BC Geological Survey
Assessment Report
31508

Aztec File #1112-BL-WGM

HELICOPTER-BORNE MAGNETIC SURVEY REPORT

BACON LAKE POLYMETALLIC PROPERTY

NANAIMO MINING DIVISION, BC

NTS 092F/13E
LATITUDE 49˚57'52"N / LONGITUDE 125˚37'35"W

Prepared for:

Western Gateway Minerals Inc.
Vancouver, B.C.

Prepared by:

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January 2012

Executive Summary

The Bacon Lake Polymetallic Mineral Property is situated on Central Vancouver Island a short distance off Highway 28 southwest of Campbell River, a resource/industrial centre of approximately 30,000 population. The property is on the north side of Upper Campbell Lake in low relief topography east of the Vancouver Island Mountain Ranges. It is transected by a main hydro line and numerous forestry roads.

The property lies on the northwest rim of a large intrusive complex which hosts numerous regionally significant magnetite ± copper-cobalt-gold skarn deposits in peripheral contact areas, including the former Argonaut Mine (Iron Hill) and developed tonnage at Iron River. The intrusive complex also hosts porphyry copper showings.

The Bacon Lake area has seen intermittent mineral exploration since the early 1900s when a shaft was driven on the shoreline of Upper Campbell Lake to investigate a skarn deposit indicating 3%Cu and 96 gm/tonne Ag. A >300m long magnetite ± copper-cobalt-gold mineralized skarn outcrops along the lower ridge side east of Bacon Lake and another known mineralized skarn exists at higher elevations. These have been prospected, mapped, grab sampled and drilled sporadically in the 1950s, 1960s, 1980s and most recently commencing in the late 1990s with the onset of renewed demand for magnetite ores in production of steel.

Currently at least six outcrops have been located along the main north trending skarn zone with indicated of >100,000 tonnes of iron ± copper ± silver ± cobalt ± gold.

A 2010 aeromagnetic survey over the Bacon Lake Property confirmed that a strong magnetic anomaly is associated with the known mineralized skarns along the ridge east of Bacon Lake. The survey also identified several other “magnetic-highs” which may point to previously unknown mineralized deposits on the property, including porphyry copper deposit potential.

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1.0 Introduction

1.1 Terms of Reference / Objectives

This is a technical report on the helicopter-borne aeromagnetic survey carried out for Western Gateway Minerals Inc. on their Bacon Lake Property approximately 26km southwest of Campbell River, BC, on February 16, 2010. The objective was to identify and document magnetic anomalies to enhance the economic resource potential of the property.

1.2 Location, Access and Facilities

The property is centred over Bacon Lake, on the northwest side of Upper Campbell Lake, approximately 26km southwest of Campbell River, Latitude 49º57'52˝N, Longitude 125º37'35˝W. This area is on the central eastern region of Vancouver Island, in the southwest corner of British Columbia, Canada. The claims are accessed off Highway 28 (Gold River Highway) via the Strathcona Dam Road, Bacon Lake Main and several forestry roads belonging to TimberWest Forest Company.

Campbell River has a good infrastructure of housing, industrial and servicing facilities required by a mining operation and is home to miners of Breakwater NVI's Myra Falls operation and the nearby Quinsam Coal operation. Concentrate from Myra Falls and Quinsam operations are shipped via trucks to Campbell River terminals. BC Hydro's double 138,000 volt transmission line to Gold River passes through the Bacon Lake Property.

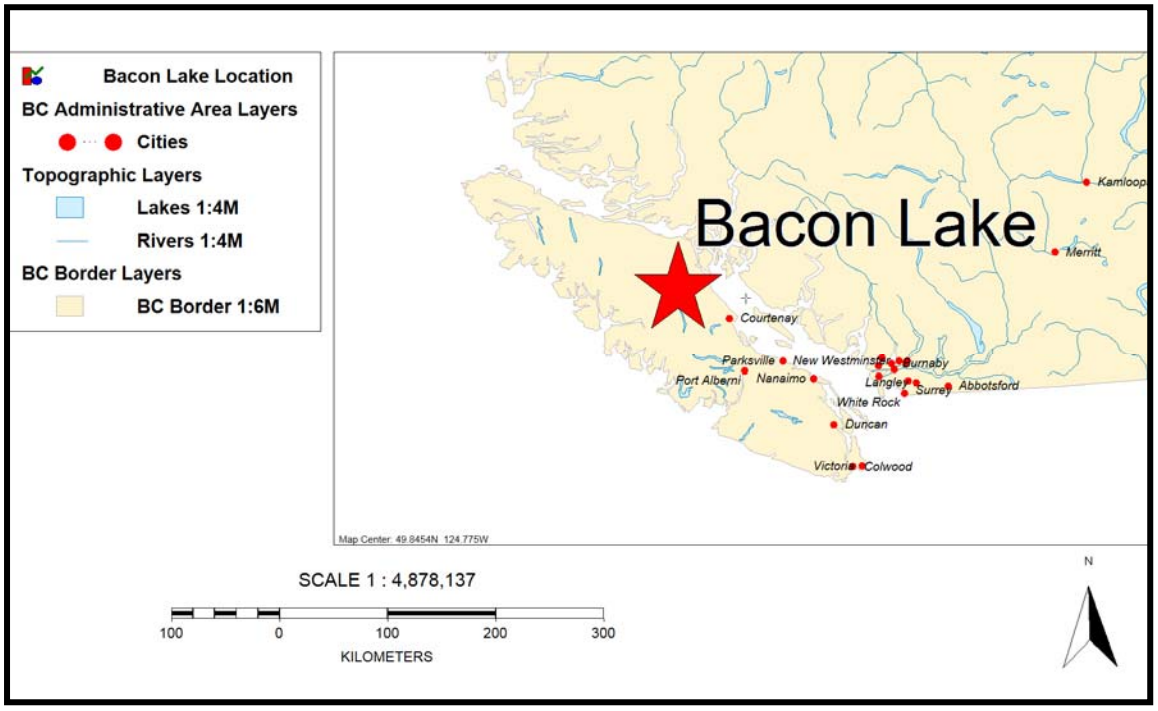


Figure 1: Location of Bacon Lake Property

1.3 Legal Property Description & Ownership

The surface rights are held by TimberWest Forest Company, who also maintains the road networks throughout the area. Mineral Tenure 511635 (Table 1) held by Western Gateway Minerals covers an area 1413.25 ha (3,491 acres) bordered by Upper Campbell Lake to the southeast. The mineral holder must maintain a road use and access agreement with TimberWest.

Table 1 – Bacon Lake Claim tenure as of December 31, 2011

Tenure #	Ownership	Hectares	Expiry Date
511635	Western Gateway Minerals	1413.25	Nov. 15, 2012

Western Gateway Minerals Inc. is a privately held BC corporation the major shareholders whom are David Fawcett and Joseph Paquet.

1.4 Physiography

The study area is in the eastern foothills of the Vancouver Island Range Mountains. Elevations of this rolling landscape range from 220m (adjacent to Upper Campbell Lake) to 630m above sea level, on a hilltop NE of Bacon Lake. Bacon Lake rests in a wide plateau valley stretching north-northeast towards Becher Lake. The plateau area is covered dominantly by regenerating second growth (post-fire) stands of Douglas Fir and Western Hemlock. Google Earth™ imagery shows recent logging on the hill northeast of Bacon Lake. An extensive road network exists over the claim area, but much of the access structures are overgrown. Bedrock outcrops are abundant and the surficial mantle of glacial origin is commonly thin and occurs as pockets between bedrock hillocks.

1.5 Climate and Vegetation

The area is partially covered by second growth fir and hemlock forests of the Coastal Western Hemlock Biogeoclimatic Zone. The climate is dry maritime, with an annual precipitation of 1451mm mostly in the form of rainfall, (Environment Canada Climate Normals, 1971-2000 – Campbell River A ~26km NE). Seasonal precipitation patterns are typical of coastal British Columbia. Precipitation occurs mainly as rain, but transient snow accumulations may also occur down to sea-level, mainly between November and March.

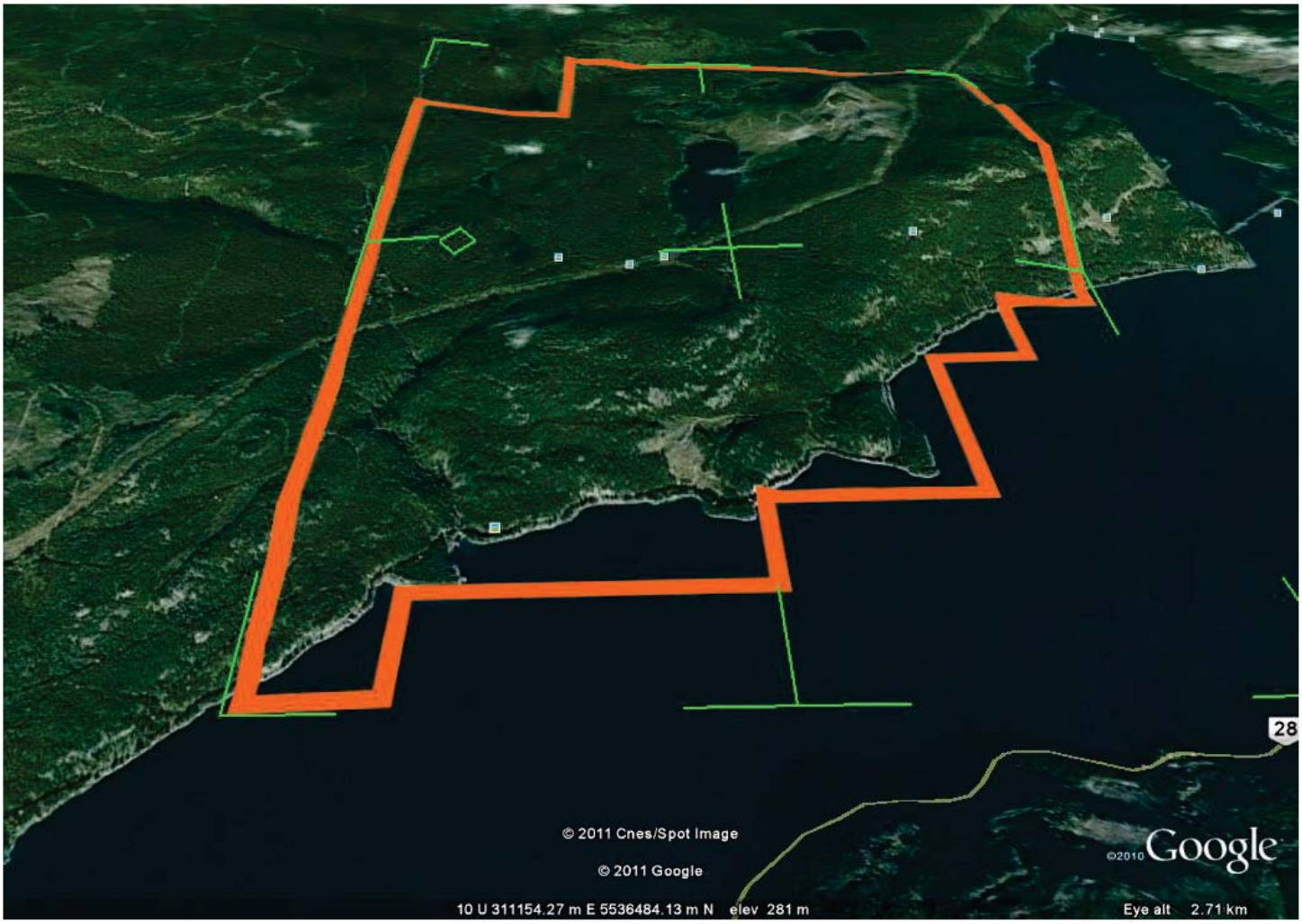


Figure 2: Google Earth™ Imagery of Bacon Lake Property

1.6 Acknowledgements

The author would like to acknowledge the work of Aeroquest in conducting an effective survey and providing Western Gateway Minerals Inc. with supporting documentation including maps.

1.6 Property History

The first recorded work in the Bacon Lake area was the Sumpter workings (Minfile # 092F 124) consisting of a 5m shaft on the western shore of Upper Campbell Lake in 1916. The shaft was sunk into a garnet-epidote skarn at the contact of granodiorite and limestone. Mineralization was reported as disseminated bornite, chalcopyrite and magnetite. A sample from the bottom of the shaft assayed 96 gm/tonne Ag, 3% Cu and trace Au. The mineralized zone extends for 23m along a 040º bearing from the shaft.

Also early on, a magnetite-pyrrhotite-chalcopyrite skarn exposed in Greenstone Creek (north of Bacon Lake Property) – Minfile # 092F 237 was worked from 1916 to 1917, resulting in the mining of 83 tonnes of ore producing 14, 018 kgs of copper, 4,074 gms of silver and 31 gms of gold.

No other work in the area has been documented until the 1950s when Argonaut Mines LM carried out a magnetometer survey, pitting and channel sampling and a 19-hole diamond drilling on magnetite skarn deposits in the area. Drilling is thought to have taken place on the southeast side of Bacon Lake, although drill locations have not been confirmed. Partial drill logs from the 1952 Argonaut drilling show drill holes intersecting interbanded limestone, skarn, magnetite and silicified volcanics.

Minor work was done in the area during the early 1960s. Falconbridge discovered and drilled three holes into a magnetite zone (Bacon Showing – Rock Minfile #092F 038) on the hill to the NE of Bacon Lake in 1961. Hole #1 intersected 6.4m of magnetite (20% iron); Holes #2 and #3 intersected similar grades over 6.4 and 9m respectively; In addition Hole #3 intersected 4.4m of 53.57% iron and 1.2m of 36.8% iron and 37.71 grams per tonne Ag.

Minfile #092F 098 (Greenstone Creek) outlines a 1.5km wide by 8km long band of Upper Triassic Quatsino Formation limestone striking NW from Greenstone Creek. The limestone bed dips NE, bounded to the east by Bonanza Group volcanics and sediments and to the west by Karmutsen basaltic volcanics. The band is truncated to the south by a NE trending fault. Georgia Mines Ltd. conducted airborne geophysical and ground geochemical surveys on the Greenstone Creek Showing, Crown Grants 1215 and 1216, northwest of Becher Lake in 1969. Airborne geophysical maps show that a north trending aeromag high trends southward west of Becher Lake onto the Bacon Lake Property.

Minfile #092F 097 (Upper Campbell Lake) specifies a report by the Geological Survey of Canada 1968 of a 1.75km long by 500m wide trace of Upper Triassic Quatsino Formation limestone striking NW from the western shores of Upper Campbell Lake to the SW side of Bacon Lake. This limestone band dips NE and is bounded by granodiorite on the east and Karmutsen basalts on the west.

In the late 1980s renewed work in the area by Sawiuk, Brownlee and Gosse targeted magnetite, copper, gold and cobalt skarn resources primarily on the east side of Bacon Lake (Bacon Claim – ARIS Reports #16321, 17395, 18946 and 21193) and west of Becher Lake (Julia Claim – ARIS Reports # 17405 and 18947). Results of this work are summarized as follows:

- Spring 1987 – SE side of Bacon Lake (ARIS# 16321): prospecting and 4 grab samples from magnetite skarn were analyzed for Cu, Co, Fe, Ag, and Au. Results showed 1.08% Co and 0.67 oz/ton Au in 1 sample; elevated Cu in 2 samples, elevated Au in 2 samples and Fe ranging from 16.4 to 36.5%.
- Fall 1987 – East side of Bacon Lake on west side of old logging road (ARIS# 17395): geological mapping and 8 rock samples analyzed for Cu, Co, Fe, Ag and Au. Results were focused on skarns forming at contacts between granodiorite/quartz diorite intrusives and limestone and andesitic volcanics of Bonanza Group. Skarns consisted of epidote-diopside-chlorite assemblages and massive magnetite with minor pyrite and chalcopyrite; up to 1.08% Co and 0.456 oz /ton Au. There were good correlations between Au and Co and between Cu and Ag. The Fe content of the massive magnetite ranged between 25% and 55%.
- Fall 1987 – sampling of the Steller Showing exposed by recent road construction (Aris # 17395). Cu, Zn, Ag and Au mineralization hosted in 1metre wide shear zone consisting of fractured gabbro, andesitic tuffs and flows and extensive quartz-sericite-chlorite alteration. Au and Ag elevated values are closely associated with elevated Zn and lesser elevated Cu. Magnetite at the north end of the showing had no Au or Ag values.
- Spring 1989 – prospecting, geological mapping, rock sampling and magnetometer survey over Willie Showing area, SE Bacon Lake (ARIS# 18946). The program extended known magnetite skarn showings and located two previously unknown skarns. Limestone and calcareous shales are overlain by andesitic breccia, lava and tuff with interbeds of argillite, siltstone and limestone. Volcanics and sedimentary rocks are intruded by granodiorite and quartz diorite. The volcanics have been silicified and in part skarnified along the contact. Disseminated and vein magnetite occur in several areas. In two areas the limestone is totally skarnified and contains semi-massive to patchy magnetite and associated pyrite with lesser chalcopyrite and malachite.
- Spring 1989 – geological mapping, VLF-EM and magnetometer survey over Steller Showing (ARIS# 18946). Medium to coarse crystalline diorite and coarse crystalline magnetic gabbros intrude moderately silicified andesitic volcanics, which is often bleached and cut by epidote-calcite veinlets. Mineralization occurs in a 1m wide silicified-carbonate shear structure in a 6m wide Fe-stained zone. All this is contained in a 10-15m wide zone of chlorite-magnetite replacement occurring as irregular shapes in the host rock. VLF-EM survey showed a north trending conductor approximately 75m to the west of the Steller shear zone. A north trending magnetic low appears to signify the Steller Showing with a magnetic high to the west.

- Spring 1991 – magnetometer survey over area SE of Bacon Lake (ARIS# 21193). Four 100 to 250m long by 10 to 100m wide subparallel linear magnetic anomalies strike N25W conforming to the strike of the geology. Two smaller (10-30m wide by 50-75m long) subparallel anomalies are open in both directions. Magnetite skarns occur along three of the anomalies. Carbonate units are preferentially replaced with magnetite. Anomalies are asymmetric width variable widths suggesting podiform magnetite mineralization over 100 to 300m strike lengths, dipping to the east-northeast. The property can be considered a magnetite prospect as well as a precious metal prospect.

In 1997 the Minland Project undertook prospecting, stripping, hand trenching and channel sampling over the old road and showings along the SE side of Bacon Lake. Samples were sent to Chemex Labs in North Vancouver for fire assay with AA finish, acid soluble iron and 32 element ICP analyses for minor elements. Mineral exposures and surrounding geology were mapped at a scale of 1:5,000. A summary report (CC Rennie, Dec. 1997) reiterated that the Bacon Lake Property hosts a large area of magnetite and sulphide-bearing skarn in limestone and altered volcanics intruded by granodiorite. Magnetite is the most obvious mineral target with bands up to 3m thick. Gold assays were interesting, yet variable possibly due to the nugget effect. No free gold has been detected to date. There appears to be a strong gold correlation (up to 61gm/t gold) with cobalt (erythrite and cobaltite) but this has not been confirmed in petrography. One sample of massive magnetite (sample 38) revealed 8.6gm/t gold.

In May 2008 a geological evaluation of the Bacon Lake Property was undertaken by Finley Bakker, P.Geo. This included one day on the property and a documentation review. He concluded that magnetite was visible on surface in a half dozen possibly isolated outcrops over lengths up to 300m and widths of up to 10m and heights of 8m. At most exposures magnetite is massive and at some it is disseminated throughout the volcanics. His summary focused on the proximal location of the Bacon Lake property to a regional “Mag high” which includes several other magnetite occurrences such as Camp Lake, Argonaut Mine and the Iron River deposit. The largest single outcrop to date at Bacon Lake has potential tonnage of >100,000 tonnes. Similar outcrops on the property are of unknown size due to overburden.

2.0 Regional Geology & Mineralization

The regional 2005 BCGS mapping of this area (Figure 3) indicates that the Bacon Lake Property lies along the northwest rim of an Early to Middle Jurassic (200 to 170 mya) Island Intrusive Complex (EMJIgd) granodiorite body which extends some 15km southward and 10km eastward. The central area of this intrusive complex hosts porphyry copper deposit-type mineralization, currently known as the Gooseneck Lake Cu Property (Figure 4 - Site 7), also held by Western Gateway Minerals Inc.
The western half of the claim is underlain by Mid to Upper Triassic (230 to 210 mya) Vancouver Group Karmutsen Formation (uTrVK) basaltic volcanics. Lower Jurassic (210 to 190 mya) Bonanza Group (IJBca) of calc-alkaline volcanics and associated metasedimentary rocks (limestone, argillite, siltstone etc.) underlies the northeast corner of the claim. Limestone bands of the Upper Triassic Vancouver Group Quatsino Formation (uTrVQ) have also been mapped regionally to the north of the Bacon Lake Property and it is likely that limestones evidenced on the property are also part of this formation.

Limestone bands and intercalated volcanics near the intrusive contacts contain the magnetite-copper-cobalt-gold skarn mineralization which is regionally significant and appears to be rimming and associated with a “Mag High” (Figure 4).

Other significant magnetite skarn type deposits in the region include the following:

The **Blue Grouse Claim** (Figure 4 - Site 2) lies north of Beavertail Lake and south of Lower Campbell Lake. The geology consists of intrusives cutting through faulted segments of Bonanza and Karmutsen andesitic to basaltic volcanic rocks with much of the chalcopyrite-magnetite mineralization being in Bonanza-age (Quatsino) limestone/skarn. Humus geochemical sampling and diamond drilling (2 holes - 2002) outlined a steeply dipping skarn zone with significant copper mineralization.

Recent diamond drilling indicated skarn-like copper mineralization in Bonanza volcanics and limey sediments on the **Beavertail Property** (Figure 4 - Site 3a) west of Reginald Lake and on the same property south of Beavertail Lake, massive magnetite occurs within a sandstone horizon of the Nanaimo Group (Figure 4 - Site 3b).

The **Argonaut Mine** (Figure 4 - Site 4) is a skarn deposit, mined for its magnetite content, but is notable for the abundance of andradite garnet crystals in the orebodies. Also of note is the occurrence of several narrow cobaltite/erythrite-bearing zones within the skarned rocks, although these are probably related to a Tertiary mineralizing event superimposed on the older Mid-Jurassic iron deposits. Significant gold values occur in the cobaltite. The open pit iron mine was in production from 1951 to 1957, producing 3,657,168 tonnes of ore. The ore body measured approximately 400m in length by 150m long by 120m wide, striking west and dipping shallowly northward (Minfile # 092F 075).

The **Iron River** (Figure 4 - Site 5) deposit lies on the eastern edge of the regional “Mag high”. Magnetite and chalcopyrite mineralization is concentrated at the north end of a northeast trending 80m long by 50m wide by 30m thick skarn zone adjacent to the quartz diorite. Normal faults offset the ore into east and west orebodies. Skarn mineralization consists of garnet, diopside, calcite, epidote, pyrite, actinolite and hematite. Indicated reserves in the west zone are 3,175,000 tonnes of 0.517% copper and 38.48% iron; in the east zone are 1,450,000 tonnes of 0.349% copper and 26.46% iron (Minfile # 092F 076).

To the south of the Bacon Lake Property is **Camp Lake** (Figure 4 - Site 6), a copper-gold-magnetite mineral discovery made in 2003. Recent exploration has shown several exposures of replacement style mineralization in Triassic Karmutsen volcanics, Triassic Quatsino limestones and Jurassic Bonanza volcanics. The best drill intercept to date showed 14.6 metres of 0.057% copper, 0.015 g/t gold, and 4.74% iron. Several other similar, low grade intercepts were obtained in other holes.

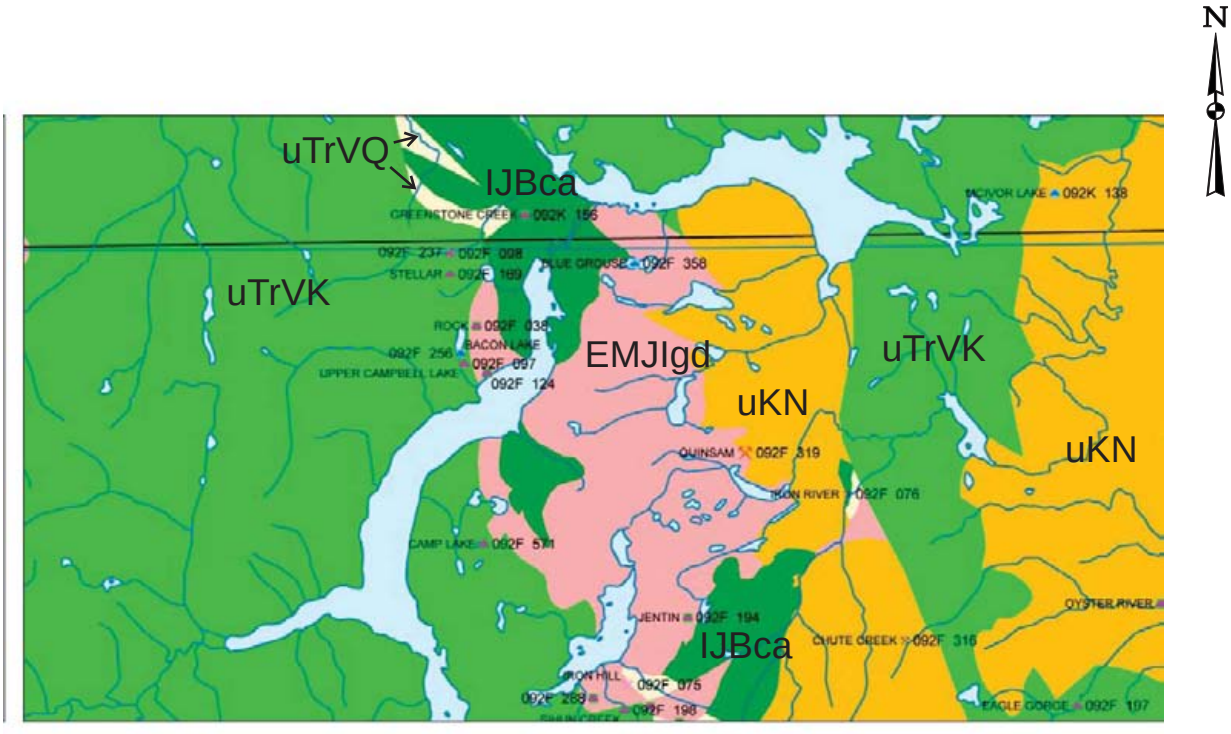


FIGURE 3: REGIONAL GEOLOGY & Showings

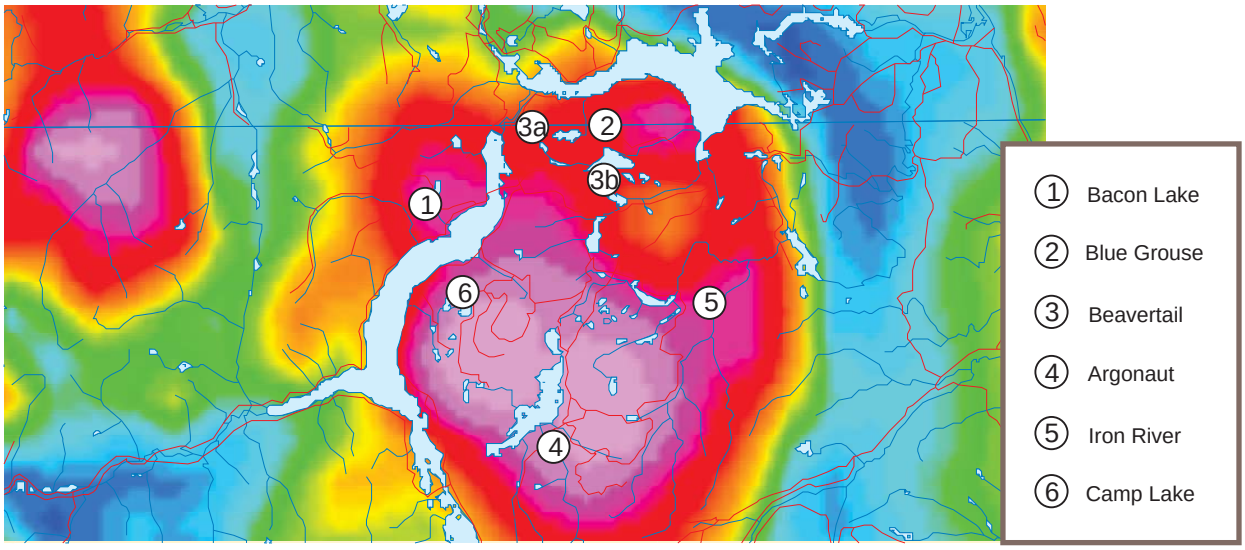


FIGURE 4: REGIONAL AEROMAG & Showings

3.0 Property Geology & Mineralization

Most work done on the property to date indicates that the Bacon Lake Property is underlain by Mid to Upper Triassic (230 to 210 mya) Vancouver Group Karmutsen Formation basaltic volcanics throughout its western half. Historical property work also indicates that Upper Triassic Vancouver Group Quatsino Formation limestone bands trend northwesterly and northerly through the centre of the property near the contact with an Early to Middle Jurassic (200 to 170 mya) Island Intrusive Complex granodiorite which underlies much of the area east of Bacon Lake. Lower Jurassic (210 to 190 mya) Bonanza Group of calc-alkaline volcanics and associated metasedimentary rocks (limestone, argillite, siltstone etc.) underlies the northeast corner of the claim (Figure 5).

Magnetite-chalcopyrite-pyrite skarn mineralization is generally confined to limestone and volcanic lenses (pods) adjacent to intrusive contact areas. These skarns host sporadic but significant values of iron, copper, silver, cobalt and gold as disseminations and massive lenses. The largest single magnetite outcrop exposed to date on the property has the potential tonnage of >100,000 and similar outcrops in the vicinity remain untested.

Much of the eastern and southern areas of the Bacon Lake Property are underlain by granodiorite intrusive rocks, part of a much larger intrusive complex. A recent field examination by the author confirmed showings of disseminated, veinlet and fracture copper mineralization within the intrusive rocks on the property (Figure 6).

Massive magnetite with erythrite (cobalt bloom).

Massive magnetite outcrop, striking along ridge side east of Bacon Lake.

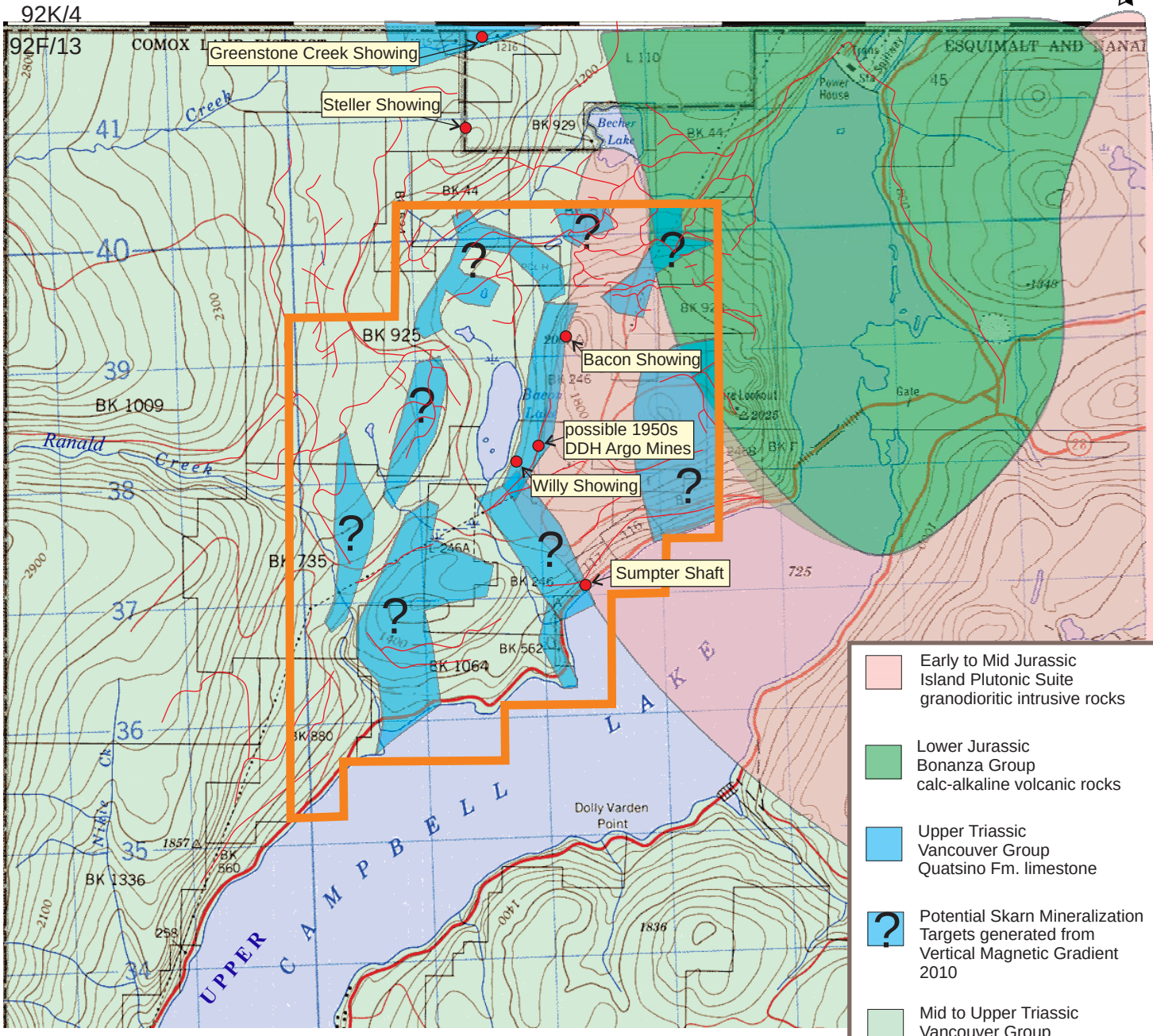
Massive magnetite outcrop (channel sampled).

Approximately 10m wide zone of intercalated massive to patchy magnetite and sulphides in limestone-granodiorite contact area along Elk River Main.
(Old Sumpter Showing?)

Bleached and silicified granodiorite along Elk River Main with veinlets and fractures carrying chalcopyrite-pyrite ±magnetite.
This indicates potential porphyry copper target for Bacon Lake Property.

AZTEC geoscience

Bacon Lake
Polymetallic Property



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Early to Mid Jurassic
Island Plutonic Suite
granodioritic intrusive rocks

Lower Jurassic
Bonanza Group
calc-alkaline volcanic rocks

Upper Triassic
Vancouver Group
Quatsino Fm. limestone

? Potential Skarn Mineralization Targets generated from Vertical Magnetic Gradient 2010

Mid to Upper Triassic
Vancouver Group
Karmutsen Fm. basaltic volcanics

Showing

March 7, 2011

Scale: 1:50, 000

0 500 1000 2000m

FIGURE 5: PROPERTY GEOLOGY AND SHOWINGS

4.0 Magnetometer Survey

On February 16th, 2010 a helicopter-borne magnetic survey was conducted over the Bacon Lake Property by Aeroquest Limited (Job #10-022). The principal geophysical sensor was a helicopter stinger mounted cesium vapour magnetometer. Ancillary equipment included a GPS navigation system, radar altimeter, digital video acquisition system, and a base station magnetometer. The total survey coverage was 180.5 line kilometres, of which 165.6 line kilometres fell within the defined project area. The survey was flown in a 90°/270°line direction.

A complete report by Aeroquest is attached as Appendix II of this report and Aeromagnetic map results are attached as Appendix III.

Results of this survey corresponded with former on-the-ground smaller surveys and indicated the strongest magnetic anomaly trending northward along the ridge side east of Bacon Lake, where most of the known showings exist (Figure 5).
In addition, the survey outlined several other north trending anomalies which serve to provide potential targets for further exploration efforts on the Bacon Property. Areas of particularly high Calculated Vertical Magnetic Gradient in addition to known showings are:

- extending from the peninsula on Upper Campbell Lake northwestward along the series of ridges east of Ranald Creek and west of Bacon Lake (skarn or porphyry copper target?)
- extending off the main showing trend north and south along east side of Bacon Lake (magnetite and sulphide skarn target)
- areas thought to be underlain by intrusives along the east side of the property (porphyry copper target?).

5.0 Results & Recommendations

The Bacon Lake Property is in a regionally significant area of magnetite skarn deposits including developed tonnage at Iron River and the former past producer Argonaut Mine. Mineralized skarns hosting potential economic deposits of iron ± copper ± silver ± cobalt ± gold have been identified on the Bacon Lake Property on the shoreline of Upper Campbell Lake and trending northward on the ridge east of Bacon Lake. To date six isolated mineralized skarns have been discovered outcropping over lengths up to 300m, widths up to 10m and heights of 8m. These targets require better definition (i.e. stripping and channel sampling and drilling) to determine reserve potential.

In addition, the potential for porphyry copper type mineralization on the Bacon Lake Property is evident, particularly in the eastern and southern areas of the claim. Disseminated pyrite and chalcopyrite was observed in propylitically altered granodiorite outcrops along Bacon 210 access road and veinlet and fracture copper mineralization was observed in high bluffs above Elk River Main west of Bacon Creek.

A recent aero magnetometer survey over the Bacon Lake Property shows strong anomalies mirroring known deposits or containing isolated mineral showings. In addition, several “Mag-High” trends were identified in the survey. These remain unprospected and untested.

- Initial works should be focused on defining size and grade parameters of the main magnetite-sulphide zone east of Bacon Lake. A diamond drill program is strongly recommended.
- Secondly, areas denoted by Vertical Gradient Magnetic Anomalies and areas with known occurrences outside the main showing should be prospected and mapped to better define their potentials.

Respectfully submitted,

AZTEC GEOSCIENCE INC.

Del W. Ferguson, P.Geo.

APPENDIX I
STATEMENT OF QUALIFICATIONS

I, Delbert Wells Ferguson, of Comox, Province of British Columbia, do hereby state that:

I am a practicing Geoscientist.

I have practiced my profession for over 33years throughout Canada and mostly in British Columbia.

I am a Fellow Member of the Geological Association of Canada (GAC).

I am a Professional Geoscientist, registered with the Association of Engineers and Geoscientists of British Columbia.

I received an Honours B.Sc. Degree in Geology from the University of Western Ontario, London, Ontario, Canada in 1979.

This report was prepared by myself, based on researched historical data and field visitations to the Bacon Lake Property and review and comment on the attached Aeromag Survey by Aeroquest, April 2010.

I have no legal relationship with Western Gateway Minerals Inc. or current interest in the Bacon Lake Property.

Delbert Wells Ferguson, P.Geo., FGAC

Dated: January 4, 2012

APPENDIX II
STATEMENT OF COSTS

ITEM	AMOUNT
Aeromag Survey Costs as per Aeroquest Invoice #653	13,497.50
Aeromag Survey Costs as per Aeroquest Invoice #660	12,147.75
Aeromag Survey Costs as per Aeroquest Invoice #684	3,500.00
Supervision: 1 day at $500	500.00
Report Compilation: 4 days at $500	2,000.00
Total Costs (not including GST/HST)	$31,645.25

APPENDIX III
Reference Material

Bacon Lake Property

- Sumpter Workings (1916): Minfile #092F 124
- Rock/Bacon Showing (1961 drilling): Minfile #092F 038
- GSC Mapping of Limestone Trace – Upper Campbell Lake (1968): Minfile #092F 097
- Exploration works (prospecting, geology, magnetometer, sampling) on east side of Bacon Lake: ARIS Reports #16321, 17395, 18946 and 21193
- Summary Report on Minland Project comprising Bacon Lake Claims and Cobalt Star Claim, 92F/13E, CC Rennie, P.Eng., December 2, 1997.
- Geological Evaluation of Bacon Lake (Twin Lake Resources/Western Gateway Minerals – Internal Report), Finley Bakker, P.Geo., May 6, 2008.

North of Bacon Lake Property

- Big G (Greenstone Property – 1916-17): Minfile #092F 237; ARIS Reports 00699, 02507
- Greenstone Creek 1969 – geochemical and airborne geophysics: Minfile #092F 098
- Julia Claim/Steller Showing 1980s: prospecting, sampling, magnetometer: ARIS Reports #17405, 18947

Regional Showings, Prospects, Mines

- Iron Hill/Argonaut Mine: Minfile # 092F 075
- Bold: Minfile #092F 234; ARIS Reports 13003, 13722
- Jentin: Minfile #092F 194; ARIS Reports 10866, 12637
- Sihun Creek: Minfile 092F 198; ARIS Report 18870
- Iron River: Minfile 092F 076; ARIS Reports 05300, 13574, 24089, 24440
- East Gorge/Upper Oyster: Minfile # 092F 197; ARIS Reports 11199, 11461, 13602
- Camp Lake Property – Technical Report – 2004 Field Exploration & 2005 Airborne Geophysical, for Bluerock Resources, Gilson and Houle, August 18, 2005 Revision; Minfile #092F 571; ARIS Reports 27717A, 27717B

APPENDIX IV
Aeromagnetic Survey Report
Aeroquest April 2010

Report on a Helicopter-Borne Magnetic Survey

Aeroquest Job # 10-022

For

Western Gateway Minerals Inc.

by

7687 Bath Road,
Mississauga, ON, L4T 3T1
Tel: (905) 672-9129
Fax: (905) 672-7083
www.aeroquest.ca

Report Date: April 2010

Report on a Helicopter-Borne Magnetic Survey

Aeroquest Job # 10-022

For

Western Gateway Minerals Inc.

Suite 301-1275 West 6th Avenue

VANCOUVER, BRITISH COLUMBIA

V6H 1A6

by

7687 Bath Road,
Mississauga, ON, L4T 3T1
Tel: (905) 672-9129
Fax: (905) 672-7083
www.aeroquest.ca

Report Date: April 2010

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- CVG – Calculated Vertical Gradient of TMI with line contours.
- DTM – Digital Terrain Model with line contours.

1. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Western Gateway Minerals Inc. on the Bacon Lake project in Campbell River, British Columbia. The principal geophysical sensor was a helicopter stinger mounted cesium vapor magnetometer. Ancillary equipment included a GPS navigation system, radar altimeter, digital video acquisition system, and a base station magnetometer.

The total survey coverage is 180.5 line km, of which 165.6 line km fell within the defined project area (Appendix 1), flown in 90º/270º line direction. Survey flying described in this report took place on February 16th, 2010. This report describes the survey logistics, the data processing, presentation, and provides the specifications of the survey.

2. SURVEY AREA

The Project area is located in British Columbia, Canada. The survey consists of one block (Figure 1), and is located approximately 26 km west of Campbell River, British Columbia.

The survey block corner-coordinates are tabulated in Appendix 1. The base of survey operations was at Campbell River, BC.

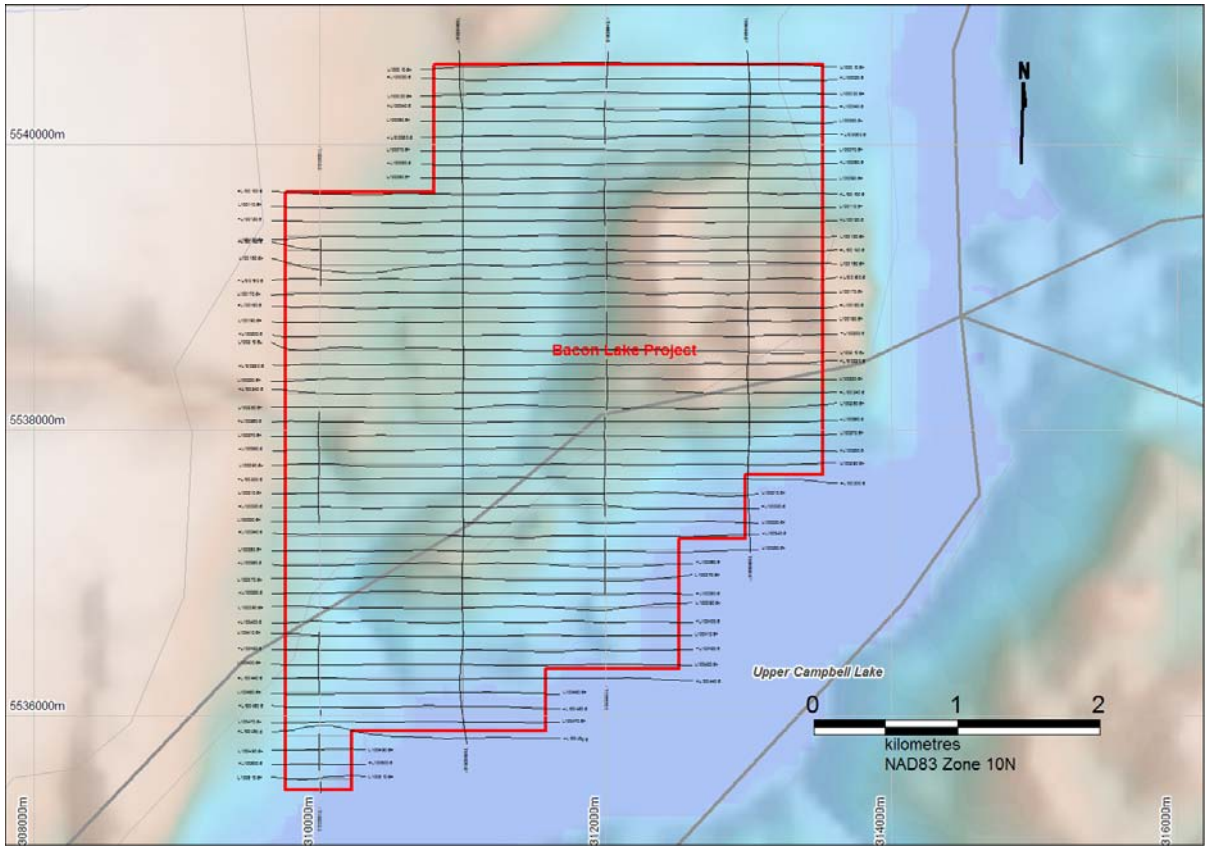

Figure 1. Survey Area with shaded topography

3. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarised in the following table:

Block name	Line Spacing (metres)	Line Direction	Survey Coverage (line-km)	Dates flown
Bacon Lake Project	100	90°/270°	180.5	February 16th, 2010

Table 1. Survey specifications summary

The survey coverage was calculated by adding up the survey and control (tie) line lengths as presented in the final Geosoft database.

The nominal helicopter stinger terrain clearance was 30 m but was periodically higher or lower over due to the rugged terrain and the capability of the aircraft. The scan rate of the helicopter stinger data acquisition was 0.10 seconds.

4. AIRCRAFT AND EQUIPMENT

This section provides a brief description of the geophysical and auxiliary instruments used to acquire the survey data:

4.1. AIRCRAFT

An Aerospatiale AS 350 B-2 helicopter - registration C-GPHQ was used as survey platform. The helicopter was owned and operated by VIH Helicopters Ltd. of North Saanich, British Columbia. The helicopter flew at an average airspeed of kilometres per hour.

Figure 2. Survey aircraft C-GPHQ showing magnetometer stinger (A)

4.2. MAGNETOMETER

The following magnetometer was installed inside the stinger:

Model: Geometrics G823A

Type: Airborne cesium-vapor magnetometer

Sensitivity: 0.01 nT

Sample rate: 10Hz

Magnetic Compensator:

The compensator employed was an RMS Instruments Aeromagnetic Automatic Real-TIme Compensator (AARC500). Compensation is achieved by combining the frequency measurement from any continuous reading sensor (Cs, K, He) with the measurements of analog outputs of a tri-axial fluxgate magnetometer. A proprietary algorithm combines these measurements and eliminates most of the influence caused by airframe movement through the magnetic field – pitch, roll yaw and aircraft heading.

4.3. MAGNETIC BASE STATION

Model: Geometrics G823A

Type: portable Cesium magnetometer

Sensitivity: 0.01nT

Sample rate: 1Hz

A digital recorder is operated in conjunction with the base station magnetometer to record the diurnal variations of the earth's magnetic field. The clock of the base station is synchronized with that of the airborne system using GPS data to permit subsequent removal of diurnal drift.

4.4. ALTIMETERS

Radar altimeter

Manufacturer: Terra

Type: TRA 3000 Radar Altimeter and TRI 40 Indicator

Sensitivity: 5% @200ft

Barometric altimeter

Manufacturer: Vaisala

Type: PTB 220

Sensitivity: +/- 0.15hPa @20C

4.5. DIGITAL DATA ACQUISITION SYSTEM

Manufacturer: UTS Aeroquest

Model: Acqsys

4.6. VIDEO TRACKING AND RECORDING SYSTEM

A wide angle video lens connected to a Plextor MPEG4 video converter provided the image. Using a video overlay board (Overland Technology Inc.) the GPS time is recorded continuously and is displayed on the margin of each image. This procedure ensures accurate correlation of digital data with respect to visible features on the ground.

4.7. GPS NAVIGATION SYSTEM

Flight navigation was controlled by an Ag-Nav Incorporated AG-NAV2 system comprising a PC-based acquisition system controlled by the operator, and a deviation indicator in front of the aircraft pilot. Positional data was provided by a Novatel OEM IV receiver, augmented with WAAS data by a Mid-Tech RX400p GPS receiver mounted on the instrument rack with an antenna mounted on the aircraft. WAAS (Wide Area Augmentation System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations located on the east and west coasts collect data from the reference stations and create a GPS correction message. This correction accounts for GPS satellite orbit and clock drift plus signal delays caused by the atmosphere and ionosphere. The corrected differential message is then broadcast through one of two geostationary satellites. The corrected position has a published accuracy of less than 3 metres.

GPS-derived positions were used for both aircraft navigation and survey data location.

The GPS systems used for the survey were:

Aircraft GPS Models	Novatel OEM IV
	Mid-Tech RX400p
Sample rate	0.5 Seconds (2 Hz)
GPS satellite tracking channels	12 parallel
Typical differentially corrected accuracy	1-2 metres (horizontal)
3-5 metres (vertical)	

5. PERSONNEL

The following Aeroquest personnel were involved in the project:

- Senior Project Manager: Troy Will
- Field Data Processor: Dak Darbha
- Field Operator: Ryan Allen
- Map Preparation and Reporting: Ali Latrous, and Liz Johnston

The survey pilot, Vaughn Gouws was employed directly by the helicopter operator – VIH Helicopters Ltd.

6. DELIVERABLES

6.1. HARDCOPY DELIVERABLES

The report includes a set of 1:10,000 maps. The survey area is covered by one map plate and three geophysical data products are delivered as listed below:

- TMI -Total Magnetic Intensity (TMI) with line contours.
- CVG – Calculated Vertical Gradient of TMI with line contours.
- DTM – Digital Terrain Model with line contours.

The coordinate/projection system for the maps is NAD83 – UTM Zone 10N. For reference, the latitude and longitude in WGS84 are noted on the maps.

6.2. DIGITAL DELIVERABLES

6.2.1. Final Database of Survey Data (.GDB, .XYZ)

The geophysical profile data is archived digitally in Geosoft GDB binary database format and ASCII Geosoft .XYZ format. A description of the contents of the individual channels in the database can be found in Appendix 2.

6.2.2. Geosoft Grid files (.GRD)

Levelled Grid products used to generate the geophysical map images.

6.2.3. Digital Versions of Final Maps (.MAP, .PDF)

Map files in Geosoft .map and Adobe PDF format.

6.2.4. Free Viewing Software

- Geosoft Oasis Montaj Viewing Software
- Adobe Acrobat Reader

6.2.5. Digital Copy of this Document (.PDF)

7. DATA PROCESSING AND PRESENTATION

7.1. BASE MAP

The geophysical maps accompanying this report are based on positioning in the NAD83 datum. The survey geodetic GPS positions have been projected using the Universal Transverse Mercator projection in Zone 10 North. A summary of the map datum and projection specifications is given following:

- Ellipse: NAD83
- Ellipse major axis: 6378137m Inverse Flattening: 298.25722
- Datum: North American Datum 1983
- Map Projection: Universal Transverse Mercator Zone 10 North
- Central Scale Factor: 0.9996
- False Easting, Northing: 500,000m, 0m

For reference, the latitude and longitude in WGS84 are noted on the maps.

7.2. MAGNETIC COMPENSATION TESTS

Test lines were flown to check the real time magnetic compensation, in four cardinal directions corresponding to the survey line direction. The compensation tests were carried out at Prince George Airport at a nominal altitude of 10000 feet above ground level to ensure the sensor was completely removed of ground effect.

7.3. TOTAL FIELD MAGNETICS

The total field aeromagnetic data are corrected for the diurnal variation, by subtracting the base station magnetic data (low pass filtered to remove spikes due to cultural interference). Then the line data was corrected for heading and any remaining small levelling errors. The

geophysical data are interpolated onto a regular grid using Bidirectional interpolation technique. The grid cell size is 20 m, fifth of the line interval. The gridded data was micro-levelled to remove small amplitude, in between flight line, levelling errors. The resulting grid is suitable for generating contour maps of excellent quality.

APPENDIX 1: SURVEY BOUNDARIES

The following table presents the project block boundaries. All geophysical data presented in this report have been windowed to 100m outside these outlines. X and Y positions are in NAD83 UTM Zone 10N.

Bacon Lake Project

x	y
310802.62	5540558.71
313523.07	5540558.71
313523.07	5537685.17
312978.17	5537685.17
312978.17	5537237.56
312513.79	5537237.56
312513.79	5536326.77
311584.73	5536326.77
311584.73	5535894.96
310223.44	5535894.96
310223.44	5535479.14
309758.68	5535479.14
309758.68	5539663.97
310802.62	5539663.97

APPENDIX 2: DESCRIPTION OF DATABASE FIELDS

The GDB file is a Geosoft binary database. In the database, the Survey lines and Tie Lines are prefixed with an "L" for "Line" and "T" for "Tie".

Column	Units	Description
x_nad83	m	UTM Easting (NAD83, Zone 10N)
y_nad83	m	UTM Northing (NAD83, Zone 10N)
Ralt	m	Radar Altitude
Galt	m a.s.l.	GPS Elevation
DTM	m a.s.l.	Digital Terrain Model
Height		Survey Altitude
Date		Survey Flight Date
UTCTime	HH:MM:SS.ss	UTC Time
TMI	nT	Total magnetic Intensity
MAGFID		Acquisition System Fiducial
Flight		Survey Flight Number

APPENDIX V
Aeromagnetic Maps
Aeroquest April 2010

-125°38'
312000E
-125°36'
5540000N
5536000N
49°58'
T100020:6
T100030:6
T100040:6
T100010:6
L100010:6>
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L100490:6>
<L100500:6
L100510:6>
Bacon Lake
Ranald Creek
Upper Campbell Lake
Dolly Varden Point

Grid North
NAD83 - Zone 10N

The topographic data base was sourced from 1:50000 NRC (Natural Resources Canada) NTDB data
Topo contours derived from NASA SRTM (Shuttle Radar Topography Mission) data
Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic Survey, Campbell River, British Columbia', by Aeroquest Limited, April 2010

Contour Interval
- 0.2 nT/m
- 0.4 nT/m
- 2.0 nT/m
- 10.0 nT/m

CVG nT/m
6.22
4.05
3.10
2.46
2.03
1.70
1.43
1.21
1.02
0.86
0.72
0.59
0.48
0.38
0.28
0.19
0.10
0.02
-0.06
-0.13
-0.20
-0.26
-0.33
-0.41
-0.50
-0.58
-0.68
-0.78
-0.89
-1.02
-1.15
-1.31
-1.50
-1.75
-2.10
-2.55
-3.16
-4.25

- Roads / Trails
- Transmission Line
- Wetland
- Lake

SURVEY SPECIFICATIONS:
- Survey flown: February 16th, 2010
- Traverse line spacing: 100 metres
- Traverse line direction: 90°/270°
- Aircraft: Aerospatiale AS 350 B-2 (C-GPHQ)
- Nominal aircraft height: 20 metres

INSTRUMENTATION:
- Data acquisition: UTS ACQSYS
- Magnetometer: Geometrics G-823A caesium vapour
  - Installation: mounted as a stinger on the underside of the airframe
  - Sensitivity: .001 nanoTesla
  - Compensator: RMS AARC500

NAVIGATION:
- Navigation: AGNAV LINAV System
- Positional data provided by WAAS corrected Novatel OEM IV receiver
- Radar Altimeter: Terra TRA3000/TRI-40

DATA PROCESSING
- Magnetics: diurnal, tieline and micro-leveling corrections

POSITIONING
- Datum: NAD83
  - Major Axis: 6378137
  - Inverse Flattening: 298.25722

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 123°W (Zone 10)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

scale 1:10,000
200 0 200 400 600
(meters)
NAD83 / UTM zone 10N

Western Gateway Minerals Inc.
Campbell River, British Columbia

CALCULATED VERTICAL MAGNETIC GRADIENT

Bacon Lake Project

NTS 092F13

AEROQUEST
7687 Bath Road, Mississauga, ON, L4T 3T1, CANADA
Tel: (905) 672-9129 Fax: (905) 672-7083
www.aeroquest.ca

April 2010

CVG

-125°38'
312000E
-125°36'
5545000N
5536000N
49°58'
T100020:6
T100030:6
T100040:6
T100010:6
L100010:6>
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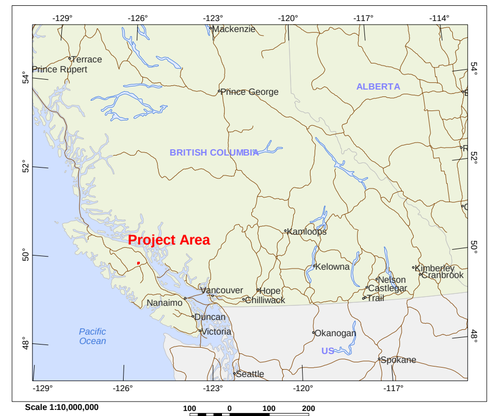

601.9
581.0
570.0
558.0
546.3
533.6
521.0
510.3
500.4
491.3
484.2
477.7
470.9
464.6
459.9
456.6
452.9
448.9
444.6
440.2
435.8
431.3
427.1
423.2
419.3
415.6
412.2
409.4
406.8
404.5
402.1
399.8
397.5
395.3
393.0
387.9
379.3
368.8
357.1
344.0
330.5
317.0
301.3
284.3
264.4
243.7
229.0
223.8
222.7
221.1
218.8

DTM
metres

Contour Interval
2m
4m
20m
100m

Roads / Trails
Transmission Line
Wetland
Lake

SURVEY SPECIFICATIONS:
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Central Meridian: 123°W (Zone 10)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m

scale 1:10,000
200 0 200 400 600
(meters)
NAD83 / UTM zone 10N

Western Gateway Minerals Inc.
Campbell River, British Columbia

DIGITAL TERRAIN MODEL

Bacon Lake Project

NTS 092F13

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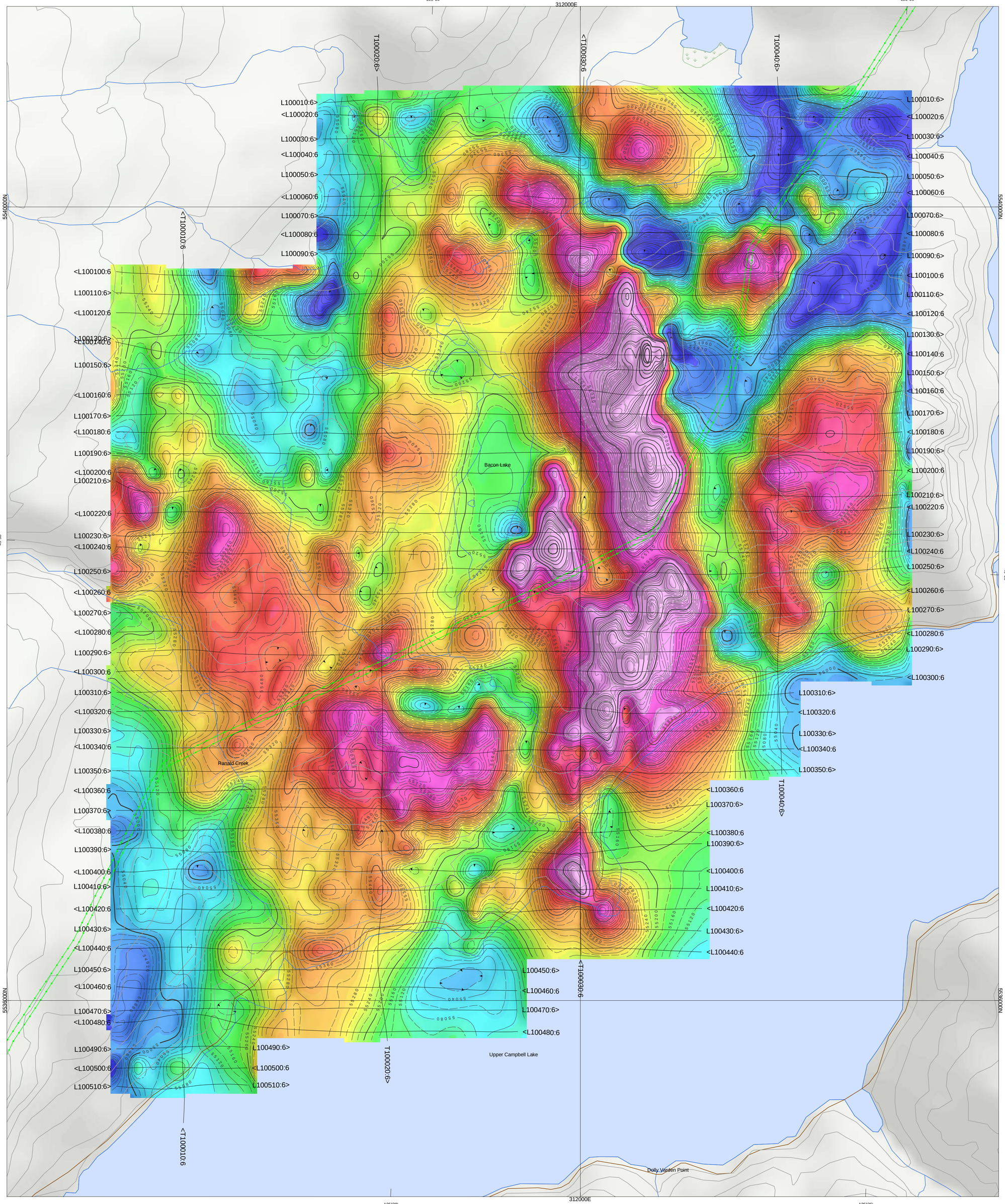
April 2010

DTM

DTM_10k_Bacon Lake.map, AQL Job no. 10022



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TMI nT	
56112.5	
55855.4	
55716.4	
55639.0	
55581.4	
55534.3	
55497.4	
55469.2	
55442.0	
55414.3	
55389.9	
55367.9	
55349.0	
55332.2	
55317.2	
55304.2	
55291.5	
55278.2	
55265.4	
55253.2	
55240.5	
55227.4	
55214.9	
55202.0	
55190.6	
55177.3	
55163.7	
55150.0	
55134.9	
55116.9	
55098.2	
55080.9	
55064.7	
55044.2	
55019.9	
54985.3	
54930.1	
54857.2	

Contour Interval
20nT
40nT
200nT
1000nT

Roads / Trails
Transmission Line
Wetland
Lake

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scale 1:10,000

200 0 200 400 600
(meters)
NAD83 / UTM zone 10N

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Campbell River, British Columbia

TOTAL MAGNETIC INTENSITY

Bacon Lake Project

NTS 092F13

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April 2010

TMI