

**ASSESSMENT REPORT**

**AIRBORNE GEOPHYSICAL SURVEY**

**ON THE**

**LADNER CREEK AREA, SOUTHERN BRITISH COLUMBIA**

**for**

**NEW CAROLIN GOLD CORP.**

**New Westminster M.D.**

***NTS 092H/5W (BCGS map 92H031)***

***Longitude 49°20'N Latitude 121° 50'W***

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New Carolin Gold Corp.  
20 – 1480 Foster Street  
White Rock, BC, V4B 3X7**

**August 25, 2012**  
Permit number MX – 7-180

EVENT NUMBER 5350694

33283  
PART A

## **EXECUTIVE SUMMARY**

An airborne geophysical survey totaling 434 line kilometers was carried out on the southern part of the Ladner Creek Gold Project, located approximately 90 km east of Vancouver, British Columbia in June, 2012.

The purpose of this exploration program was to map on a regional basis the southern extension of the magnetic serpentinites that have an association with gold mineralization in the northern part of the claim area that was flown in October, 2011. The survey also included radiometrics that may be used to identify alteration and various felsic lithologies.

This survey was successful in identifying and locating the magnetic unit that is associated with ultramafics / serpentinite. The magnetic results indicate a major magnetic linear structure that can be traced for over 10 km within the company's claims. The linear structure is attributable to the presence of serpentinite, which is associated with gold mineralization in the northern part of the claim area within the Coquihalla Gold Belt.

The potential exploration area is quite large and further work is warranted to define in some detail the gold mineralization encountered in previous exploration programs. Ground geophysical surveys are recommended to map other under explored areas within the claim area.

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## **1.0 INTRODUCTION**

New Carolin Gold Corp. is a Canadian-based junior mineral exploration and mine development company engaged in the acquisition, exploration, evaluation and development of approximately 144 square kilometres of contiguous mineral claims, collectively known as the Ladner Gold Project. These claims are located along the prospective and under-explored Coquihalla Gold Belt located in southwestern British Columbia, which is host to several historic small gold producers including the Carolin Mine, Emancipation Mine, Pipestem Mine and numerous other gold prospects.

The Company engaged the services of Dr. Dennis Woods, a consulting geophysicist, to review the geophysical data covering the Ladner Gold Property and to make recommendations.

An airborne geophysical survey was flown by Precision GeoSurveys Inc., Vancouver, BC., between May 19 to May 25, 2012, comprising the acquisition of high resolution magnetic and radiometric data, the report of which is appended in a CD. This survey is a continuation of the airborne geophysical survey flown in 2011 (Downing, 2012).

The survey area is approximately 7.5 km by 9.5 km. A total of 434 line kilometers of magnetic and radiometric data were flown for this survey, which includes tie lines and survey lines. The survey lines were flown at 100 meter spacings at a 060o/240o heading; the tie lines were flown at 1 km spacings at a heading of 150o/330o. The statement of costs is provided in Appendix A.

## **2.0 OWNERSHIP, LOCATION AND LOGISTICS**

The Ladner Gold Property is located in the New Westminster Mining Division, approximately 150 kilometres east of the city of Vancouver, British Columbia, shown in Figure 1 (or approximately 18 km north of Hope, B.C.) at an elevation of 796 metres. The property, covering an area centered at 49°32' N and 121°17' W is located on topographic map sheets NTS 92H6 and 92H 11 and claim maps 092H044, 092H054 and 092H064. The property is located within the Fraser Valley Regional District and the closest municipality is the District of Hope.

The survey area consists of 18 mineral claims (Appendix B) located south of the Coquihalla Highway (HWY 5), Figure 2. New Carolin Gold Corp. can acquire 100% of the main claim block via an option agreement signed in January 15, 2015. New Carolin Gold has staked and acquired additional claims in the survey area.

There is no known or apparent land use conflict with the property by way of parks, wilderness study areas or other perceived land use designation by local, provincial or federal governments.

### **Infrastructure**

Access to the claim group is via the Sowaqua Creek gravel road and the Dewdney Creek gravel road which are accessed from the all weather paved Coquihalla Highway (HWY 5). There is no infrastructure within the survey area.

### **Permits**

The Company has three current mines act permits in place:

- Mine Permit M-138 issued in 1981
- Surface exploration permit MX-7-185 issued in July, 2008, and
- Underground exploration permit MX-7-185 issued in July, 2009.

### **First Nations**

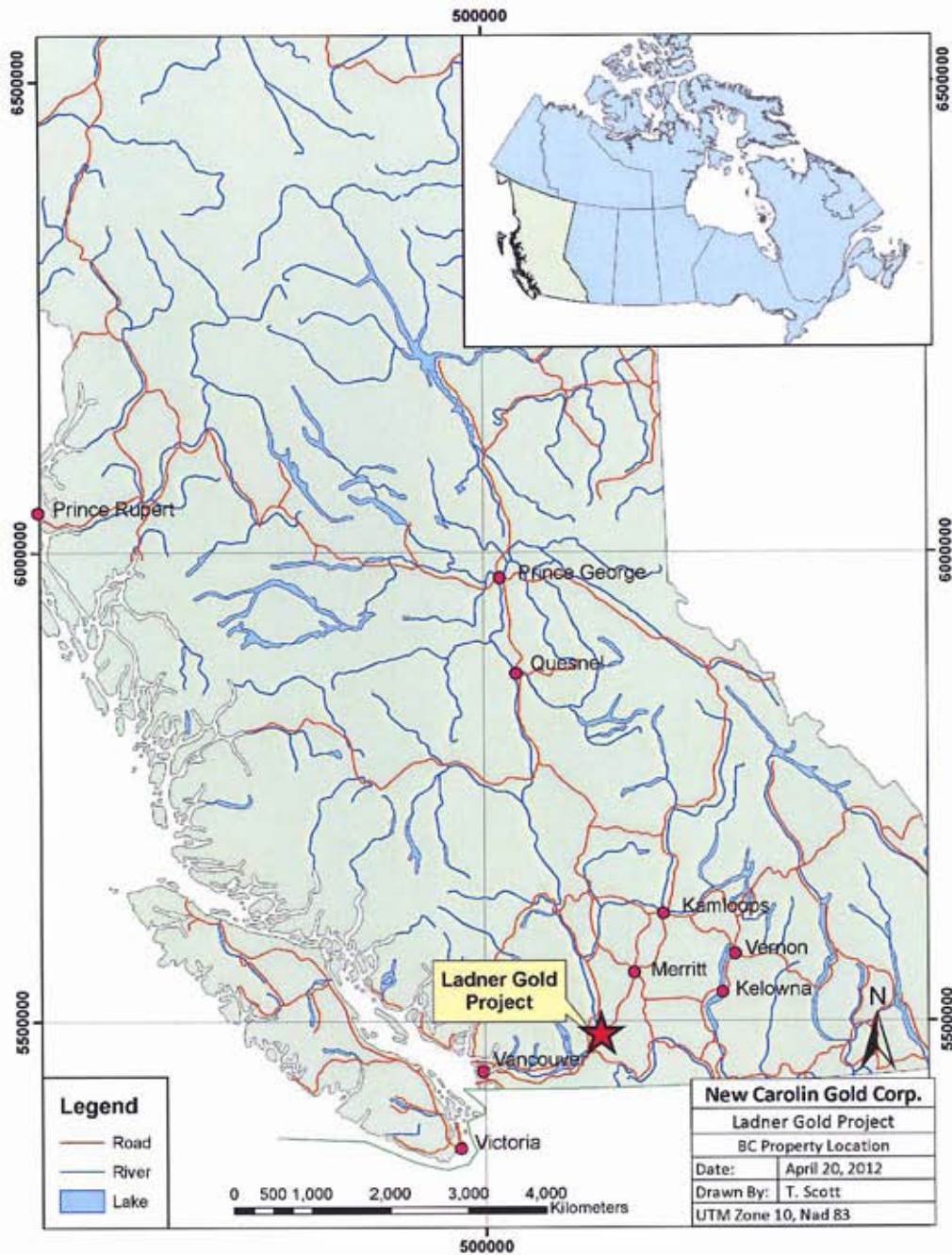
The property is located within the Yale First Nation traditional area. This area is currently under an agreement-in-principle with the British Columbia government. There has been no recorded history of conflict with this group or any other First Nation.

## **3.0 ENVIRONMENT**

The survey area has no capability for agriculture but moderate capability for forestry. The topography of the area is quite rugged with several forested cut blocks. The climate is generally wet and mild year round.

The claims do not appear to be in conflict with any OGMAs (old growth management area) located within the Coquihalla Landscape Unit. The establishment of OGMAs will not have an impact on the status of existing aggregate, geothermal, oil and gas, and mineral permits or tenures. Exploration and development activities are permitted in OGMAs. The preference is to proceed with exploration and development in a way that is sensitive to the old growth values of the OGMA; however, if exploration and development proceeds to the point of significantly impacting old growth values, then the OGMA will be moved.

There are no known environmental liabilities arising from previous exploration.



**Figure1: Property Location Map**

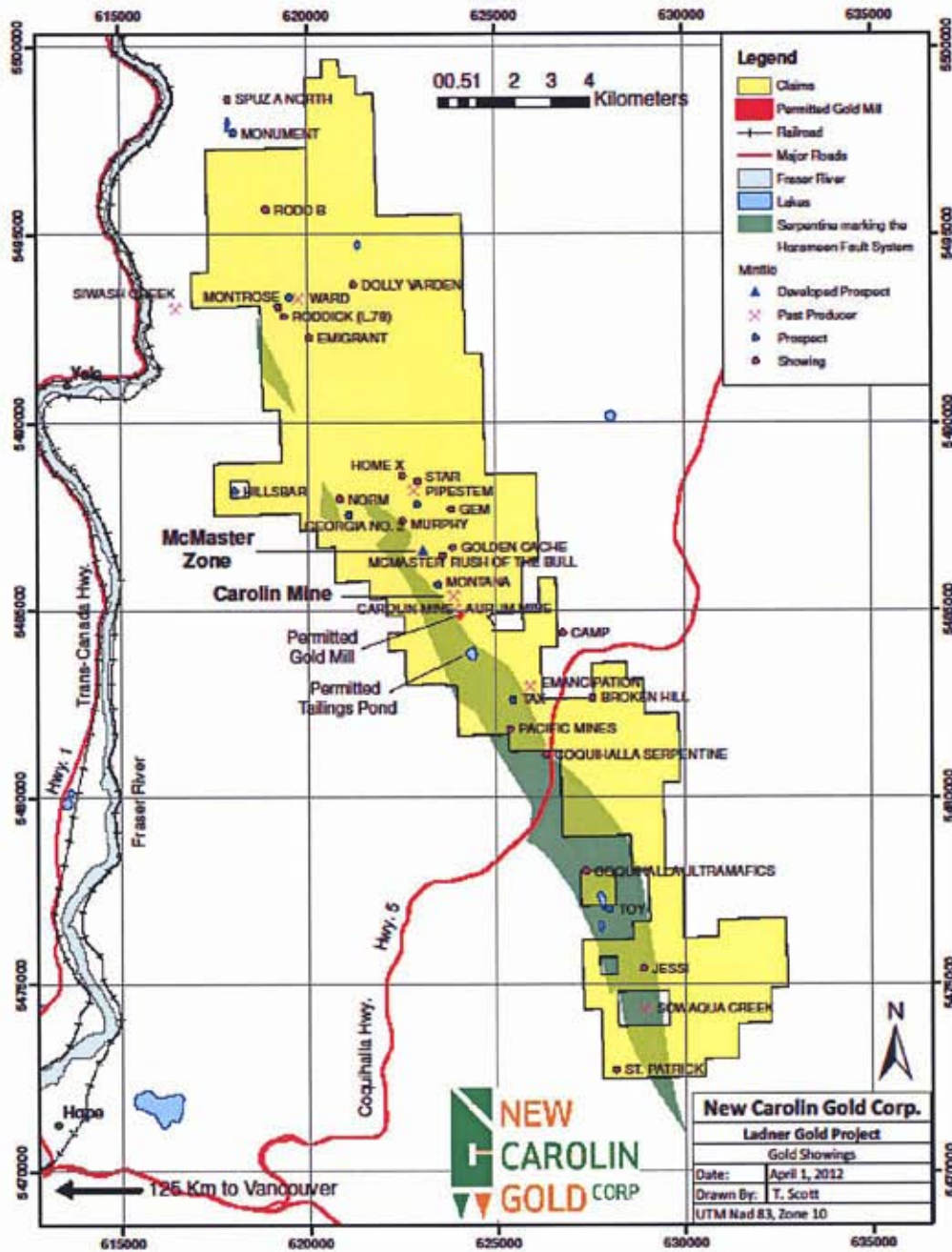


Figure 2: Claim map and location of property.



## **4.0 HISTORY**

The area of interest first gained prominence with the discovery of placer gold on the Fraser River in 1856. By 1911 placer activity extended along the Coquihalla River and tributaries Ladner, Fifteen Mile, Sowaqua, Peers, and Nine Mile Creeks. This was followed by the discovery of the gold-bearing quartz veins in Siwash Creek valley in 1891 and the Roddick (1901), Ward (1905), Marvel (1906), Emigrant (1991), Emancipation (1915), and Aurum (1919) properties. Later this area would be known as the Coquihalla Serpentine Belt, which was recognized in 1927 after high grade gold was found associated with serpentine on the Aurum property. Five properties in the belt produced 3,102 tons of ore containing 3,117 oz. of gold in the period 1916-1942.

## **5.0 GEOLOGY**

### **Geology**

A National Instrument 43-101 report titled "A Technical Report on the Ladner Gold Project" was written by Mr. C. Pearson in November, 2008 and can be viewed on SEDAR at [www.SEDAR.com](http://www.SEDAR.com) and on the Company's website at [www.newcarolingold.com](http://www.newcarolingold.com). The reader is referred to this report for a more detailed review of the regional and property geology and mineral potential. The survey area was included in Ray's (1990) compilation of the Coquihalla Gold Belt. The Coquihalla Gold Belt has similarities to the California Mother Lode which has produced in excess of seven million ounces of gold.

The southern part of Ladner Gold Group over which the geophysical survey was conducted covers approximately a distance of 10 kilometres of the Coquihalla Gold Belt. There are no known historic gold or placer producers within the survey area. There are a few scattered mineralized prospects as evident from MinFile. This area largely remains unmapped in any detail due to scarcity of outcrops, rugged terrain and heavily forested.

## **6.0 GEOPHYSICS**

No recently known geophysical surveys have been carried out over the survey area. The area is covered by Geological Survey of Canada regional aeromagnetics, which displays a strong magnetic signature of the Coquihalla serpentine belt as well as other anomalous trends and obvious structures. However, these data are collected at 300m pseudo-drape terrain clearance on 800m line spacing and hence are very low resolution and only show general geologic patterns.

Wood's (2009) recommended the following: "more detailed and more extensive geophysical surveys are required to fully explore the Ladner Gold Property. The limited

previous geophysical surveys indicate that detailed surveys will produce highly diagnostic results for lithologic, structural, alteration and mineralization analysis. Strongly magnetized serpentinitic rocks, and moderately magnetic gabbroic intrusives and andesites, bounded and cross-cut by major regional faults will produce a very interpretable magnetic map, as long as the magnetic survey is detailed (i.e. tight line and station spacing, and low terrain clearance for an airborne survey)."

## **7.0 INTERPRETATION**

### **MAGNETICS**

Plot of the calculated vertical gradient is shown in Figure 3. The magnetic high is interpreted to be due to serpentinite / ultramafic unit.

### **VERTICAL GRADIENT MAGNETICS**

- Maps the serpentinites / ultramafics
  - Very Sharp contrast (steep drop) on eastern contact with sediments
  - Magnetic lows within magnetic anomaly possibly due to gabbro / diorite dykes
- Enhances the location of mapped and unmapped serpentinites as per Ray (1986, 1990)
- Indicates presence of serpentinites in overburden covered areas
- Shows faulted serpentinite sections
- Covers the extent of the claims for over 10 kms in a north-north westerly trend
- Located along the West Hozameen Fault
- Observation of both the total magnetic and calculate vertical gradient shows a major north-northwesterly linear transecting the magnetic anomaly. This may due to a major fault or there are two separate magnetic units.
- Most of contact (approximately 95%) has not been tested by other exploration surveys such as drilling.
- Figure 5 shows the magnetic anomaly over the entire claims area. This figure shows the combined magnetics from the 2011 and 2012 surveys.

### **RADIOMETRICS**

Plot of the total count is shown in Figure 4.

### **TOTAL COUNT (TC) = K + Th + U values**

- Map potential felsic lithologies
- Low values over magnetic highs
- Appears to follow some cultural areas such as roads, ridges as these anomalous areas appear to disappear when various ratios are calculated and plotted.

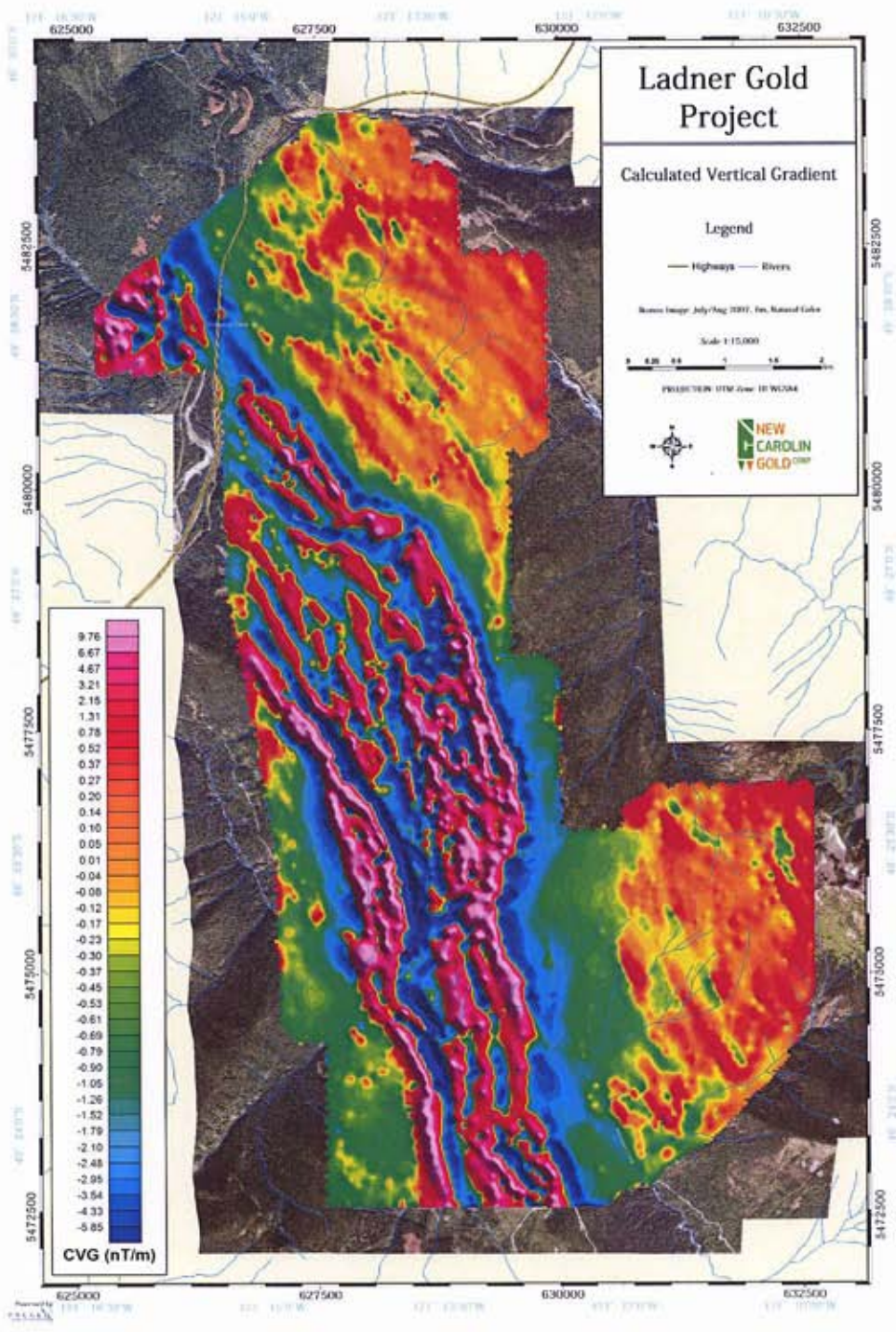


Figure 3: Calculated Vertical Gradient.



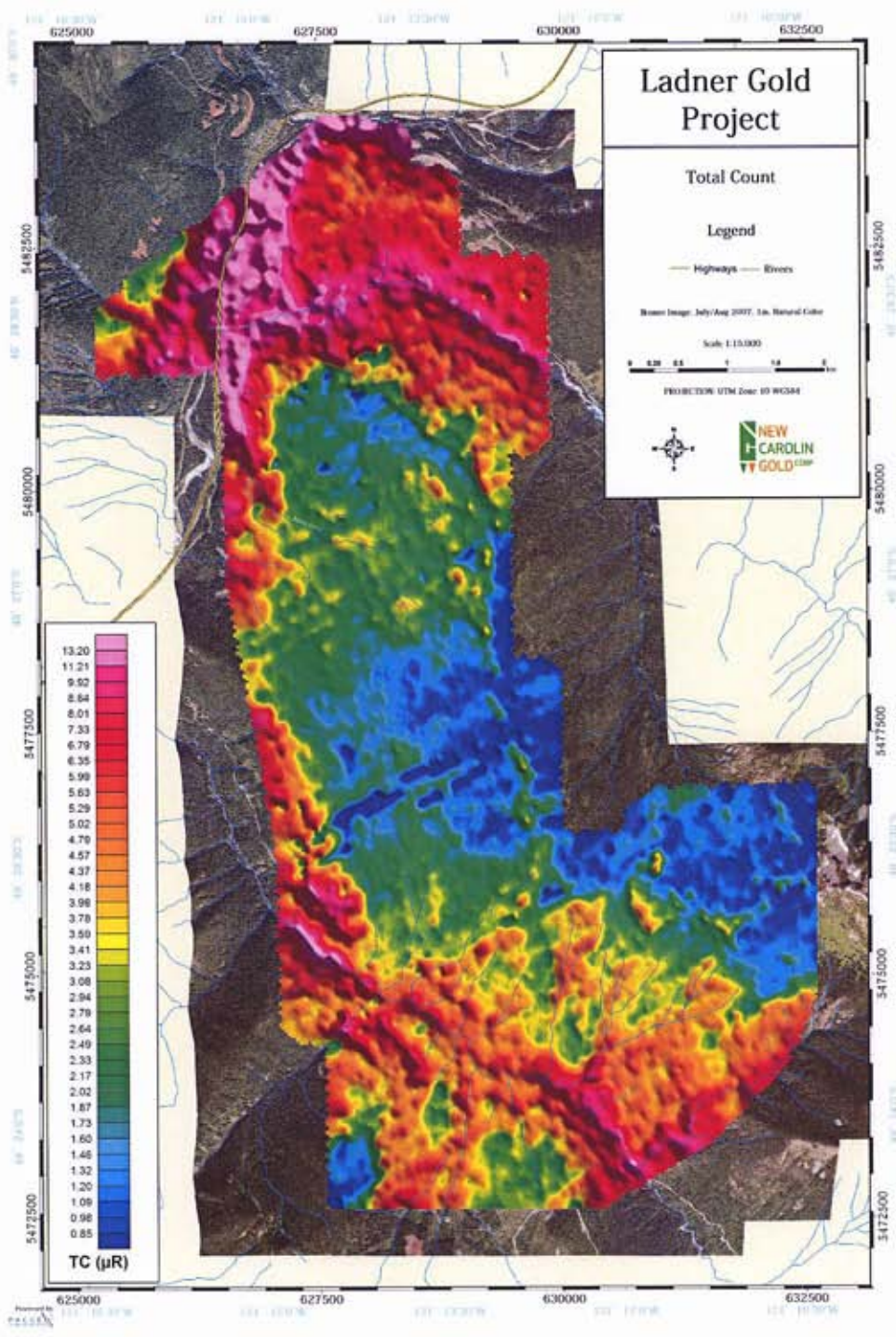


Figure 4: Total Count (Th + K + U) .

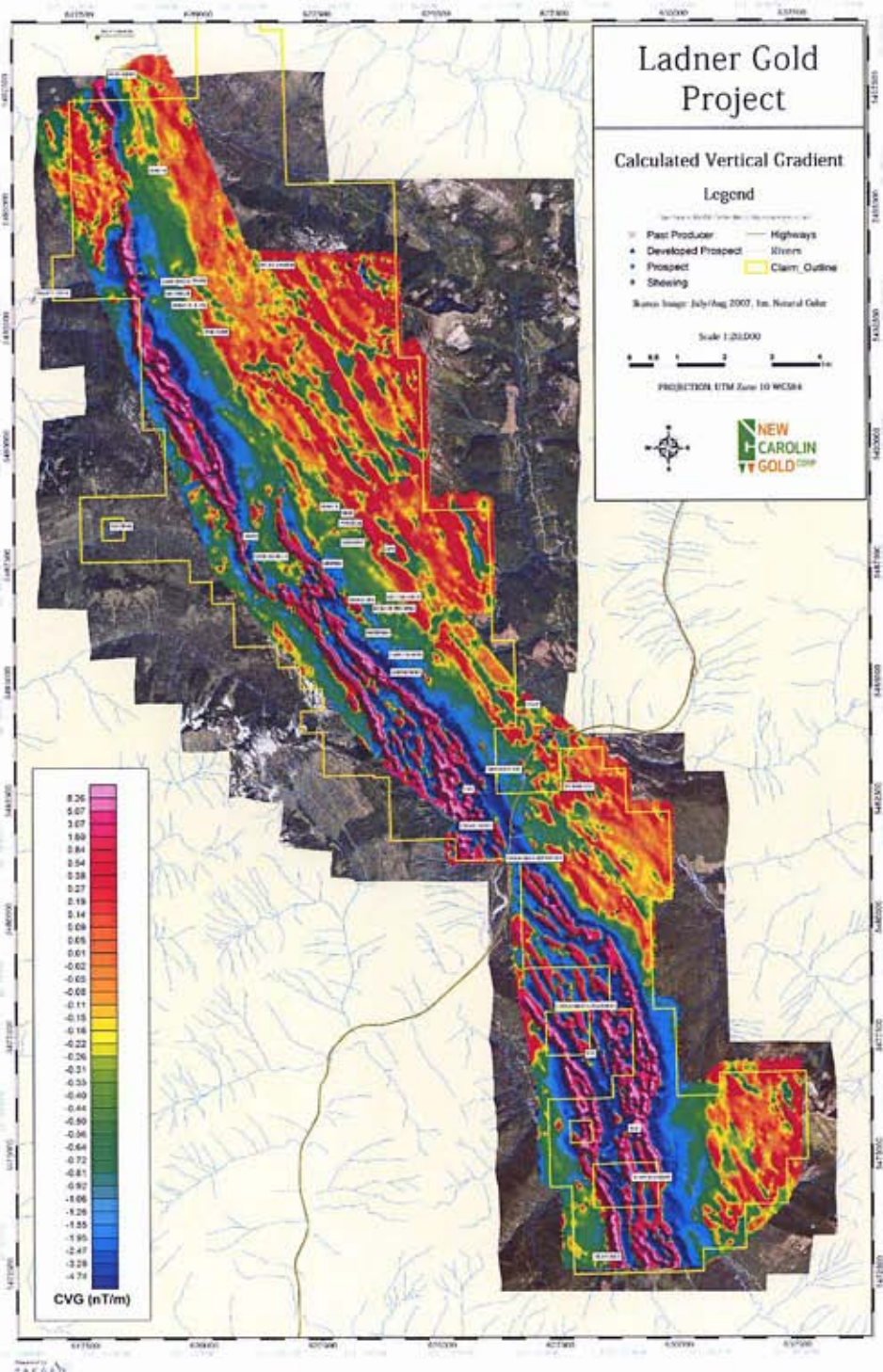


Figure 5: Calculated vertical gradient over both survey areas with known prospects as mapped by MinFile.

## **8.0 CONCLUSIONS**

In general, the airborne survey results effectively mapped the serpentinite on a regional basis which closely conforms to the unit as mapped by Ray (1986). This was very effective in areas of overburden coverage where there is very little outcrop. The radiometrics appears to be a useful method for mapping on a regional basis potential lithologies that maybe attributable to felsic rocks such as granite / syenite.

## **9.0 RECOMMENDATIONS**

The contact area should be prospected in order to effectively map potential sulphides associated gold mineralization. No ground based magnetic survey is recommended at this time.

The areas of radiometric highs must be followed by prospecting and mapping in order to effectively interpret the airborne data. No ground radiometric survey is recommended at this time.

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## 11. STATEMENT OF QUALIFICATIONS

I, Bruce W. Downing, do hereby certify that:

1. I am a graduate of Queen's University with an honours B.Sc. in geology and pedology received in 1970, and a graduate from the University of Toronto with a M.Sc. in geology received in 1974.
2. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
3. I am a **Fellow** of the Geological Association of Canada in good standing, a member of the Association of Exploration Geochemists and a member of the Canadian Institute of Mining.
4. I am an employee and the CEO of New Carolin Gold Resources Inc.

Bruce W. Downing, M.Sc., P.Geo., Hon FEC  
20 ~ 1480 Foster Street  
White Rock, B.C., V4B 3X7

August, 2012

**APPENDIX A**

**STATEMENT OF COSTS**

**Geophysical Assessment Report**

|                                   |                    |
|-----------------------------------|--------------------|
| Precision Geosurveys              | \$37,377.01        |
| Report writing 2 days @ \$750/day | \$1,500.00         |
| <br>                              |                    |
| Total                             | \$38,872.33        |
| <br>                              |                    |
| PAC 30%                           | \$11,661.70        |
| <br>                              |                    |
| <b>TOTAL</b>                      | <b>\$50,534.03</b> |

Precision  
GeoSurveys Inc.

# Ladner Extension Block

Prepared for:  
New Carolin Gold Corp.

May 2012  
Lee Guest, B.Sc., Jenny Poon, B.Sc. GIT

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## 1.0 Introduction:

This report outlines the survey operations and data processing actions taken during the airborne geophysical survey flown north east of the town of Hope, located in the Coast Mountains of British Columbia (Figure 1). The airborne geophysical survey was flown by Precision GeoSurveys Inc. for New Carolin Gold Corp. The geophysical survey, carried out on and between the dates of May 19 and 25, 2012, and saw the acquisition of high resolution magnetic and radiometric data.

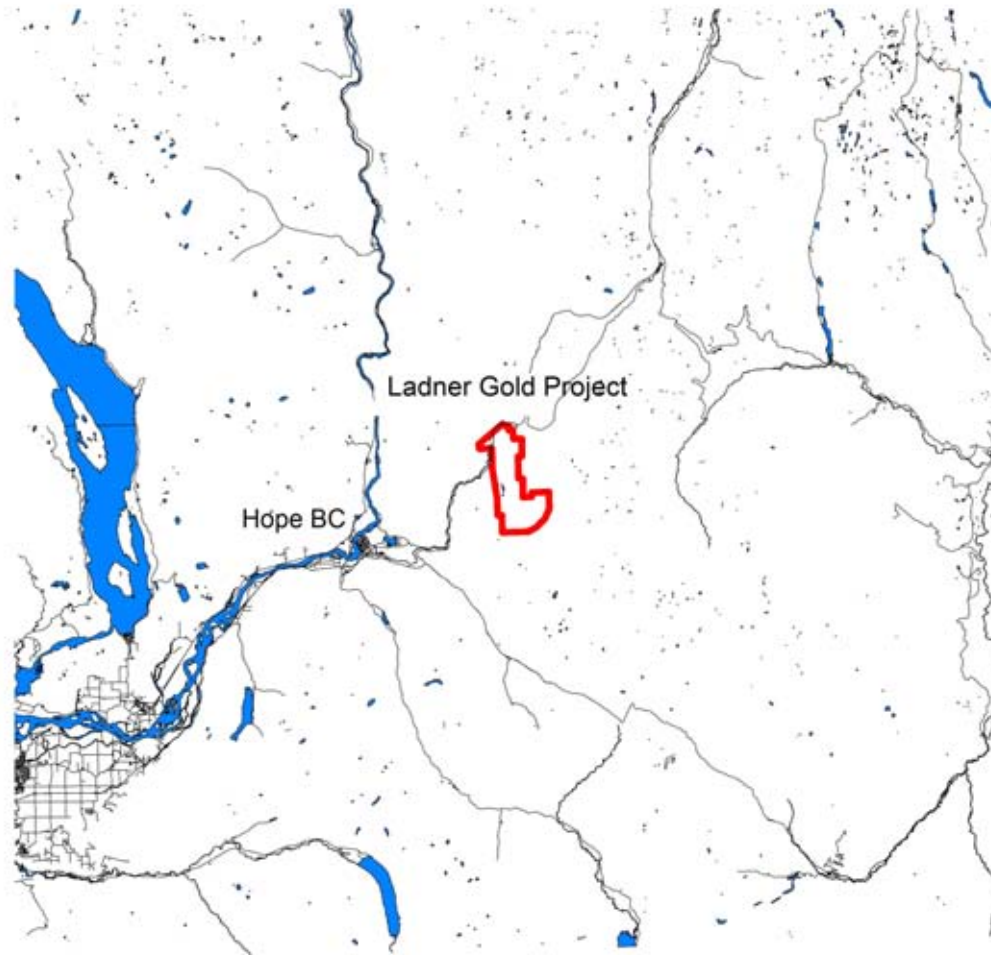


Figure 1: Ladner Gold Project survey location.

## 1.1 Survey Area

The Ladner Gold Project property is located approximately 15 kilometers east of Hope, BC (Figure 2).



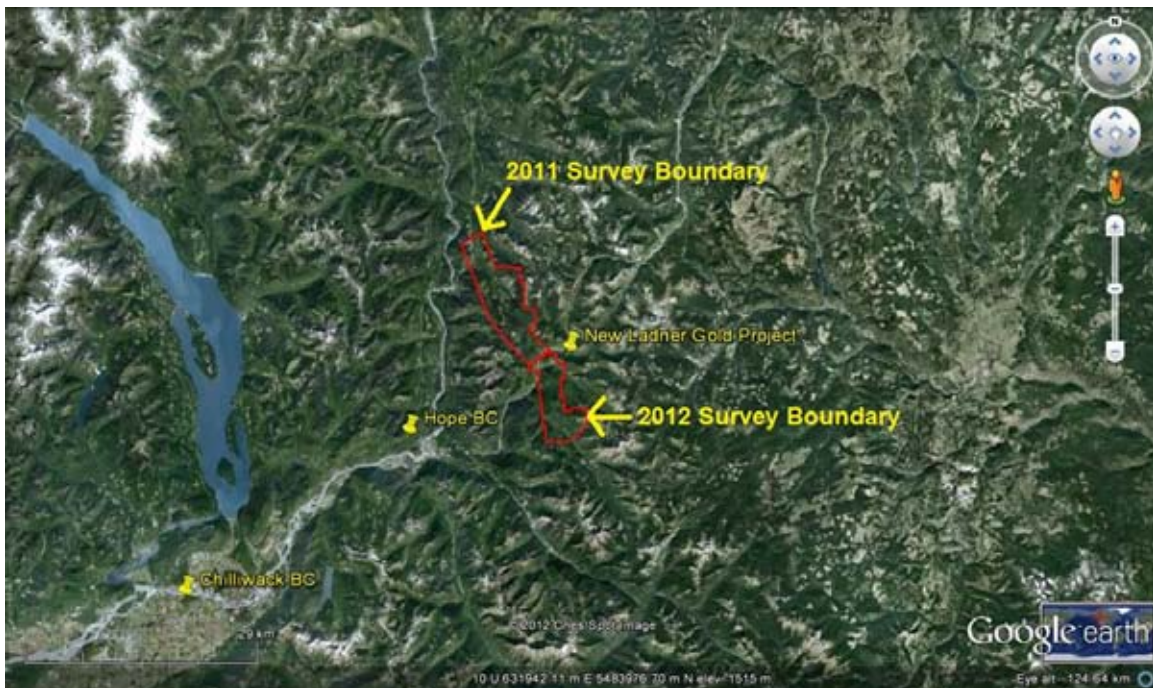


Figure 2: New Ladner Gold Project survey location relative to Hope, BC on Google Earth.

The survey area is approximately 7.5 km by 9.5 km (Figure 3). A total of 434.4 line kilometers of magnetic and radiometric data were flown for this survey; this total includes tie lines and survey lines.



Figure 3: New Ladner Gold Project property survey boundary in red.

The survey lines were flown at 100 meter spacing at a 060°/240° heading; the tie lines were flown at 1 km spacing at a heading of 150°/330° (Figures 4 and 5).





Figure 4: New Ladner Gold Project survey boundary with survey and tie lines shown in yellow and the boundary outlined in red in plane view.



Figure 5: New Ladner Gold Project survey area with survey and tie lines shown in yellow and the boundary outlined in red in terrain view.

### 1.2 Survey Specifications:

The geodetic system used for this survey is WGS 84 and the area is contained in zone 10N (Figure 6). The survey data acquisition specifications and coordinates for the Ladner Gold Project survey are specified as follows (Table 1 and Table 2).

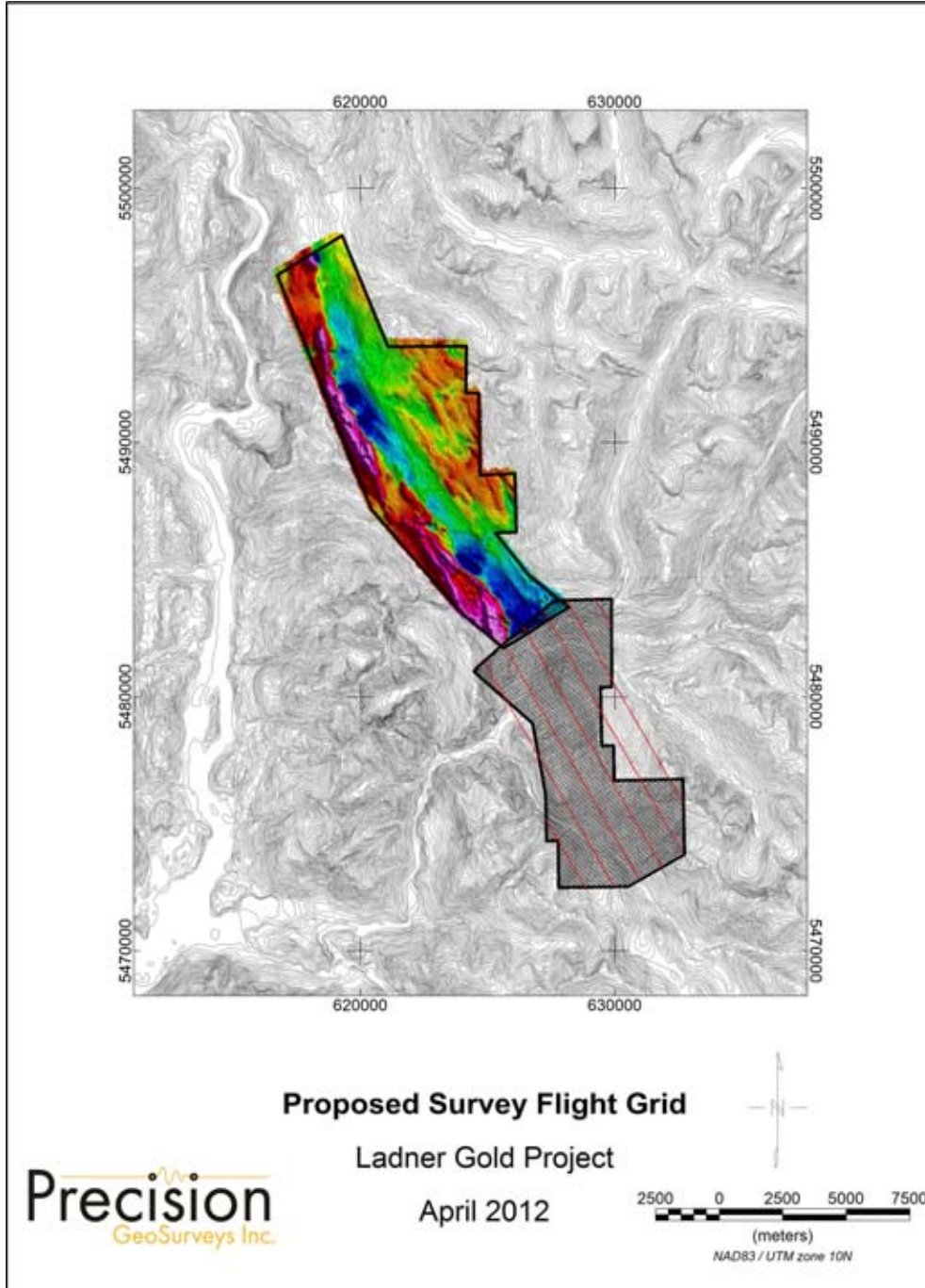


Figure 6: Proposed survey map of the Ladner Gold Project survey area showing previously collected mag data, survey lines, tie lines and the property boundary.



| Survey              | Line Spacing [m] | Survey Line km | Tie Line km | Total Line km | Survey Line Orientation | Nominal Survey Height [m] |
|---------------------|------------------|----------------|-------------|---------------|-------------------------|---------------------------|
| Ladner Gold Project | 100              | 394.4          | 40.0        | 434.4         | 060°/240°               | 50                        |

Table 1: Ladner Gold Project property survey acquisition specifications.

| Longitude   | Latitude    | Easting | Northing |
|-------------|-------------|---------|----------|
| 121.2705851 | 49.47131287 | 625293  | 5481289  |
| 121.2710070 | 49.47540314 | 625252  | 5481743  |
| 121.2674501 | 49.47761677 | 625504  | 5481995  |
| 121.2396384 | 49.49207533 | 627481  | 5483649  |
| 121.2359528 | 49.49395320 | 627743  | 5483864  |
| 121.2317023 | 121.2317023 | 628056  | 5483649  |
| 121.2273928 | 49.49197824 | 628368  | 5483659  |
| 121.2272610 | 49.48798221 | 628388  | 5483215  |
| 121.2212715 | 49.48789024 | 628822  | 5483215  |
| 121.2208668 | 49.47962612 | 628873  | 5482297  |
| 121.2087625 | 49.47952921 | 629750  | 5482307  |
| 121.2090916 | 49.46293750 | 629770  | 5480462  |
| 121.2149262 | 49.46302773 | 629347  | 5480462  |
| 121.2151254 | 49.44234996 | 629387  | 5478163  |
| 121.2085936 | 49.44214999 | 629861  | 5478152  |
| 121.2089156 | 49.42573799 | 629881  | 5476327  |
| 121.1966801 | 49.42581765 | 630768  | 5476357  |
| 121.1965338 | 49.42980942 | 630768  | 5476801  |
| 121.1716265 | 49.42977801 | 632574  | 5476841  |
| 121.1718228 | 49.41336404 | 632604  | 5475016  |
| 121.1779775 | 49.40502328 | 632180  | 5474078  |
| 121.1905042 | 49.39688107 | 631293  | 5473151  |
| 121.2027542 | 49.39280824 | 630415  | 5472677  |
| 121.2398535 | 49.39283042 | 627723  | 5472616  |
| 121.2398244 | 49.40906709 | 627683  | 5474421  |
| 121.2460799 | 49.40916218 | 627229  | 5474421  |
| 121.2461879 | 49.42585966 | 627178  | 5476277  |
| 121.2521173 | 49.45071427 | 626684  | 5479030  |
| 121.2522127 | 49.4713065  | 626624  | 5481319  |

Table 2: Ladner Gold Project property survey polygon coordinates using WGS 84 in zone 10N.

## 2.0 Geophysical Data:

Geophysical data are collected in a variety of ways and are used to aid in the exploration and determination of geology, mineral deposits, oil and gas deposits, contaminated land sites and UXO detection.

For the purposes of this survey, airborne magnetic and radiometric data were collected to serve in the exploration of the Ladner Gold Project property which contains rocks that are prospective for gold mineralization.

### 2.1 Magnetic Data:

Magnetic surveying is probably the most common airborne survey type to be conducted for both mineral and hydrocarbon exploration. The type of survey specifications, instrumentation, and interpretation procedures, depend on the objectives of the survey. Typically magnetic surveys are performed for:

1. Geological Mapping to aid in mapping lithology, structure and alteration in both hard rock environments and for mapping basement lithology, structure and alteration in sedimentary basins or for regional tectonic studies.
2. Depth to Basement mapping for exploration in sedimentary basins or mineralization associated with the basement surface.

### 2.2 Radiometric Data:

Radiometric surveys detect and map natural radioactive emanations, called gamma rays, from rocks and soils. All detectable gamma radiation from earth materials come from the natural decay products of three primary elements; uranium, thorium, and potassium. The purpose of radiometric surveys is to determine either the absolute or relative amounts of U, Th, and K in surface rocks and soils.

The geophysical operator indicated that considerable amounts of snow were visible while surveying at higher elevations. Moisture content in the ground and atmosphere affect the quality of radiometric data. Due to the snow cover and the time of year this survey block was completed, merging the radiometric data with previously collected data from the Ladner Gold Project is not recommended. Radiometric data of a few select lines suffered more than others because of the snow and moisture.

### 3.0 Survey Operations:

Precision GeoSurveys flew the property using a Eurocopter AS350 helicopter (Figure 7). The survey lines were flown at a nominal line spacing of one hundred (100) meters and the tie lines were flown at 1 km spacing. The average survey elevation was 40.5 meters vertically above ground for the Ladner Gold Project property. The experience of the pilot helped to ensure that the data quality objectives were met and that the safety of the flight crew was never compromised given the potential risks involved in airborne surveying.



Figure 7: Eurocopter AS350 equipped with mag stinger for magnetic data acquisition.

The base of operations for this survey was in Hope, BC. The Precision crew consisted of four members:

Ola Vaage – Pilot  
Lee Guest, Brenton Keyser, Stian Vaage – Operators  
Lee Guest – On-site Geophysicist

The survey was started and completed between the dates of May 19 - 25, 2012. When surveying the weather was clear although windy, and the space weather was quiet. Surveying did not take place every day in the specified time period due to poor weather and helicopter maintenance.

### 3.1 Base Station Details:

Two magnetic base stations are set up before every flight to ensure that diurnal activity due to space weather is recorded during the survey flights. In this case, the base stations were located on a logging road close to the west side of the Ladner Gold Project property (Table 5).

| Station name | Easting/ Northing   | Longitude/<br>Latitude        | Datum/<br>Projection |
|--------------|---------------------|-------------------------------|----------------------|
| GEM 2        | 626059E<br>5481856N | 121.28.34.48W<br>49.28.34.48N | WGS84, Zone<br>10N   |
| GEM 4        | 626052E<br>5481870N | 121.15.35.63W<br>49.28.38.18N | WGS84, Zone<br>10N   |

Table 5: Base station details.

Base station readings were reviewed at regular intervals to ensure that no data were collected during periods with high diurnal activity (greater than 5 nT per minute). The base station was installed at a magnetically noise-free area, away from metallic items such as steel objects, vehicles, or power lines. The magnetic variations recorded from the stationary base station are removed from the magnetic data recorded in flight to ensure that the anomalies seen are real and not due to solar activity.

### 4.0 Equipment:

For this survey, a magnetometer, spectrometer, base station, laser altimeter, pilot guidance unit, and a data acquisition system were required to carry out the survey and collect quality, high resolution data. The survey magnetometer is carried in an approved “stinger” configuration to enhance flight safety and improve data quality in this mountainous terrain.

### 4.1 AGIS:

The Airborne Geophysical Information System, AGIS, (Figure 8), is the main computer used in data recording, data synchronizing, displaying real-time QC data for the geophysical operator, and generation of navigation information for the pilot display system.



Figure 8: AGIS installed in the Eurocopter AS350.

The AGIS was manufactured by Pico Envirotec; therefore the system uses standardized Pico software and external sensors are connected to the system via RS-232 serial communication cables. The AGIS data format is easily converted into Geosoft or ASCII file formats by a supplied conversion program called PEIView. Additional Pico software allows for post magnetic compensation and survey quality control procedures.

#### 4.2 Magnetometer:

The magnetometer used by Precision GeoSurveys is a Scintrex cesium vapor CS-3 magnetometer. The system was housed in a front mounted “stinger” (Figure 9). The CS-3 is a high sensitivity/low noise magnetometer with automatic hemisphere switching and a wide voltage range, the static noise rating for the unit is +/- 0.01 nT. On the AGIS screen the operator can view the raw magnetic response, the magnetic fourth difference, aircraft position, and the survey altitude for immediate QC of the magnetic data. The magnetic data are recorded at 10 Hz. A magnetic compensator is also used to remove noise created by the movement of the helicopter as it pitches, rolls and yaws within the Earth’s geomagnetic field.



Figure 9: View of the mag stinger.

### 4.3 Spectrometer:

The IRIS, or Integrated Radiometric Information System is a fully integrated, gamma radiation detection system containing 16.8 litres of NaI (Tl) downward looking crystals and 4.2 litres NaI (Tl) upward looking crystals (Figure 10). The IRIS is equipped with upward-shielding high density RayShield® gamma-attenuating material to minimize cosmic and solar gamma noise. Real time data acquisition, navigation and communication tasks are integrated into a single unit that is installed in the rear of the aircraft as indicated below. Information such as total count, counts of various radioelements (K, U, Th, etc.), temperature, cosmic radiation, barometric pressure, atmospheric humidity and survey altitude can all be monitored on the AGIS screen for immediate QC. All the radiometric data are recorded at 1 Hz.





Figure 10: One of the IRIS strapped in the back seat of the Eurocopter AS350.

#### 4.4 Base Station:

For monitoring and recording of the Earth's diurnal magnetic field variation, Precision GeoSurveys operates two GEM GSM-19T magnetometer base stations continuously throughout the airborne geophysical survey. The base stations are situated in a magnetically quiet area, and as close to the survey area as possible.

The GEM GSM-19T magnetometer with GPS (Figure 11) uses the proton precession technology sampling at a rate of 0.5 Hz. The GSM-19T has an accuracy of +/- 0.2 nT at 1 Hz. Base station data recorded in the solid-state memory of the base station, are downloaded onto a field laptop using GEMLink 5.0 software. Profile plots of the base station readings are generated and updated at the end of each survey day



Figure 11: GEM GSM-19T proton precession magnetometer.

#### 4.5 Laser Altimeter:

The pilot is provided with terrain guidance and clearance with an Acuity AccuRange AR3000 laser altimeter (Figure 12). This is attached at the aft end of the magnetometer boom. The AR3000 sensor is a time-of-flight sensor that measures distance by a rapidly-modulated and collimated laser beam that creates a dot on the target surface. The maximum range of the laser altimeter is 300 m off of natural surfaces with 90% reflectance and 3 km off special reflectors. Within the sensor unit, reflected signal light is collected by the lens and focused onto a photodiode. Through serial communications and analog outputs, the distance data are transmitted and collected by the AGIS at 10 Hz.



Figure 12: Acuity AccuRange AR3000 laser altimeter.

#### 4.6 Pilot Guidance Unit:

The PGU (Pilot Guidance Unit) is a graphical display type unit that provides continuous steering and elevation information to the pilot (Figure 13). It is mounted remotely from the data system on top of the instrument panel. The PGU assists the pilot to keep the helicopter on the flight path and at the desired ground clearance.





Figure 13: Pilot Guidance Unit.

The LCD monitor measures 7 inches, with a full VGA 800 x 600 pixel display. The CPU for the PGU is housed in the PC-104 console and uses Windows XP Embedded operating system control, with input from the GPS antenna, laser altimeter, and AGIS.

## 5.0 Data Acquisition Magnetometer Checks:

At the start of the survey, airborne magnetometer system tests were conducted. The three tests conducted were the compensation flight, lag test, and the heading error test.

### 5.1 Compensation Flight Test:

During aeromagnetic surveying noise is introduced to the magnetic data by the aircraft itself. Movement in the aircraft (roll, pitch and yaw) and the permanent magnetization of the aircraft parts (engine and other ferric objects) are large contributing factors to this noise. To remove this noise a process called magnetic compensation is implemented. The magnetic compensation process starts with a test flight at the beginning of the survey where the aircraft flies in the four orthogonal headings required for the survey ( $060^{\circ}/240^{\circ}$  and  $150^{\circ}/330^{\circ}$  in the case of this survey) at an altitude where there is no ground effect in the magnetic data. In each heading, three specified roll, pitch, and yaw maneuvers are performed by the pilot; these maneuvers provide the data that are required to calculate the necessary parameters for compensating the magnetic data.

### 5.2 Lag Test:

Followed by the compensation flight, a lag test is conducted. This is performed to determine the relationship between the time the digital reading was recorded by the instrument and the time for the position fix for fiducial of the reading was obtained by the GPS system.

The test was flown in the four orthogonal headings over an identifiable magnetic anomaly (ie.Truck, Trailer, etc.) at survey speed and height. A lag of 10 fiducials (1.0 seconds) was determined from the lag test.

### 5.3 Heading Error Test:

To determine the magnetic heading effect a cloverleaf pattern flight test is conducted. The cloverleaf test is flown in the same orthogonal headings as the survey and tie lines. For each direction, the helicopter must fly over a recognizable feature on the ground in order to calculate an estimate for the heading error.

## 6.0 Data Processing:

After all the data are collected after a survey flight several procedures are undertaken to ensure that the data meet a high standard of quality. All data were processed using Pico Envirotec software and Geosoft Oasis Montaj geophysical processing software.

### 6.1 Magnetic Processing:

Before any processing and editing of the raw magnetic data, the data obtained from the compensation flight test must be applied to the raw magnetic data first. A computer program called PEIComp is used to create a model from the compensation flight test for each survey to remove the noise induced by aircraft movement; this model is applied to each survey flight so the data can be further processed.

Filtering is applied to the laser altimeter data to remove vegetation clutter and to show the actual ground clearance. To remove vegetation clutter a Rolling Statistic filter is applied to the laser altimeter data and a low pass filter is used to smooth out the laser altimeter profile to remove isolated noise. As a result, filtering the data will yield a more uniform surface in close conformance with the actual terrain.

The processing of the magnetic data involved the correction for diurnal variations. The base station data collected is edited, plotted and merged into a Geosoft (.gdb) database daily. The airborne magnetic data is corrected for diurnal variations by subtracting the observed magnetic base station deviations. Following the diurnal correction was a lag correction. A lag correction of 1.0 seconds was applied to the total magnetic field data to compensate for the lag in the recording system as the magnetometer sensor flies 5.70 m ahead of the GPS antenna. Lastly, a heading correction was applied to the data.

Some filtering of the magnetic data is also required. A Non Linear filter was used for spike removal. The 1D Non-Linear Filter is ideal for removing very short wavelength, but high amplitude features from data. It is often thought of as a noise spike-rejection filter, but it can also be effective for removing short wavelength geological features, such as signals from surficial features. The 1D Non-Linear Filter is used to locate and remove data that is recognized as noise. The algorithm is 'non- linear' because it looks at each data point and decides if that datum is noise or a valid signal. If the point is noise, it is

simply removed and replaced by an estimate based on surrounding data points. Parts of the data that are not considered noise are not modified. The combination of a Non-Linear filter for noise removal and a low pass trend enhancement filter resulted in level data as indicated in the results section of this report. The low pass filter smoothes out the magnetic profile to remove isolated noise.

The corrected magnetic data from the survey and tie lines was used to level the data all together. Two forms of levelling are applied to the corrected data: conventional levelling and micro-levelling. There are two components to conventional levelling; the first involves statistical levelling of magnetic data to correct miss ties (intersection errors) followed by specific patterns or trends. For the second component, tie lines are brought to a common regional base value using the mean value of the cross-level error. To obtain the best possible levelled data, individual corrections are edited at selected intersections. Lastly, micro-levelling is applied to the corrected conventional levelled data. This will remove any residual line-direction-related noise, and any low amplitude component of flight line noise, that still remains in the data after tie line levelling.

## 6.2 Radiometric Processing:

Calibrating the spectrometer system in the helicopter is the first and vital step before the airborne radiometric data can be processed. Once calibration of the system has been complete, the radiometric data are processed by windowing the full spectrum to create channels for U, K, Th and total count. A 5-point Hanning filter was applied to the Cosmic window before going any further with processing the radiometric data.

Aircraft background and cosmic stripping corrections were applied to all three elements, upward uranium channels, and total count using the following formula:

$$C_{ac} = C_{lt} - (a_c + b_c * \text{Cos}_f)$$

where:  $C_{ac}$  is the background and cosmic corrected channel  
 $C_{lt}$  is the live time corrected channel  
 $a_c$  is the aircraft background for this channel  
 $b_c$  is the cosmic stripping coefficient for this channel  
 $\text{Cos}_f$  is the filtered cosmic channel

The radon backgrounds are first removed followed by Compton stripping. Spectral overlap corrections are applied to potassium, uranium, and thorium as part of the Compton stripping process. This is done by using the stripping ratios that have been calculated for the spectrometer by prior calibration, this breaks the corrected elemental values down into the apparent radioelement concentrations. Lastly, attenuation corrections are applied to the data which involves nominal survey altitude corrections, in this case 40 metres is applied to total count, potassium, uranium, and thorium data.

With all corrections applied to the radiometric data, the final step is to convert the corrected potassium, uranium, and thorium to apparent radioelement concentrations 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

Finally, the natural air absorption dose rate is determined using the following formula:

$$E = 13.08 * K + 5.43 * eU + 2.69 * eTh$$

where: E is the absorption dose rate in nG/h  
K is the concentration of potassium (%)  
eU is the equivalent concentration of uranium (ppm)  
eTh is the equivalent concentration of thorium (ppm)

To calculate for radiometric ratios it follows the guidelines in the IAEA report. Due to statistical uncertainties in the individual radioelement measurements, some care was taken in the calculation of the ratio in order to obtain statistically significant values. Following IAEA guidelines, the method of determining ratios of the eU/eTh, eU/K and eTh/K was as follows:

1. Any data points where the potassium concentration was less than 0.25 were neglected.
2. The element with the lowest corrected count rate was determined.
3. The element concentrations of adjacent points on either side of each data point were summed until they exceeded a certain threshold value. This threshold was set to be equivalent to 100 counts of the element with the lowest count rate. Additional minimum thresholds of 1.6% for Potassium, 20 ppm for thorium, and 30 ppm for uranium were set up to insure meaningful ratios.
4. The ratios were calculated using the accumulated sums.

With this method, the errors associated with the calculated ratios will be similar for all data points.

### 6.3 Final Data Format

Abbreviations used in the GDB files are listed in the following table:

| Channel            | Units          | Description                                   |
|--------------------|----------------|---|
| <b>X</b>           | m              | UTM Easting - WGS84 Zone 11 North             |
| <b>Y</b>           | m              | UTM Northing - WGS84 Zone 11 North            |
| <b>Galt</b>        | m              | GPS height - WGS84 Zone 11 North              |
| <b>Lalt</b>        | m              | Laser Altimeter readings                      |
| <b>DTM</b>         | m              | Digital Terrain Model                         |
| <b>GPStime</b>     | Hours:min:secs | GPStime                                       |
| <b>basemag</b>     | nT             | Base station diurnal data                     |
| <b>mag</b>         | Nt             | Total Magnetic Intensity                      |
| <b>BaroSTP_Kp</b>  | KiloPascal     | Barometric Altitude (Pres and Temp Corrected) |
| <b>Press_Kp</b>    | KiloPascal     | Atmospheric Pressure                          |
| <b>Press_mbars</b> | Millibars      | Atmospheric Pressure                          |
| <b>Temp_degC</b>   | Degrees C      | Air Temperature                               |
| <b>COSFILT</b>     | counts/sec     | Spectrometer - Filtered Cosmic                |
| <b>Tccor</b>       | μR             | Dose Rate Equivalent                          |
| <b>Kcor</b>        | %              | Equivalent Concentration - Potassium          |
| <b>Ucor</b>        | ppm            | Equivalent Concentration - Uranium            |
| <b>THcor</b>       | ppm            | Equivalent Concentration - Thorium            |
| <b>UpU_cps</b>     | counts/sec     | Spectrometer RAW Counts - Upward Uranium      |
| <b>THKratio</b>    |                | Spectrometer - eTh/%K ratio                   |
| <b>UKratio</b>     |                | Spectrometer - eU/%K ratio                    |
| <b>UTHratio</b>    |                | Spectrometer - eU/eTh ratio                   |
| <b>Date</b>        | yyyy/mm/dd     | Local Flight Date                             |
| <b>FLT</b>         |                | Flight line number                            |

Table 3: New Ladner Gold Project property survey channel abbreviations.

The file format will be provided in two (2) formats, the first will be a .GDB file for use in Geosoft Oasis Montaj, the second format will be a .XYZ file, this is text file. A complete file provided in each format will contain both magnetic and radiometric data.

**Appendix A**  
Equipment Specifications

**GEM GSM-19T Proton Precession Magnetometer (Base Station)**

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Configuration Options</b>    | 15                    |
| <b>Cycle Time</b>               | 999 to 0.5 sec        |
| <b>Environmental</b>            | -40 to 60 ° Celsius   |
| <b>Gradient Tolerance</b>       | 7,000 nT/m            |
| <b>Magnetic Readings</b>        | 299,593               |
| <b>Operating Range</b>          | 10, 000 to 120,000 nT |
| <b>Power</b>                    | 12 V @ 0.62 A         |
| <b>Sensitivity</b>              | 0.1 nT @ 1 sec        |
| <b>Weight (Console/ Sensor)</b> | 3.2 Kg                |
| <b>Integrated GPS</b>           | Yes                   |

**Scintrex CS-3 Survey Magnetometer**

|  |  |
|--|--|
| <b>Operating Principal</b>                 | Self-oscillation split-beam Cesium Vapor (non-radioactive Cs-133)  |
| <b>Operating Range</b>                     | 15,000 to 105,000 nT   |
| <b>Gradient Tolerance</b>                  | 40,000 nT/metre  |
| <b>Operating Zones</b>                     | 10° to 85° and 95° to 170°   |
| <b>Hemisphere Switching</b>                | a) Automatic<br>b) Electronic control actuated by the control voltage levels (TTL/CMOS)<br>c) Manual   |
| <b>Sensitivity</b>                         | 0.0006 nT $\sqrt{\text{Hz}}$ rms.  |
| <b>Noise Envelope</b>                      | Typically 0.002 nT P-P, 0.1 to 1 Hz bandwidth  |
| <b>Heading Error</b>                       | +/- 0.25 nT (inside the optical axis to the field direction angle range 15° to 75° and 105° to 165°)   |
| <b>Absolute Accuracy</b>                   | <2.5 nT throughout range   |
| <b>Output</b>                              | a) continuous signal at the Larmor frequency which is proportional to the magnetic field (proportionality constant 3.49857 Hz/nT) sine wave<br>signal amplitude modulated on the power supply voltage<br>b) square wave signal at the I/O connector, TTL/CMOS compatible |
| <b>Information Bandwidth</b>               | Only limited by the magnetometer processor used  |
| <b>Sensor Head</b>                         | Diameter: 63 mm (2.5")<br>Length: 160 mm (6.3")<br>Weight: 1.15 kg (2.6 lb)  |
| <b>Sensor Electronics</b>                  | Diameter: 63 mm (2.5")<br>Length: 350 mm (13.8")<br>Weight: 1.5 kg (3.3 lb)  |
| <b>Cable, Sensor to Sensor Electronics</b> | 3m (9' 8"), lengths up to 5m (16' 4") available  |
| <b>Operating Temperature</b>               | -40°C to +50°C   |
| <b>Humidity</b>                            | Up to 100%, splash proof   |
| <b>Supply Power</b>                        | 24 to 35 Volts DC  |
| <b>Supply Current</b>                      | Approx. 1.5A at start up, decreasing to 0.5A at 20°C   |
| <b>Power Up Time</b>                       | Less than 15 minutes at -30°C  |



**Pico Envirotec GRS-10 Gamma Spectrometer**

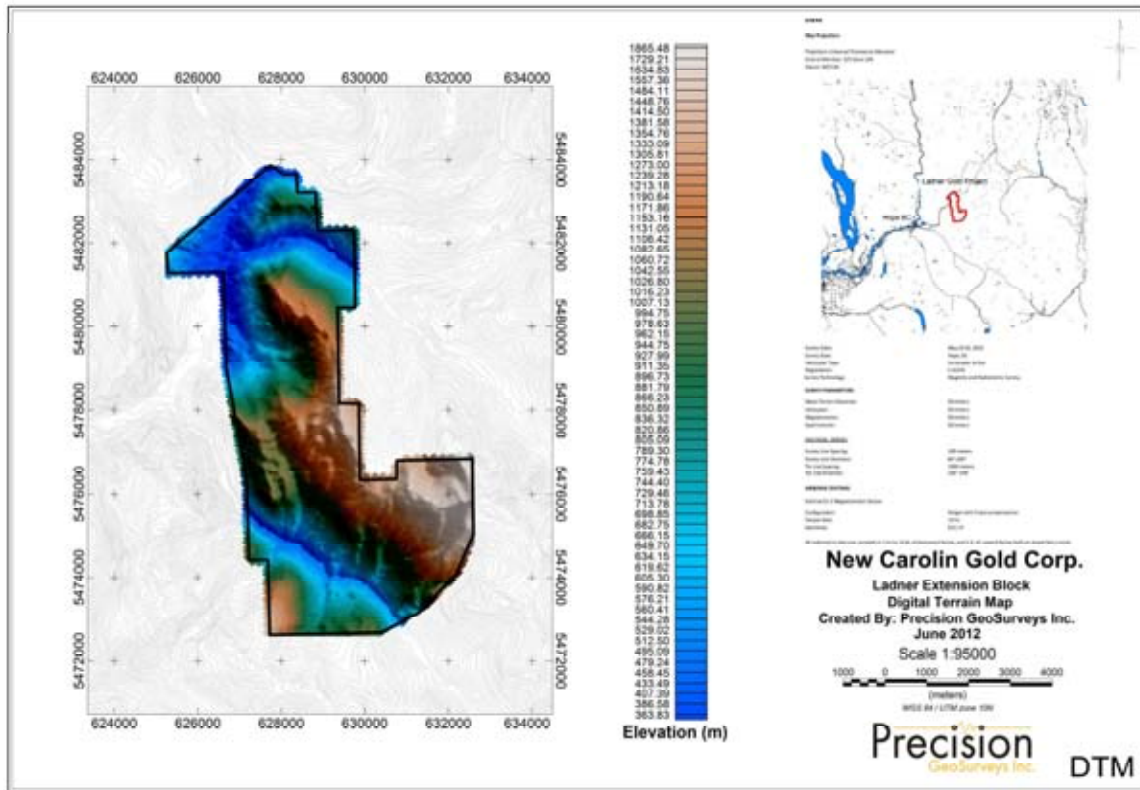
|                                   |  |
|-----------------------------------|--|
| <b>Crystal volume</b>             | 16.8 liters downward plus 4.2 liters upward  |
| <b>Resolution</b>                 | 256/512 channels   |
| <b>Tuning</b>                     | Automatic using peak determination algorithm   |
| <b>Detector</b>                   | Digital Peak   |
| <b>Calibration</b>                | Fully automated detector   |
| <b>Real Time</b>                  | Linearization and gain stabilization   |
| <b>Communication</b>              | RS232  |
| <b>Detectors</b>                  | Expandable to 10 detectors and digital peak  |
| <b>Count Rate</b>                 | Up to 60,000 cps per detector  |
| <b>Count Capacity per channel</b> | 65545  |
| <b>Energy detection range:</b>    | 36 KeV to 3 MeV  |
| <b>Cosmic channel</b>             | Above 3 MeV  |
| <b>Upward Shielding</b>           | RayShield® non-radioactive shielding on downward looking crystals  |
| <b>Downward Shielding</b>         | 6mm lead plate on upward looking crystals  |
| <b>Spectra</b>                    | Collected spectra of 256/512 channels, internal spectrum resolution 1024   |
| <b>Software</b>                   | <b>Calibration:</b> High voltage adjustment, linearity correction coefficients calculation, and communication test support<br><b>Real Time Data Collection:</b> Automatic Gain real time control on natural isotopes, and PC based test and calibration software suite |
| <b>Sensor</b>                     | Each box containing two (2) gamma detection NaI(Tl) crystals – each 4.2 liters. (256 cu in.) (approx. 100 x 100 x 650 mm) Total volume of approx 8.4 litres or 512 cu in with detector electronics   |
| <b>Spectra Stabilization</b>      | Real time automatic corrections on radio nuclei: Th, Ur, K. No implanted sources.  |

**Pico Envirotec AGIS data recorder system**

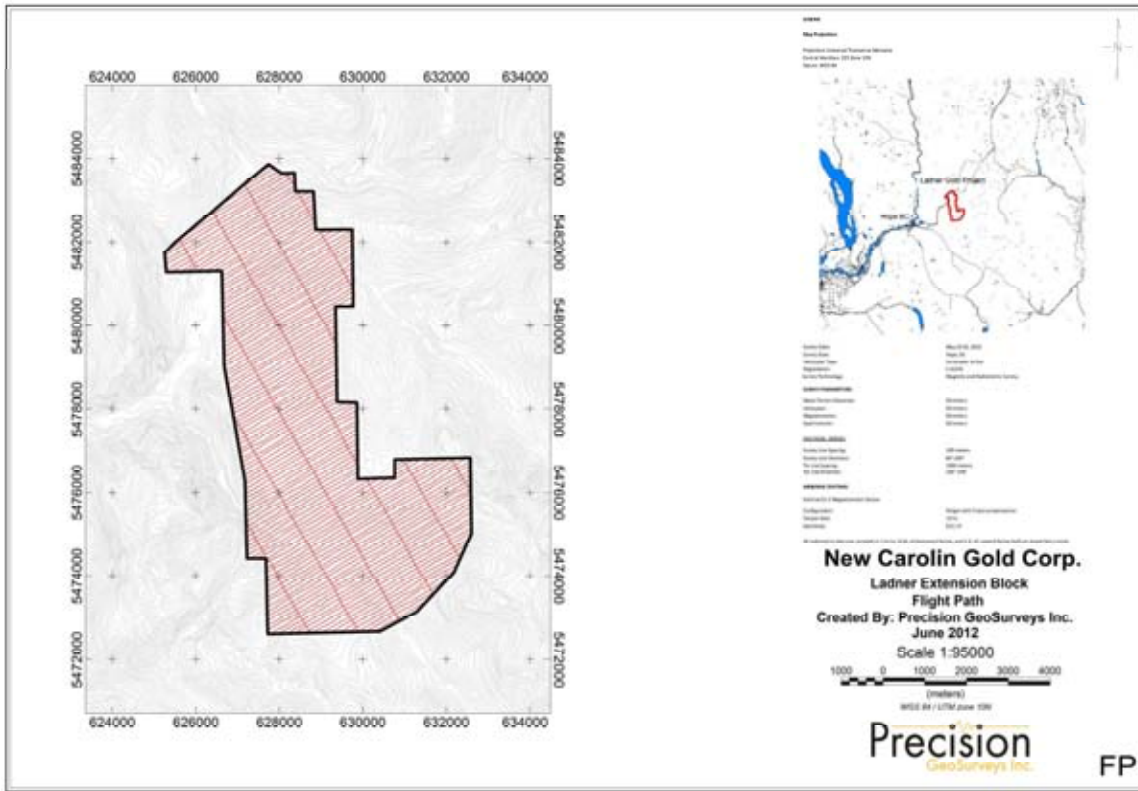
(for Navigation, Gamma spectrometer, VLF-EM and Magnetometer Data Acquisition)

|                             |  |
|-----------------------------|--|
| <b>Functions</b>            | Airborne Geophysical Information System (AGIS) with integrated Global Positioning System Receiver (GPS) and all necessary navigation guidance software. Inputs for geophysical sensors - portable gamma ray spectrometer GRS-10, MMS4 Magnetometer, Totem 2A EM, A/D converter, temperature probe, humidity probe, barometric pressure probe, and laser altimeter. Output for the 2 line Pilot Indicator |
| <b>Display</b>              | Touch screen with display of 800 x 600 pixels; customized keypad and operator keyboard. Multi-screen options for real-time viewing of all data inputs, fiducial points, flight line tracking, and GPS channels by operator.  |
| <b>GPS Navigation</b>       | Garmin 12-channel, WAAS-enabled  |
| <b>Data Sampling</b>        | Sensor dependent   |
| <b>Data Synchronization</b> | Synchronized to GPS position   |
| <b>Data File</b>            | PEI Binary data format   |
| <b>Storage</b>              | 80 GB  |
| <b>Supplied Software</b>    | <b>PEIView:</b> Allows fast data Quality Control (QC)<br><b>Data Format:</b> Geosoft GBN and ASCII output<br><b>PEIConv:</b> For survey preparation and survey plot after data acquisition   |
| <b>Software</b>             | <b>Calibration:</b> High voltage adjustment, linearity correction coefficients calculation, and communication test support<br><b>Real Time Data Collection:</b> Automatic Gain real time control on natural isotopes and PC based test and calibration software suite  |
| <b>Power Requirements</b>   | 24 to 32 VDC   |
| <b>Temperature</b>          | Operating:-10 to +55 deg C; storage:-20 to +70 deg C   |

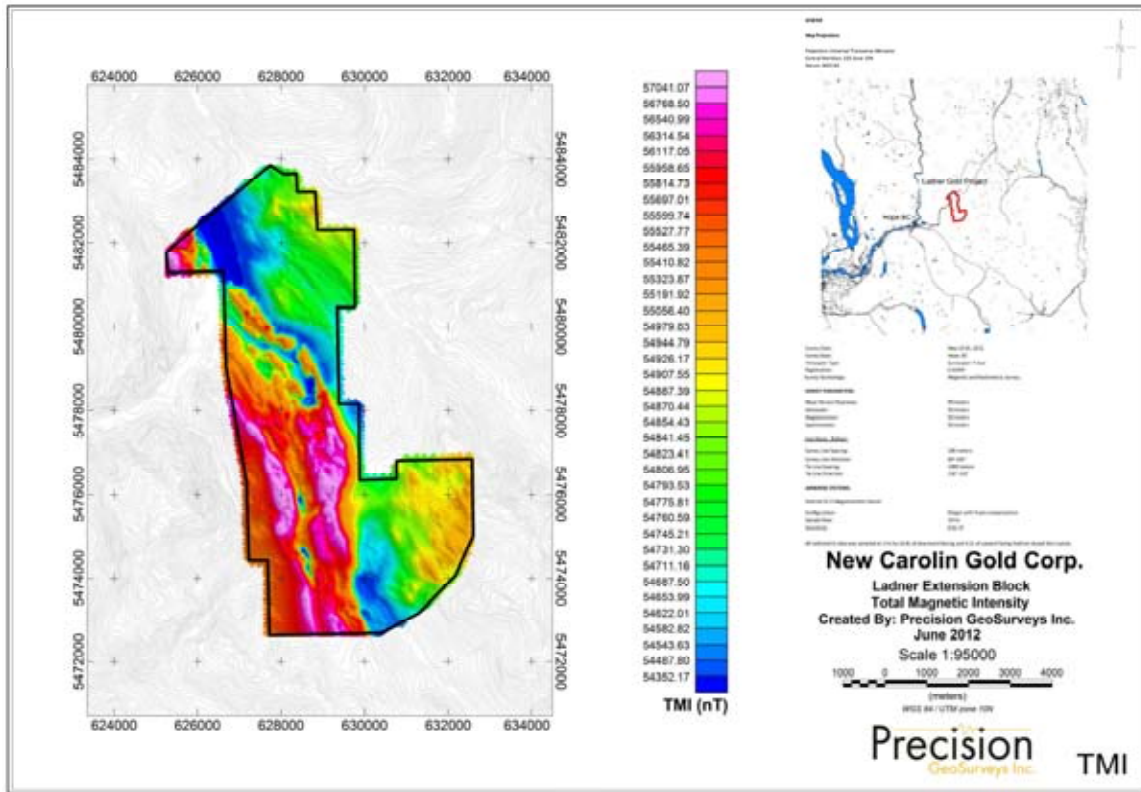
**Appendix B**  
Maps



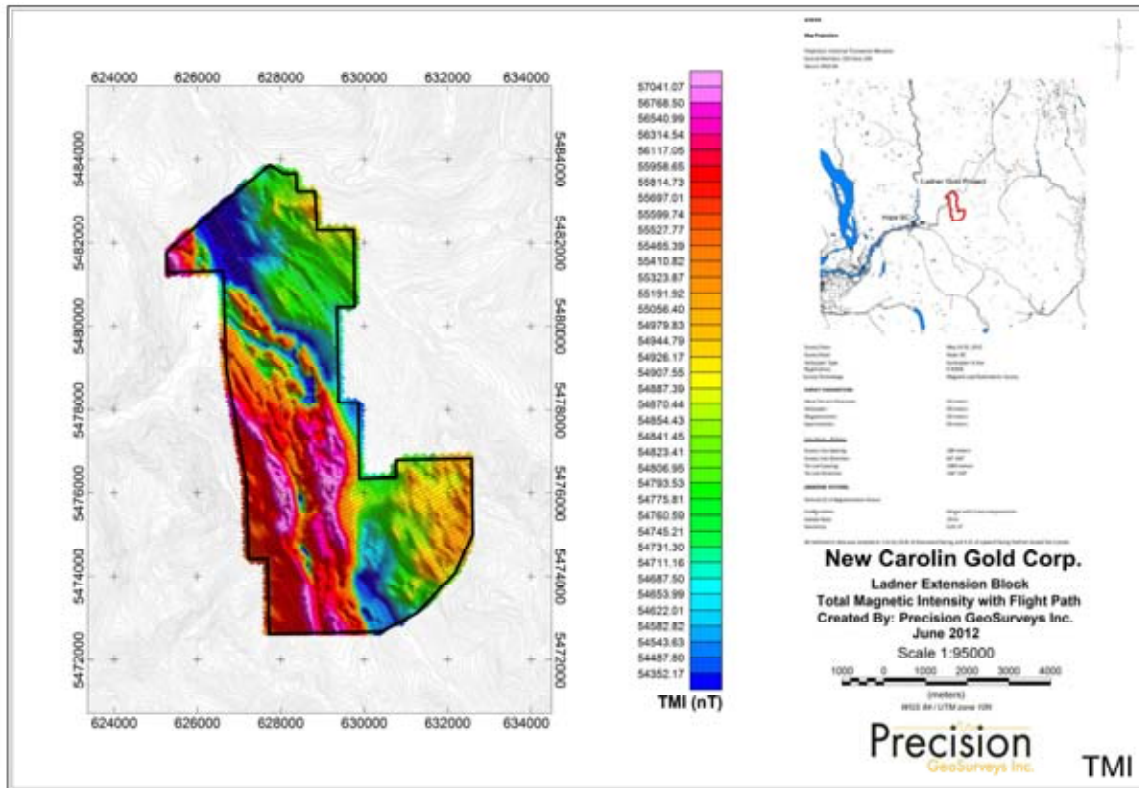
Map 1: Ladner Gold Project property digital terrain model.



Map 2: Ladner Gold Project property flight path.

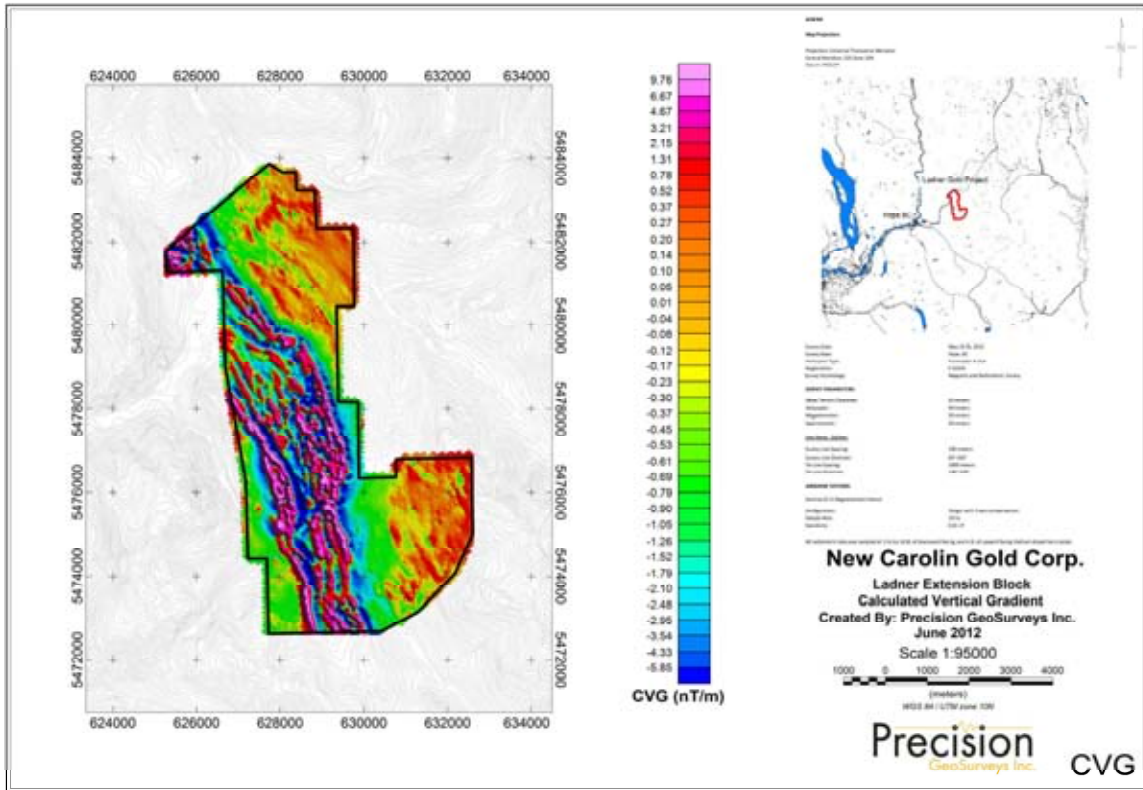


Map 3: Ladner Gold Project property total magnetic intensity.



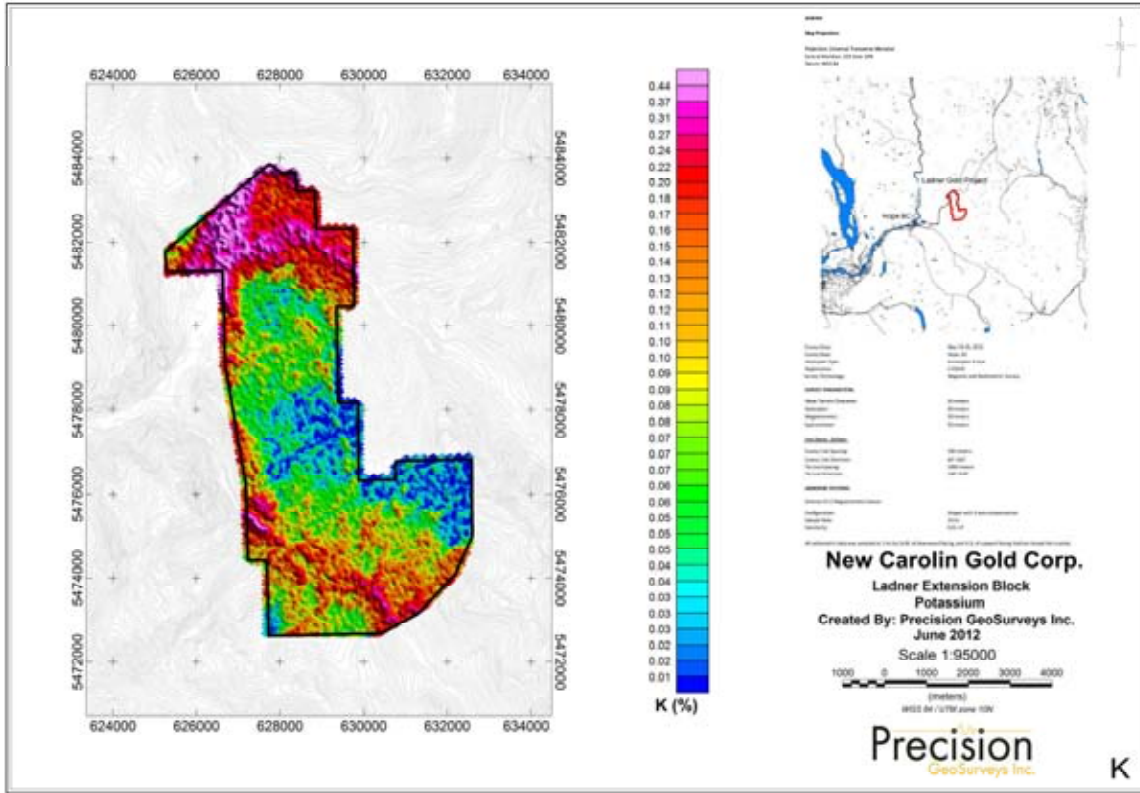
Map 4: Ladner Gold Project property total magnetic intensity with plotted flight lines.



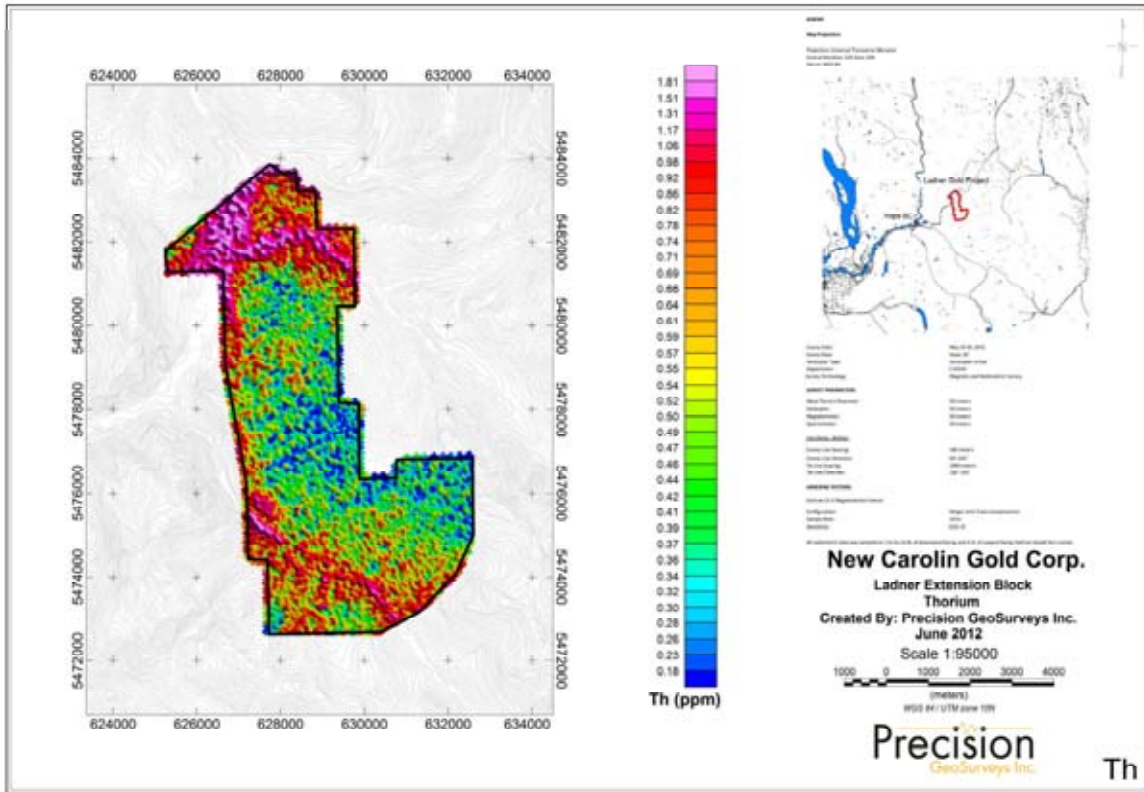


Map 5: Ladner Gold Project property calculated vertical gradient.

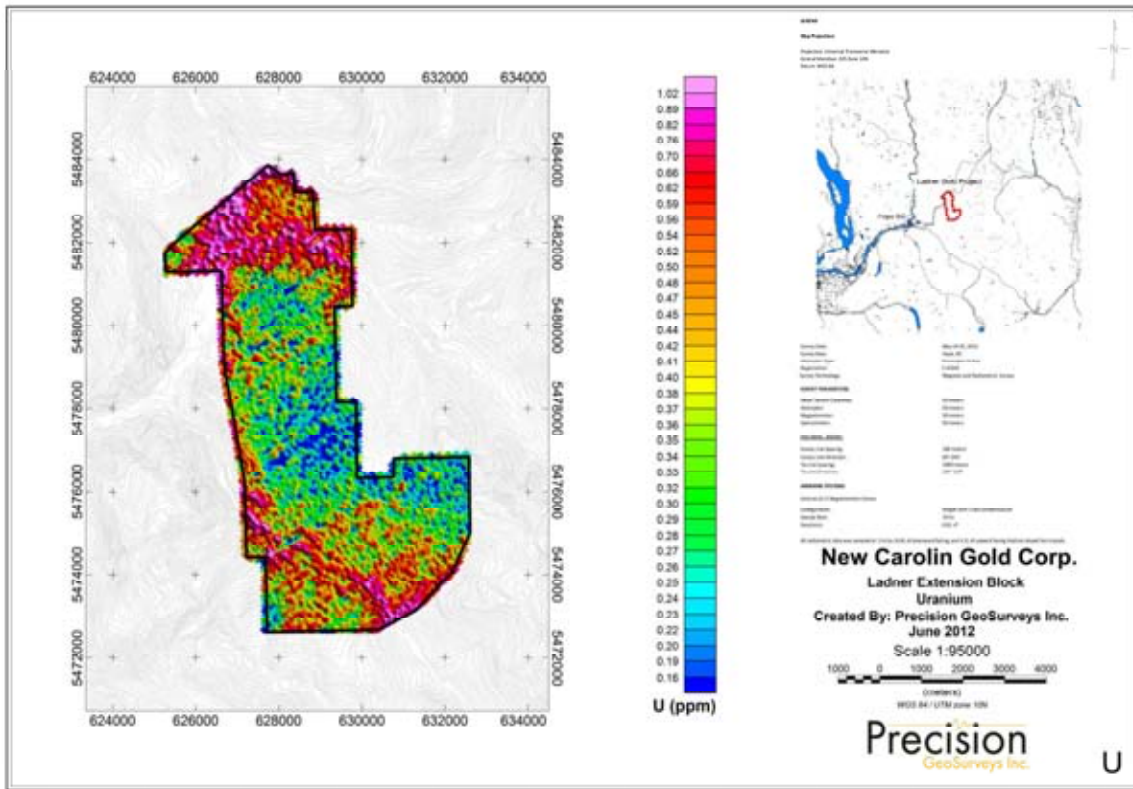




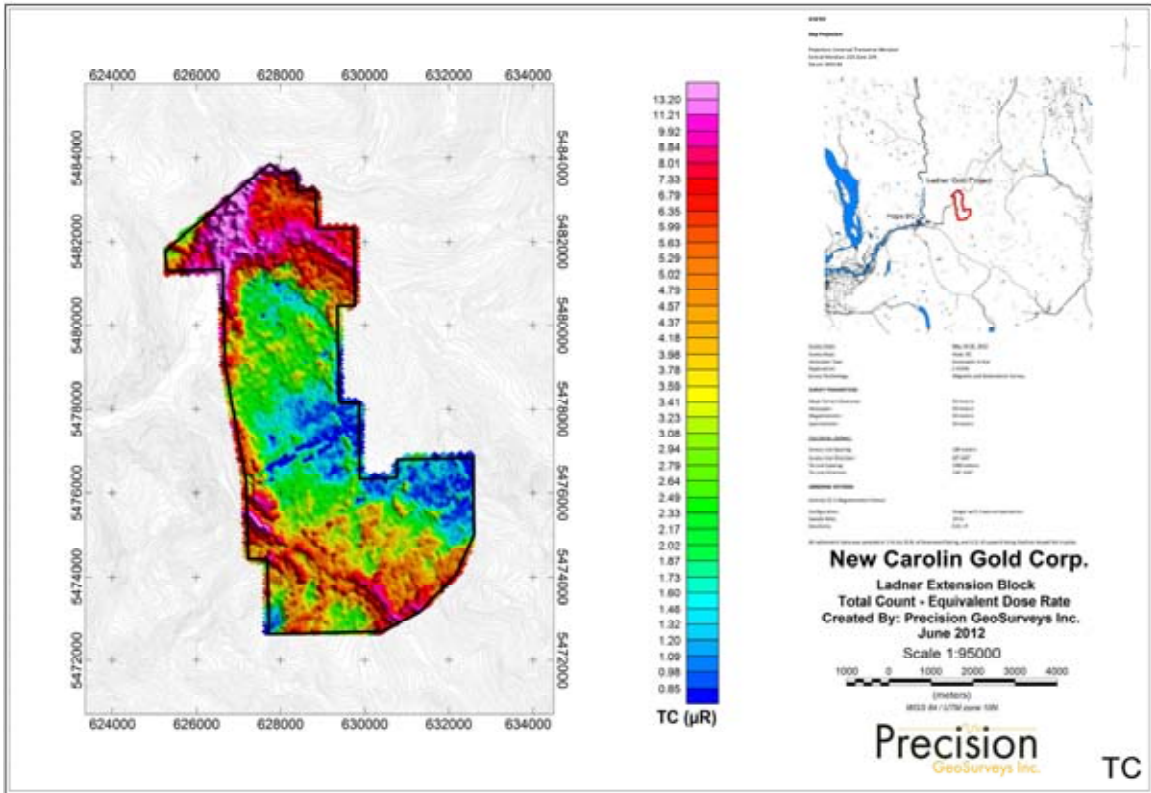
Map 6: Ladner Gold Project property potassium – equivalent concentration.



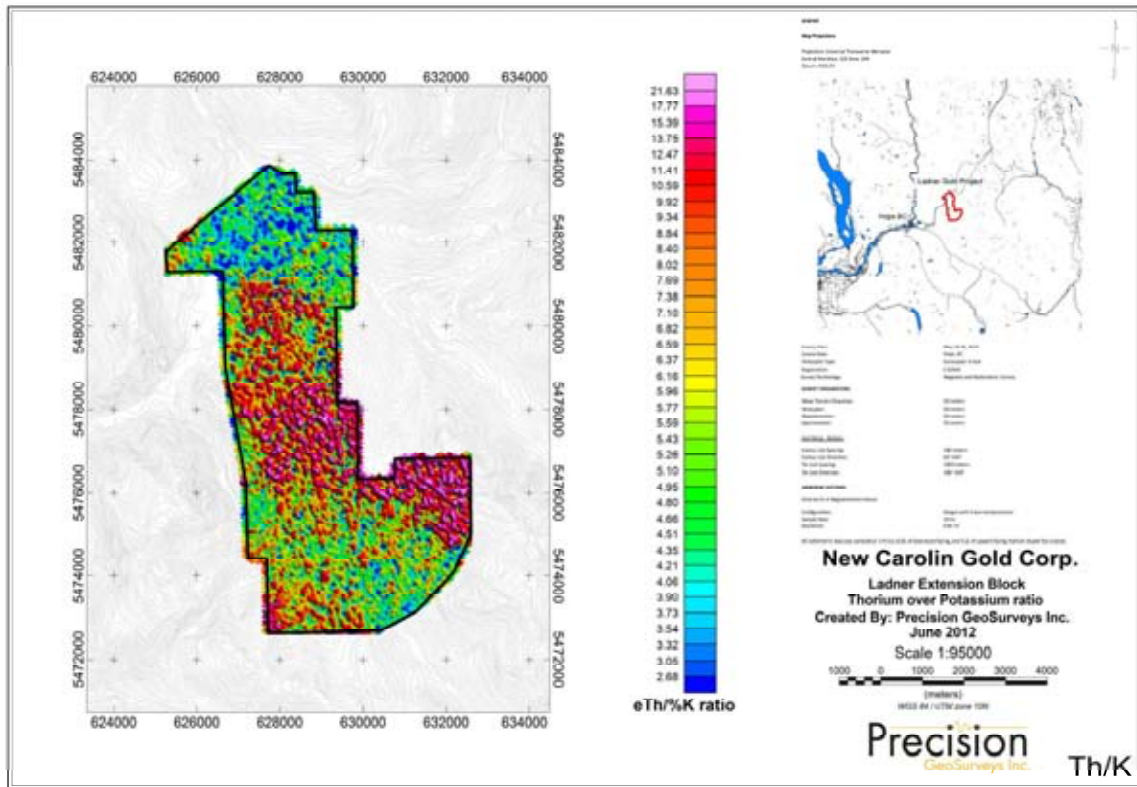
Map 7: Ladner Gold Project property thorium – equivalent concentration.



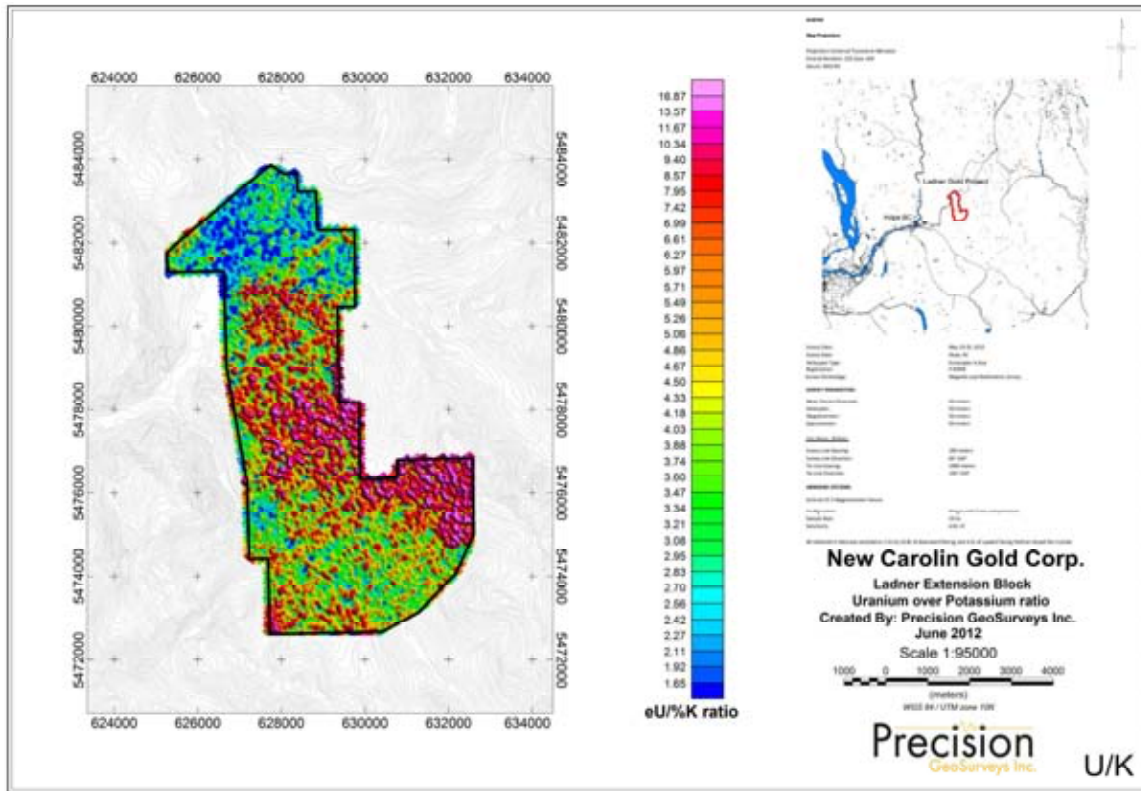
Map 8: Ladner Gold Project property uranium – equivalent concentration.



Map 9: Ladner Gold Project property total count – equivalent dose rate.

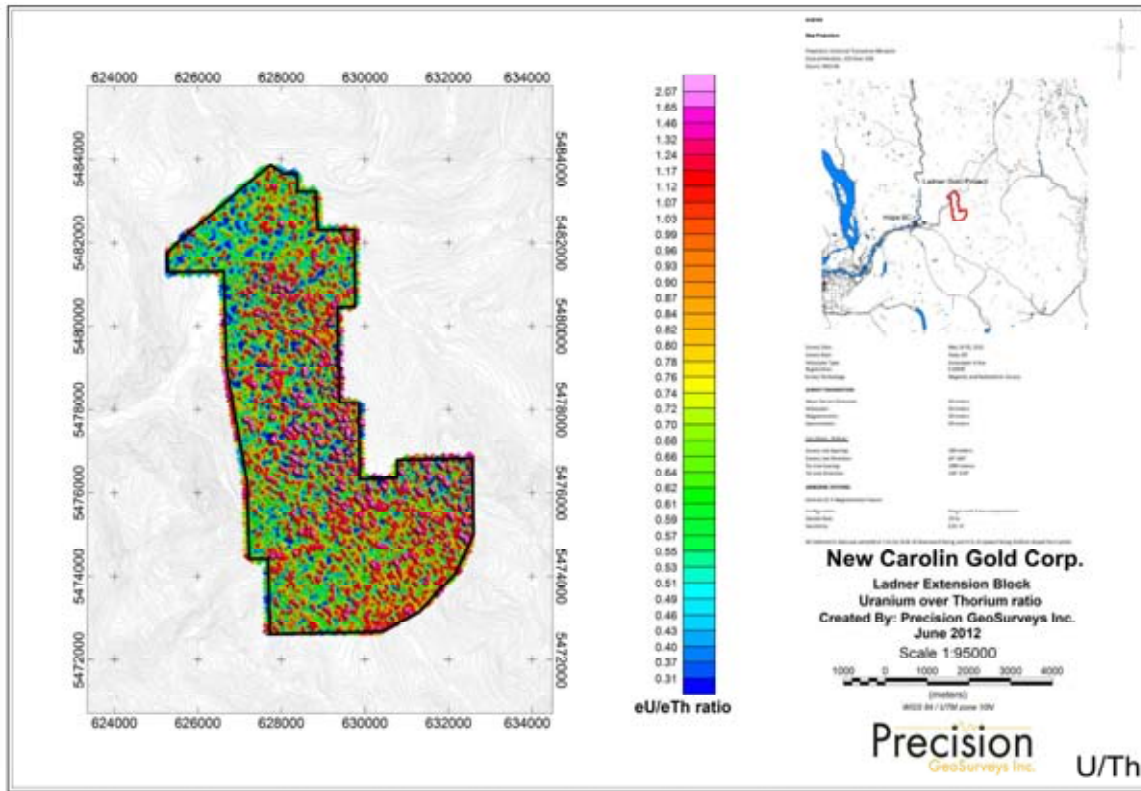


Map 10: Ladner Gold Project property thorium over potassium ratio.



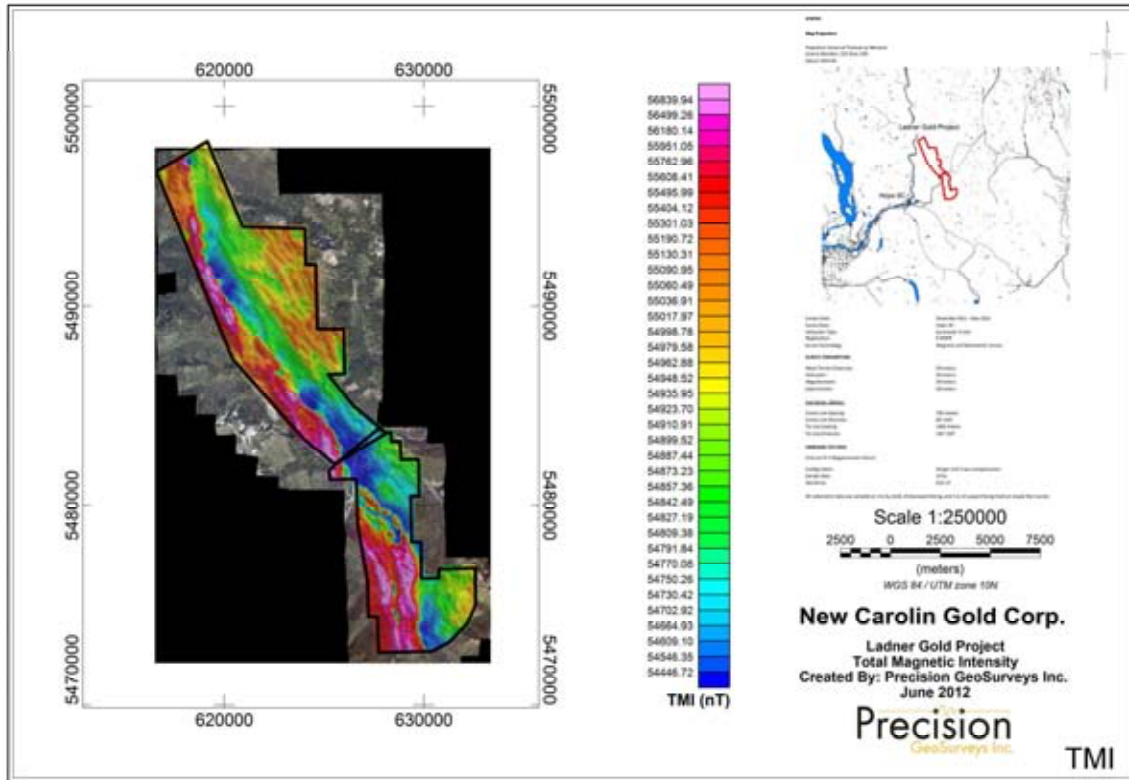
Map 11: Ladner Gold Project property uranium over potassium ratio.



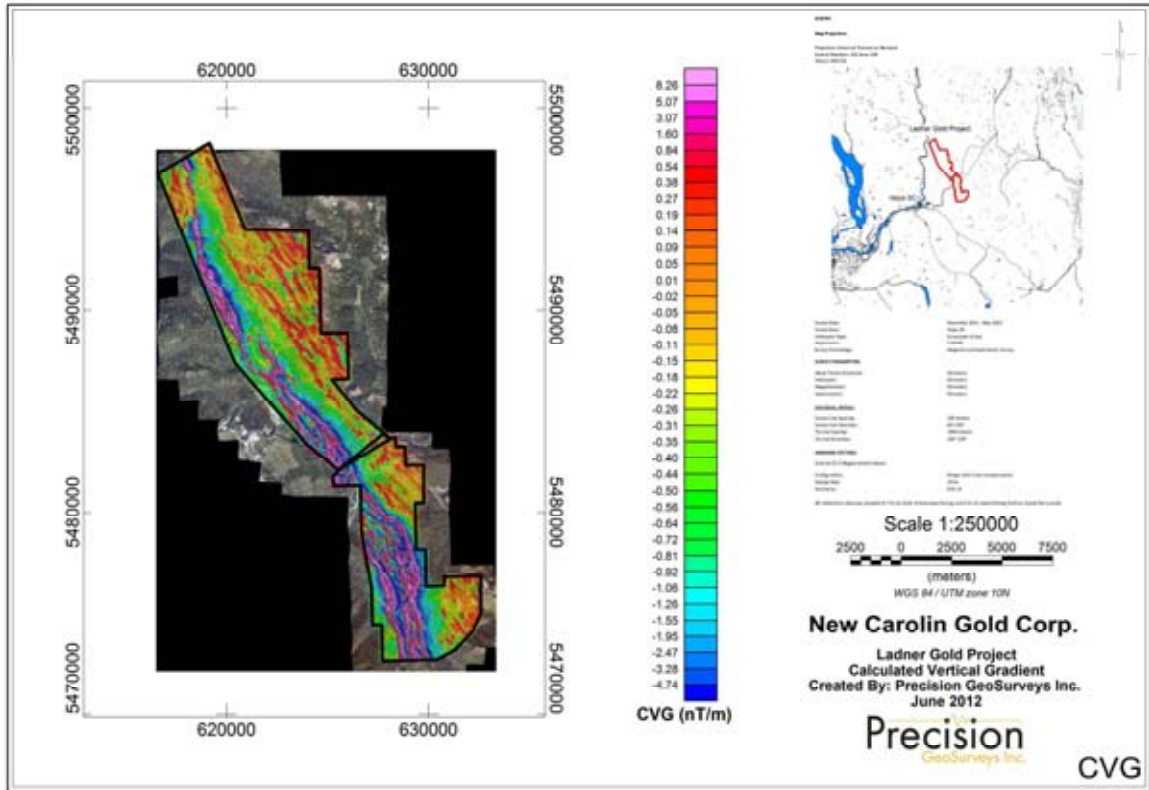


Map 12: Ladner Gold Project property uranium over thorium ratio.

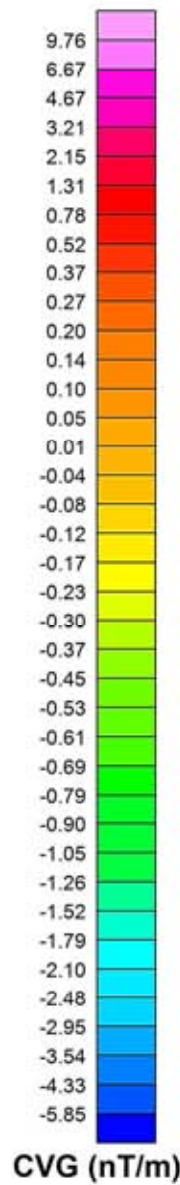
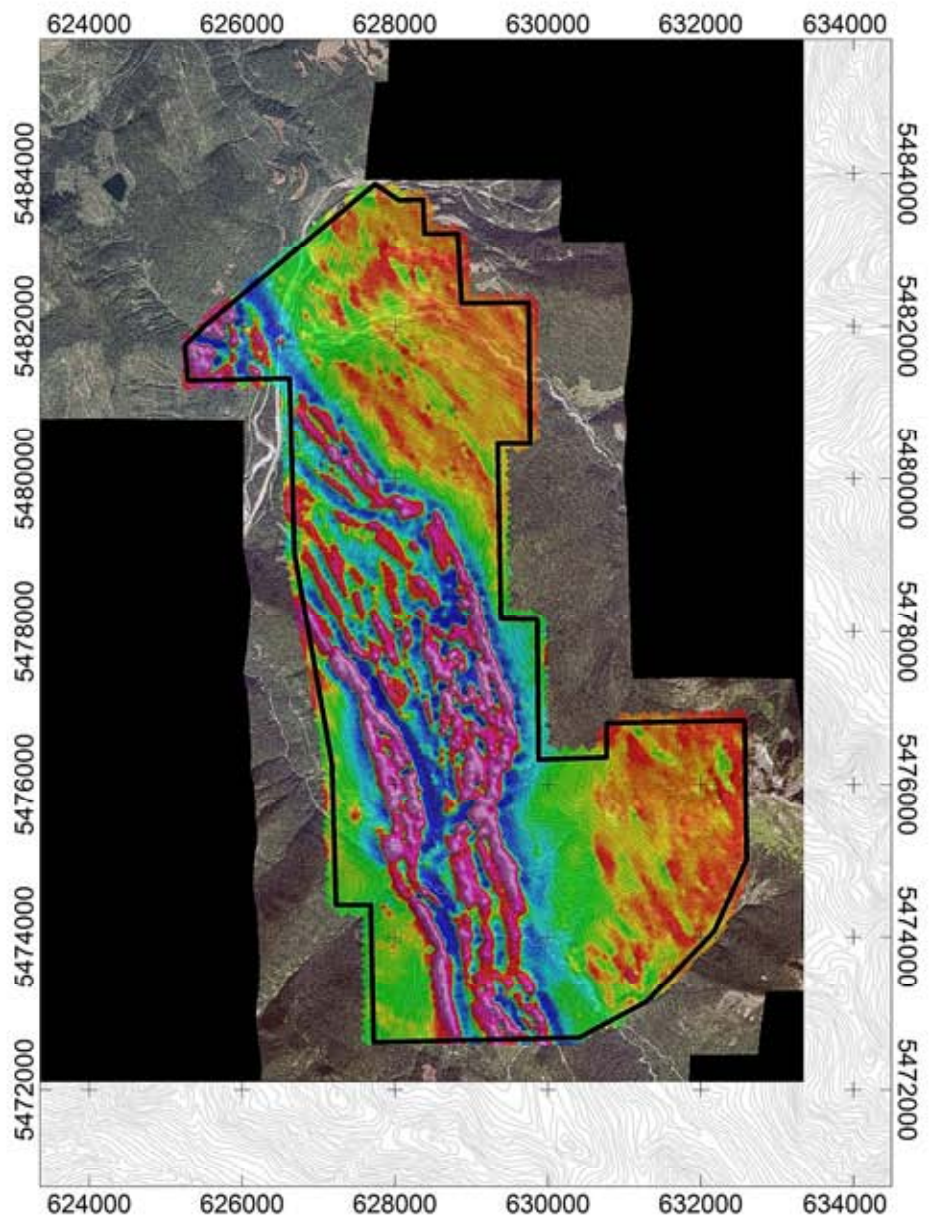




Map 13: Ladner Gold Project property total magnetic intensity merged with previously collected data.



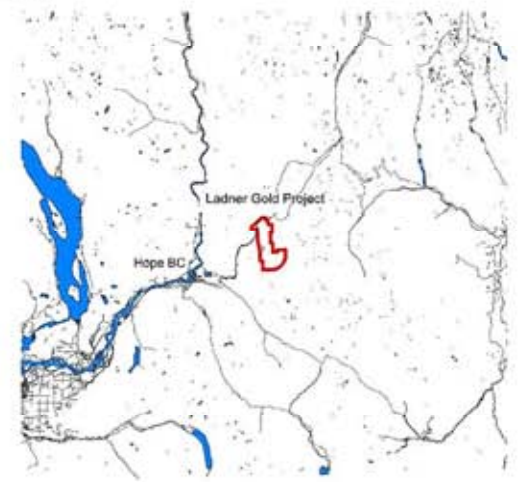
Map 14: Ladner Gold Project property calculated vertical gradient merged with previous data.



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone: 10N  
 Datum: WGS 84



Survey Date: May 19-20, 2012  
 Survey Block: Hope, BC  
 Helicopter Type: Surveyor A-Star  
 Registration: C-CDM  
 Survey Technology: Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

Mean Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Survey Line Settings:**

Survey Line Spacing: 100 meters  
 Survey Line Direction: 40°-240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150°-330°

**ABOARD SYSTEMS:**

Sensors: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 31.8% of downward facing, and 4.2% of upward facing thallium doped NaI crystals.

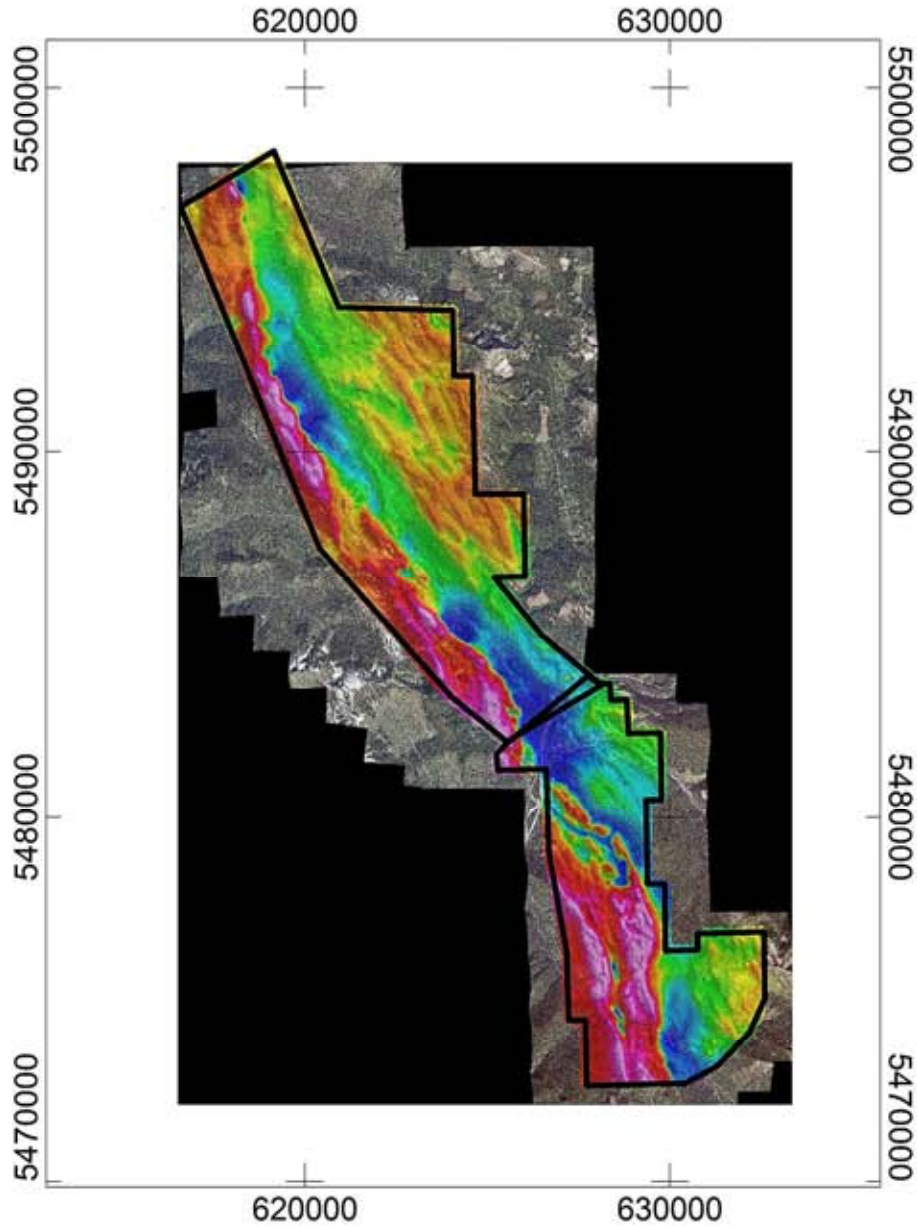
**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Calculated Vertical Gradient**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**

Scale 1:95000



(meters)  
 WGS 84 / UTM zone 10N





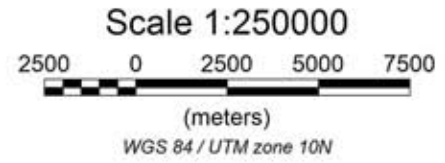
**GENERAL**  
 Map Projection  
 Projection: Universal Transverse Mercator  
 Central Meridian: 120 Zone 10N  
 Datum: WGS84

**Map Information**  
 Survey Date: November 2011 - May 2012  
 Survey Area: Hope, BC  
 Map Scale: 1:250,000  
 Map Projection: UTM  
 Map Datum: WGS84  
 Survey Technology: Magnetic and Radiometric Surveys

**SURVEY PARAMETERS**  
 Magnetometer: Geometrics G860  
 Magnetometer Accuracy: ±0.1 nT  
 Survey Line Spacing: 100 meters  
 Survey Line Direction: 045° and 135°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 135° and 045°

**ADDITIONAL SYSTEMS**  
 Software: ArcGIS 10.0  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 100 Hz  
 Sensitivity: 0.1 nT

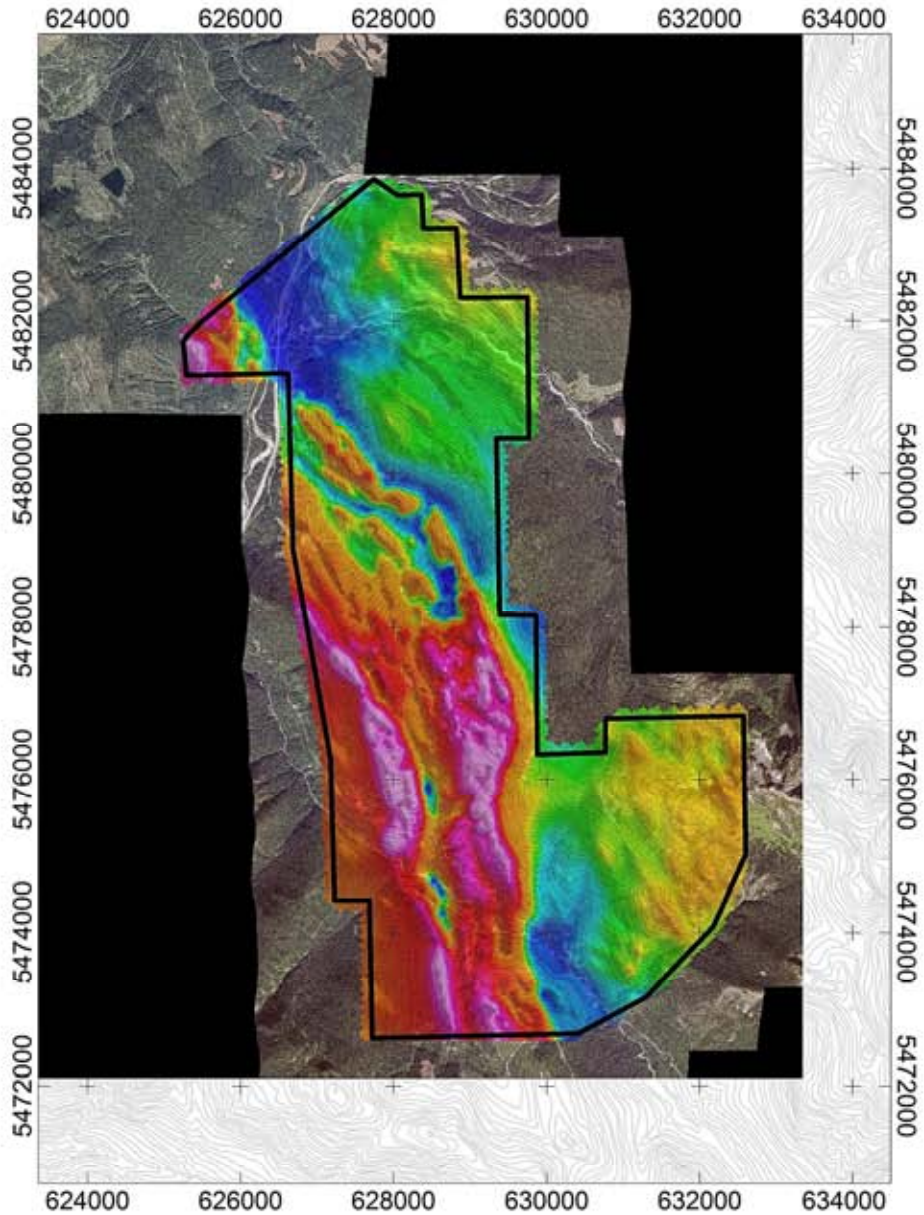
All radiometric data was sampled at 1 m by 1 m by 1 m of downward facing, and 4.0 m of upward facing that are draped to the project.



**New Carolin Gold Corp.**  
 Ladner Gold Project  
 Total Magnetic Intensity  
 Created By: Precision GeoSurveys Inc.  
 June 2012

**Precision**  
 GeoSurveys Inc.

TMI



**LEGEND**

**Map Projection:**

Projection: Universal Transverse Mercator  
Central Meridian: 225 Zone 10N  
Datum: WGS 84



Survey Date: May 19-20, 2012  
Survey Base: Hope, BC  
Helicopter Type: Eurocopter A-Star  
Registration: C-026K  
Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Mean Terrain Clearance: 50-meters  
Helicopter: 50-meters  
Magnetometer: 50-meters  
Spectrometer: 50-meters

**Line Spacing - Rollouts:**

Survey Line Spacing: 100 meters  
Survey Line Direction: 80°-240°  
Traverse Line Spacing: 1000 meters  
Traverse Line Direction: 150°-330°

**AIRBORNE SYSTEMS:**

Scintrex CS-3 Magnetometer Sensor  
Configuration: Stringer with 2 axis compensation  
Sample Rate: 10Hz  
Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 18.8L of downward facing, and 4.3L of upward facing Thorium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
Total Magnetic Intensity  
Created By: Precision GeoSurveys Inc.  
June 2012**

Scale 1:95000

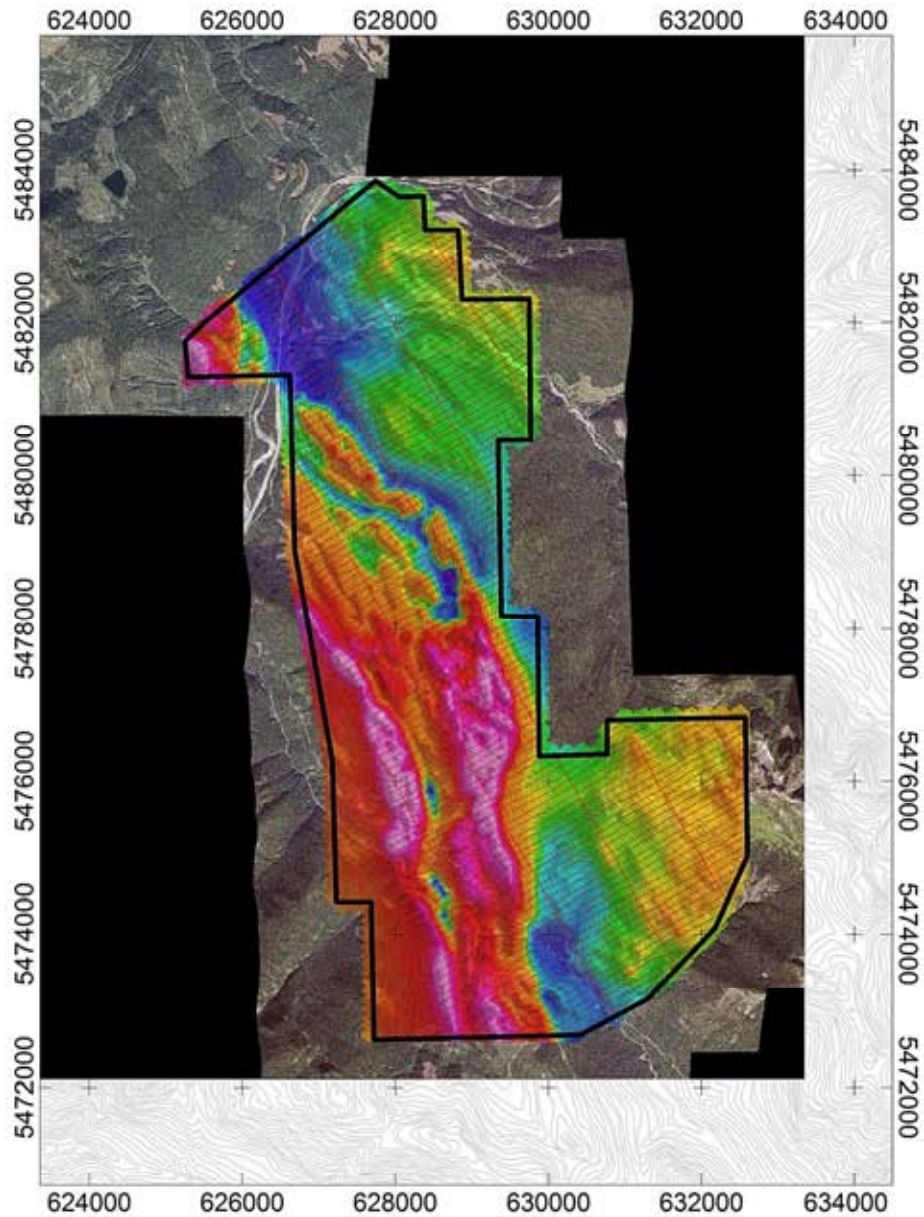


(meters)  
WGS 84 / UTM zone 10N

**Precision**  
GeoSurveys Inc.

**TMI**

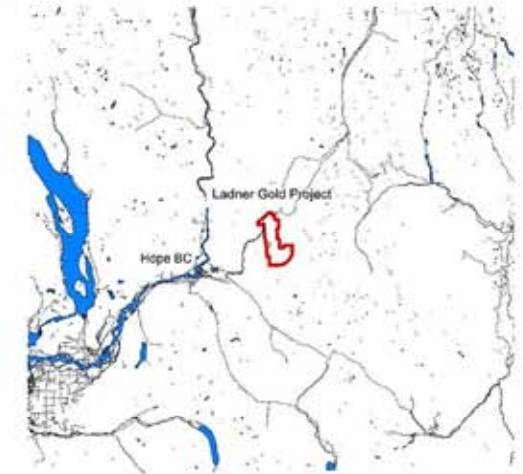




**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Contour Interval: 225 feet (69m)  
 Datum: WGS 84



Survey Date: May 15-26, 2012  
 Survey Site: Hope, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-GDXX  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Mean Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Line Work - Details:**

Survey Line Spacing: 100 meters  
 Survey Line Direction: 45°-240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150°-330°

**AIRBORNE SYSTEMS:**

Avionics: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1Hz by 15.25 of downward facing, and 4.2, of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block**  
**Total Magnetic Intensity with Flight Path**  
**Created By: Precision GeoSurveys Inc.**

**June 2012**

**Scale 1:95000**

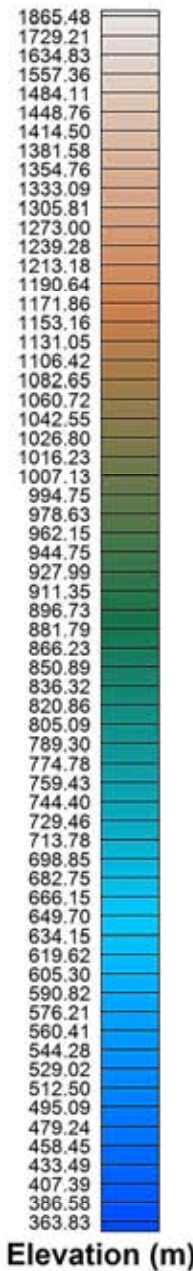
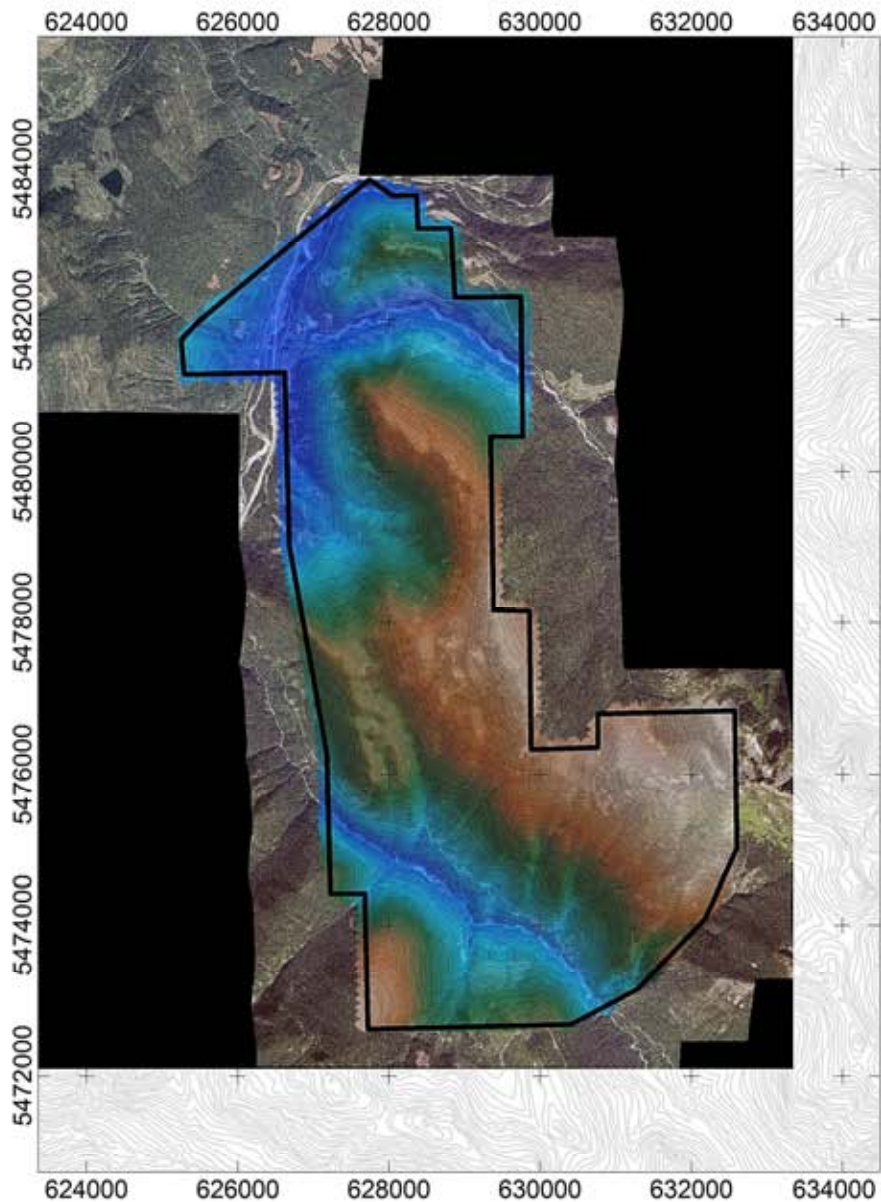


(meters)

WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

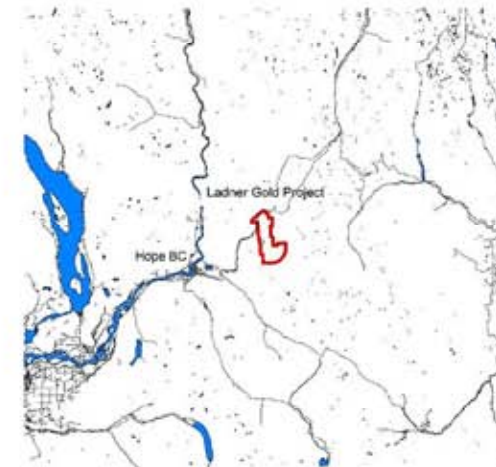
**TMI**



USGNS

Map Projection

Projection Universal Transverse Mercator  
Central Meridian 225 Zone 10N  
Datum: WGS 84



Survey Date:  
Survey Base:  
Helicopter Type:  
Registration:  
Survey Technology:

May 19-20, 2012  
Hope, BC  
Eurocopter A-Star  
CGOM  
Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Mean Terrain Clearance:  
Helicopters:  
Magnetometer:  
Scan Interval:

50 meters  
50 meters  
50 meters  
50 meters

**Scan Angle - Roll:**

Survey Line Spacing:  
Survey Line Direction:  
Traverse Line Spacing:  
Traverse Line Direction:

500 meters  
87°-240°  
1000 meters  
100°-830°

**ANTENNA SYSTEMS:**

Solovox CS-3 Magnetometer Sensor

Configuration:  
Sample Rate:  
Sensitivity:

Single with 3 axis compensation  
10Hz  
0.01 dT

All radiometric data was sampled at 1 Hz by 15.6s of downward facing, and 4.2s of upward facing medium sized NaI crystals.

## New Carolin Gold Corp.

Ladner Extension Block

Digital Terrain Map

Created By: Precision GeoSurveys Inc.

June 2012

Scale 1:95000

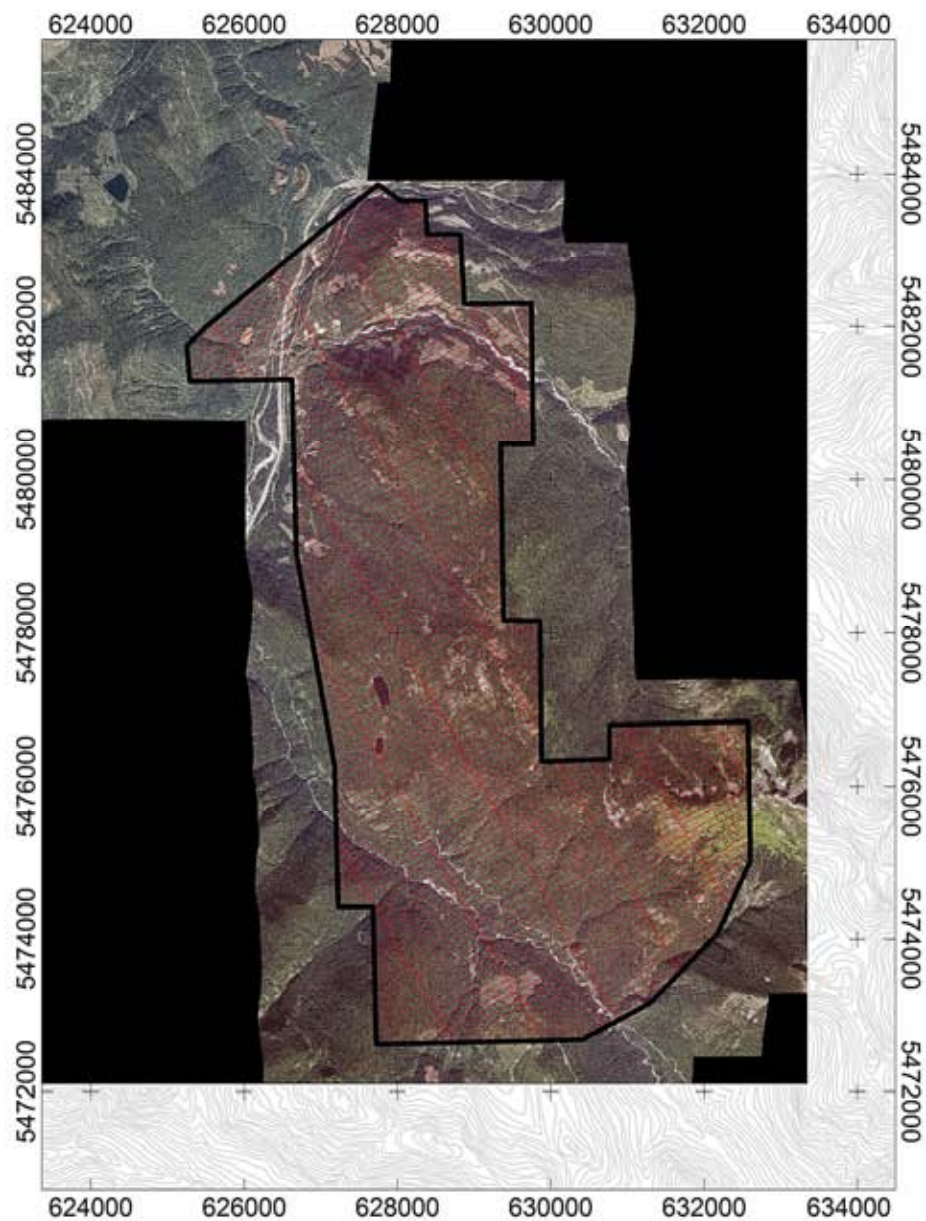


(meters)  
WGS 84 / UTM zone 10N

Precision  
GeoSurveys Inc.

DTM

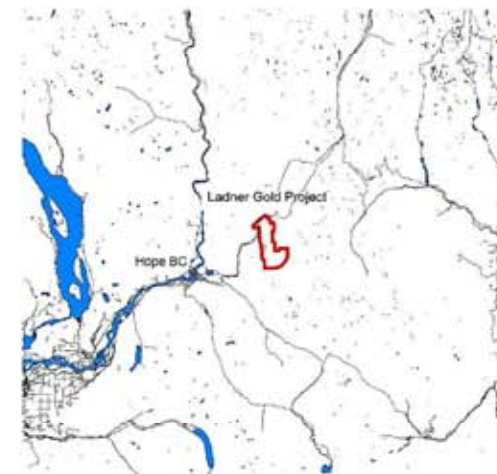




UIGND

Map Projection:

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone: 10N  
 Datum: WGS 84



Survey Date: May 19-25, 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-509H  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Mean Terrain Clearance: 30 meters  
 Helicopter: 30 meters  
 Magnetometer: 30 meters  
 Spectrometer: 30 meters

**Line Spacing - Helicopter:**

Survey Line Spacing: 100 meters  
 Survey Line Direction: 60°-240°  
 Tie Line Spacing: 100 meters  
 Tie Line Direction: 150°-330°

**AMBORNI SYSTEM:**

Schlumberger CS-3 Magnetometer Sensor  
 Configuration: Stringer with 3 axis compensation  
 Sample Rate: 10Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 15.8, of downward facing, and 4.2, of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

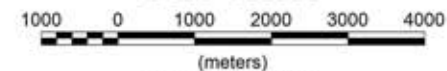
Ladner Extension Block

Flight Path

Created By: Precision GeoSurveys Inc.

June 2012

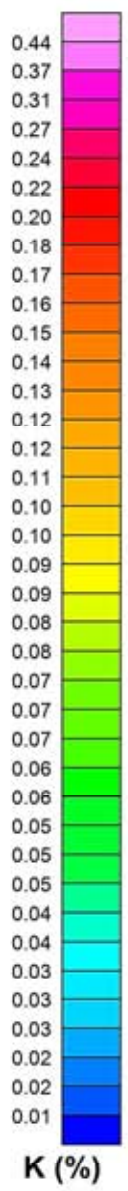
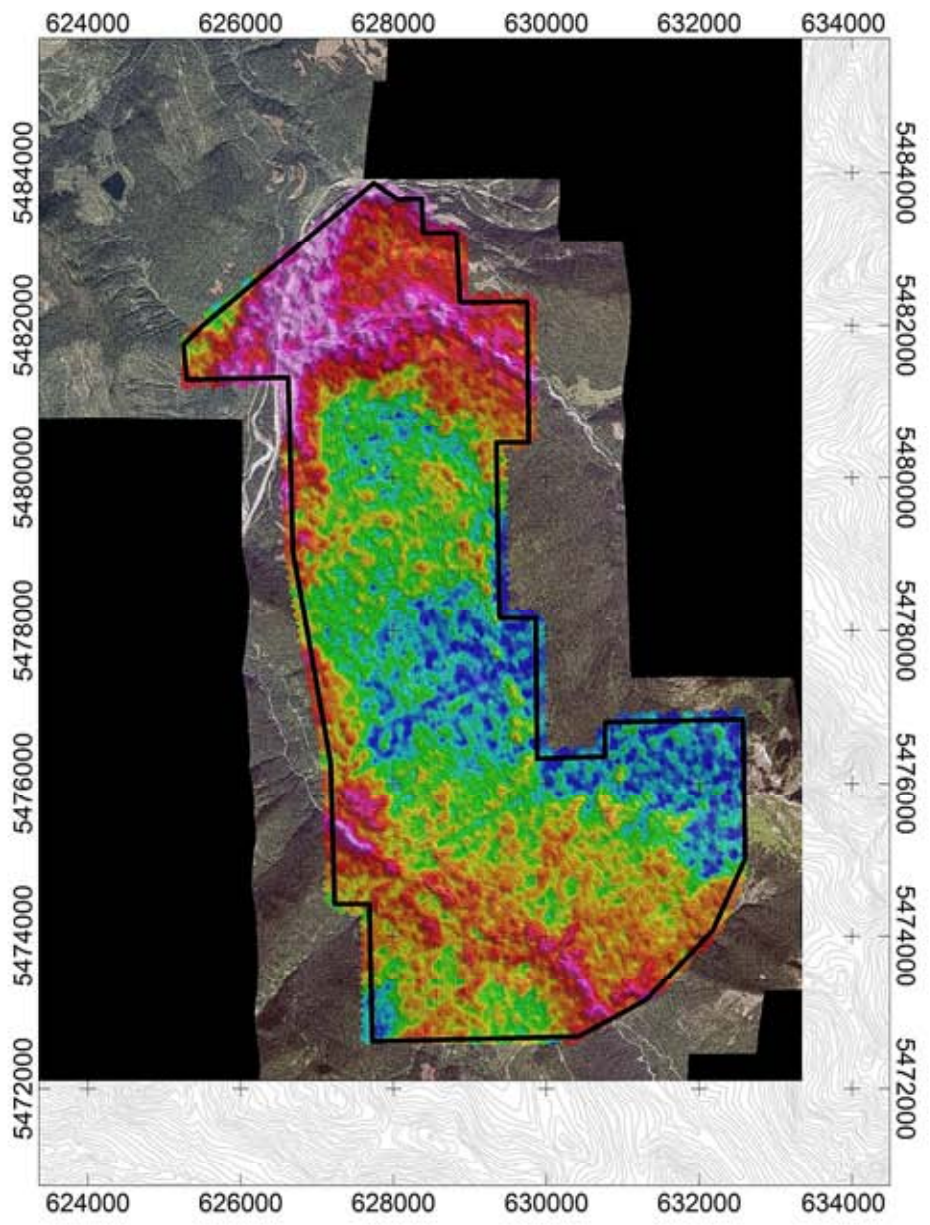
Scale 1:95000



WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

FP



**Survey Data:**  
 Survey Date: May 19, 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-GDHI  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**  
 Mean Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Line Data - Roll:**  
 Survey Line Spacing: 100 meters  
 Survey Line Direction: 07° 24E  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150° 33E

**AIRBORNE SYSTEMS:**  
 Source: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 30.0% of downward facing and 4.2% of upward facing Inertial Aided IMU crystals.

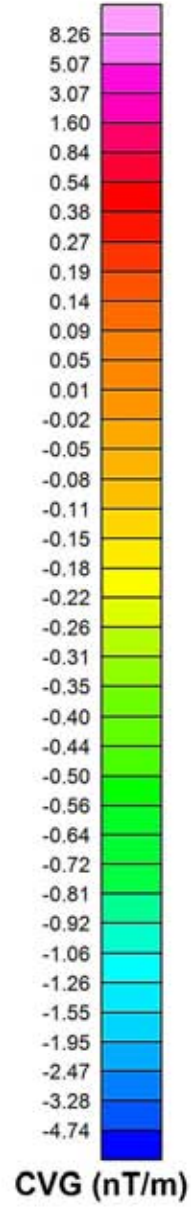
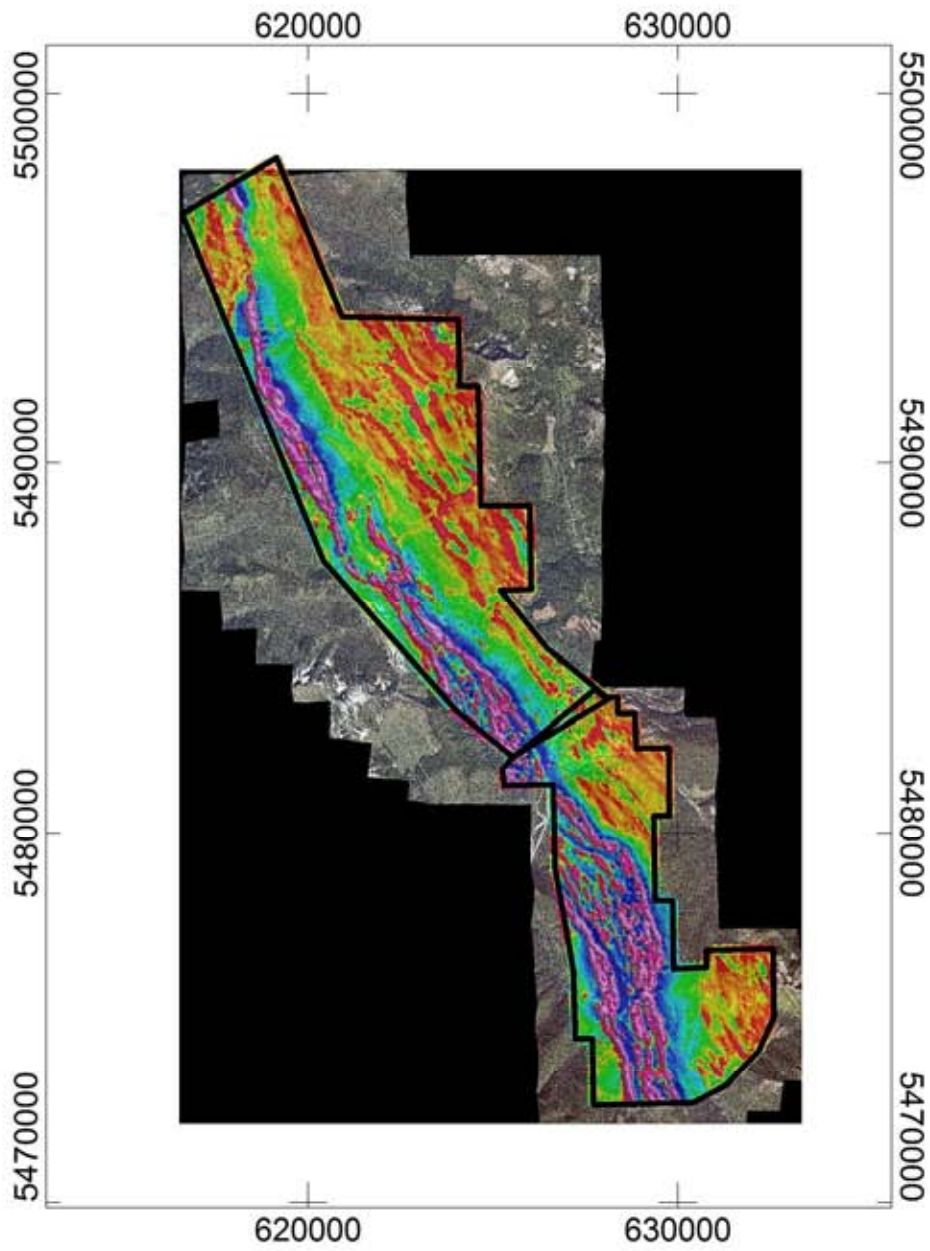
**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Potassium**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**  
**Scale 1:95000**

(meters)  
 WGS 84 / UTM zone 10N

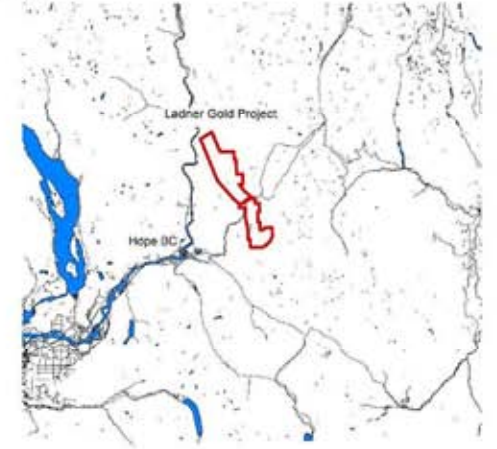
**Precision**  
 GeoSurveys Inc.

K





**ITEMS**  
 Map Projection  
 Projection: Universal Transverse Mercator  
 Central Meridian: 125 West 10N  
 Datum: WGS 84



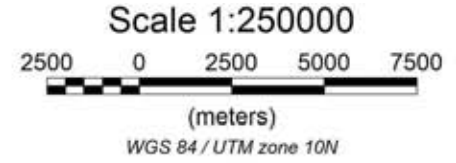
Survey Date: September 2011 - May 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter AS350  
 Registration: C-0006  
 Survey Technology: Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**  
 Altitude Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**COLLECTION DETAILS:**  
 Survey Line Spacing: 100 meters  
 Survey Line Direction: 02°-05°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 130°-135°

**AIRBORNE SYSTEMS:**  
 Sensor: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 18.0 s of downwind logging and 4.2 s of coasting before on board data capture.

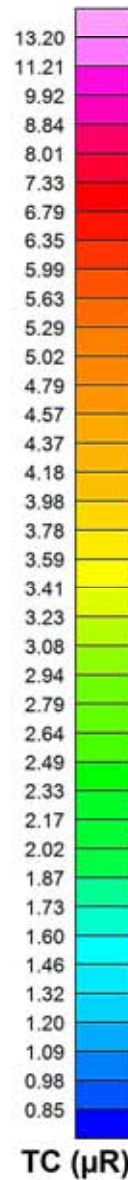
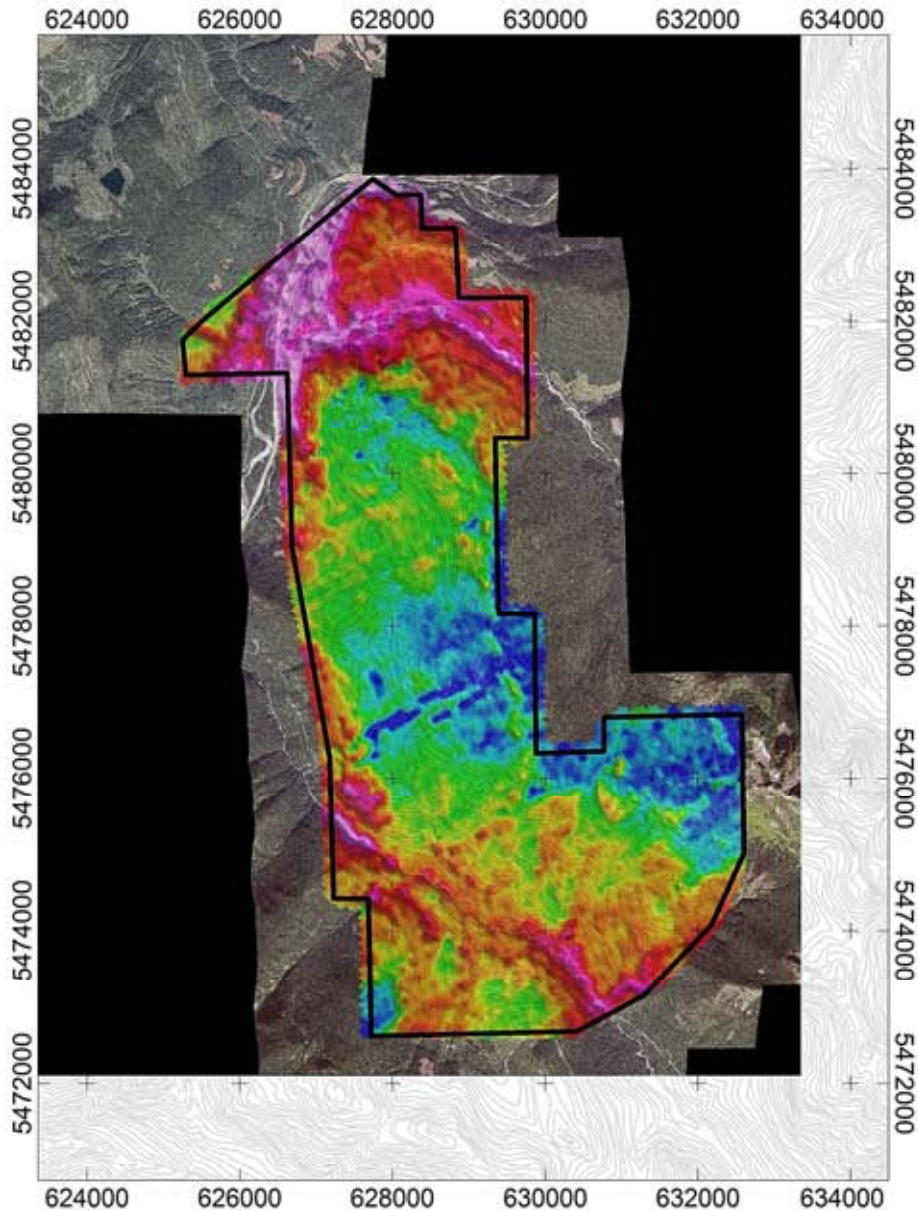


**New Carolin Gold Corp.**  
 Ladner Gold Project  
 Calculated Vertical Gradient  
 Created By: Precision GeoSurveys Inc.  
 June 2012

**Precision**  
 GeoSurveys Inc.

CVG

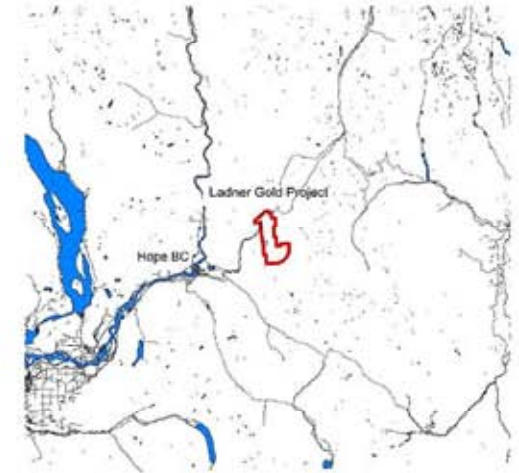




**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 125 Zone: 10N  
 Datum: NAD 83



Survey Date: May 15-25, 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter AS-350  
 Registration: C-GCME  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Minimum Terrain Clearance: 30 meters  
 Helicopter: 30 meters  
 Magnetometer: 30 meters  
 Spectrometer: 30 meters

**FLY OVER SETTINGS:**

Survey Line Spacing: 300 meters  
 Survey Line Direction: 67-240°  
 Tie Line Spacing: 2000 meters  
 Tie Line Direction: 137-837°

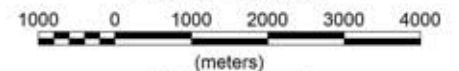
**AIRBORNE SYSTEMS:**

Scientific CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 30 Hz  
 Sensitivity: 0.01 uT

All radiometric data was sampled at 1 Hz by 18.0s of downward facing, and 4.2s of upward facing medium dipped NaI crystals.

**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Total Count - Equivalent Dose Rate**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**

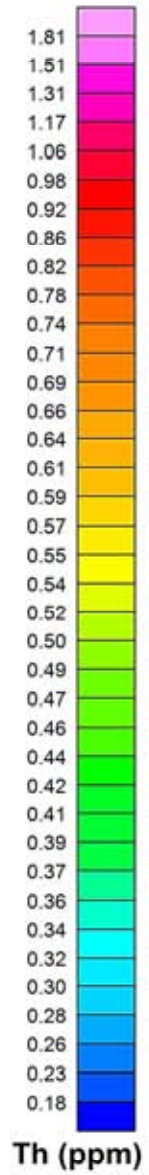
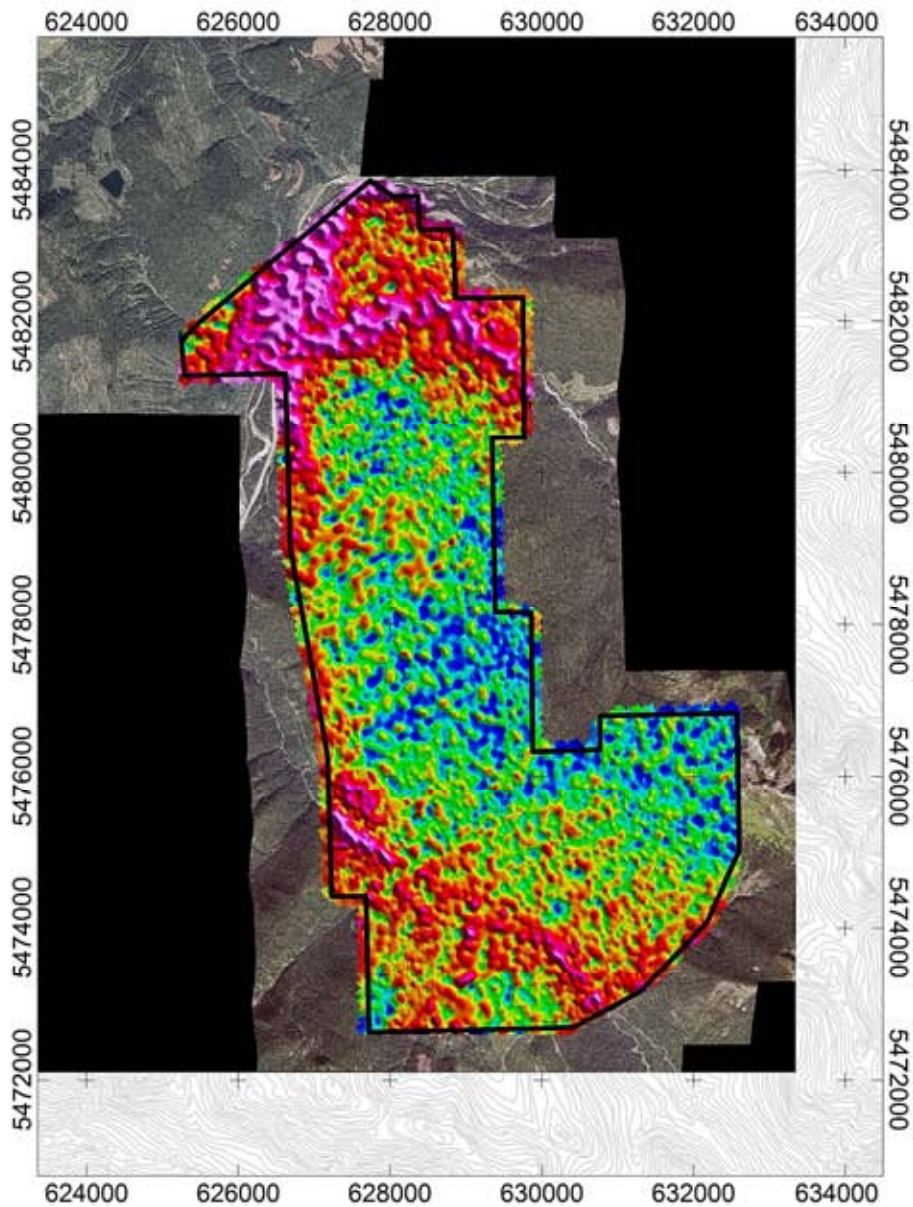
Scale 1:95000



(meters)  
 WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

TC



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone: 10N  
 Datum: WGS 84



**Survey Data:** May 19-20, 2012  
**Survey Area:** Hope, BC  
**Helicopter Type:** Eurocopter AS350  
**Registration:** C-GOHE  
**Survey Technology:** Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

**Minimum Terrain Clearance:** 50 meters  
**Inclusion:** 50 meters  
**Magneton:** 50 meters  
**Spectrometer:** 50 meters

**Scan Rate - Rollout:**

**Survey Line Spacing:** 100 meters  
**Survey Line Direction:** 40°-240°  
**Traverse Line Spacing:** 1000 meters  
**Traverse Line Direction:** 150°-330°

**AIRBORNE SYSTEMS:**

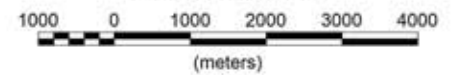
**Sensor:** Q-2 Magnetometer Sensor  
**Configuration:** Single with 3 axis compensation  
**Sample Rate:** 30 Hz  
**Sensitivity:** 0.01 nT

All radiometric data was sampled at 1 Hz by 10.0, 0.5 downward facing, and 4.2, 0.5 upward facing multi-angle flat crystal.

**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Thorium**

**Created By: Precision GeoSurveys Inc.**  
**June 2012**

**Scale 1:95000**

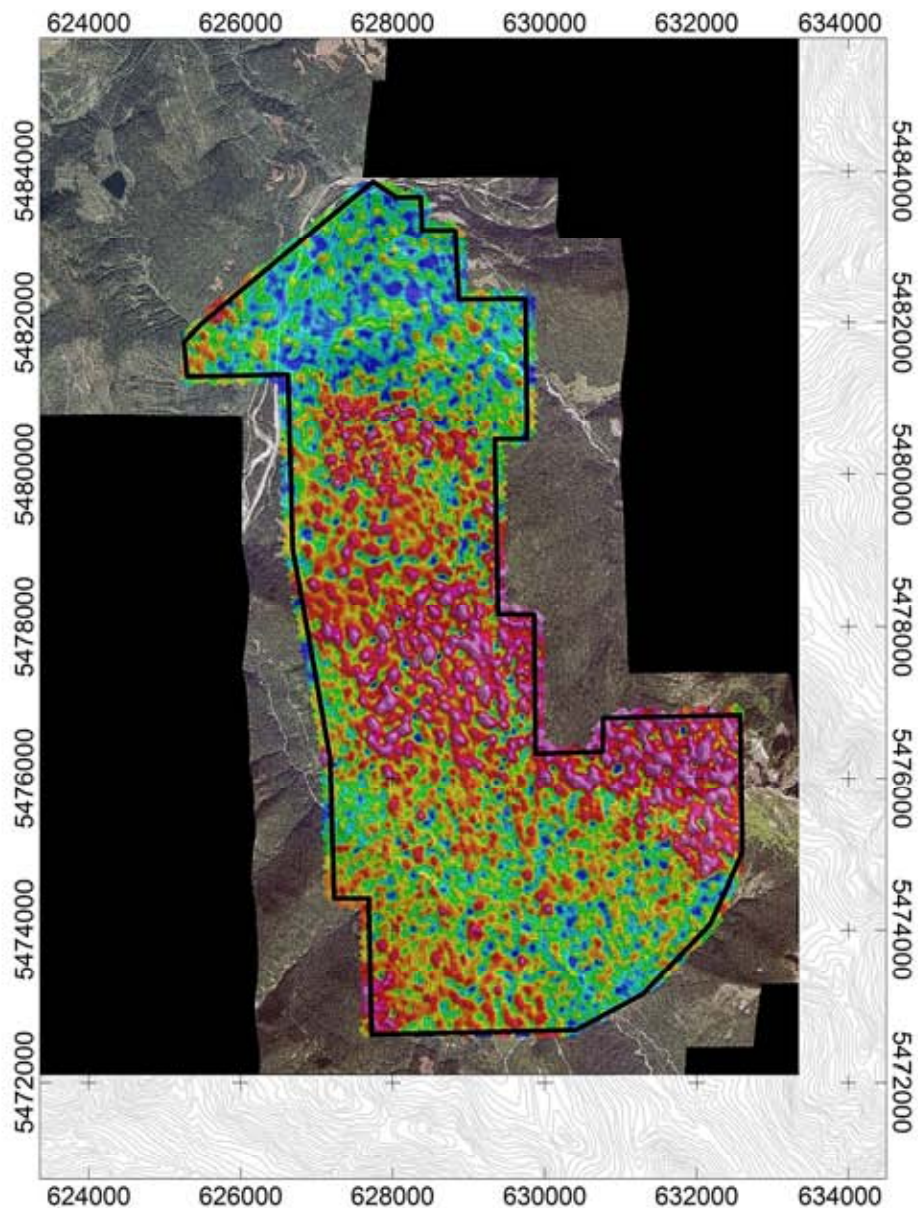


WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

Th





**LEGEND**

**Map Projection:**

Projection: Universal Transverse Mercator  
 Central Meridian: 125 Zone 10N  
 Datum: WGS 84



Survey Date: May 19-25, 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter AS350  
 Registration: C-0046  
 Survey Technology: Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

Minimum Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Survey Parameters:**

Survey Line Spacing: 100 meters  
 Survey Line Direction: 00°/240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150°/330°

**AIRBORNE SYSTEMS:**

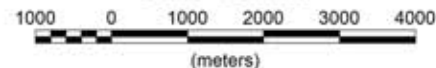
Scintrex C-2 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10Hz  
 Sensitivity: 0.25 nT

All radiometric data was sampled at 1% by 10.0% of downward facing and 4.2% of upward facing thorium dioxide NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Thorium over Potassium ratio  
 Created By: Precision GeoSurveys Inc.  
 June 2012**

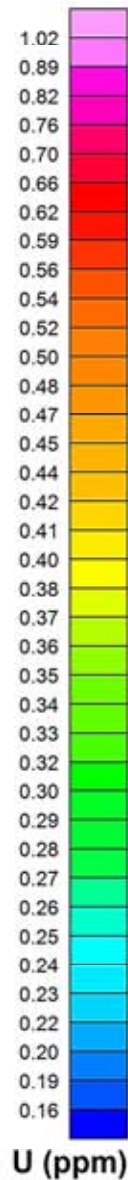
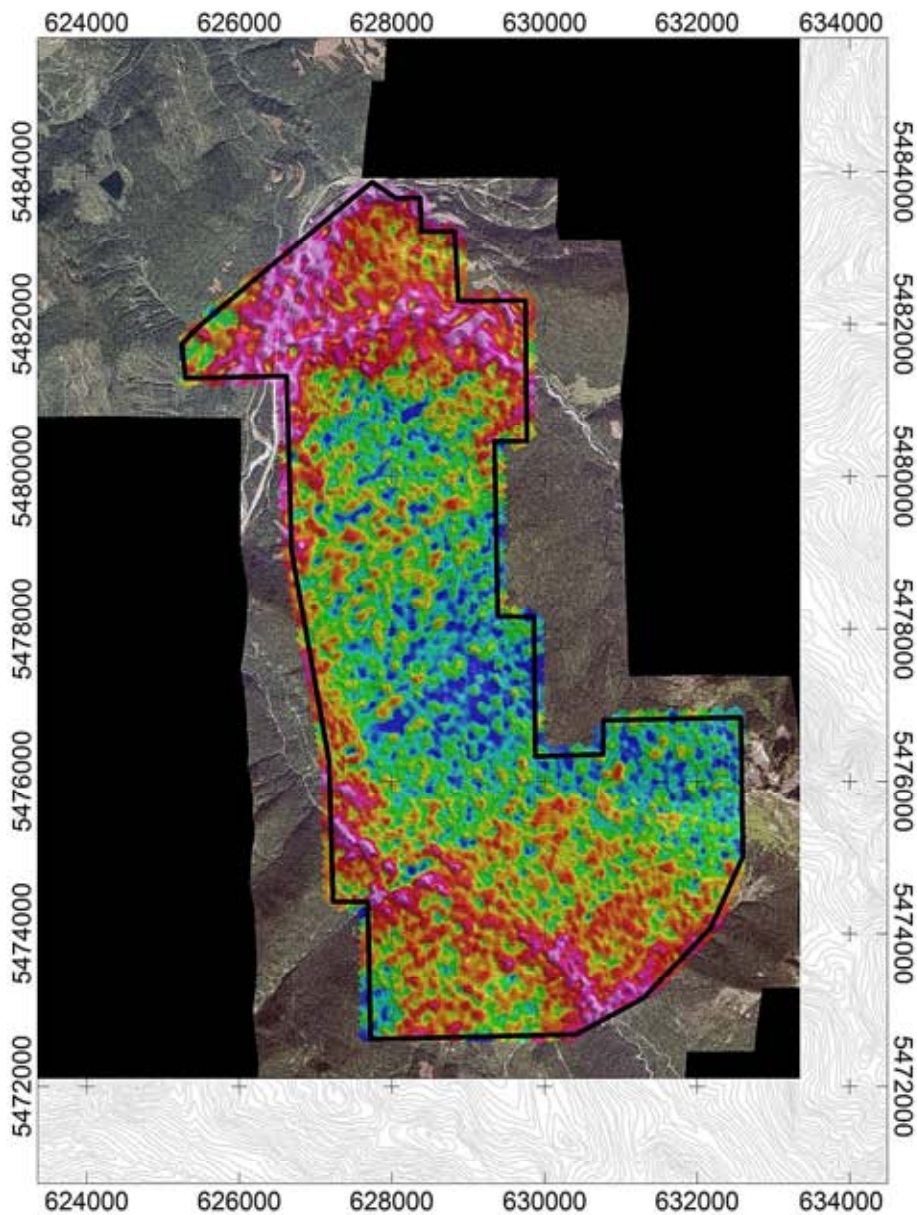
Scale 1:95000



WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

Th/K



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 00m 12N  
 Datum: WGS 83



**Survey Data:** May 19-20, 2012  
**Survey Area:** Hope, BC  
**Helicopter Type:** Eurocopter AS350  
**Registration:** C-6046  
**Survey Technology:** Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

**Mean Terrain Clearance:** 50 meters  
**Helicopter:** 50 meters  
**Magnetometer:** 50 meters  
**Speedometer:** 50 meters

**COIL CHARACTERISTICS:**

**Survey Line Spacing:** 300 meters  
**Survey Line Direction:** 40°-240°  
**Transect Line Spacing:** 1000 meters  
**Transect Line Direction:** 150°-330°

**ANOMALY SYSTEMS:**

**Software:** CD-3 Magnetometer Sensor  
**Configuration:** Single with 3 axis compensation  
**Sample Rate:** 20 Hz  
**Sensitivity:** 0.01 nT

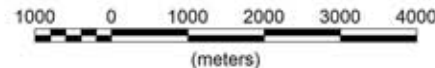
All radiometric data was sampled at 1 Hz by 18.8% of downward facing and 4.2% of upward facing thorium based NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Uranium**

**Created By: Precision GeoSurveys Inc.  
 June 2012**

**Scale 1:95000**

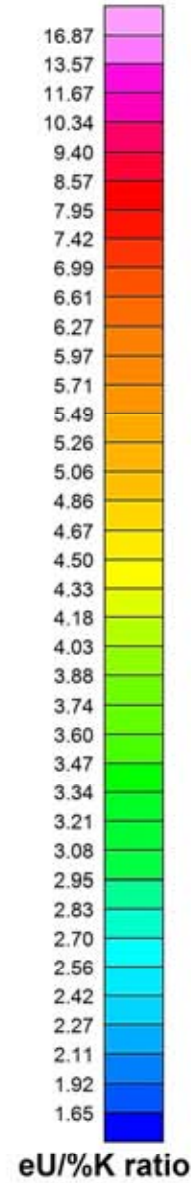
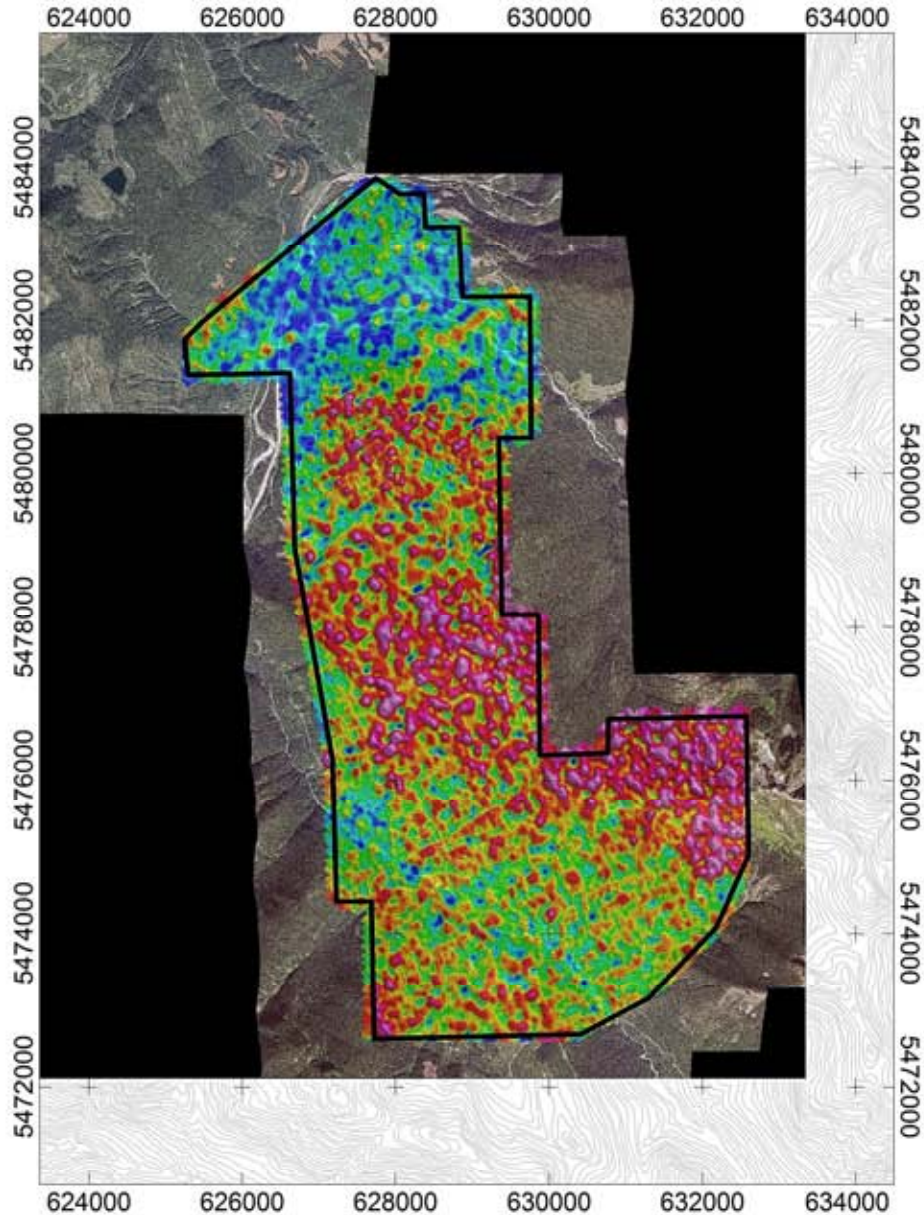


WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

U

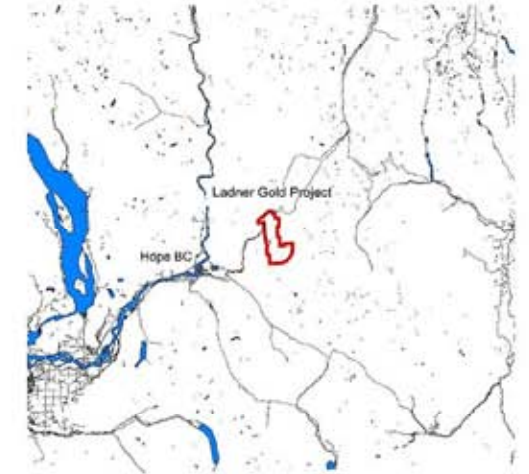




**LEGEND**

**Map Projection:**

Projection: Universal Transverse Mercator  
 Central Meridian: 125 Zone 10N  
 Datum: WGS 84



Survey Date: May 19-21, 2012  
 Survey Base: HOPE, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-GDNR  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Altitude Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Spin Wheel - Settings:**

Survey Line Spacing: 300 meters  
 Survey Line Direction: 60°-240°  
 Tie Line Spacing: 3000 meters  
 Tie Line Direction: 150°-330°

**AIRBORNE SYSTEMS:**

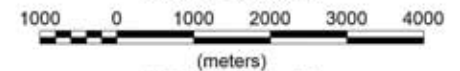
Sensors: CS-3 Magnetometer Sensor  
 Configuration: Single with 3-axis compensation  
 Sample Rate: 30 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 15.0% of downward facing, and 4.0% of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Uranium over Potassium ratio  
 Created By: Precision GeoSurveys Inc.  
 June 2012**

Scale 1:95000

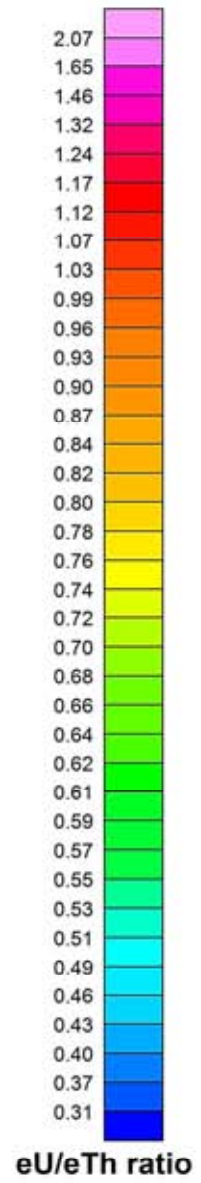
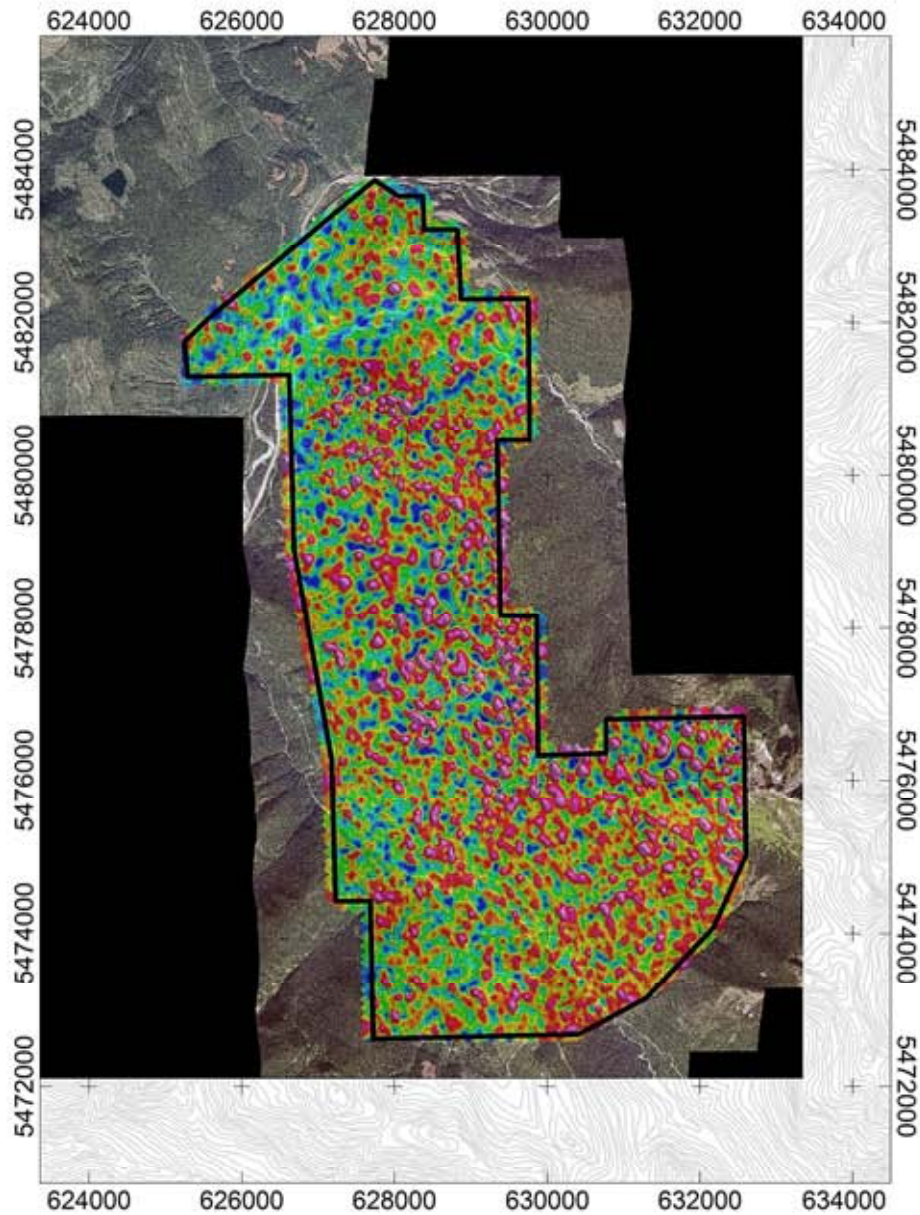


WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

U/K

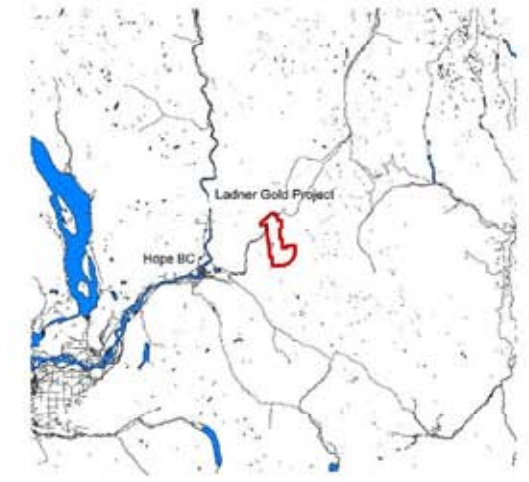




**LEGEND**

**Map Projection:**

Projection: Universal Transverse Mercator  
 Central Meridian: 125 Zone: 10N  
 Datum: NAD 83



Survey Date: May 19-20, 2012  
 Survey Base: Hope, BC  
 Helicopter Type: Eurocopter AS350  
 Registration: C-COM  
 Survey Technology: Magnetics and Radiometric Survey

**SURVEY PARAMETERS:**

Mount Terrain Clearance: 30 meters  
 Helicopter: 30 meters  
 Magnetometer: 30 meters  
 Spectrometer: 30 meters

**FLY OVER: Rollout:**

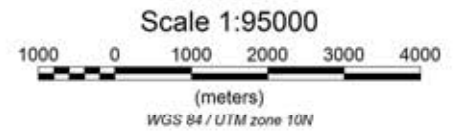
Survey Line Spacing: 100 meters  
 Survey Line Direction: 80°-240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 230°-330°

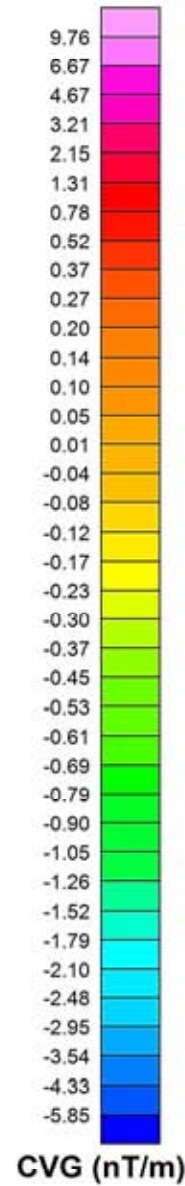
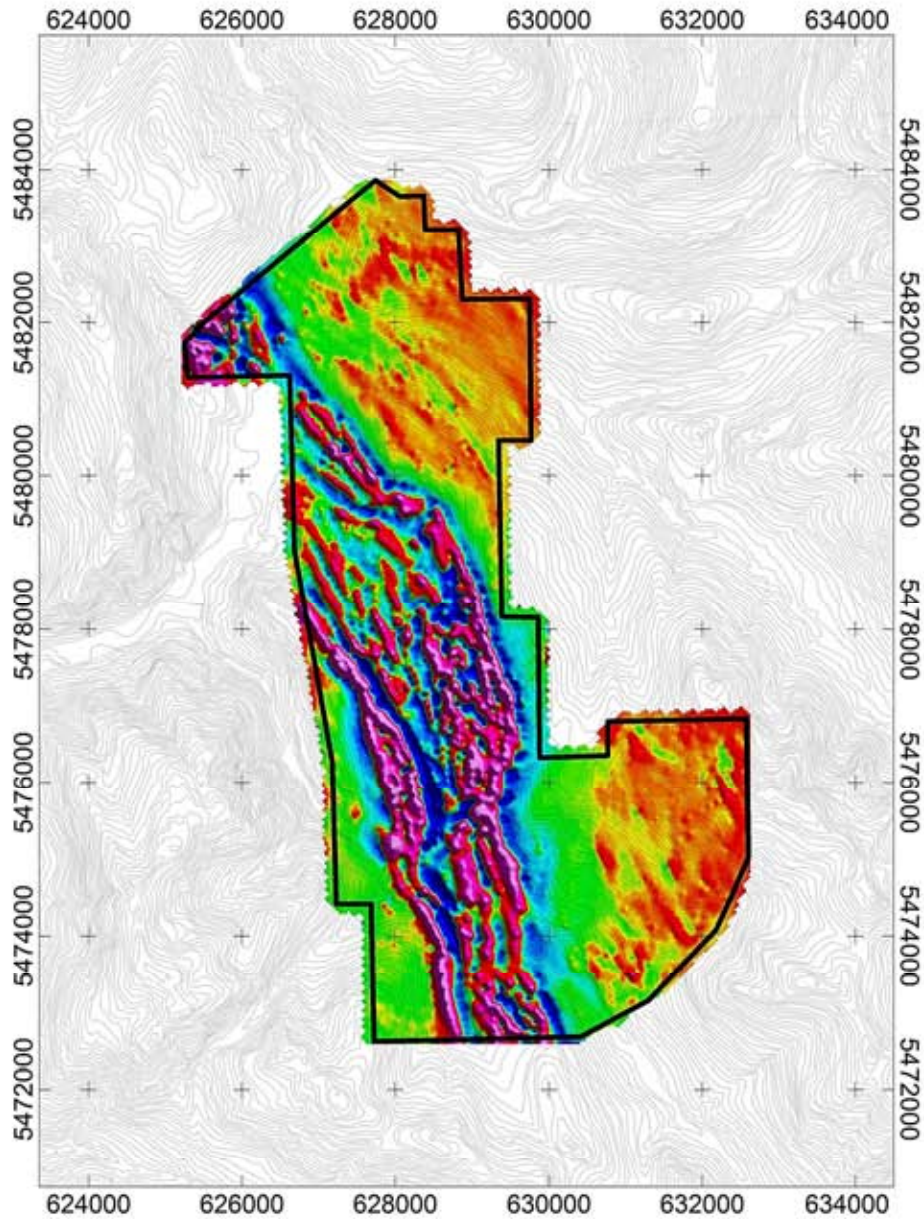
**AIRBORNE SYSTEMS:**

Scintrex CS-3 Magnetometer Sensor  
 Configuration: Stringer with 3 axis compensation  
 Sample Rate: 30 Hz  
 Sensitivity: 0.01 uT

All radiometric data was sampled at 1 Hz by 18.8% of downward facing and 4.2% of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**  
 Ladner Extension Block  
 Uranium over Thorium ratio  
 Created By: Precision GeoSurveys Inc.  
 June 2012





**LEGEND**

**Map Projections**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone 10N  
 Datum: NAD 84



Survey Date: May 19-20, 2012  
 Survey Base: Hope, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-60H  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Maxim Turn-in Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Line Orientation:**

Survey Line Spacing: 300 meters  
 Survey Line Direction: 67°-240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 130°-130°

**ABBREVIATE SYSTEMS:**

Sensor: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 30 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 18.25 of downward facing and 4.25 of upward facing stainless-steel NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Calculated Vertical Gradient  
 Created By: Precision GeoSurveys Inc.  
 June 2012**

Scale 1:95000



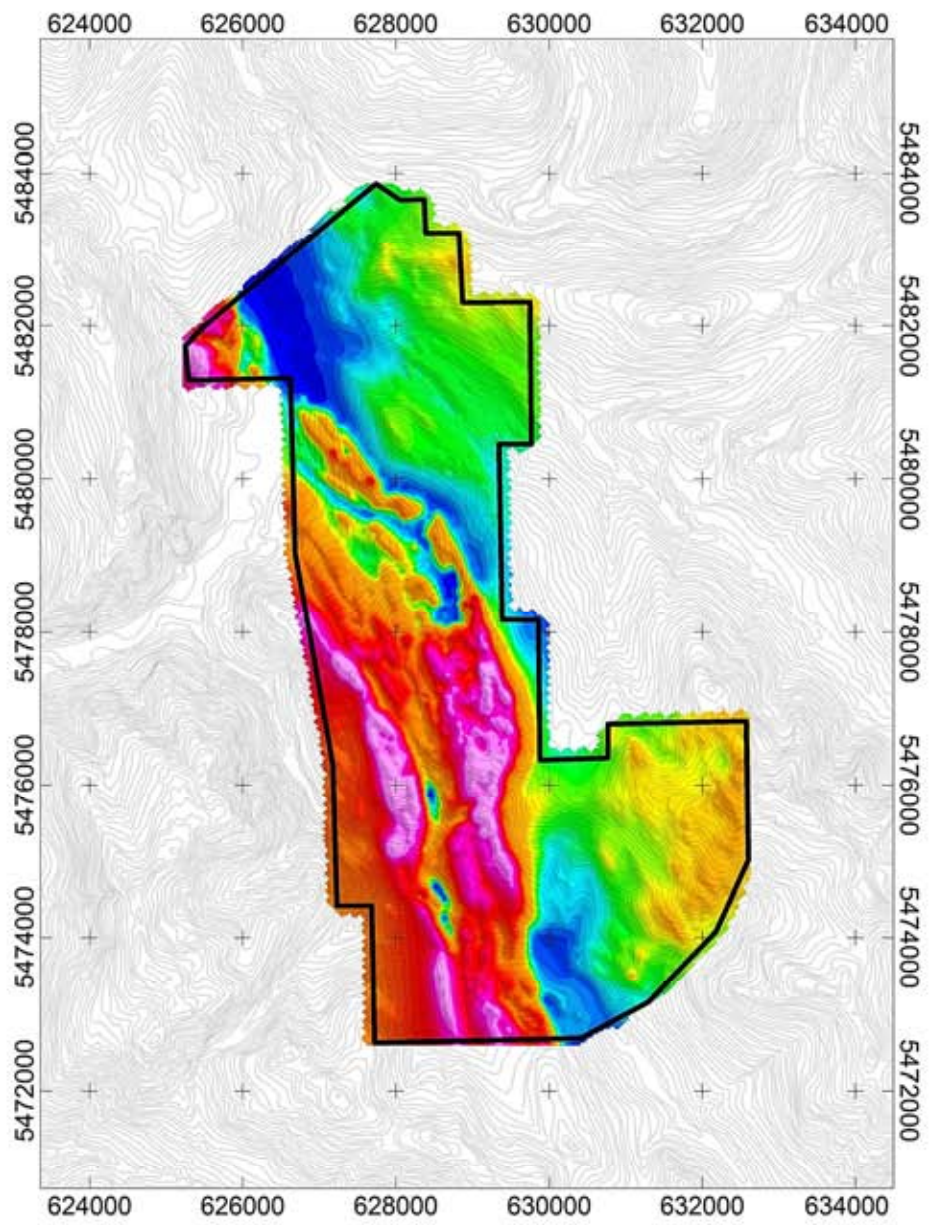
(meters)

WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

**CVG**

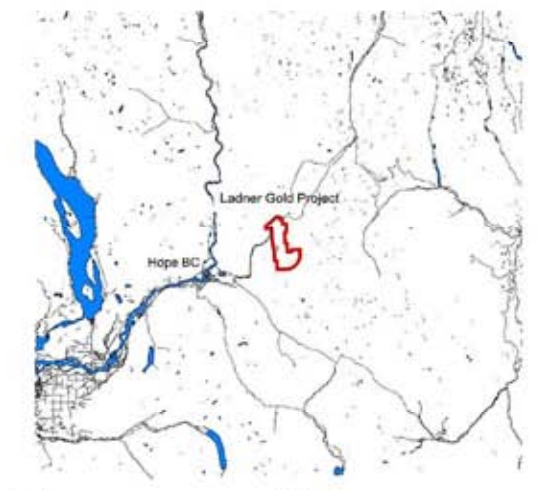




**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
Central Meridian: 125 Zone 10N  
Datum: WGS 84



**Survey Data:**  
Survey Date: May 15-20, 2012  
Survey Area: Hope, BC  
Helicopter Type: Eurocopter AS350  
Registration: C-GOHE  
Survey Technology: Magnetic and Radiometric Survey

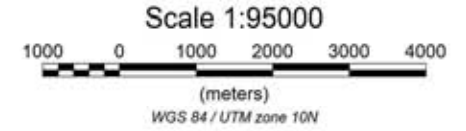
**SURVEY PARAMETERS:**  
Mean Terrain Clearance: 50 meters  
Helicopter: 50 meters  
Magnetometer: 50 meters  
Spectrometer: 50 meters

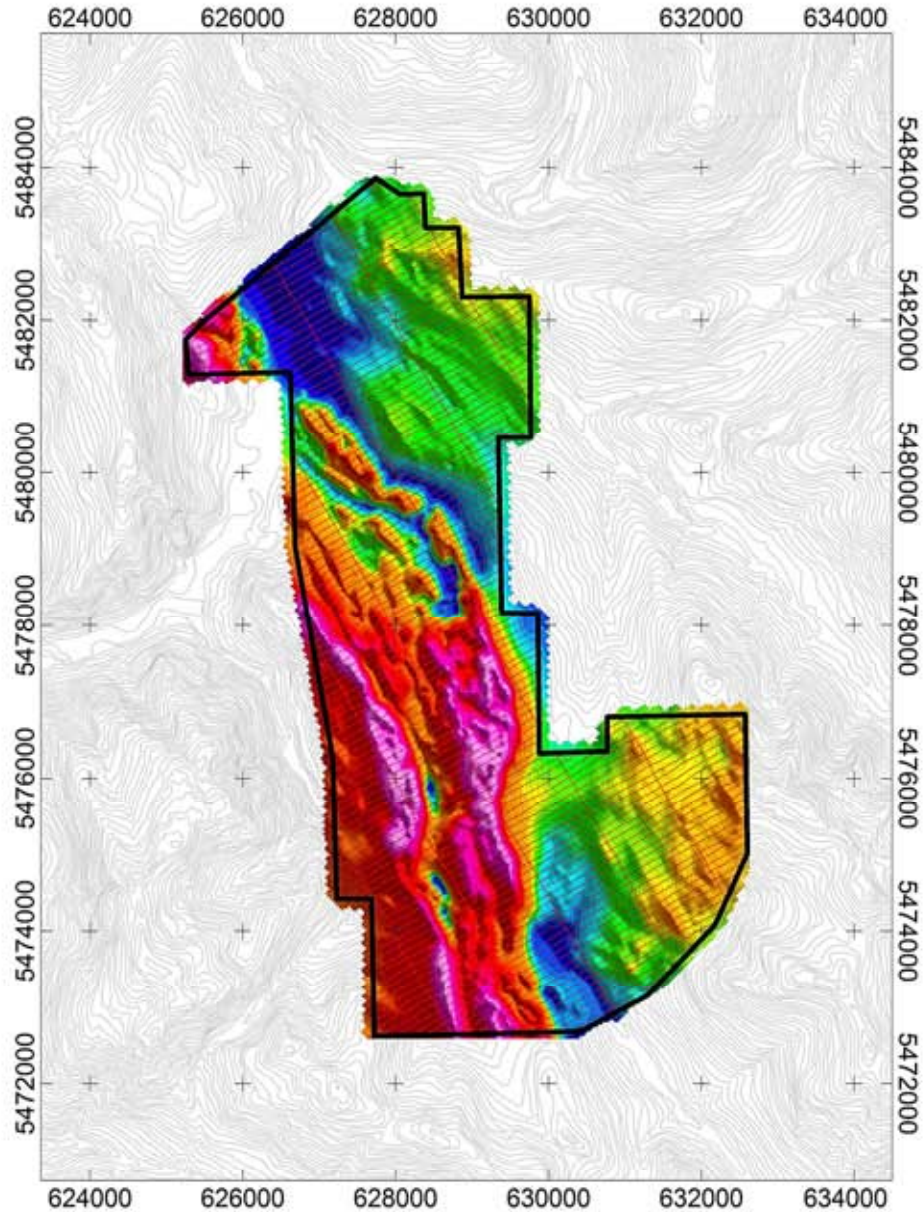
**Acquisition Details:**  
Survey Line Spacing: 200 meters  
Survey Line Direction: 60°-340°  
Traverse Line Spacing: 500 meters  
Traverse Line Direction: 150°-330°

**AIRCORE SYSTEMS:**  
Sensors: CS-3 Magnetometer Sensor  
Configuration: Single with 3 axis compensation  
Sample Rate: 25 Hz  
Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 16.8s of downward facing, and 4.2s of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Total Magnetic Intensity**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**





**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 125 Zone 10N  
 Datum: WGS 84



Survey Date: May 19-25, 2012  
 Survey Area: Hope, BC  
 Helicopter Type: Eurocopter A-Star  
 Registration: C-GDHS  
 Survey Technology: Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

Mean Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**Line Spacing - Rollout:**

Survey Line Spacing: 100 meters  
 Survey Line Direction: 40°-340°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150°-330°

**AIRBORNE SYSTEMS:**

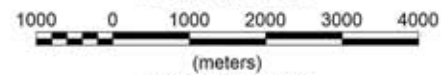
Schöminer CS-3 Magnetometer Sensor  
 Configuration: Single with 3-axis compensation  
 Sample Rate: 10 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 18.8L of downward facing, and 4.2L of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block**  
**Total Magnetic Intensity with Flight Path**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**

Scale 1:95000

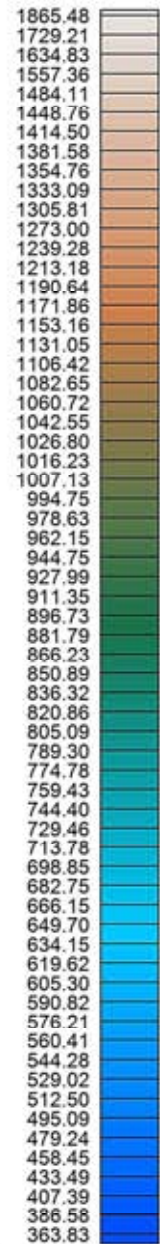
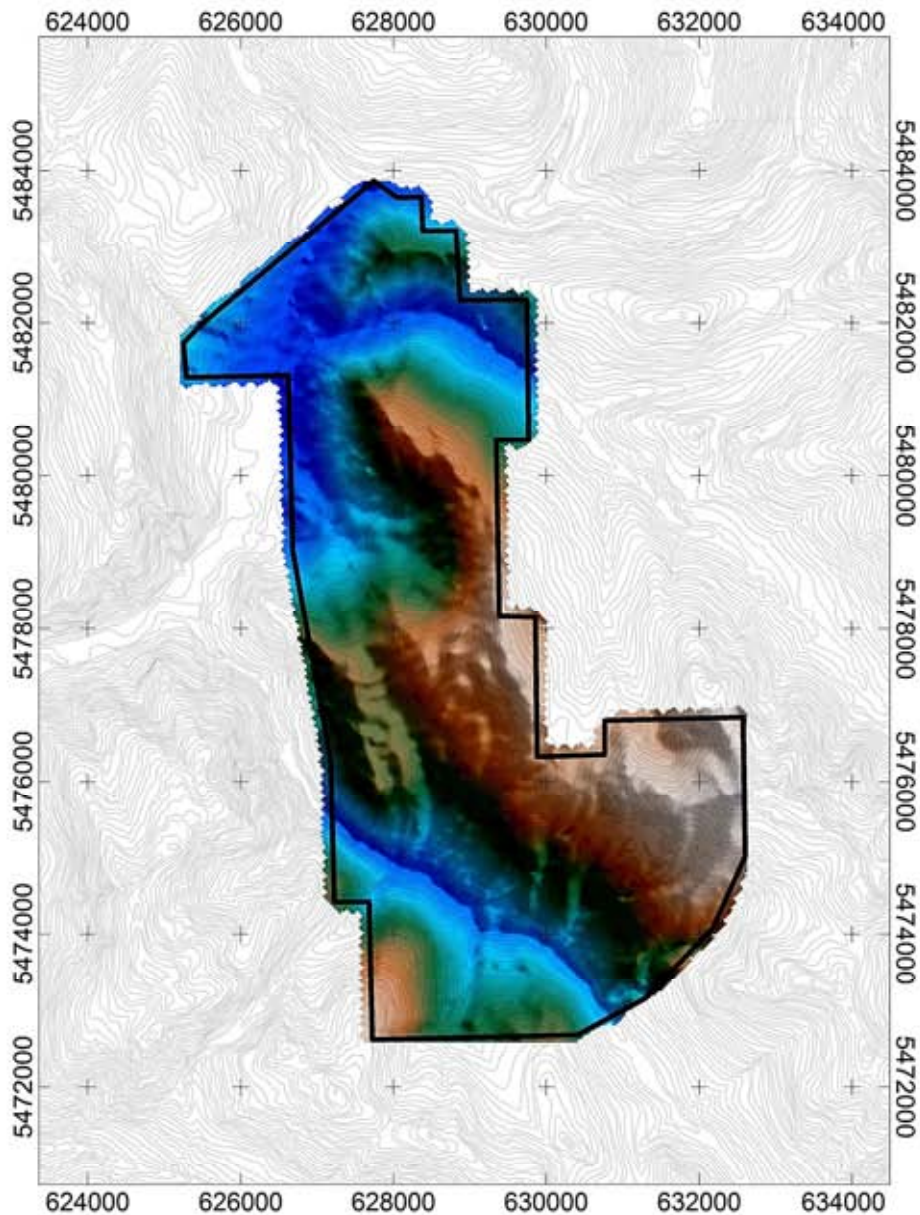


WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

TMI





Elevation (m)

LEGEND

Map Projection

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone 10N  
 Datum: WGS 84



Survey Date:

Survey Date: May 19-26, 2012  
 Survey Base: Hope, BC  
 Instrument Type: Leica/Trimble A-Star  
 Registration: C-GRN  
 Survey Technology: Magnetic and Radiometric Survey

SURVEY PARAMETERS:

Mean Terrain Clearance: 10 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Speedometer: 10 meters

Line/Block Settings:

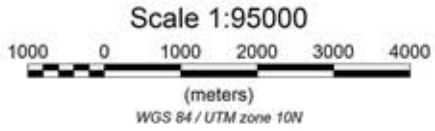
Survey Line Spacing: 100 meters  
 Survey Line Direction: 07-240°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 150°-130°

AIRBORNE SYSTEMS:

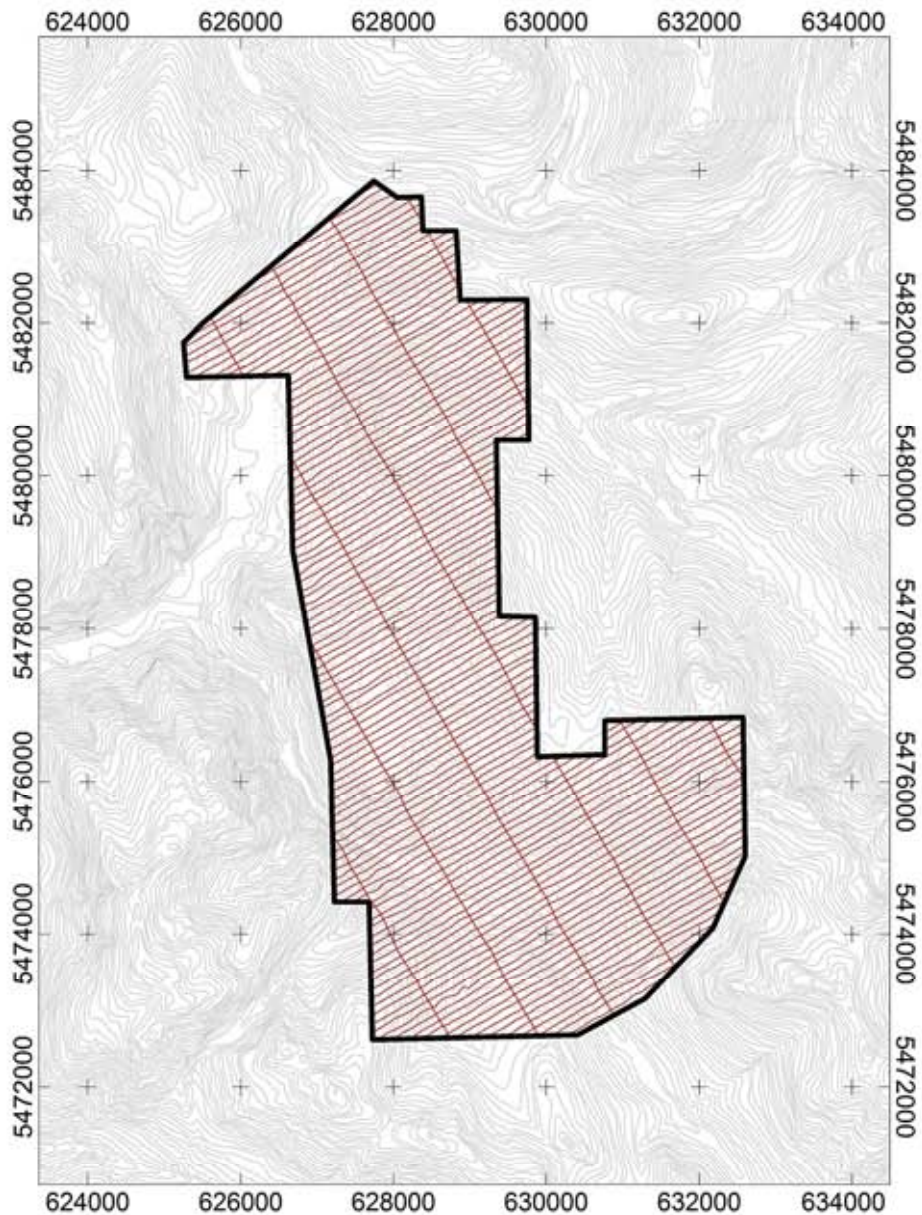
Sensor: Q-2 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1.0m by 1.0m of downward facing, and 4.0m of upward facing, dual on steeped flat crystals.

**New Carolin Gold Corp.**  
 Ladner Extension Block  
 Digital Terrain Map  
 Created By: Precision GeoSurveys Inc.  
 June 2012







**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone: 10W  
 Datum: WGS 84



**Survey Date:** May 19-26, 2012  
**Survey Area:** Hope, BC  
**Instrument Type:** Surveyor A-Star  
**Registration:** C-GD96  
**Survey Technology:** Magnetic and Radiometric Survey

**SURVEY PARAMETERS:**

**Mean Terrain Clearance:** 50 meters  
**Helicopter Type:** 50 meters  
**Magnetometer:** 50 meters  
**Speedometer:** 50 meters

**Line Class - Settings:**

**Survey Line Spacing:** 100 meters  
**Survey Line Direction:** 07° 247°  
**Tie Line Spacing:** 1000 meters  
**Tie Line Direction:** 150° 337°

**AIRBORNE SYSTEMS:**

**Schroter CI-2 Magnetometer Sensor:**  
**Configuration:** Single with 3 axis compensation  
**Sample Rate:** 10Hz  
**Sensitivity:** 0.01 nT

All radiometric data was sampled at 1 Hz by 15.8L of downward facing, and 4.2L of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Flight Path**

**Created By: Precision GeoSurveys Inc.  
 June 2012**

**Scale 1:95000**

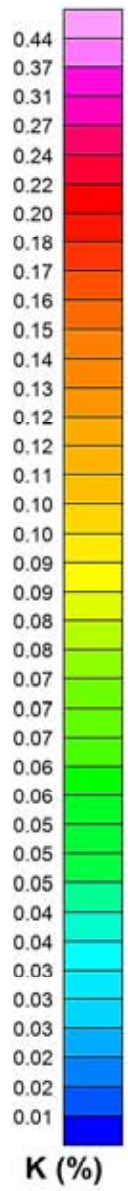
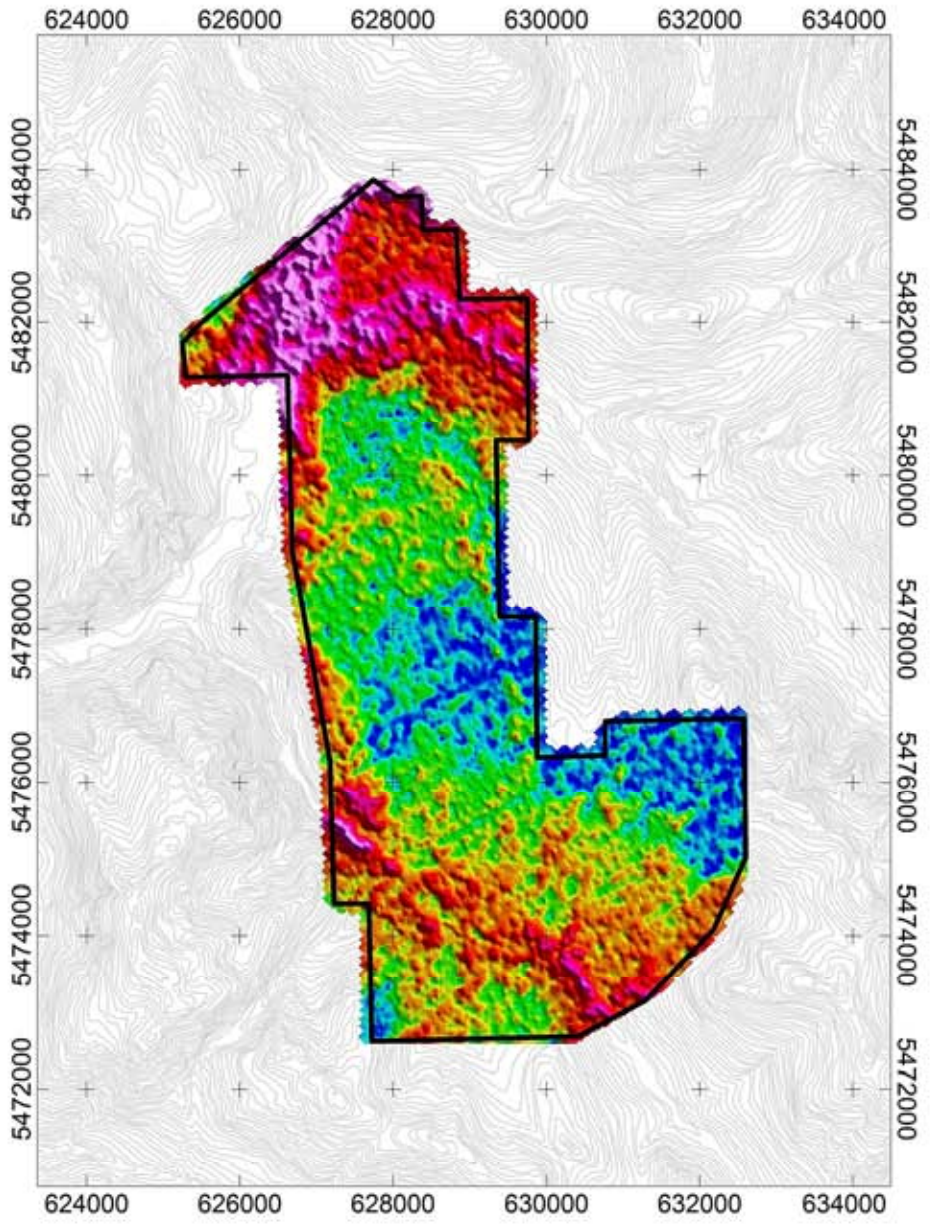


(meters)

WGS 84 / UTM zone 10W

**Precision**  
 GeoSurveys Inc.

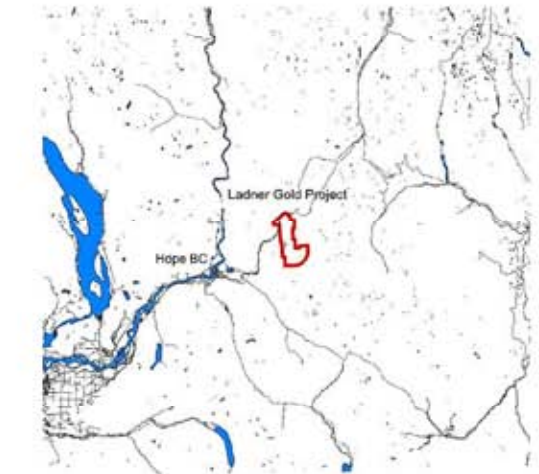
FP



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone: 10N  
 Datum: WGS 84



**Survey Date:** May 29-26, 2012  
**Survey Area:** Hope, BC  
**Helicopter Type:** Eurocopter AS350  
**Registration:** C-GDRI  
**Survey Technology:** Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

**Along Terrain Clearance:** 50 meters  
**Helicopter:** 50 meters  
**Magnetometer:** 50 meters  
**Spectrometer:** 50 meters

**Acquisition Settings:**

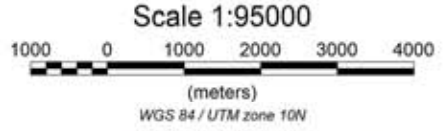
**Survey Line Spacing:** 100 meters  
**Survey Line Direction:** 60°-340°  
**The Line Spacing:** 3000 meters  
**The Line Direction:** 150°-330°

**ARISE SYSTEMS:**

**Sensors:** Li-2 Magnetometer Sensor  
**Configuration:** Single with 3 axis compensation  
**Sample Rate:** 25Hz  
**Resolution:** 0.01 mT

All radiometric data was sampled at 1Hz by 16.Bi. of downward facing, and 4.2L of upward facing thallium doped NaI crystals.

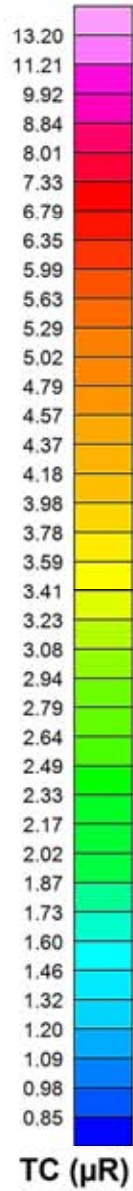
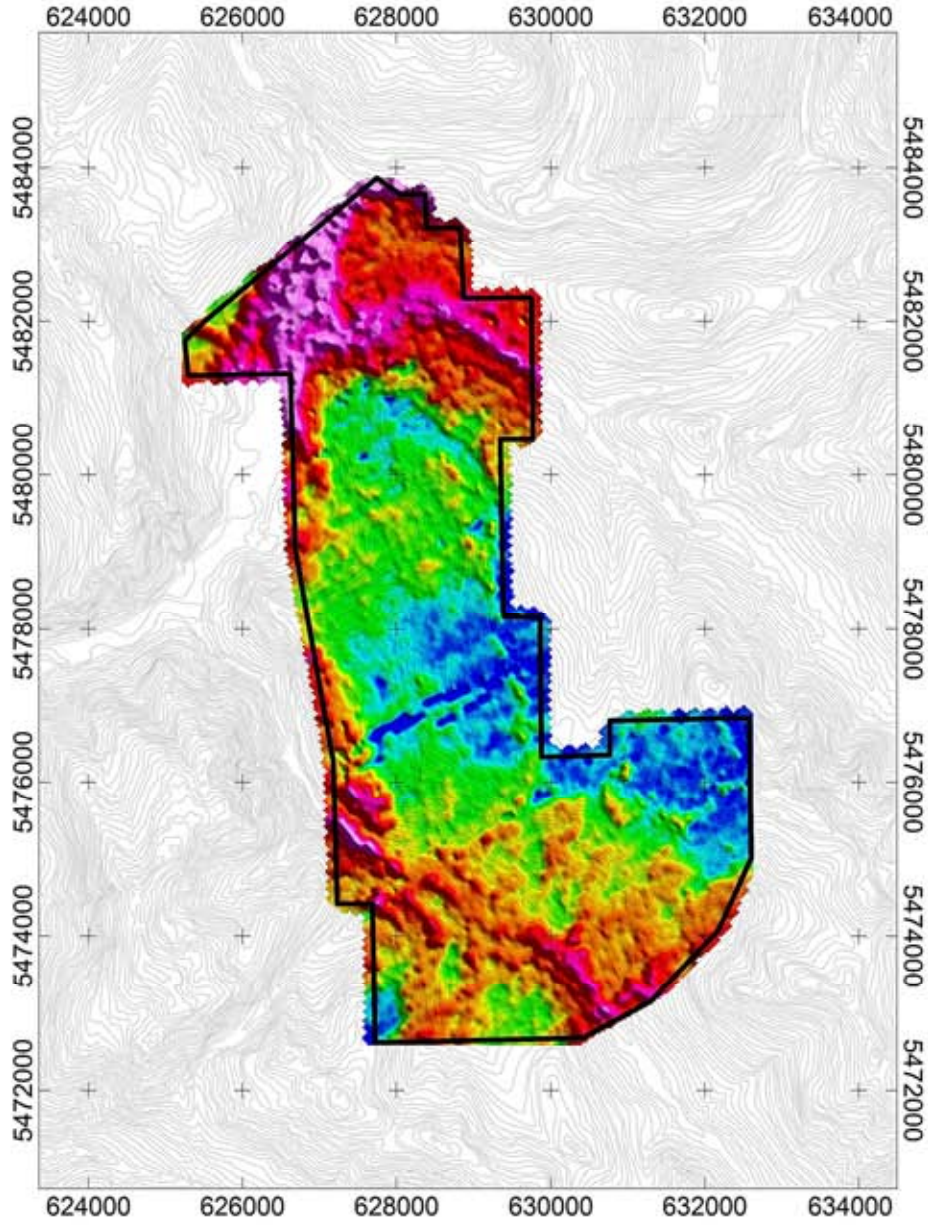
**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Potassium**  
**Created By: Precision GeoSurveys Inc.**  
**June 2012**



**Precision**  
 GeoSurveys Inc.

K

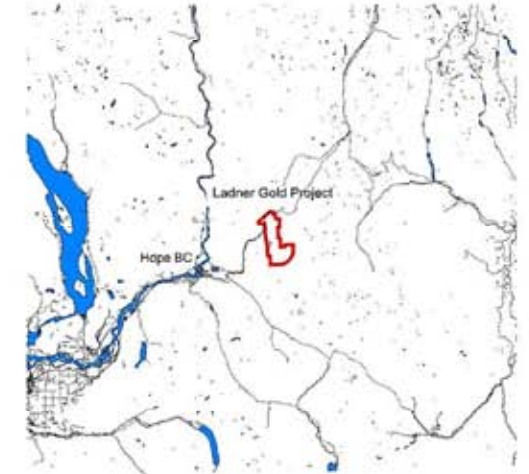




**U&E**

**Map Projection:**

Projection: Universal Transverse Merator  
 Central Meridian: 225 Zone 10N  
 Datum: WGS 84



Survey Date: May 19-26, 2012  
 Survey Base: Hope, BC  
 Helicopter Type: Eurocopter A Star  
 Registration: C-0248  
 Survey Technology: Magnetic and Radiometric Survey

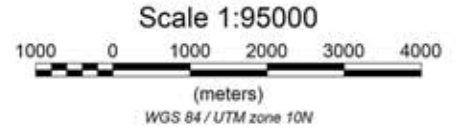
**SURVEY PARAMETERS:**  
 Mean Terrain Clearance: 30 meters  
 Helicopter: 30 meters  
 Magnetometer: 30 meters  
 Spectrometer: 30 meters

**Line Work - Details:**  
 Survey Line Spacing: 100 meters  
 Survey Line Direction: 00°-340°  
 Tie Line Spacing: 1000 meters  
 Tie Line Direction: 130°-130°

**AIRBORNE SYSTEMS:**  
 Sensors: ES-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 10 Hz  
 Sensitivity: 0.01 nT

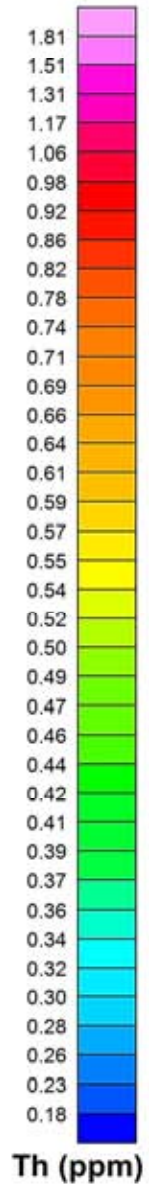
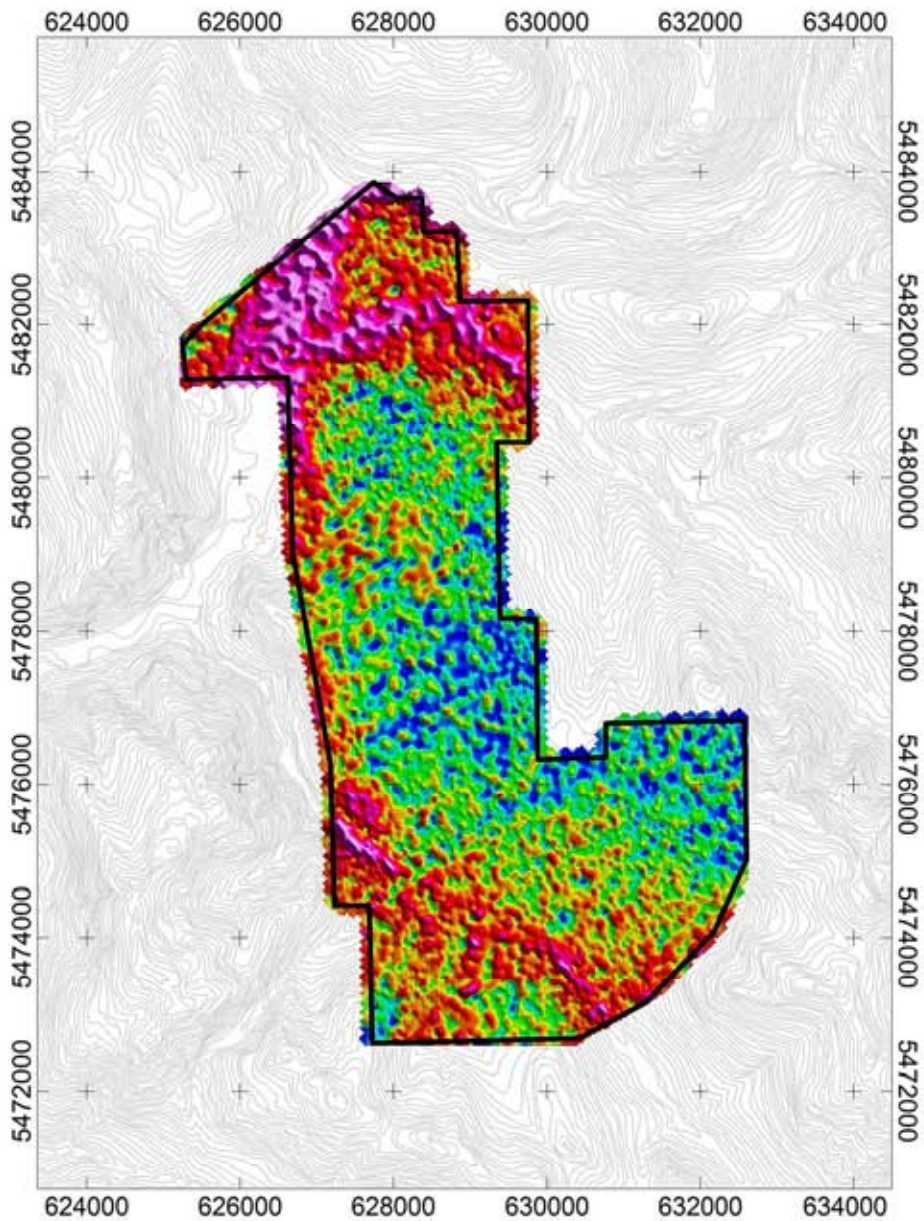
All radiometric data was sampled at 1 Hz by 16.8% of downward facing, and 4.3% of upward facing thorium doped NaI crystals.

**New Carolin Gold Corp.**  
 Ladner Extension Block  
 Total Count - Equivalent Dose Rate  
 Created By: Precision GeoSurveys Inc.  
 June 2012



**Precision**  
 GeoSurveys Inc.

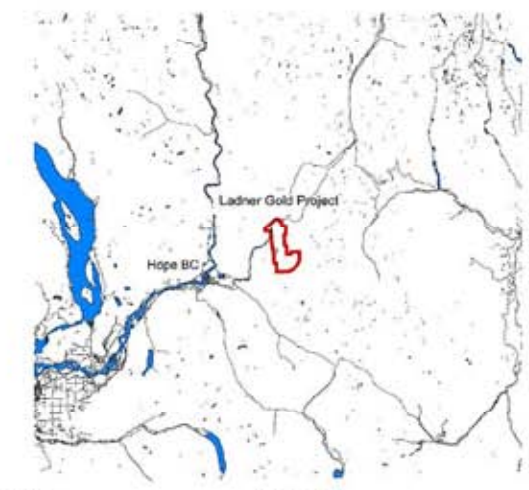
TC



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 125° West 10N  
 Datum: WGS 84



**Survey Date:** May 19, 2012  
**Survey Base:** Hope, BC  
**Helicopter Type:** Eurocopter AS350  
**Regulation:** C-CHRT  
**Survey Technology:** Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**  
**Mean Terrain Clearance:** 50 meters  
**Helicopter:** 50 meters  
**Magnetometer:** 50 meters  
**Systemation:** 50 meters

**Line Spacing - Rollout:**  
**Survey Line Spacing:** 200 meters  
**Survey Line Direction:** 40° 240'  
**Tie Line Spacing:** 1000 meters  
**Tie Line Direction:** 150° 310'

**AIRBORNE SYSTEMS:**  
**System:** CS-3 Magnetometer Sensor  
**Configuration:** Single with 3 axis compensation  
**Sample Rate:** 20 Hz  
**Sensitivity:** 0.01 nT

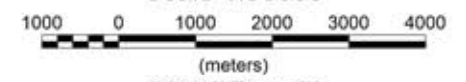
All radiometric data was sampled at 1 Hz by 18.8L of downward facing, and 4.2L of upward facing thallium doped NaI crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
 Thorium**

**Created By: Precision GeoSurveys Inc.  
 June 2012**

**Scale 1:95000**

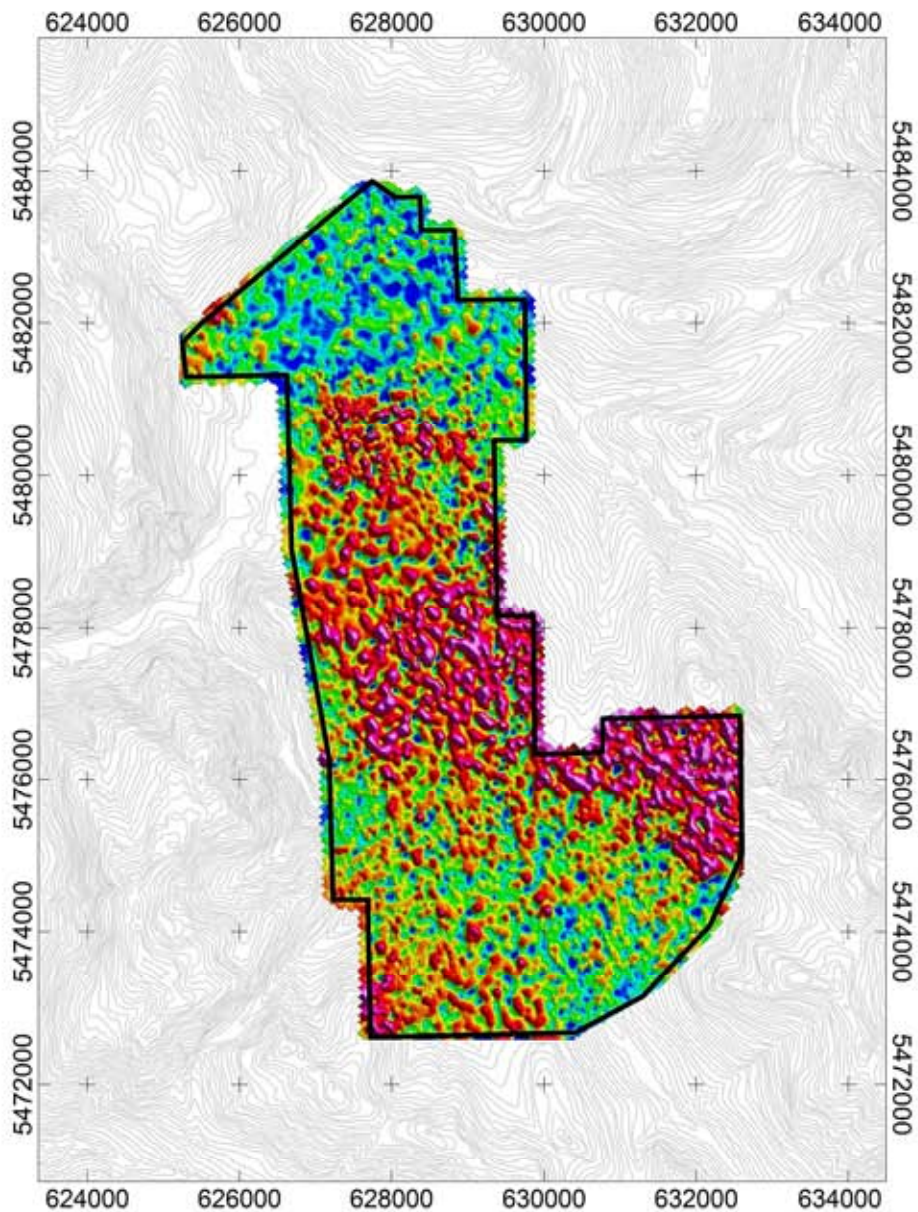


WGS 84 / UTM zone 10N

**Precision  
 GeoSurveys Inc.**

Th





LEGEND

Map Projection

Projection: Universal Transverse Mercator  
Central Meridian: 125 Zone 10N  
Datum: NAD 83



Survey Date: May 29-30, 2012  
Survey Area: Hope, BC  
Helicopter Type: SuperCopter A Star  
Registration: C-GDHE  
Survey Technology: Magnetic and Radiometric Surveys

SURVEY PARAMETERS

Minimum Terrain Clearance: 50 meters  
Helicopter: 50 meters  
Magnetometer: 50 meters  
Spectrometer: 50 meters

GRID SPACING

Survey Line Spacing: 100 meters  
Survey Line Direction: 60°-240°  
Line Spacing: 1000 meters  
Line Direction: 150°-330°

AIRBORNE SYSTEMS

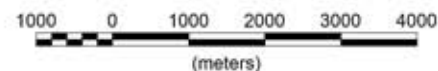
Scintec CS-3 Magnetometer Sensor  
Configuration: Single with 3 axis compensation  
Sample Rate: 10 Hz  
Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 10.0s of downward facing, and 4.0s of upward facing thorium coated NaI crystals.

**New Carolin Gold Corp.**

Ladner Extension Block  
Thorium over Potassium ratio  
Created By: Precision GeoSurveys Inc.  
June 2012

Scale 1:95000

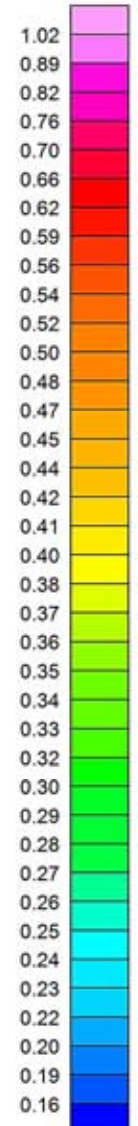
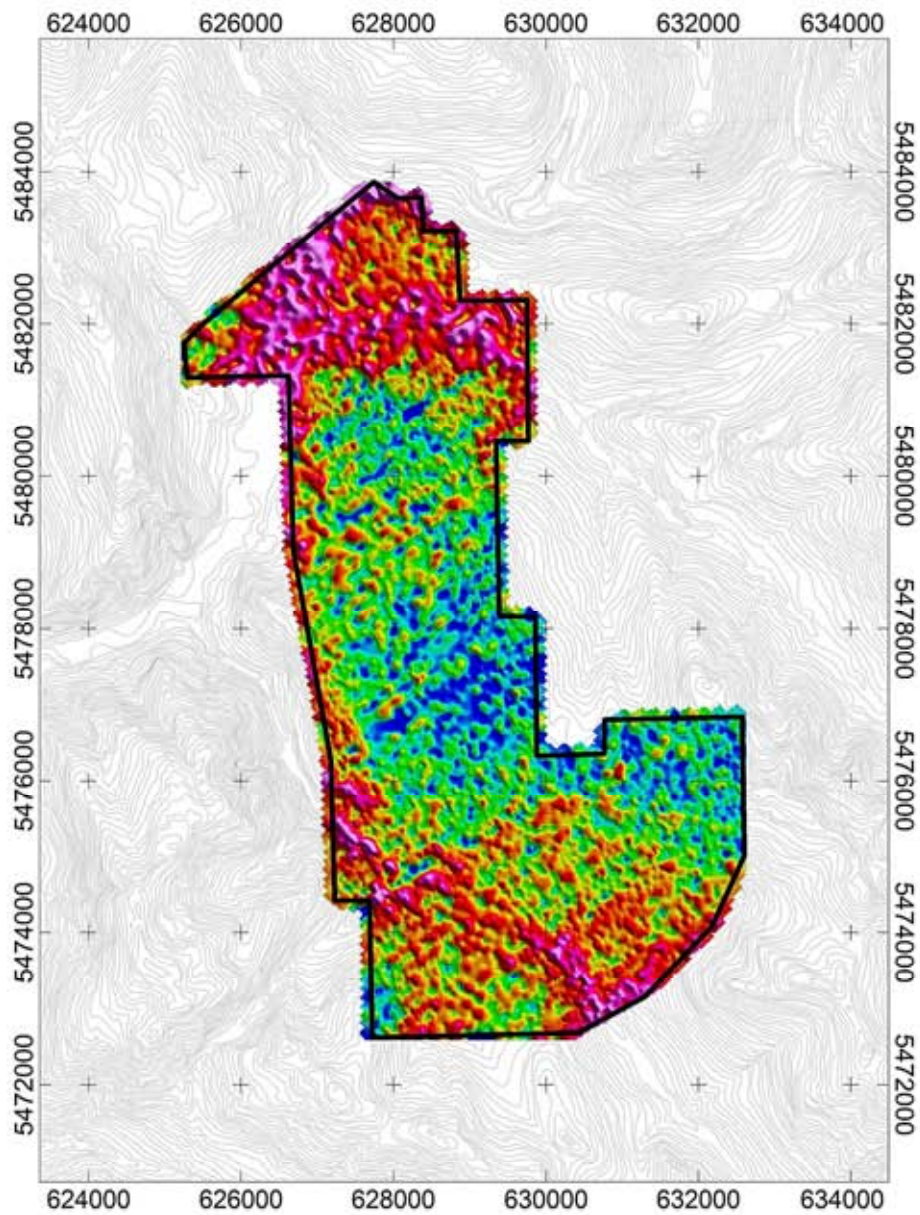


WGS 84 / UTM zone 10N

**Precision**  
GeoSurveys Inc.

Th/K





U (ppm)

**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
 Central Meridian: 225 Zone 10N  
 Datum: WGS 84



Survey Date: May 25, 2012  
 Survey Base: Hope, BC  
 Magnetron Type: Eurologer A Star  
 Registration: C-GOM  
 Survey Technology: Magnetics and Radiometric Surveys

**SURVEY PARAMETERS:**  
 Mean Terrain Clearance: 50 meters  
 Helicopter: 50 meters  
 Magnetometer: 50 meters  
 Spectrometer: 50 meters

**See Also: Bulletin**

Survey Line Spacing: 328 meters  
 Survey Line Direction: 49° 240'  
 Tie Line Spacing: 380 meters  
 Tie Line Direction: 130° 330'

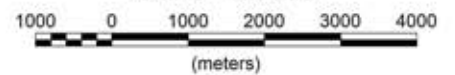
**AIRBORNE SYSTEMS:**

Sensor: CS-3 Magnetometer Sensor  
 Configuration: Single with 3 axis compensation  
 Sample Rate: 30 Hz  
 Sensitivity: 0.01 nT

All radiometric data was sampled at 1 Hz by 16.0s of downward bearing and 4.0s of upward bearing that are draped to crystals.

**New Carolin Gold Corp.**  
**Ladner Extension Block**  
**Uranium**  
 Created By: Precision GeoSurveys Inc.  
 June 2012

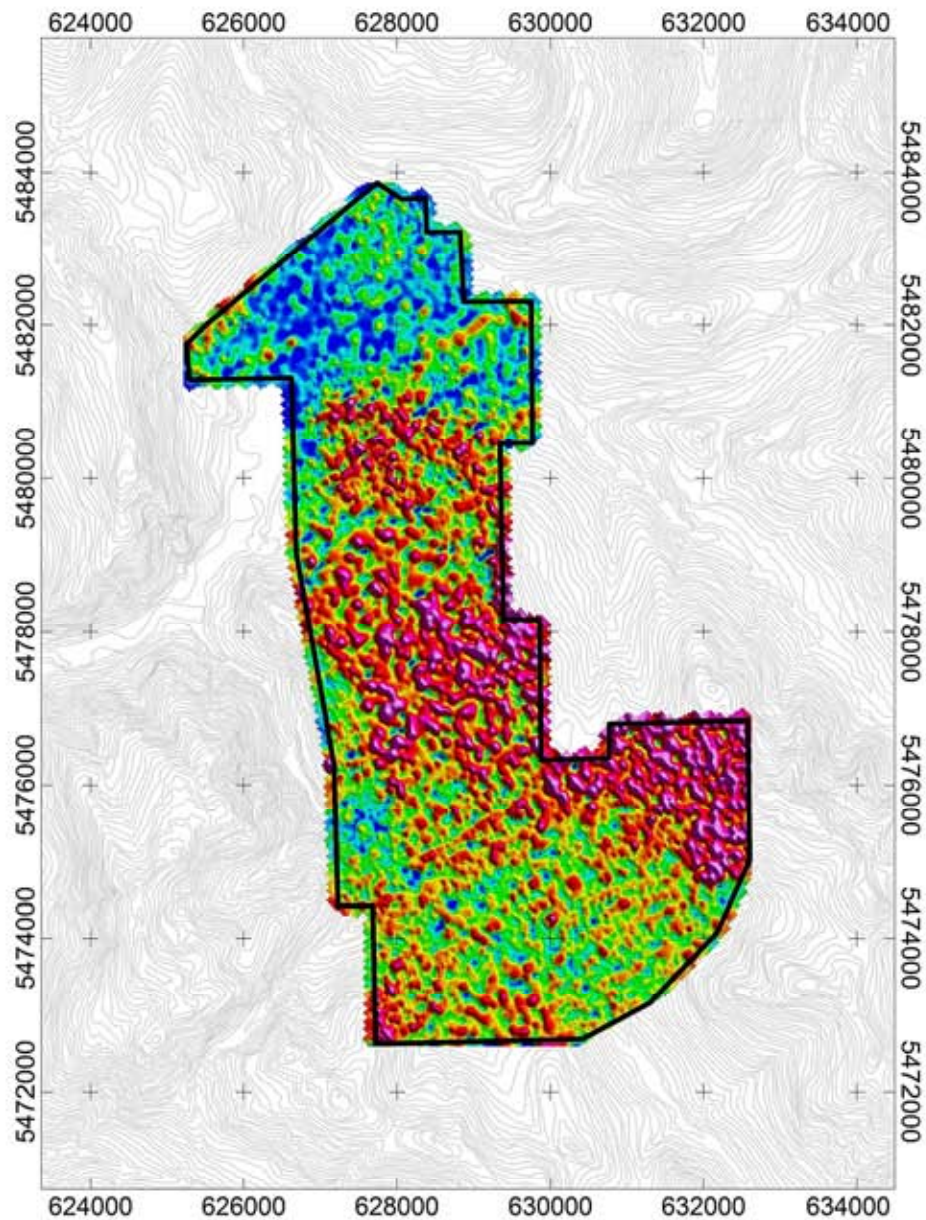
Scale 1:95000



WGS 84 / UTM zone 10N

**Precision**  
 GeoSurveys Inc.

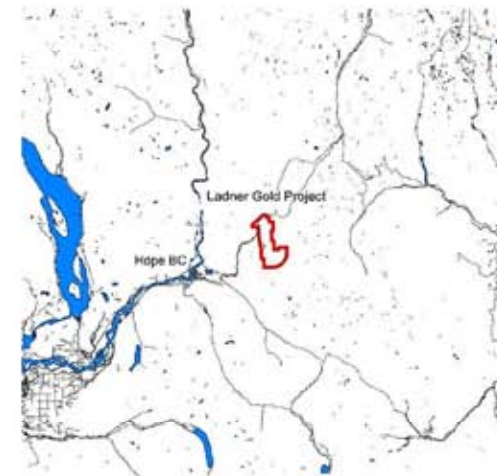
U



**LEGEND**

**Map Projection**

Projection: Universal Transverse Mercator  
Central Meridian: 225 Zone 10N  
Datum: WGS 84



Survey Date: May 19-25, 2012  
Survey Base: Hope, BC  
Helicopter Type: Eurocopter AS350  
Registration: C-GDNR  
Survey Technology: Magnetic and Radiometric Surveys

**SURVEY PARAMETERS:**

Mount Terrain Clearance: 50 meters  
Helicopter: 50 meters  
Magnetometer: 50 meters  
Spectrometer: 50 meters

**FLY HEIGHT - BUFFER:**

Survey Line Spacing: 300 meters  
Survey Line Direction: 89°-240°  
Fly Line Spacing: 300 meters  
Fly Line Direction: 180°-130°

**AIRBORNE SYSTEM:**

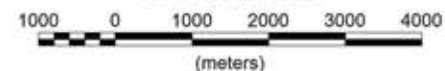
Schweiss CS-3 Magnetometer Sensor  
Configuration: Single with 3 axis compensation  
Sample Rate: 32 Hz  
Sensitivity: 0.02 uT

All radiometric data was sampled at 1 Hz by DS-6, 40 diameter 0.5" and 4.2" of upward facing thulium based NaI crystals.

**New Carolin Gold Corp.**

Ladner Extension Block  
Uranium over Potassium ratio  
Created By: Precision GeoSurveys Inc.  
June 2012

Scale 1:95000

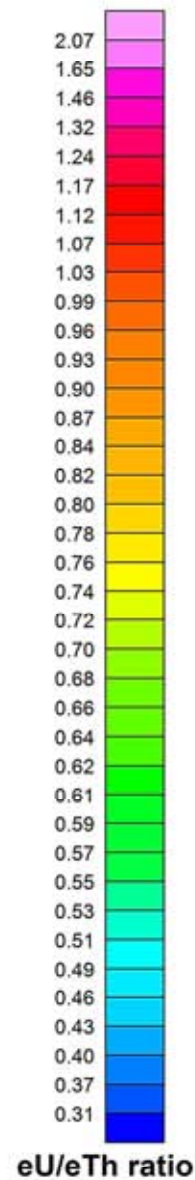
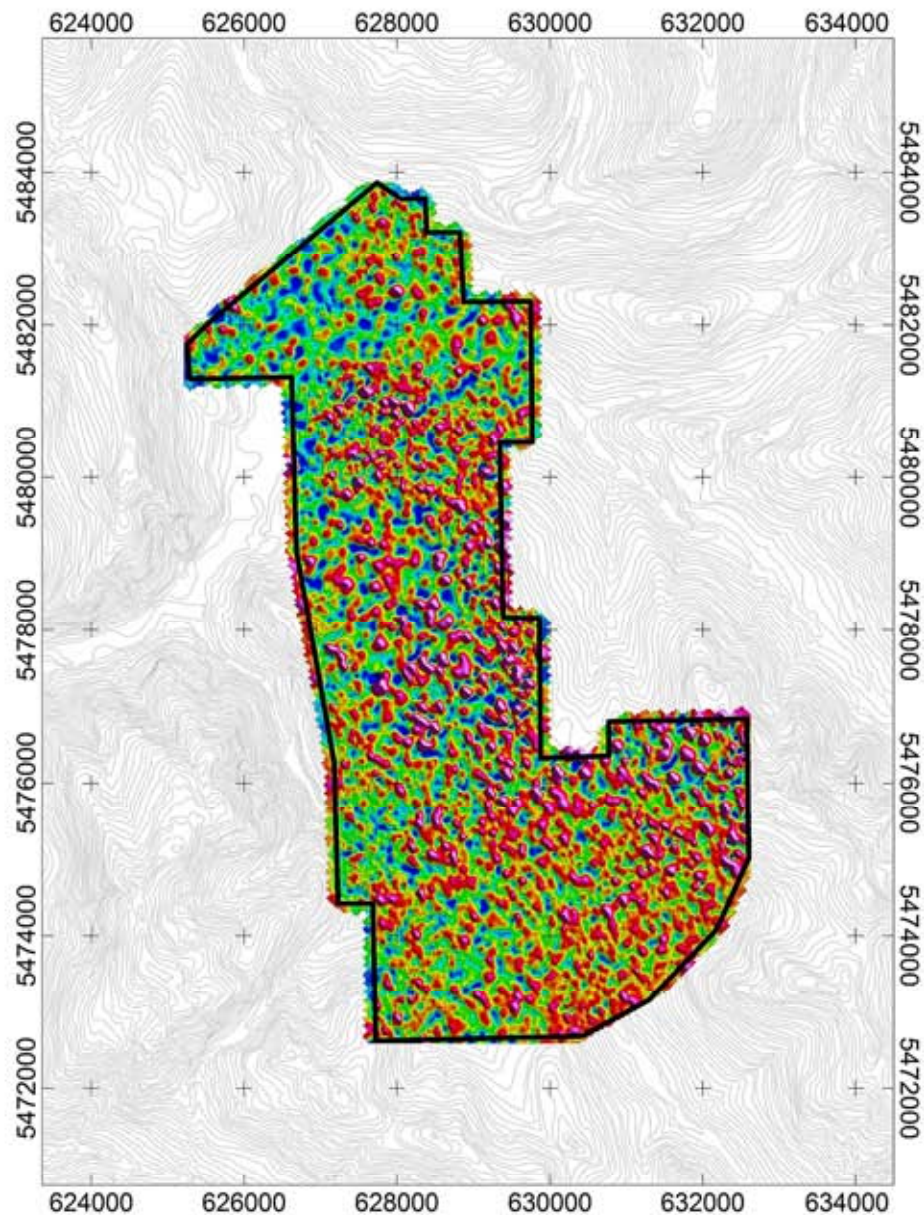


WGS 84 / UTM zone 10N

**Precision**  
GeoSurveys Inc.

U/K

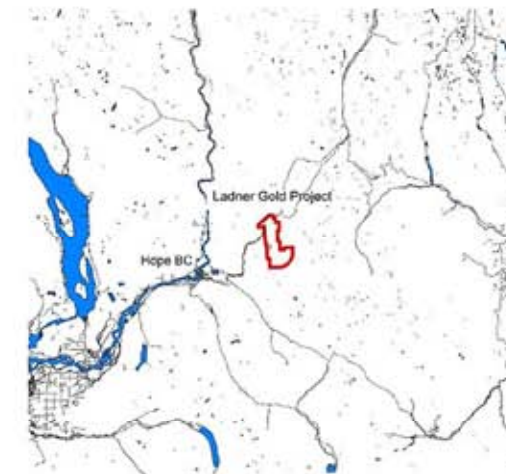




LEGEND

Map Projection:

Projection: Universal Transverse Mercator  
Central Meridian: 123 Zone: 18N  
Datum: WGS 84



Survey Date: May 19, 2012  
Survey Base: Hope, BC  
Receiver Type: Surveyor A-Max  
Registration: C-DMR  
Survey Technology: Magnetic and Radiometric Survey

SURVEY PARAMETERS:

Mean Terrain Clearance: 50 meters  
Helicopter: 50 meters  
Magnetometer: 50 meters  
Spectrometer: 50 meters

Map Scale - 1:5000

Survey Line Spacing: 100 meters  
Survey Line Direction: 45°-140°  
Traverse Spacing: 1000 meters  
Traverse Direction: 150°-230°

AIRBORNE SYSTEMS:

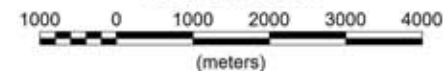
Scintrex CS-3 Magnetometer Sensor  
Configuration: Single with 3 axis compensation  
Sample Rate: 50Hz  
Sensitivity: 0.05 nT

All radiometric data was sampled at 1Hz by 1A, 2B, of downward facing, and A, 2, of upward facing medium dose rate crystals.

**New Carolin Gold Corp.**

**Ladner Extension Block  
Uranium over Thorium ratio  
Created By: Precision GeoSurveys Inc.  
June 2012**

Scale 1:95000



WGS 84 / UTM zone 10N

**Precision**  
GeoSurveys Inc.

U/Th