)	Decorrugation Cutoff (m)	Amplitude Limit (nT)	Amplitude Limit mode	Naudy Filter Limit
Yellow	75	56	15	300	15	Clip	100

Table 16: Thorium microlevelling parameters

Block Name	Line Spacing (m)	Line Direction (deg.)	Grid Cell Size (m)	Decorrugation Cutoff (m)	Amplitude Limit (nT)	Amplitude Limit mode	Naudy Filter Limit
Yellow	75	56	15	300	30	Clip	100

Table 17: Potassium microlevelling parameters

Block Name	Line Spacing (m)	Line Direction (deg.)	Grid Cell Size (m)	Decorrugation Cutoff (m)	Amplitude Limit (nT)	Amplitude Limit mode	Naudy Filter Limit
Yellow	75	56	15	300	200	Clip	100

Table 18: Total Count microlevelling parameters

10.5.6.2 Ternary Map

The radioelement ternary map was produced by creating individual grids for the three radioelements (potassium, thorium and uranium), then assigning a colour to each. Cyan represents thorium, yellow uranium, and magenta potassium. The relative concentrations of the radioelements are represented by the blending of the three aforementioned colours (Figure 17).

11.0 RESULTS AND INTERPRETATION

The results and maps included with this report display the magnetic and radiometric properties of the geophysical survey area. The combination of geophysical data and regional geological information allows some general correlations to be made.

11.1 Magnetism

The Total Magnetic Intensity (TMI) final map was one of the main products from the high resolution airborne survey flown across the Yellow Claim block (Figure 11). Anomalies identified from the colour-shaded TMI map are presented herein: There appears to be a strong approximately north-south trending magnetic high in the central portion of the claim group (Figure 11). This may represent the truncation of lithological units, perhaps as a thrust fault, which is typical for much of the surrounding regional geology. A large, yet diffuse magnetic high region occurs in the northwest part of the claim block. Amphibolite gneiss units typically crop out on ridge tops, the north-south trending magnetic high observed transecting the yellow claim block may also be attributed to such outcrops (Figure 11). The lithological contact between quartz-mica schist and amphibolite schist and gneiss which is mapped in the southwestern margin of the claim block is like inferred from magnetic data. The lithological contact undulates and can be roughly paralleled in the magnetic dataset.

Using the 1st-Order Vertical Derivative (Figure 9) the survey is potentially less-sensitive to noise in the data. When compared to the TMI image for the Yellow Claim Block (Figure 11), the 1st-Order VDV image (Figure 9) provides a close association between distinctively magnetic high areas; particularly along the north-south trending magnetic high that transects the property.

Strong, diffuse magnetic highs, such as those observed in the northwest corner of the claim block are likely a result of host bedrock geology. For the purposes of interpretation when the TMI image (Figure 11) is overlain over the regional geology from Ryan and Gordey (2004) no conclusive correlations were found.

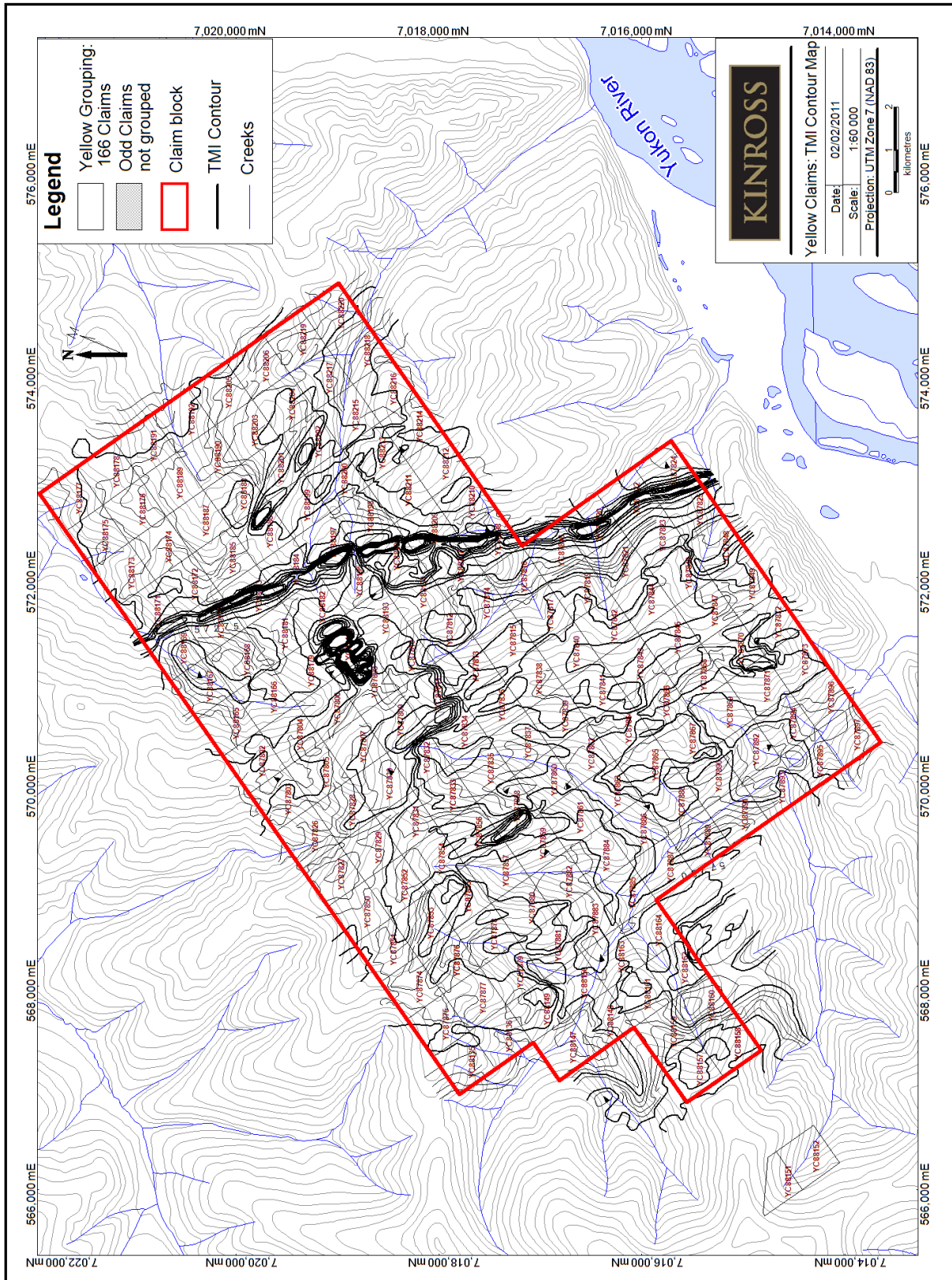


Figure 10: Total Magnetic Intensity (TMI) contour map for the Yellow Claim block.

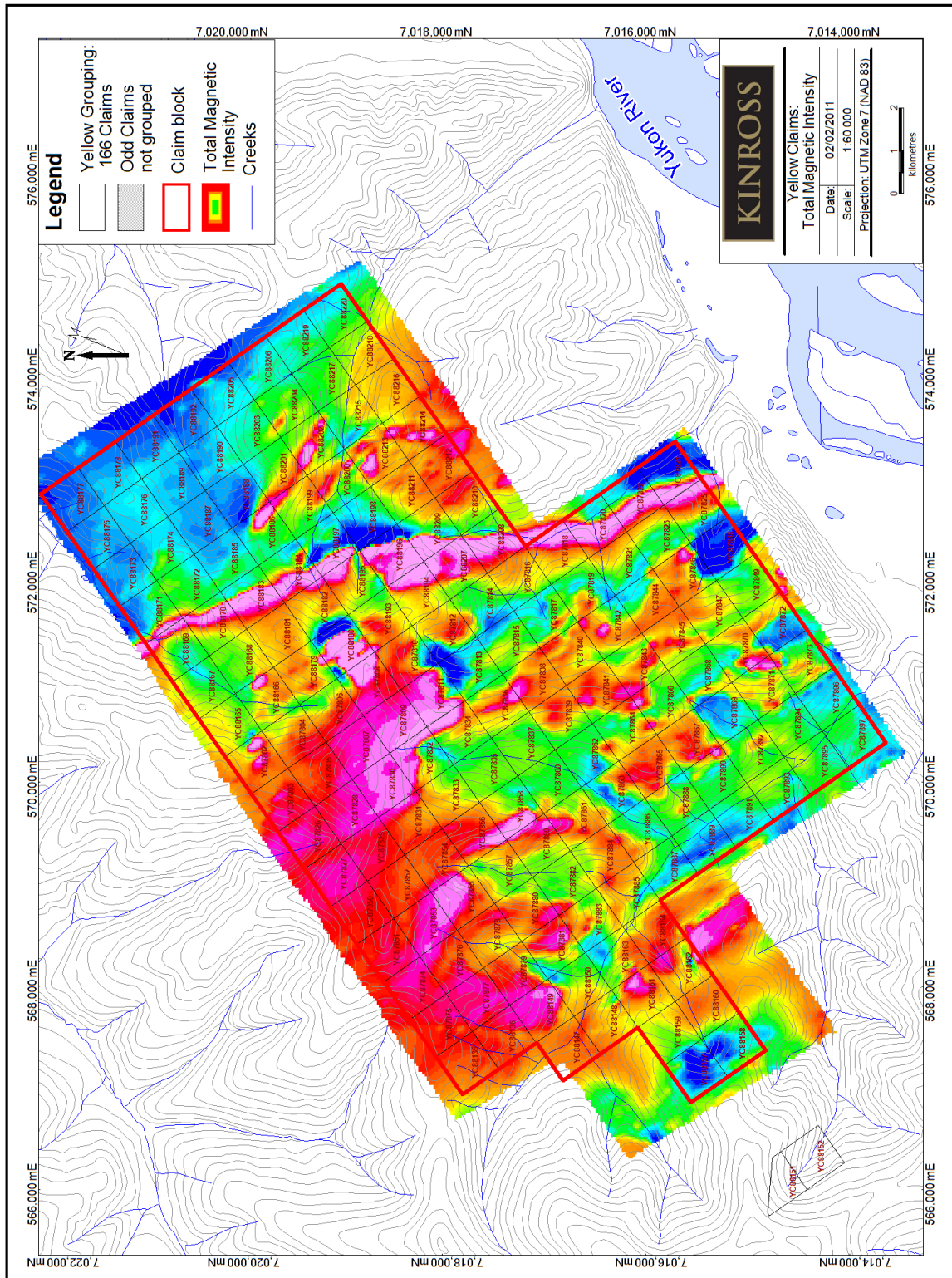


Figure 11: Final Total Magnetic Intensity (TMI) image for the Yellow claim block. Traverse lines: 75m, 56/236 deg. From true North; Control Lines: 750 m, 146/326 deg. from true North. Average Sample Interval: 2.0 m/sample (10Hz), Average Sensor Height From Ground: 35.7 m.

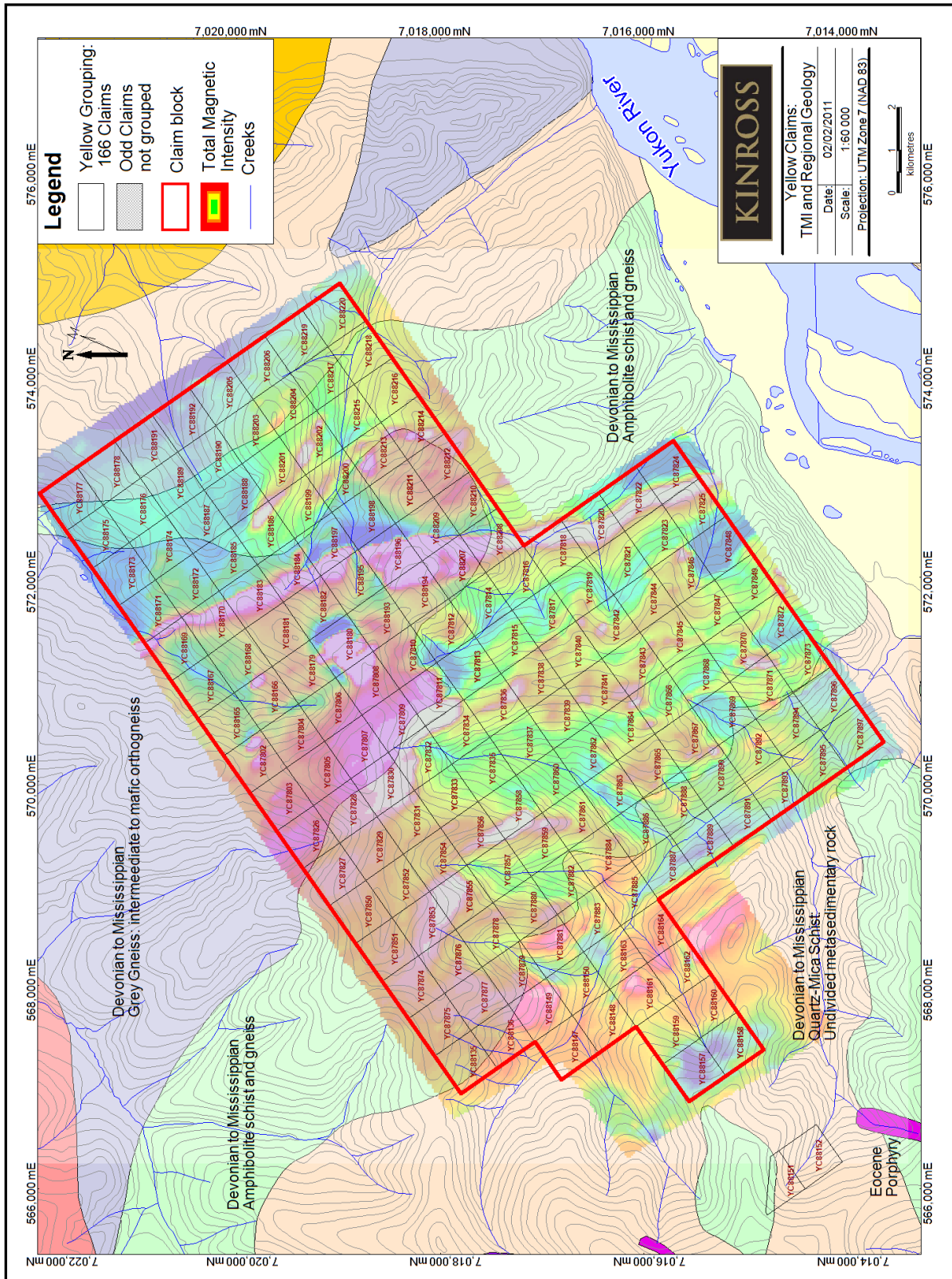


Figure 12: Final Total Magnetic Intensity (TMI) image for the Yellow claim block overlain of the Ryan and Gordey (2004) GSC regional geology map of the Stewart River area.

11.2 Radiometrics

High-sensitivity, quantitative gamma-ray spectrometry has been applied to the Yellow Claim Block to aid in the mineral exploration on the property. The method depends upon the fact that absolute and relative concentrations of radioelements K, U and Th vary measurably and significantly with lithology.

The radiometric survey provided good resolution the Yellow Claim Block (Figure 13). In particular, the Potassium (K) map shows irregular potassium highs. These distinct high areas are located across the Yellow claim block; they may correspond with intrusive bodies across the property (Figure 13). The K response is a good indicator of underlying mica-rich schistose units. When overlain over the regional geology map (Ryan and Gordey, 2004) the Devonian to Mississippian grey gneiss gives a relatively elevated potassium response in the northern central part of the claim block. In addition the block image of Thorium (Th) across the Yellow Claim Block correlates well with the aforementioned imaged Potassium map (Figure 15). The Uranium (U) map produced for the Yellow claims (Figure 16) presents a relatively subdued radiometric response in comparison to both the potassium and thorium maps (Figure 13 and Figure 15).

The Ternary Image map (Figure 17) for the Yellow Claim Block emphasizes subtle distinctions in the relative concentrations of the radioactive elements, thereby 'fingerprinting' formations (Grasty et al., 1984). The ternary map shows a single colour image representing the relative concentrations of K (magenta), eU (cyan) and eTh (yellow) (see Figure 17). The method was effective at subdividing relatively acid igneous rocks and metamorphic rocks when they were not covered by impermeable transported material. The Ternary map (Figure 17) shows areas relatively anomalous in K83, these are located to the South of the claim block and may correspond to areas mapped as crowded feldspar porphyry and biotite-quartz-feldspar gneiss. There are no coincident potassium anomalies and magnetic highs interpreted from the K map (Figure 13) and TMI map (Figure 11).

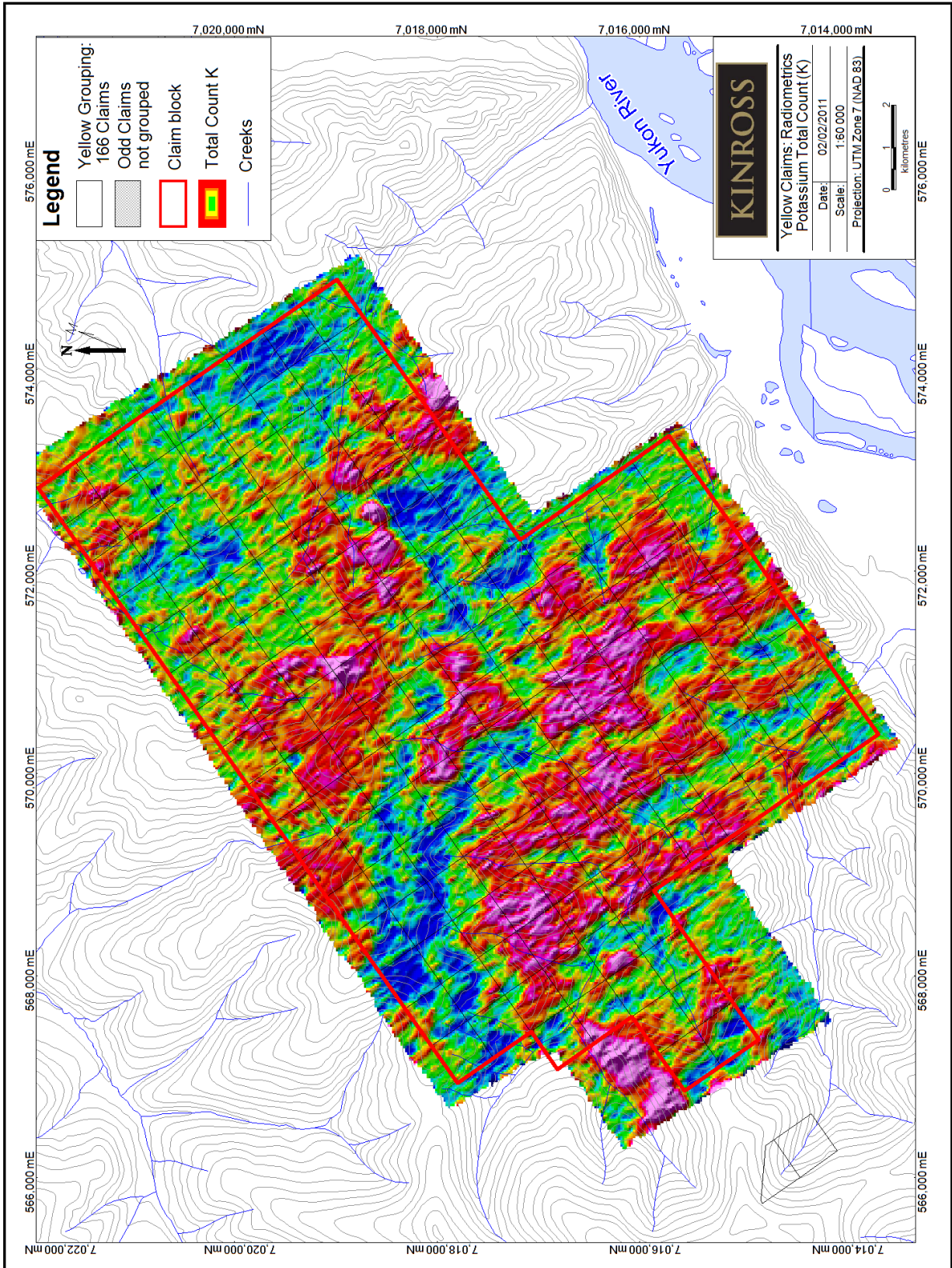


Figure 13: Final Potassium (K) map for the Yellow Claim Block. Traverse lines: 75 m, 56/236 deg. From true North; Control lines: 750 m, 146/326 deg. From true North. Average Sample Interval: 20.0 m/sample (1Hz). Average Sensor Height From Ground: 36.0 m.

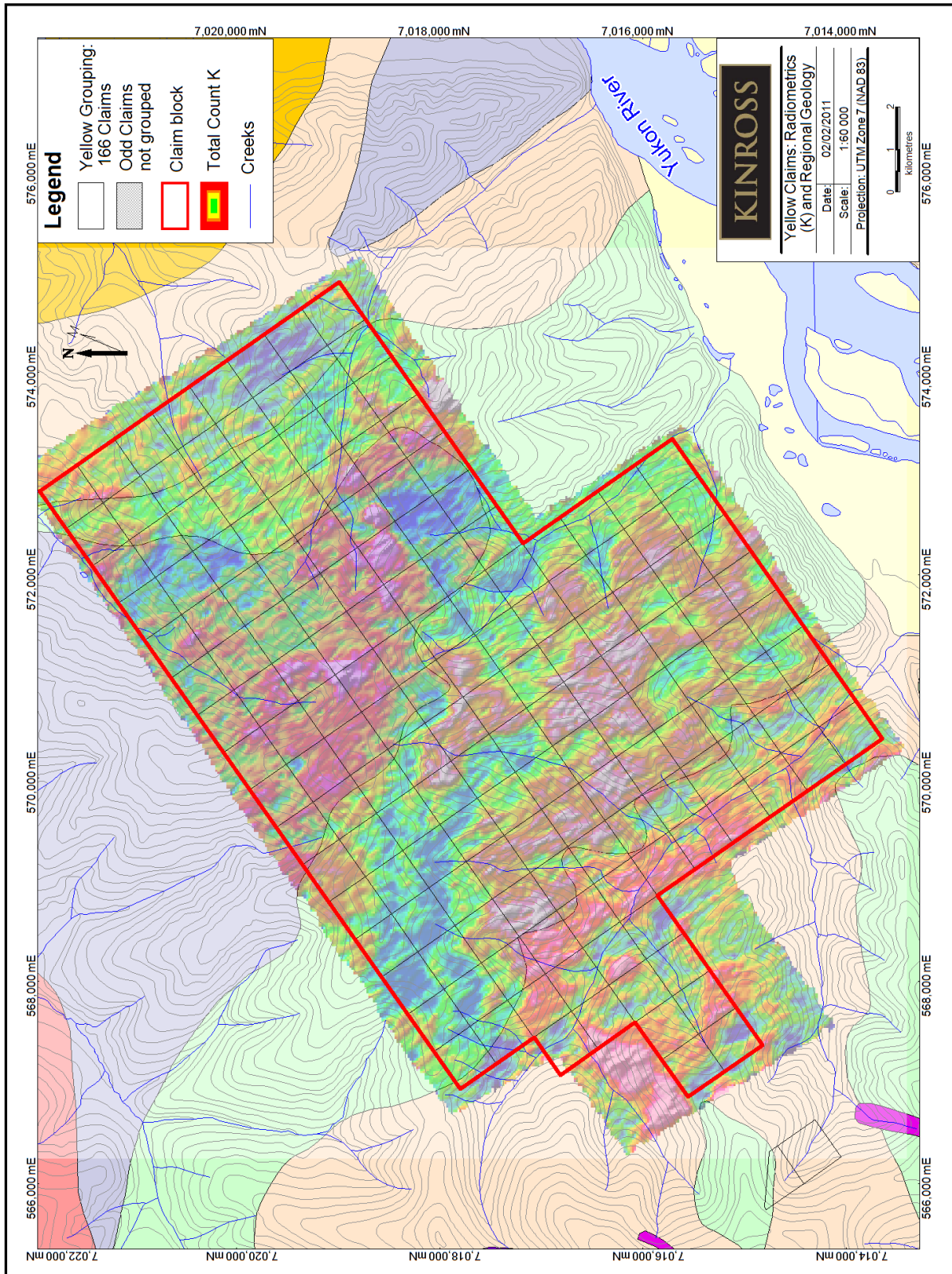


Figure 14: Final Potassium (K) map for the Yellow Claim block, overlain over the 2004 GSC regional geology map of the Stewart River area by Ryan and Gordey.

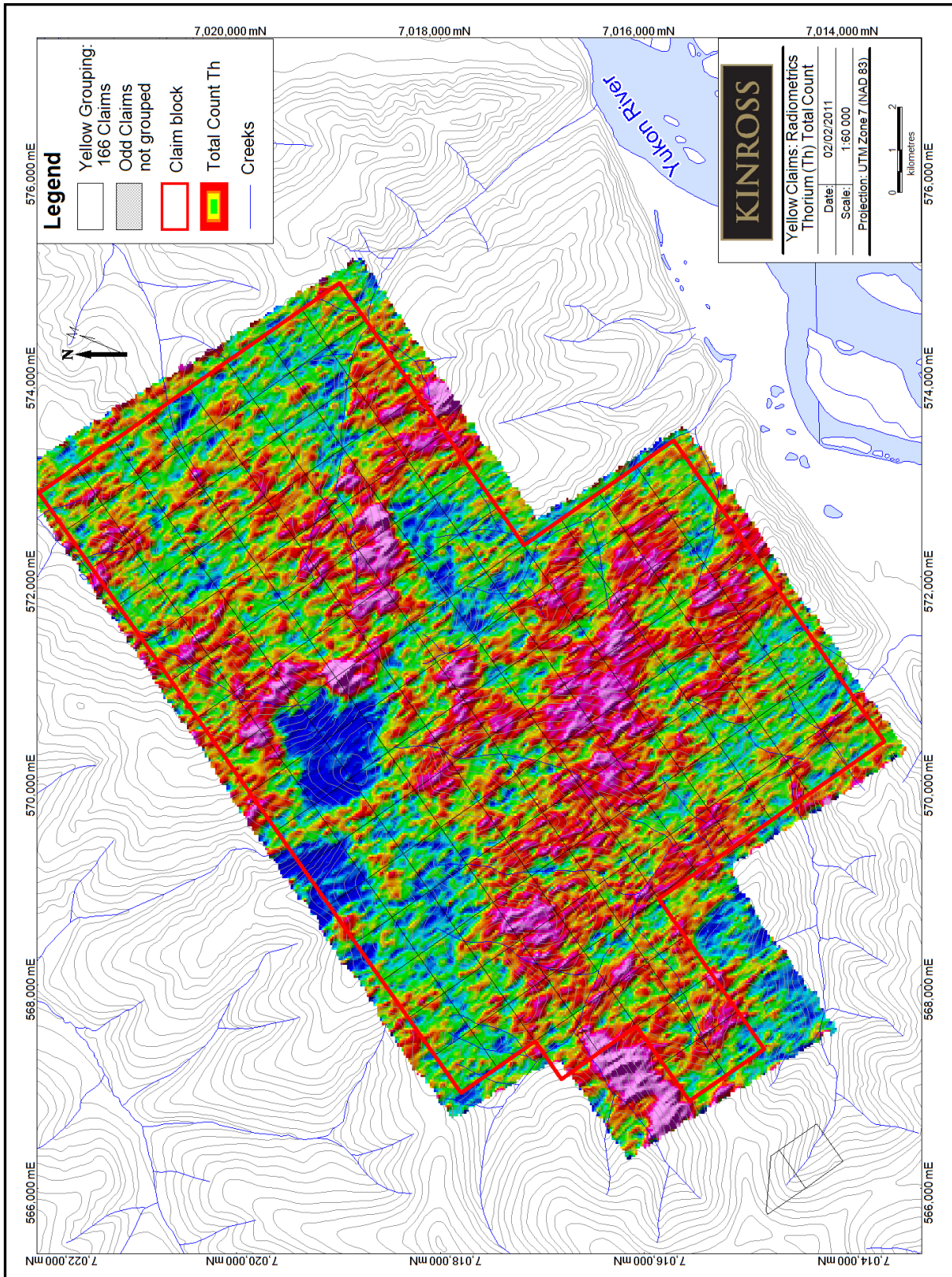


Figure 15: Final Thorium (Th) map for the Yellow Claim Block. Traverse lines: 75m, 56/236 deg. From True North; Control Lines: 750 m, 146/326 deg. From True North. Average Sample Interval: 20.0 m/sample (1Hz). Average Sensor Height From Ground: 36 m.

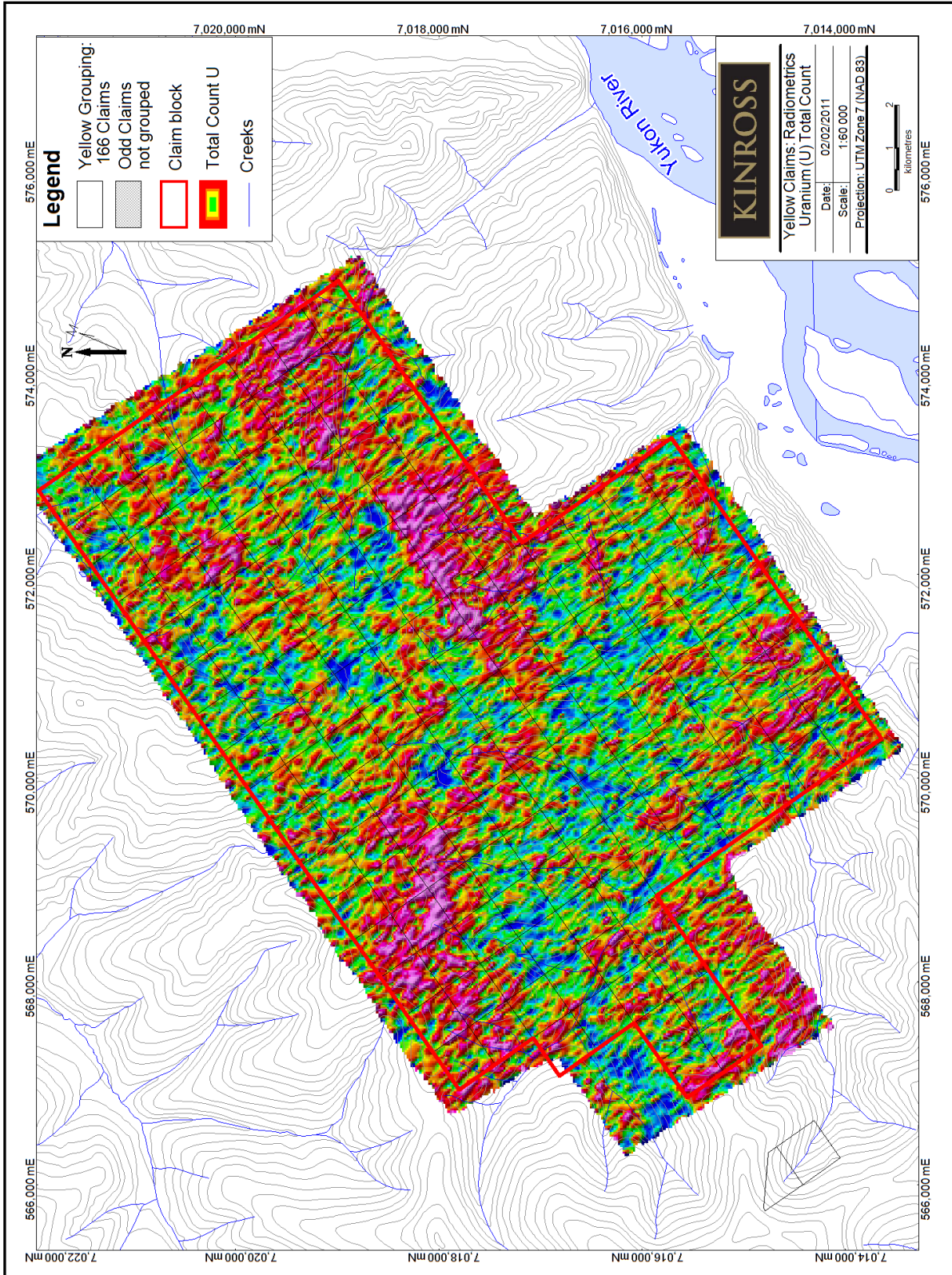


Figure 16: Final Uranium (U) map for the Yellow Claim Block. Traverse lines: 75m, 56/236 deg. From True North; Control Lines: 750 m, 146/326 deg. From True North. Average Sample Interval: 20.0 m/sample (1Hz). Average Sensor Height From Ground: 36 m.

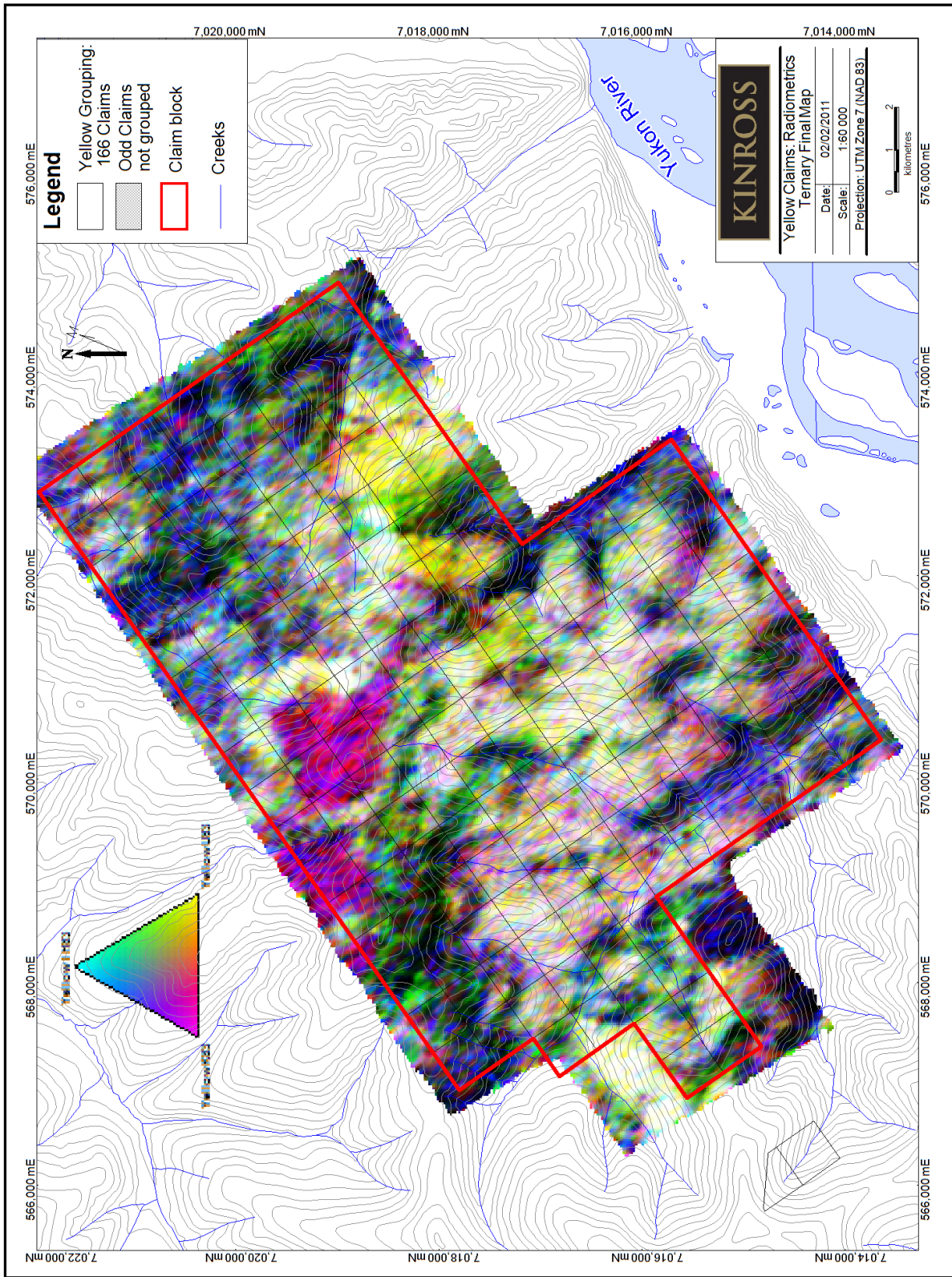


Figure 17: Final Ternary (K-eU-eTh) image map for the Yellow Block. Traverse lines: 75m, 56/236 deg. From True North; Control Lines: 750 m, 146/326 deg. From True North. Average Sample Interval: 20.0 m/sample (1Hz). Average Sensor Height From Ground: 36 m.

12.0 DISCUSSION & CONCLUSIONS

The Yellow group of claims is a helicopter-accessible property located in the White Gold District of the Yukon Territory. It comprises 1 group of 166 full -size quartz claims (Appendix 1). The property represents an under explored part of the White Gold District; high-profile interest in the nearby Golden Saddle Deposit makes the Yellow group of claims an attractive and potentially prospective piece of the Yukon. Owing to vegetation cover, and lack of good surface outcrop the high-sensitivity airborne geophysical survey represents an additional tool aiding in mineral exploration and the development of a geological context for the property. Previous geological mapping comprises the Ryan and Gordey 2004 regional geological map of the Stewart River area.

The high-sensitivity airborne geophysical survey conducted across the Yellow claim block during summer 2010 provides the only known geophysical data for the Yellow property. The 2010 survey provided detailed images of potassium, uranium and thorium enrichment or depletion across the survey block. These images will be used as exploration tools to further aid mineral exploration at the property and regional-scale.

Further data processing and refined presentation methods may enhance interpretations made herein. The magnetic and radiometric data collected must be applied to a constrained geological model in order to fully process the results. But as a first pass, the final TMI, DTM, VDV and K, U and Th, Ternary maps are a good basis for further exploration, especially when used in conjunction with regional historical mapping (Figure 4).

The radiometric K-U-Th image maps and the ternary map for the Yellow Claim Block provided good image resolution for first-pass interpretation of property-scale host rock, particularly intrusive rock types (K-high areas) and structural geology. The gradient from higher values in the south to lower in the north indicates a lithologic change in bedrock composition.

Considering the position of the Yellow claims to the Golden Saddle Deposit and the recently discovered Coffee prospect, additional mapping, prospecting and geochemical soil and rock sampling is certainly warranted.

Statement of Expenditures on the Yellow Claims

Details of Contract Services for the complete geophysics survey with proportion expended on the Yellow claims.

Field Personnel: New-Sense Geophysics Ltd.

Equipment/Survey & Final Report	\$717,286.00
Helicopter Fuel 231 helicopter hours x 100 liter/ hour x \$2.50/ liters	\$57,750.00
Room and Board 42 Days at \$75/day/person x2	\$6,300.00
Ellis Geophysical Consultant Inc. Set Up Preparation of preliminary results	\$11,143.00
Ellis Geophysical Consultant Inc. Preparation of Final results	\$4,778.51
Yellow claims (166 claims)	\$29,669.32
Total Expenditure for 2010 High-Sensitivity Airborne Survey all Selene Holdings Claims	\$797,257.51
Total Expenditure for 2010 High-Sensitivity Airborne Survey /Yellow Claim Block only	<u>\$29,669.32</u>

References

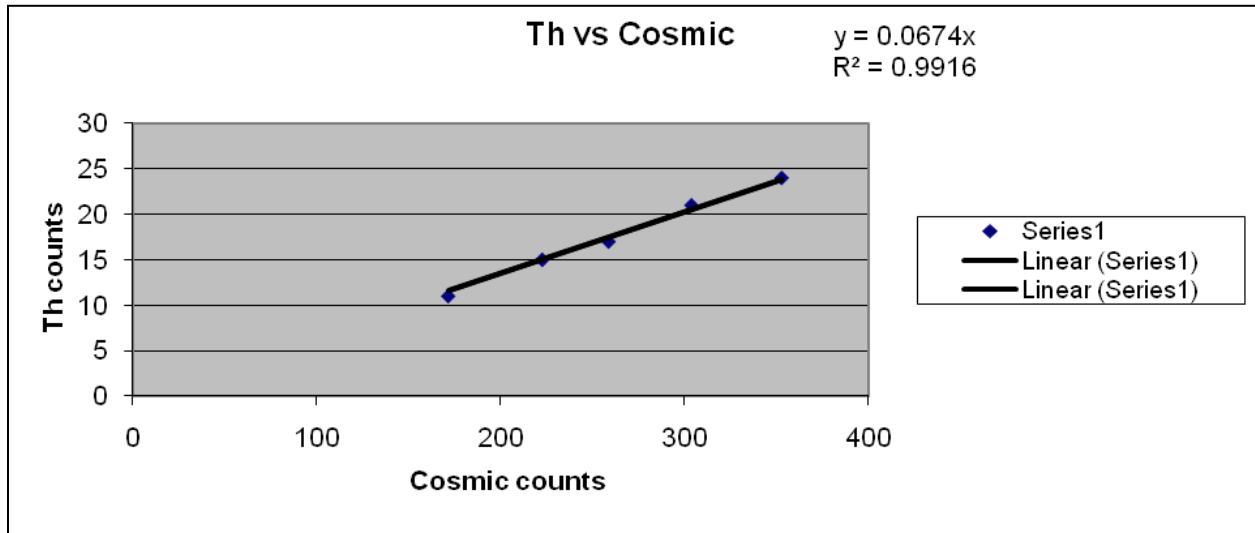
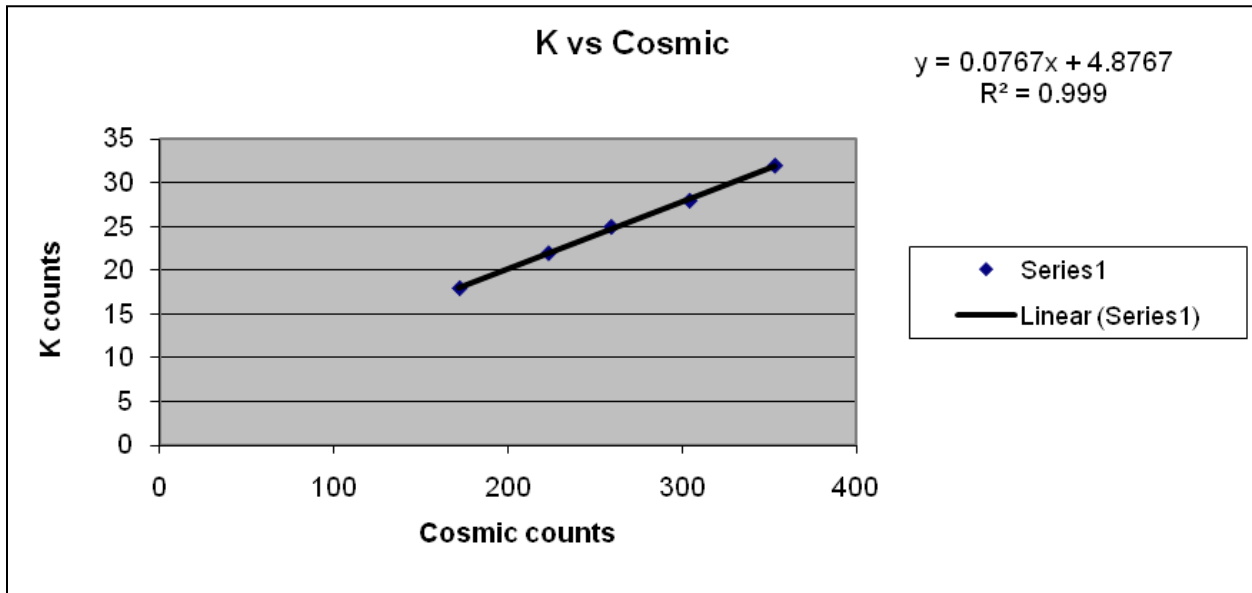
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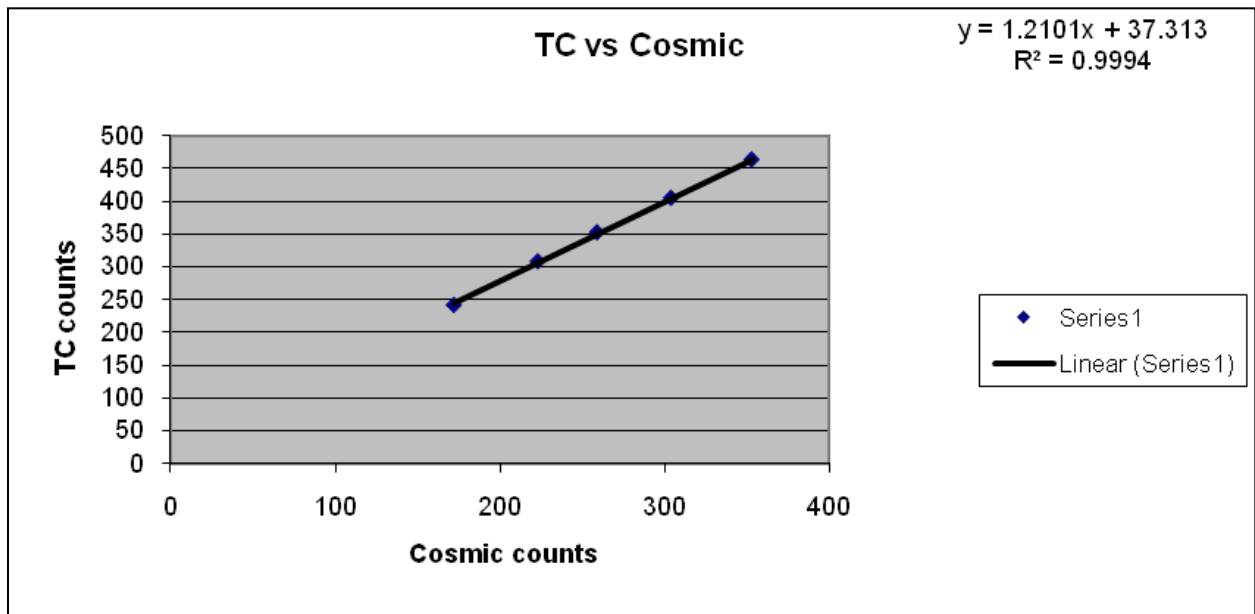
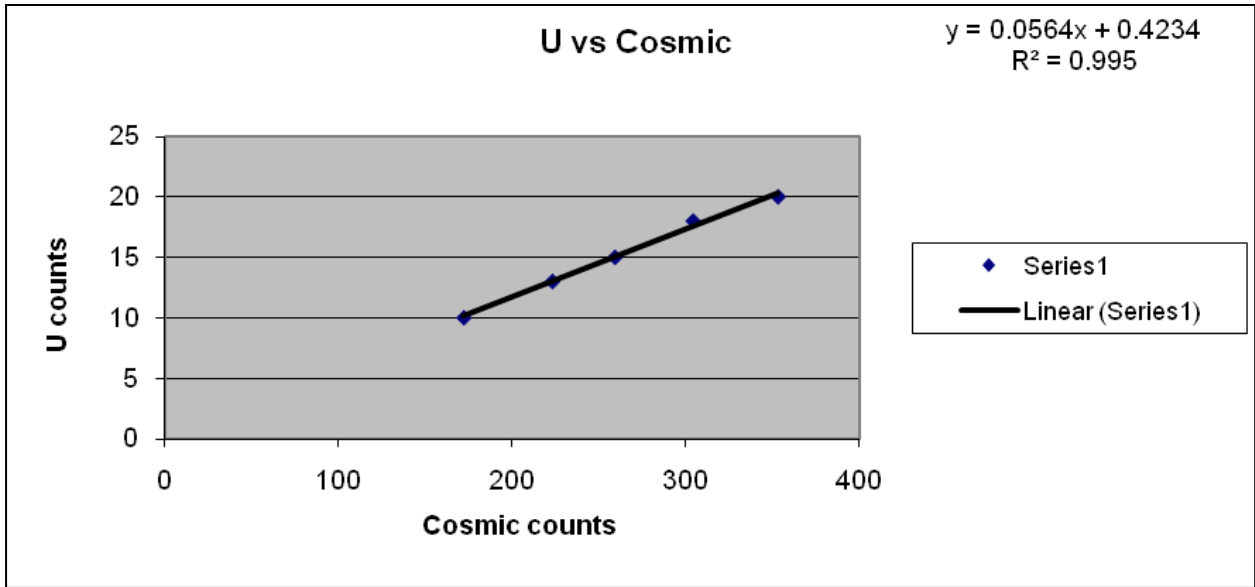
Appendix 1: List of all Claims for Yellow Claim Group:

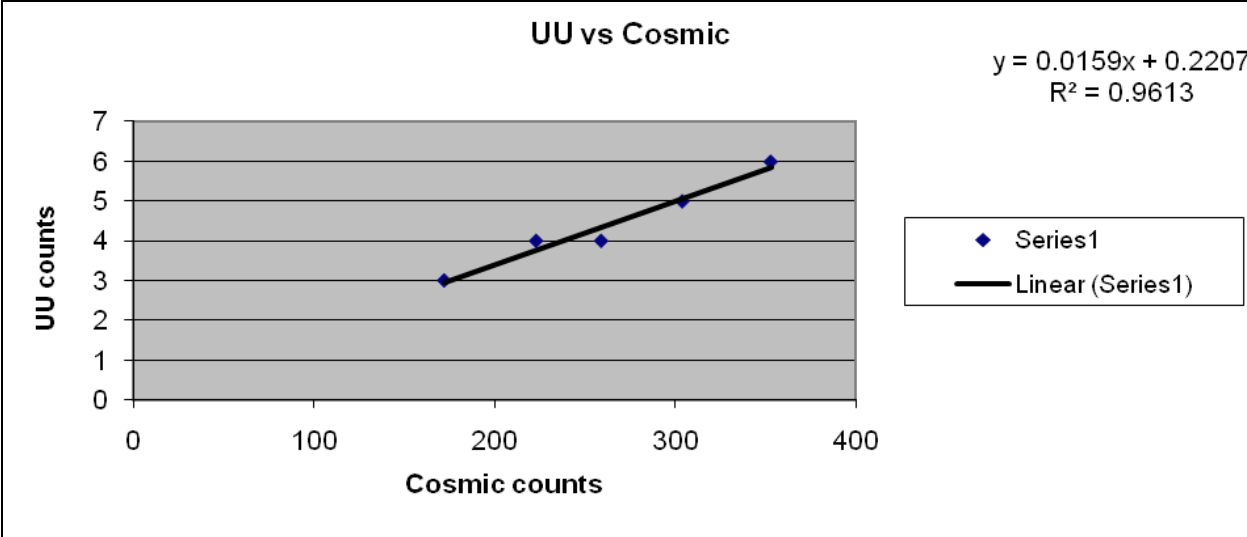
**KINROSS GOLD CORP.
DAWSON MINING DISTRICT
YELLOW GROUP: List of Claims**

Grant #	Claim Name	Current Expiry Date	1 YEAR RENEWAL DATE	NTS Map	Area (HA)	Annual Work Due	Record Date	ClaimOwner	Operator
YC88199	Yellow 173	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88200	Yellow 174	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88201	Yellow 175	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88202	Yellow 176	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88203	Yellow 177	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88204	Yellow 178	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88205	Yellow 179	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88206	Yellow 180	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88207	Yellow 181	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88208	Yellow 182	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88209	Yellow 183	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88210	Yellow 184	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88211	Yellow 185	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88212	Yellow 186	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88213	Yellow 187	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88214	Yellow 188	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88215	Yellow 189	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88216	Yellow 190	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88217	Yellow 191	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88218	Yellow 192	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88219	Yellow 193	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
YC88220	Yellow 194	2/15/2011	2/15/2012	115O05	20.9	\$100.00	6/18/2009	SELENE HOLDINGS LLP	SELENE HOLDINGS LLP (Kinross Gold)
166 claims	YELLOW GROUP				3469	\$16,600.00			

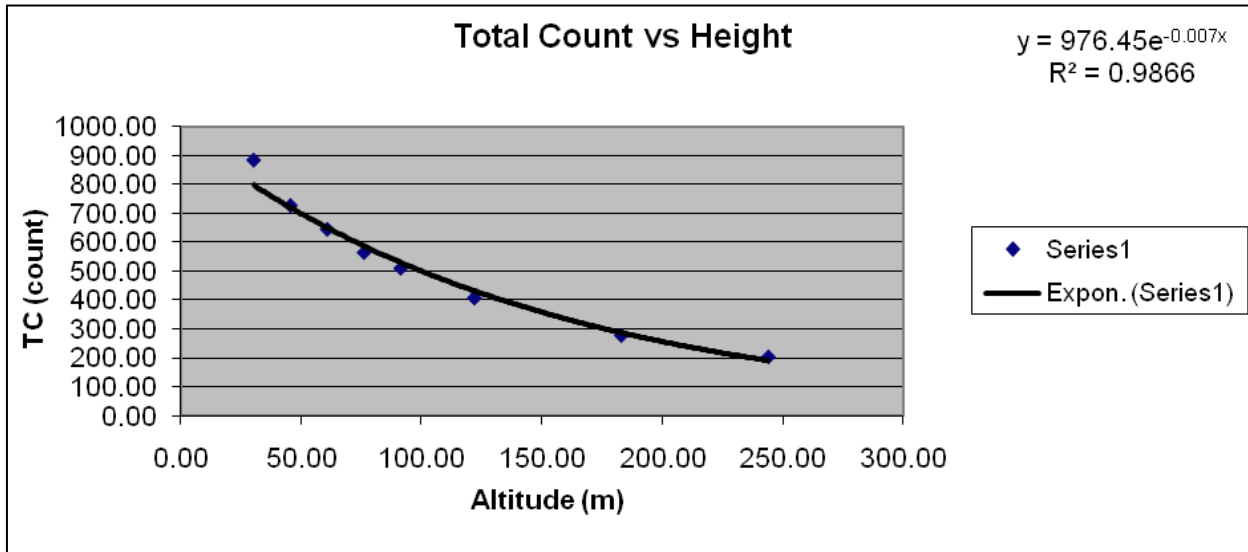
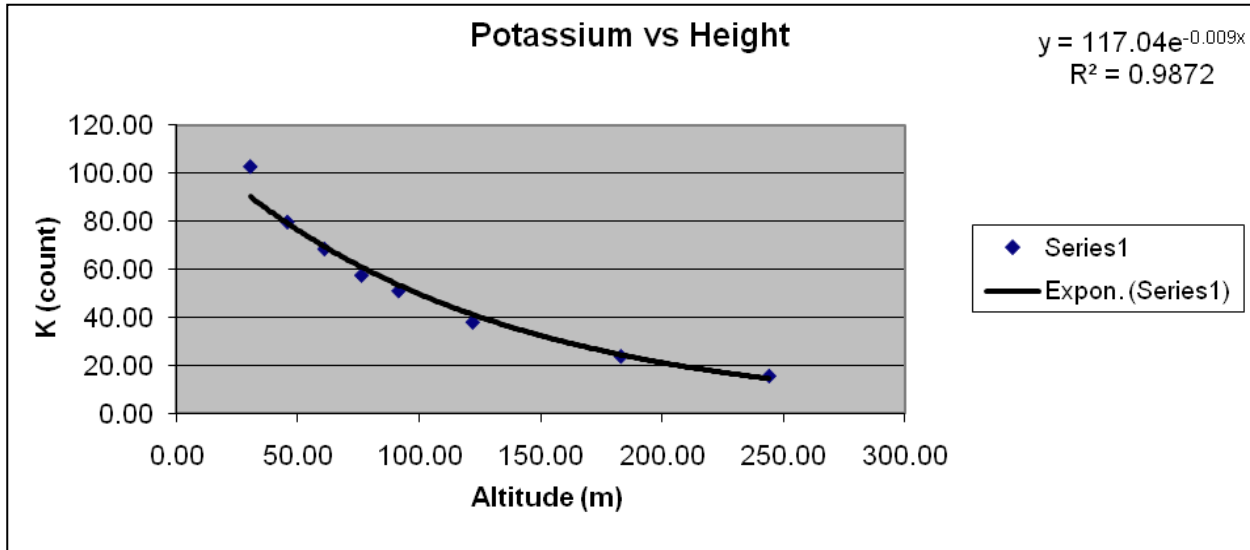
APPENDIX A: Background and Cosmic Test Charts





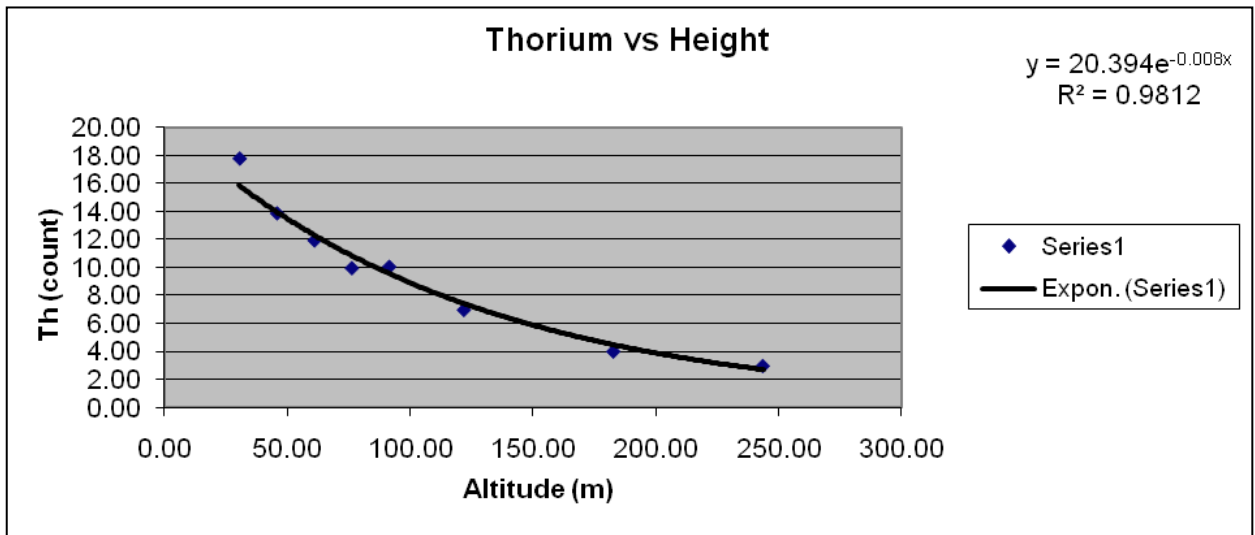
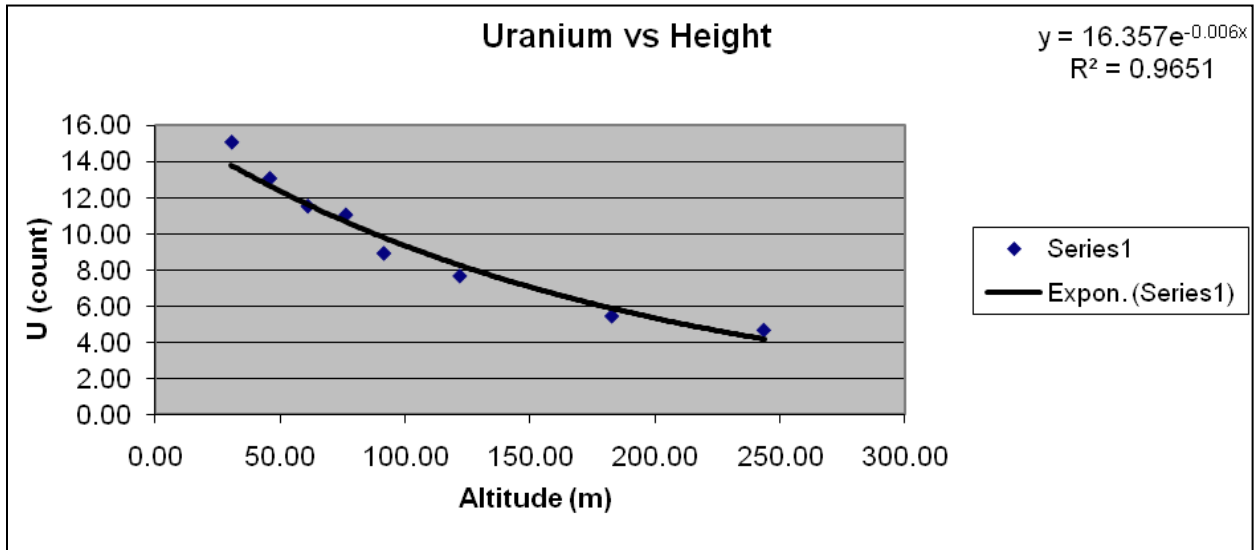


Height Attenuation Test Charts



APPENDIX B: Fom Results

Kinross Gold, Yukon, FOM, June 22nd, 2010					
Line	Direction	Pitch	Roll	Yaw	Total
1000	236	0.100	0.100	0.100	0.300
2000	56	0.150	0.100	0.100	0.350
3000	146	0.100	0.085	0.130	0.315
4000	326	0.110	0.125	0.125	0.360
Total		0.460	0.410	0.455	1.325



Statement of Qualifications: Lucy Hollis, M.Sc, M.Sci

I, Lucy Hollis, of Vancouver, British Columbia do hereby certify that:

1. I am a Geologist in the employment of Kinross Gold Corporation, within the Vancouver office at 1380 West Georgia, Vancouver, B.C.
2. I am a graduate of the University of Birmingham, UK, with an M.Sci in Geology (with an International Year) and University of British Columbia, Vancouver, Canada with a M.Sc in Geological Science.
3. I have been involved in exploration geology in Canada for the past four years and have been employed by Kinross Gold Corp since April 2010.
4. This report is compiled from the given references and the authors personal experience.

Dated at Vancouver, British Columbia this 10th day of February 2011

A handwritten signature in cursive script, appearing to read 'Lucy Hollis', is written over a horizontal line.

L.Hollis, M.Sci, M.Sc