

Assessment Report
Geophysical Surveying
on the
BOND Claim Block
Northern Tiger Resources Inc.

BOND 1-70 (YC66307 – YC66376)

South shore, Yukon River,
62°46'19" N Latitude, 137°56'07" W Longitude
Whitehorse Mining District

NTS Sheet 115I/13, Zone 8

August 24 and 25, 2009

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April 14, 2010

Summary

An exploration program consisting of a 173 line-kilometer airborne magnetic and radiometric survey was conducted over the BOND property by Precision Geosurveys of Vancouver, B.C. for Northern Tiger Resources in 2009.

The BOND property consists of 70 quartz mining claims in a single contiguous block covering 1,470 hectares (3,631 acres) along the south side of the Yukon River. It was staked in October 2007 by Minto Explorations Ltd. to cover ground prospective for “Minto-style” copper-gold mineralization. The property is located about 120 km north-northwest of Carmacks, Yukon, and about 40 kilometres of the all-weather Minto mine access road and large airstrip.

The BOND property is located within the northern limit of the Intermontane Superterrane, which occurs as a narrow sequence of Triassic to Lower Jurassic Stikinia Terrane volcanic and volcanoclastic strata mixed with Lower Jurassic Quesnellia Terrane metaigneous units, specifically the Aishikik Intrusive Suite. The Minto deposit is hosted by the Klotassin Batholith, a member of the Aishikik Suite.

The Minto deposit occurs as a flat-lying body at depth, with no surface exposure other than minor hydrothermally transported copper oxide mineralization in the form of azurite and malachite. The deposit was discovered and delineated through diamond drilling. Any surface geochemical signatures are likely to be subdued; thus modest anomalies and surface occurrences may represent a significant target at depth.

The BOND property is almost entirely underlain by another member of the Aishikik Intrusive Suite, consisting as biotite granite and granite gneiss. In 1973 two small copper-lead sulphide occurrences were identified near the base of a steep slope just south of the Yukon River. Geological mapping in 2008 indicated this area hosts abundant narrow zones of strong secondary biotite enrichment, a favourable setting for Minto-style mineralization. The copper occurrences were located in 2009.

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1.0 Introduction

1.1 Introduction

The BOND property, located in central Yukon and consisting of 70 full quartz mining claims in a single block covering 1,470 hectares (3,631 acres), was staked in October 2007 by Minto Explorations Ltd. to cover ground prospective for “Minto-style” copper-gold mineralization. In June 2008 Northern Tiger Resources Inc. (Northern Tiger) obtained a 100% interest in the claims, in exchange for exploration commitments across the property. An exploration program consisting of geological mapping, reconnaissance-style soil sampling, some silt and rock sampling and post tagging was conducted by Northern Tiger from July 21 to August 16, 2008.

This report will focus on details of the 2008 exploration program, including tabulation and interpretation of results.

1.2 Sources of Information

Little historical data pertaining to the present BOND project is available. Regional geological and MINFILE data was taken from the Yukon Geology Survey website. The majority of information used in this report was obtained through the 2008 program by Northern Tiger Resources Inc.

The geological setting and potential deposit model is similar to that of Capstone Mining Corporation’s Minto mine site, located roughly 40 km to the east-southeast.

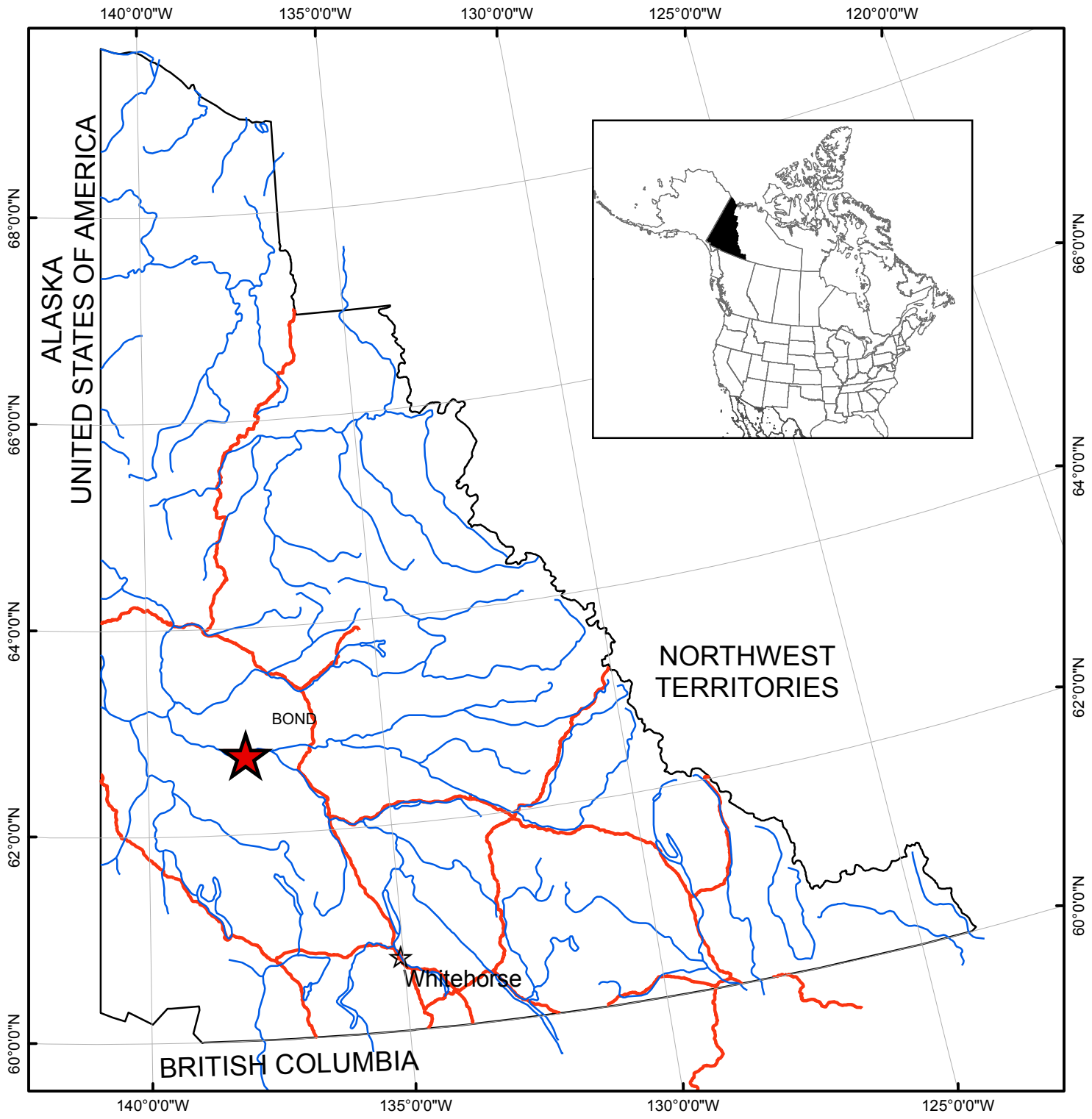
1.3 Terms of Reference

This report was prepared to satisfy requirements for Assessment Report filing by the Yukon Mining Recorder, Ministry of Energy, Mines and Resources, Government of Yukon.





2.0 Property Description and Location

The BOND property consists of 70 unpatented quartz mining claims (Table 1, Figures 1-3) in a single block covering 1,470 hectares (3,631 acres) along the south bank of the Yukon River. The property is located about 120 km north-northwest of Carmacks, Yukon, and is centered at 62°46'19" N Latitude, 137°56'07" W Longitude (UTM NAD 83 coordinates: 350200E, 6963550N, Zone 8) within NTS map sheet 115I/13. The property has not undergone a legal survey.


No mineral reserves or resources have been delineated on the property to date. No hard rock mine workings, tailings ponds or waste deposits exist within the project area. No special environmental concerns or liabilities are known for this area.




Legend

-  BOND Property
-  Watershed
-  Road
-  Yukon Border


N



Kilometers



0 50 100 200 300

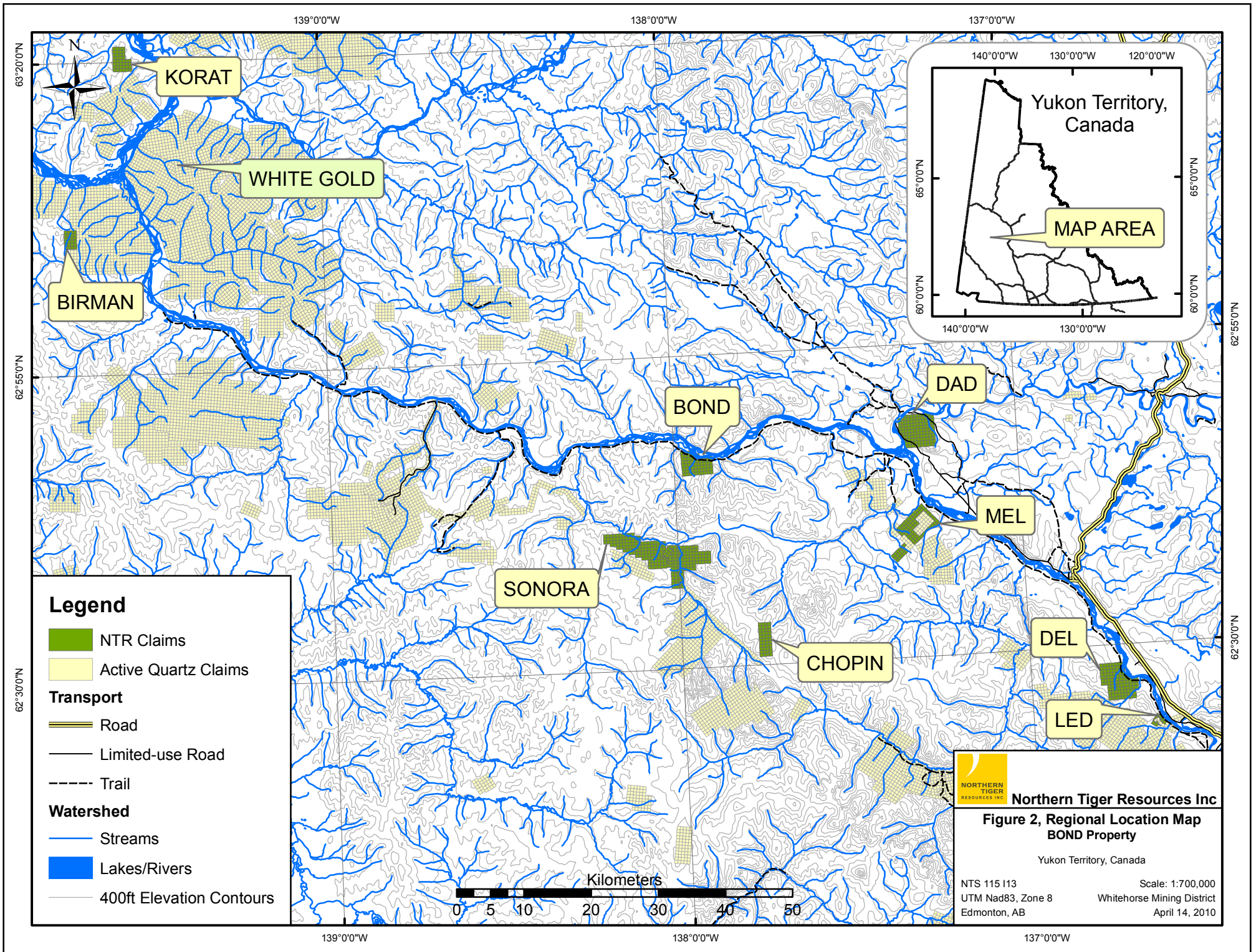


Northern Tiger Resources Inc

**Figure 1, Regional Location Map
BOND Property**

Yukon Territory, Canada

NTS 115 113 Scale: 1:6,000,000
 UTM Nad83, Zone 8 Whitehorse Mining District
 Edmonton, AB April 14, 2010



Legend

- NTR Claims
- Active Quartz Claims
- Transport**
- Road
- Limited-use Road
- Trail
- Watershed**
- Streams
- Lakes/Rivers
- 400ft Elevation Contours

NORTHERN TIGER RESOURCES INC

**Figure 2, Regional Location Map
BOND Property**

Yukon Territory, Canada

NTS 115 113
UTM Nad83, Zone 8
Edmonton, AB

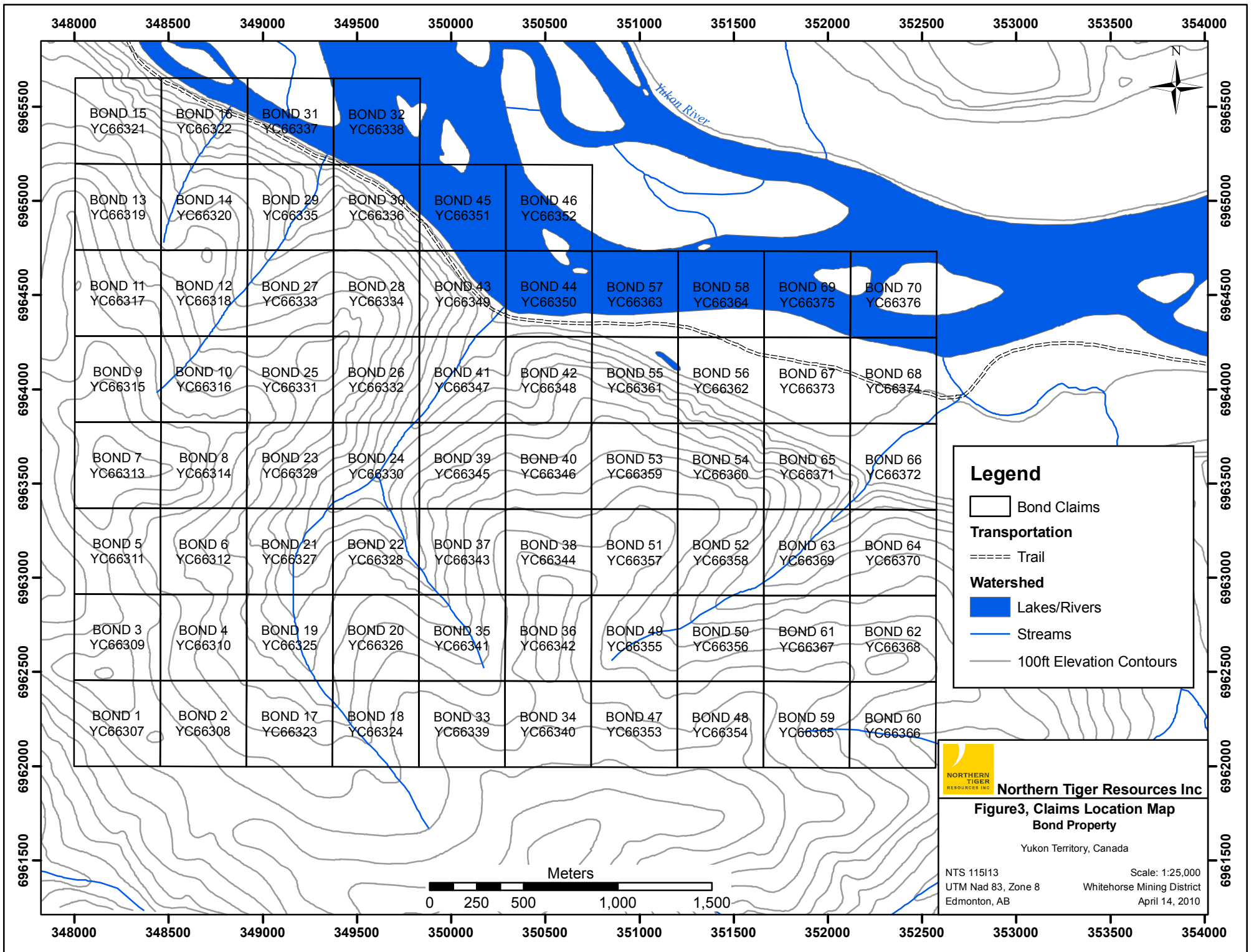
Scale: 1:700,000
Whitehorse Mining District
April 14, 2010

Table 1

Grant #	Name	Number	Expiry Date
YC66307	BOND	1	18/10/2012
YC66308	BOND	2	18/10/2012
YC66309	BOND	3	18/10/2012
YC66310	BOND	4	18/10/2012
YC66311	BOND	5	18/10/2012
YC66312	BOND	6	18/10/2012
YC66313	BOND	7	18/10/2012
YC66314	BOND	8	18/10/2012
YC66315	BOND	9	18/10/2012
YC66316	BOND	10	18/10/2012
YC66317	BOND	11	18/10/2012
YC66318	BOND	12	18/10/2012
YC66319	BOND	13	18/10/2012
YC66320	BOND	14	18/10/2012
YC66321	BOND	15	18/10/2012
YC66322	BOND	16	18/10/2012
YC66323	BOND	17	16/10/2012
YC66324	BOND	18	16/10/2012
YC66325	BOND	19	16/10/2012
YC66326	BOND	20	16/10/2012
YC66327	BOND	21	16/10/2012
YC66328	BOND	22	16/10/2012
YC66329	BOND	23	18/10/2012
YC66330	BOND	24	18/10/2013
YC66331	BOND	25	18/10/2012
YC66332	BOND	26	18/10/2013
YC66333	BOND	27	18/10/2012
YC66334	BOND	28	18/10/2013
YC66335	BOND	29	18/10/2012
YC66336	BOND	30	18/10/2012
YC66337	BOND	31	18/10/2012
YC66338	BOND	32	18/10/2011
YC66339	BOND	33	18/10/2012
YC66340	BOND	34	18/10/2012
YC66341	BOND	35	18/10/2012
YC66342	BOND	36	18/10/2012
YC66343	BOND	37	18/10/2012
YC66344	BOND	38	18/10/2012
YC66345	BOND	39	18/10/2012
YC66346	BOND	40	18/10/2012
YC66347	BOND	41	18/10/2013
YC66348	BOND	42	18/10/2013
YC66349	BOND	43	18/10/2013
YC66350	BOND	44	18/10/2012

Grant #	Name	Number	Expiry Date
YC66351	BOND	45	18/10/2012
YC66352	BOND	46	18/10/2012
YC66353	BOND	47	18/10/2012
YC66354	BOND	48	18/10/2012
YC66355	BOND	49	18/10/2012
YC66356	BOND	50	18/10/2012
YC66357	BOND	51	18/10/2012
YC66358	BOND	52	18/10/2012
YC66359	BOND	53	18/10/2013
YC66360	BOND	54	18/10/2012
YC66361	BOND	55	18/10/2013
YC66362	BOND	56	18/10/2013
YC66363	BOND	57	18/10/2012
YC66364	BOND	58	18/10/2012
YC66365	BOND	59	18/10/2012
YC66366	BOND	60	18/10/2012
YC66367	BOND	61	18/10/2012
YC66368	BOND	62	18/10/2012
YC66369	BOND	63	18/10/2012
YC66370	BOND	64	18/10/2012
YC66371	BOND	65	18/10/2013
YC66372	BOND	66	18/10/2012
YC66373	BOND	67	18/10/2013
YC66374	BOND	68	18/10/2012
YC66375	BOND	69	18/10/2012
YC66376	BOND	70	18/10/2012

All claims are held by Northern Tiger Resources Inc.



3.0 Physiography, Climate, Access and Infrastructure

3.1 Physiography and Climate

The BOND property covers an area of moderate to locally steep relief sloping moderately from the southern boundary to the Yukon River. Elevations range from about 2,900 feet (885m) in the southern area to 1,360 feet (415 metres) along the Yukon River. The block is located along or just beyond the western margin of the Reid ice advance, the second-most recent major continental glacial event, although some pre-Reid glaciation may have extended somewhat farther to the west.

Outcrop, subcrop and rubblecrop exposure is moderately abundant, particularly along the steep south bank of the Yukon River. Exposure is also fairly abundant along portions of stream channels, several ridgelines and areas of high elevation. Elsewhere exposure is very scarce. Limited discontinuous permafrost occurs along some north-facing slopes and low lying areas.

The climate of the BOND property area is typical of central Yukon, with short, warm summers with daily highs normally exceeding 20° C, and long, cold winters with daily highs normally colder than -18°C. Precipitation is light, and the snow-free period extends from mid-May through late September. Exploration is most feasible from late May to late September, although drilling may continue until late October.

Vegetation is also typical of dry areas of central Yukon, consisting mostly of mature spruce, poplar and lodgepole pine forests. Thick riparian forest occurs along the Yukon River flood plain. Much of the western area was burned in a 1995 forest fire, resulting in thick secondary growth and abundant fallen timber.

3.2 Access and Infrastructure

No usable road access extends on to the BOND property. An old tote road extending from Carmacks along the south shore of the Yukon River passes through the property; this has become overgrown and is not serviceable. Access is by boat or barge along the Yukon River or by helicopter. The Casino Trail, usable in late winter, extends from the end of the Freegold Road to placer workings on the Sonora property located about 15 km to the south, and currently held by Northern Tiger Resources Inc. A permit is required for its usage.

The Minto mine site is located about 40 kilometres east-southeast of the BOND property, and about 20 km west of the Minto Landing airstrip. The mine is serviced by an all-weather access road extending from the North Klondike Highway, with seasonal ferry service across the river, as well as winter road access at the same location. The mine site is not road-accessible during freeze-up and early winter, and during spring break-up. An all-weather airstrip capable of servicing large cargo turboprop aircraft is located at the mine site. The mine is now serviced by grid electrical power based in Whitehorse, and has back-up diesel-generated power on site.

The BOND property is large enough to contain any future mining, milling and waste disposal areas, although limited flat area exists for infrastructure development. The Yukon River floodplain is not feasible for infrastructure development. The Yukon River, extending along the north boundary, has an adequate water supply to service any future operations; limited water also exists in smaller stream within the property.

Carmacks is serviced by the Klondike Highway, a major all-weather highway extending from Whitehorse to Dawson City, and by grid electric power extending from Whitehorse. The community of about 350 has basic services, including food and fuel supplies and seasonal helicopter and fixed wing services. The community of Pelly Crossing, population about 300, is located about 30 kilometres northeast of Minto Landing, and 102 road kilometres north of Carmacks. Pelly Crossing also has basic services and provides much of the workforce at the Minto mine site. Whitehorse, located 170 km to the south, is a full service community with a population of about 23,000, including a sophisticated mineral exploration service community and an available workforce.

No permits are currently in place for exploration.

4.0 History

The present BOND property area was first explored in 1971 by the Dawson Range Joint Venture, comprised of Strauss Exploration Inc, Molybdenum Corporation of America and Trojan Consolidated Mining; no claims were staked. It was staked as the TUF 1-40 block in August, 1972 by United Keno Explorations, a joint venture of United Keno Hill Mines Ltd, Falconbridge Nickel Mines Ltd. and Canadian Superior Exploration Ltd. United Keno Explorations conducted geological mapping and grid soil sampling (Yukon Minfile, 2009).

The program identified two occurrences of chalcopyrite and minor galena within siliceous gneiss with narrow quartz veining. The two small occurrences are spaced about 100 feet (30 metres) apart. Chalcopyrite, bornite, malachite, azurite and galena were exposed in three hand trenches in the area, with the best result being 0.93% copper in a grab sample. One other occurrence of “very minor malachite with no primary sulphides” along a ridgeline to the south-west was also noted (VanTassell, 1973).

Several contour soil lines were conducted at various elevations east of the small showings, and grid soil sampling was conducted slightly to the west of these. Analysis was done for copper, molybdenum, lead, zinc and silver; low values were returned, with weak erratic anomalous values. The program concluded that “geochemistry reflects very limited unimportant copper mineralization” (VanTassell, 1973).

The area was restaked as the FUN in April to July, 1974 by Canadian Superior Exploration Ltd, which conducted magnetic and Induced Polarization surveying, and grid soil sampling (Yukon Minfile 2009).

Another occurrence, the “Minnesota” consisting of two claims, the “Minnesota Chief and Homestake”, was staked about four kilometers to the east in February, 2002 and subsequently underwent hand trenching. The Minnesota occurrence area also underwent soil sampling by the Dawson Range Joint Venture in 1971. Several old pits occur along an unmineralized quartz vein within granodiorite (Yukon Minfile, 2009).

5.0 Geology

5.1 Regional Geology

The BOND property is located within the northern limit of the Intermontane Superterrane (Hart, 2008), occurring as a narrow sequence of Triassic to Lower Jurassic Stikinia Terrane volcanic and volcanoclastic strata mixed with Lower Jurassic Quesnellia Terrane metaigneous units. This superterrane extends northwest – southeast, largely along the Yukon River, within the much more aerially extensive Yukon-Tanana Terrane (YTT). The latter occurs as a broad sequence of accreted terrane abutted against the northwest – southeast trending Tintina Fault, separating the YTT from shelf to off-shelf sediments bordering the ancient North American Continent to the northeast. The Tintina Fault is located about 65 kilometres northeast of the DAD property. The YTT consists of a belt of Devono-Mississippian metamorphic rocks, mainly metavolcanics with lesser metasediments. The northwest – southeast trending Denali (Shakwak) Fault about 170 km to the southwest forms the southwestern boundary of the YTT, separating it from a younger sequence of accreted terrane farther to the southwest (Davidson, 2008).

Stikinia Terrane units consist largely of Upper Triassic Povoas Formation basalts to andesites, including andesitic ash through lapilli tuffs, with lesser clastic sedimentary units ranging from coarse conglomerate through mudstone to shale. These represent the northernmost portions of the Whitehorse Trough. Stikinia Terrane units commonly abut against Quesnellia Terrane Lower Jurassic Aishikik Suite medium to coarse grained biotite-hornblende metagranites and granodiorites, commonly moderately foliated. The Minto copper-gold mine occurs within the Klotassin Batholith, a foliated biotite granite member of the Aishikik Suite.

Much of the area surrounding the Intermontane Terrane is underlain by Upper Cretaceous to early Tertiary Carmacks Group volcanics, comprised largely of mafic flood basalts and andesites, with lesser felsic flow and tuffaceous units, and localized basal clastic strata (Open File, Geological Survey of Canada, 2001). Devono-Mississippian metagranitic and metabasaltic rocks of the Wolverine Creek Suite underlie much of the area south of the BOND property.

5.2 Property Geology

Almost all of the BOND property is underlain by a member of the Lower Jurassic Aishikik Suite consisting of felsic to intermediate intrusions. Specifically, the property is underlain by biotite granite to granodiorite gneiss, with local areas of hornblende-biotite granite gneiss, particularly in western and west-central areas. The intrusive rocks are medium to coarse grained, becoming

more coarsely grained in northwestern areas. Moderate foliation typifies the majority of this, with stronger foliation occurring near the Yukon River west of the central creek. Biotite enrichment, including secondary biotite, occurs in this area also, as narrow, likely structurally controlled zones. Foliation orientations across the property extend east-west to northeast-southwest, with moderate dips to the northwest. Weak propylitic (chlorite-epidote) alteration occurs in east-central areas; chlorite alteration after biotite also occurs in central areas.

Minor units of gabbro and andesite tuff identified in central areas have been mapped as Devonian-Mississippian Wolverine Creek metavolcanics and metaintrusives. Late pegmatite dykes are common throughout the property, particularly in northwestern areas.

6.0 Deposit Model

The deposit model utilized as an exploration target is that of “Minto-style” copper-gold-silver mineralization, the setting of the Minto deposit, currently in production.

The Minto deposit occurs as a flat-lying body approximately 335 metres long in a north-south orientation, 245 metres in an east-west orientation, and averaging 30 metres thick. The deposit is hosted by foliated granodiorite to granodiorite gneiss, with higher-grade zones hosted by more strongly foliated and strongly biotite-enriched sections. In the Minto deposit area, the main diagnostic feature is the presence of foliation in otherwise non-foliated Klotassin Batholith granodiorite.

The mineralization consists of chalcopyrite, bornite, and minor pyrite with accessory magnetite, with gold and silver occurring with the bornite. Gold occurs as free gold, and silver occurs as “hessite”, a silver telluride. Copper oxide minerals, mainly azurite and malachite, occur along the upper portions of the zone where in contact with surface weathering, and along fractures and joint planes outbound from the deposit. A distinct zonation occurs from west to east, extending from bornite-chalcopyrite-magnetite in the west through bornite-chalcopyrite in central areas to pyrite in eastern areas. Hydrothermal alteration also exhibits zonation, extending from potassic and/or phyllic alteration within mineralized zones to epidote +/- chlorite – propylitic assemblages along marginal area. Potassic alteration typically occurs as zones of coarse grained, strongly foliated biotite, comprising up to half of the rock mass. Alteration does not extend far beyond the margins of mineralization.

This model, which has no analogues on a worldwide basis, has several theories brought forth regarding its origin. In a 1999 report, SRK Consulting Inc. theorized the deposit resulted from emplacement of hydrothermal fluids into dilational zones. Analogies to porphyry-style copper deposits and iron-oxide copper-gold (IOCG) deposits have also been put forth.

7.0 Mineralization

The 1973 program by United Keno Explorations revealed two minor malachite-azurite occurrences spaced about 100 feet (30 metres) apart. Hand trenching revealed these to consist of chalcopyrite with malachite and azurite, minor bornite and galena (VanTassell, 1973). Grab sampling at one of these returned values from 0.18 to 0.93% copper with 0.06% lead, 0.02% zinc and 0.22 oz/ton silver; a sample from the other returned a value of 0.02% copper. Chalcopyrite occurs within siliceous gneiss with narrow quartz veining (VanTassell, 1973). The zone is described as having “about a(n) 8 inch to 1 foot width with the length being less than 100 feet” (VanTassell, 1973). It is unclear whether the 100-foot strike length refers to the distance between showings, or a zone extending in both directions from one individual showing. Analysis of a sample from the minor malachite about 900 metres to the southwest returned 0.08% copper with 0.12 oz/ton silver.

Also in 1973, systematic soil sampling was conducted across the area hosting the occurrences, and a smaller area to the east, as well as contour soil sampling along three separate elevations. Analysis was done for copper, molybdenum, lead, zinc and silver. United Keno Explorations staff concluded that no important geochemical anomalies were returned.

8.0 Exploration

The 2009 program consisted of a 173 line-kilometre helicopter supported airborne magnetic and radiometric survey. The survey was flown at 100 meter spacing bearing 90°/270°. The report in its entirety is included as Appendix 1. It was flown on August 24th and 25th, 2009.

9.0 Discussion and Conclusions

Almost all of the property is underlain by a Jurassic Aishikik Suite biotite granite intrusion, the same setting as the Klotassin Batholith hosting the Minto deposit. The two intrusive units are of comparable size. Zones of secondary biotite enrichment, favourable for hosting of Minto-style mineralization, occur along the slope directly south of the Yukon River, proximal to the occurrences identified in 1973. The single anomalous 2008 gold value was returned from a similar lithological setting west of the occurrences, also at the base of the steep slope. The alteration suggests the bedrock underlying the slope leading to the river may be prospective for Minto-style mineralization.

The 2009 exploration airborne geophysical program resulted in the identification of a series of moderate strength, NNW trending magnetic anomalies in the vicinity of the historic showings. Minto-style mineralization is frequently associated with moderate to strong magnetic anomalies.

From this information we can conclude that the BOND property has the potential to host Minto-style mineralization due to the existence of strongly foliated biotite rich float material containing copper mineralization initially discovered in 1973 and re-located in 2009 (not discussed in this

report). The mineralization is located down slope from a series of NNW trending, moderately strong, oblong shaped magnetic anomalies.

10.0 Recommendations

Detailed mapping and soil sampling of the steep slope along the Yukon River west of the central creek is required to determine the extent of existing mineralization and possibly to determine the source of the oblong shaped magnetic anomalies and their association, if any, to the copper mineralization.

18.0 References

- Davidson, G.S. 2000: Summary Report on the Sonora Gulch Property, Private report for Engineer Mining Corporation.
- Gordey, S.P. and Makepeace, A.J., (compilers), 2001: Bedrock Geology, Yukon Territory; Geological Survey of Canada, Open File 3754 and Exploration and Geological Services Division, Yukon Indian and Northern Affairs Canada, Open File 2001-1.
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- VanTassell, R.E., 1973: Geological and Geochemical Report on the TUF 1-40 Mineral Claims, Report for United Keno Hill Mines Ltd.
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- Yukon Geological Survey, 2008: Yukon Minfile website, Ministry of Energy, Mines and Resources, Government of Yukon.

Appendix 1



**Airborne Geophysical Survey Report
Bond Property**

Prepared for: Northern Tiger Resources
November 30, 2009



Precision GeoSurveys Inc.
520-355 Burrard Street, Vancouver, Canada V6C 2G8

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1.0 Introduction:

This report outlines the survey operations and data processing actions taken during the airborne geophysical survey flown over the Bond Property. The airborne geophysical survey was flown by Precision GeoSurveys Inc. for Northern Tiger Resources. The geophysical survey, carried out on August 24 and August 25, 2009, saw the acquisition of gamma ray spectrometer data and magnetic data.



Figure 1: Survey lines outlined in red

The Bond property, located along the Yukon River (Figure 1), is located approximately 111 km north-west of Carmacks, YT and 15 km north-east of the Sonora Gulch Camp (Figure 2). The survey area itself is approximately 4.5 km by 3.6 km. A total of 173 line kilometers of radiometric and magnetic data were flown for this survey, this total includes tie lines and survey lines. The survey lines were flown at 100 meter spacing's at a $90^{\circ}/270^{\circ}$ heading; the tie lines were flown at 1 km spacing's at a heading of $0^{\circ}/180^{\circ}$.



Figure 2: Bond survey area location relative to Sonora Gulch Camp and Carmacks, YT.

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 gamma ray spectrometer and magnetic data were collected to serve in the exploration of the Bond property which is host to copper bearing rocks.

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.

3.0 Survey Operations:

Precision GeoSurveys flew the Bond property using a Bell 206 BIII Jet Ranger (Figure 3). 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 for both the spectrometer and magnetometer as they were acquired simultaneously. The average survey elevation was 48.2 meters vertically above ground. 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 3: Bell 206 Jet Ranger equipped with mag stinger for magnetic data acquisition.

The base of operations for this survey was the Sonora Gulch Camp located approximately 106 km north-west of Carmacks, YT. The Precision crew consisted of a total of three members:

Spring Harrison – Pilot
Paula Vera – Co-pilot/operator
Chris Brown – On-site geophysicist

The first day of survey took place on August 24 and August 25, 2009. The survey was completed without any interference from the weather or equipment issues.

4.0 Equipment:

For this survey a magnetometer, spectrometer and a data acquisition system were required to carry out the survey and collect quality, high resolution data.

4.1 AGIS:

The Airborne Geophysical Information System, AGIS, (Figure 4), is the main computer used in data recording, data synchronizing, displaying real-time data for the operator to QC, pilot navigation and pilot display information.



Figure 4: AGIS installed in the Bell 206.

The AGIS was manufactured by Pico Envirotec; therefore the system uses standardized Pico software and external sources 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 survey quality control procedures.

4.2 Spectrometer:

The IRIS, or Integrated Radiometric Information System is a fully integrated, gamma radiation detection system containing two downward facing NaI detecting crystals for a total volume of 8.4 litres (figure 5). 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 elements (K, U, Th, etc.), temperature, 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.

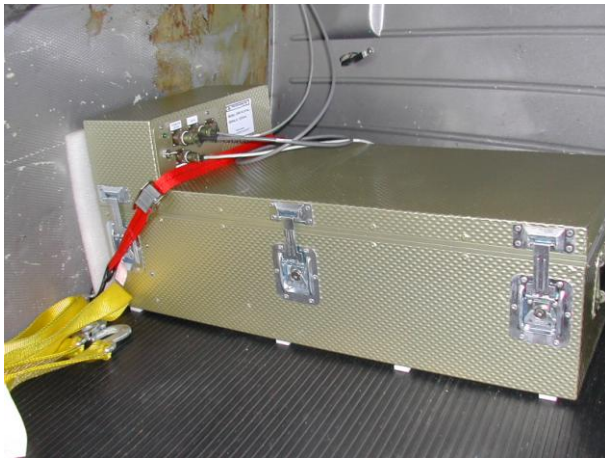


Figure 5: IRIS

strapped into the cargo box of the helicopter.

4.3 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 6). 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 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.



View of the mag stinger.

Figure 6:

5.0 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.

5.1 Magnetic Processing:

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 ($50^{\circ}/230^{\circ}$ and $140^{\circ}/320^{\circ}$ in the case of this survey) at an elevation where there is no ground effect in the magnetic data. In each heading roll, pitch and yaw maneuvers are performed by the pilot, these maneuvers provide the data that is required to calculate the necessary parameters for compensating the magnetic data. A computer program called PEIComp is used to create a model 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.

A magnetic base station is set up before every flight to ensure that diurnal activity is recorded during the survey flights. Precision GeoSurveys uses a Geometrics 858 base station and sampled at 0.1Hz. Base station readings were reviewed at regular intervals to insure 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.

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 are 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 filters simply smoothes out the magnetic profile to remove isolated noise.

A lag correction was applied to the total magnetic field data to compensate for the lag in the recording system as the magnetometer sensor flies 6.45 m ahead of the GPS antenna. Following a lag correction of 1.7 seconds, a low-pass filter equivalent to 1 second was then applied to the lag corrected data.

5.2 Radiometric Processing:

Radiometric data are processed by windowing the full spectrum to create channels for U, K, Th and total count. The data are then lightly filtered and corrected for survey altitude at standard temperature and pressure. Background radioactive contributions from the aircraft, cosmic radiation and atmospheric radon must also be removed. Finally the data are corrected by removing spectral overlap; this is done using the striping ratios that have been calculated for the spectrometer by prior calibration, this breaks the corrected elemental values down to the apparent radioelement concentrations.

5.3 Final Data Format

X – Easting in NAD83, UTM zone 8N
Y – Northing in NAD83, UTM zone 8N
utctime – UTCtime
basemag – diurnal data
mag – total magnetic field
lalt – laser altimeter readings
tc_cor – corrected total count
eK – percent potassium
eU – equivalent uranium
eTh – equivalent thorium

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. Two separate files will be provided for each format, one for the magnetic and one for the radiometrics.

Appendix A
Maps

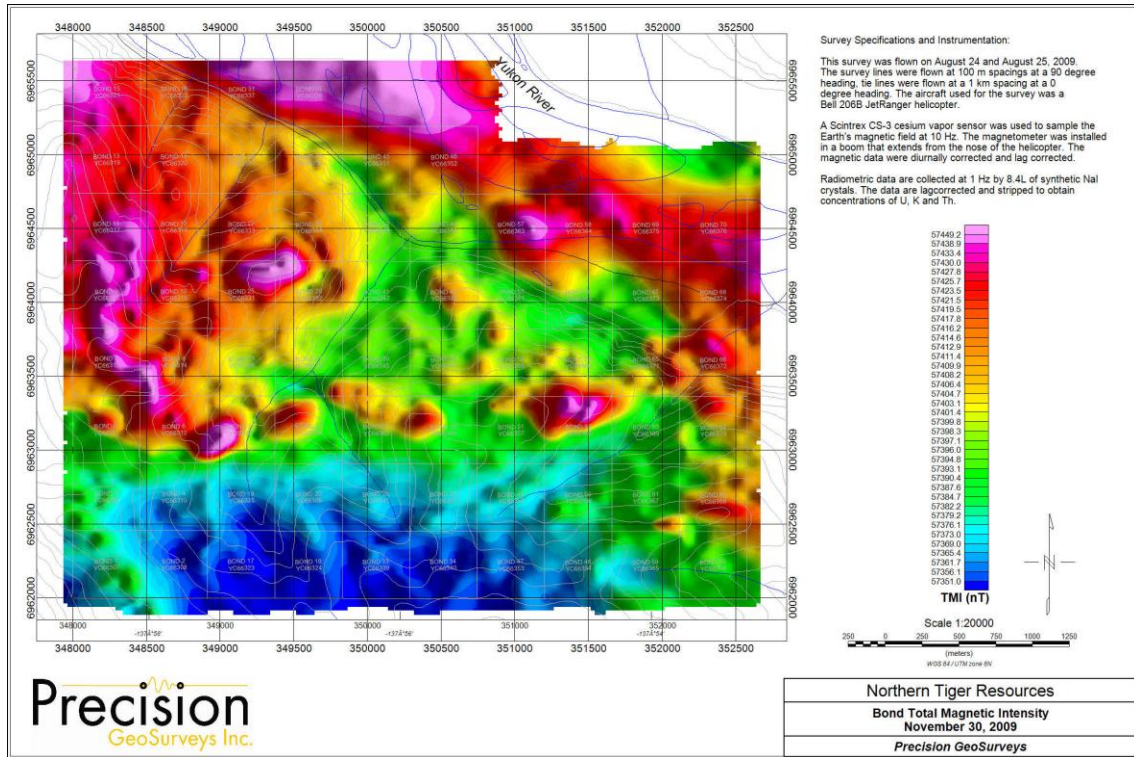


Figure 1: Bond total magnetic intensity.

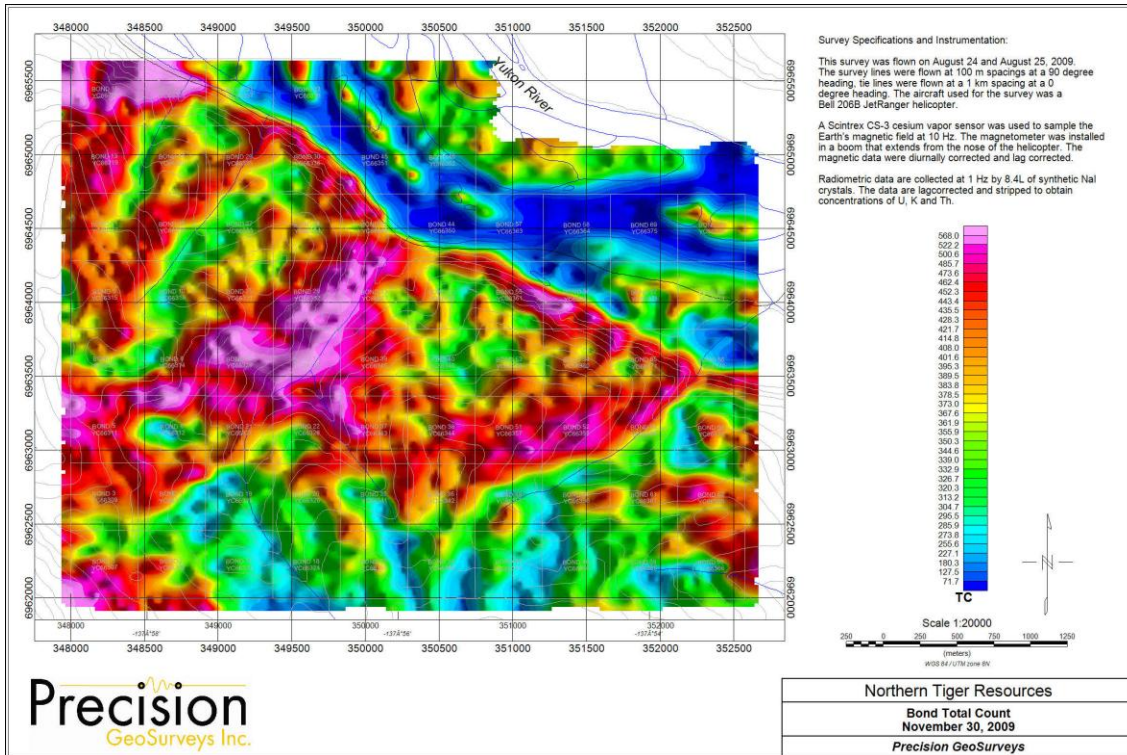


Figure 2: Bond total count.

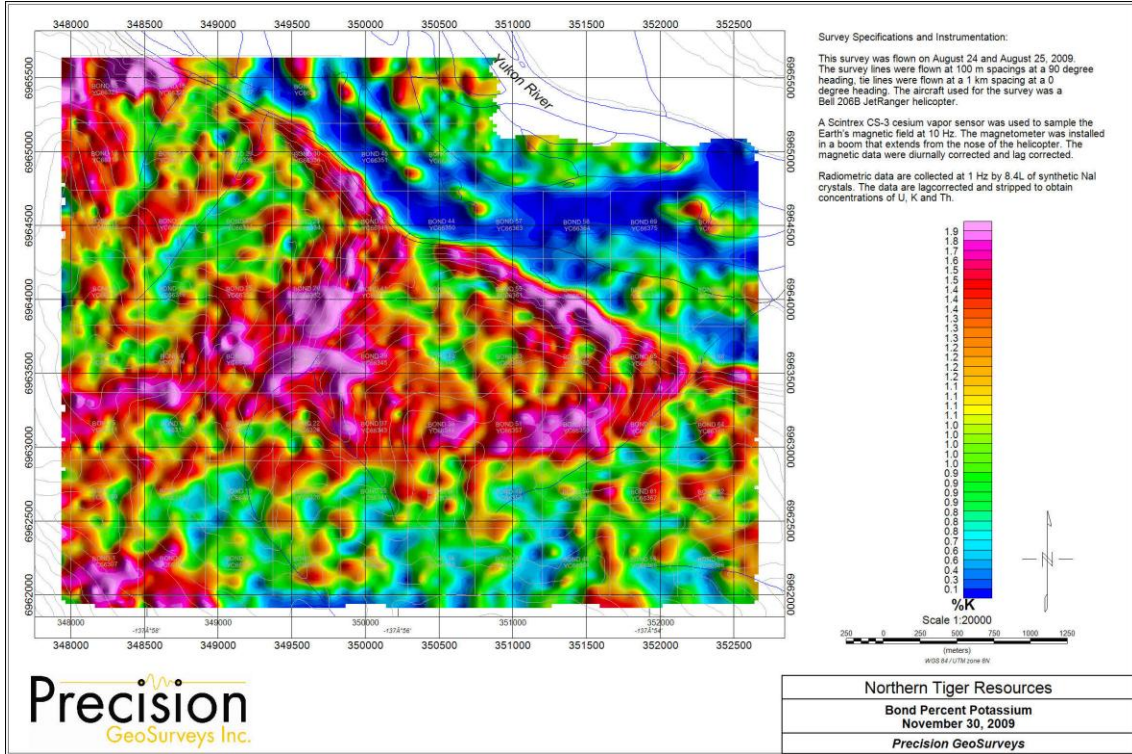


Figure 3: Bond percent potassium

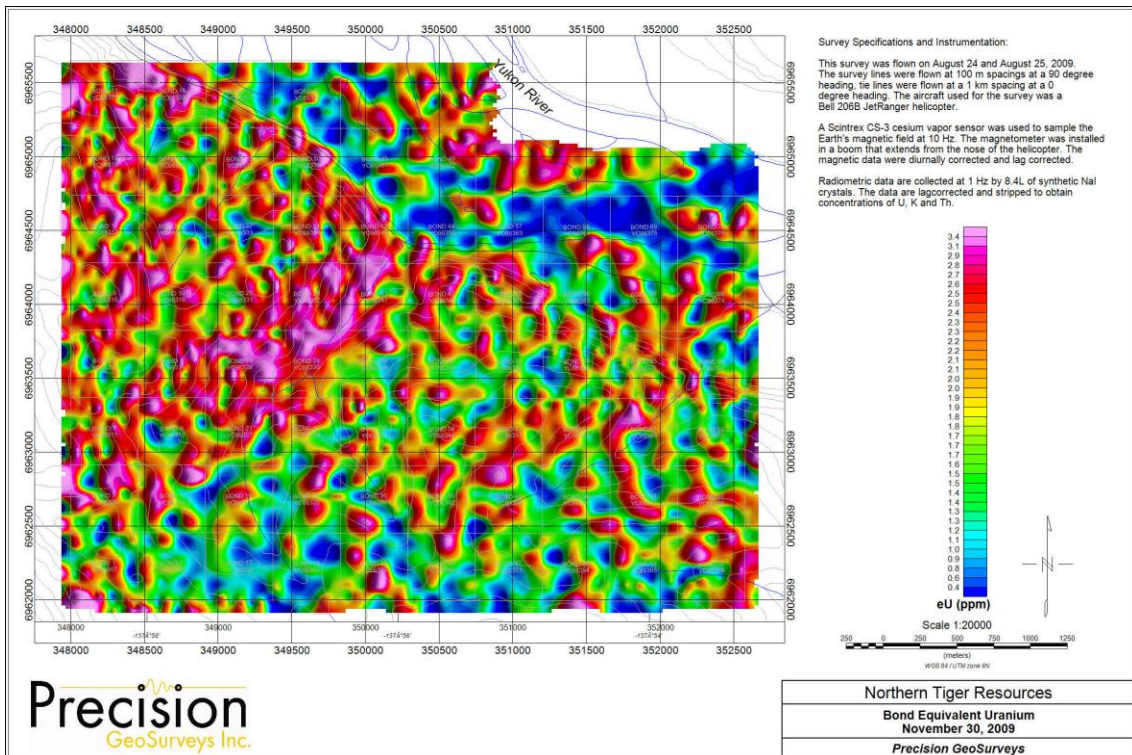


Figure 4: Bond equivalent uranium

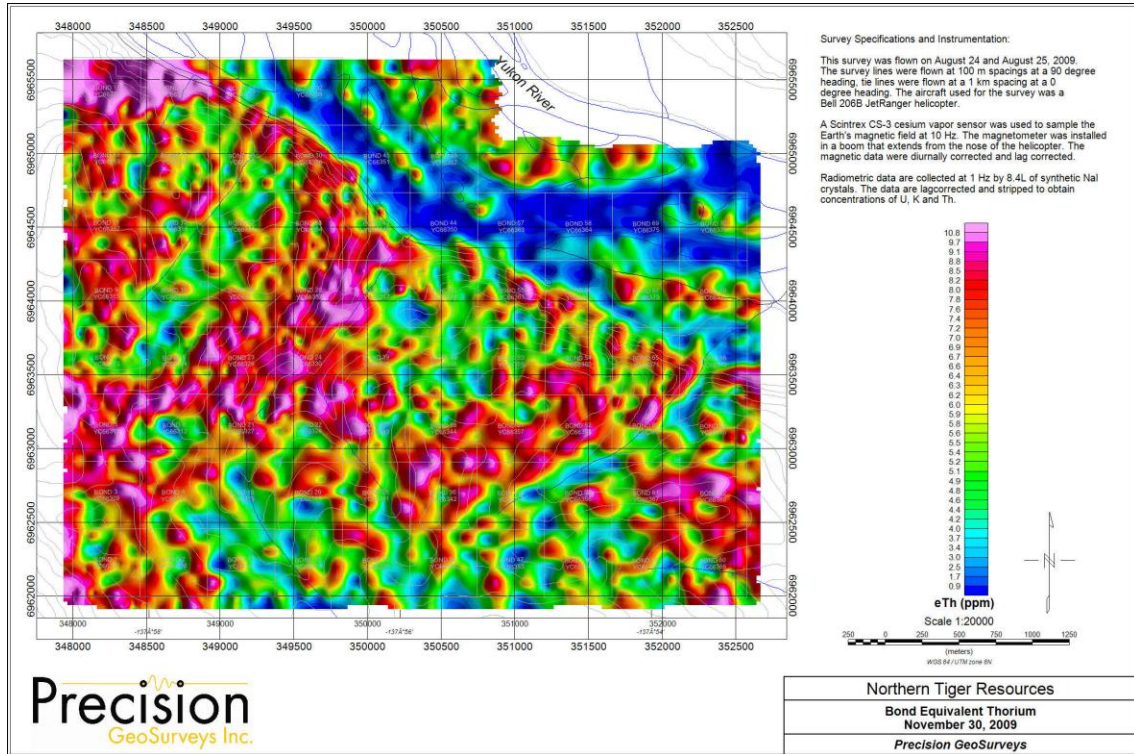


Figure 5: Bond equivalent thorium

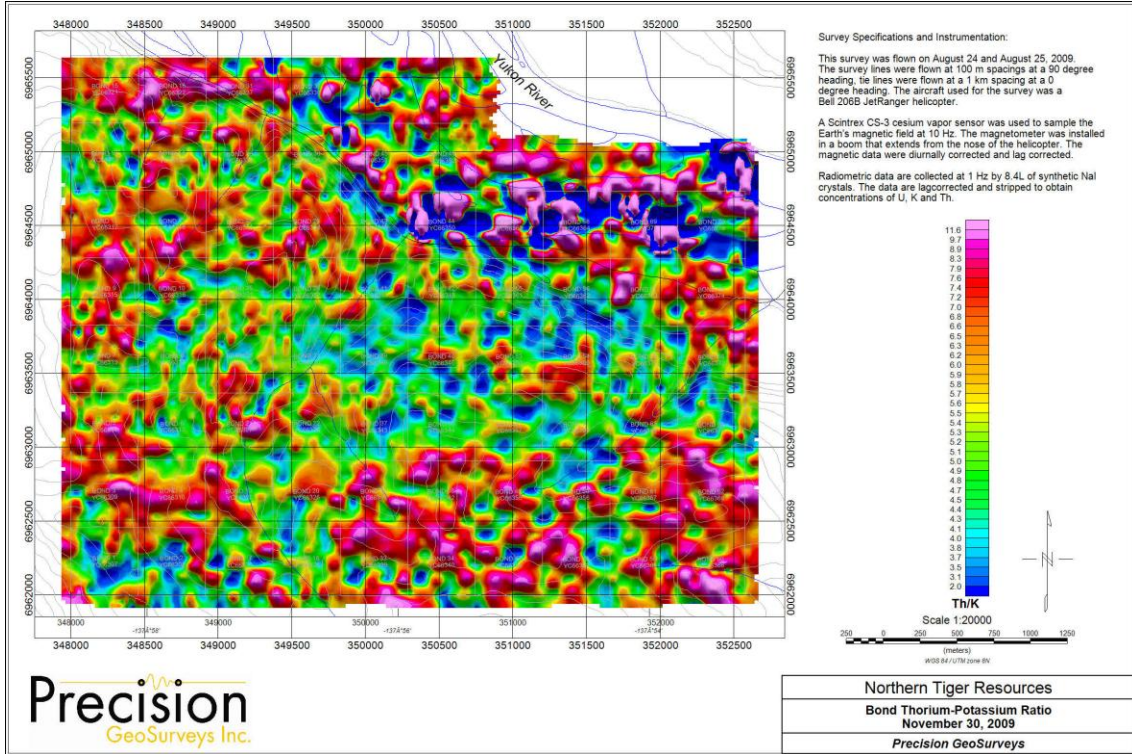


Figure 6: Bond Thorium/Potassium Ratio

Appendix 2. Certificate of Author

I, Dennis J. Ouellette, PGeol, hereby certify that:

- 1) I am a self-employed Consulting Geologist of Tigerstar Geosciences.
- 2) I graduated with a Bachelor of Science Degree in geology from Brandon University, Brandon, Manitoba, in 1984.
- 3) I am a member in good standing of the Association of Professional Engineers and Geologists and Geophysicists of Alberta (APEGGA).
- 4) I have worked as a geologist for a total of 25 years since my graduation from Brandon University.
- 5) I was responsible for the supervision of the 2009 program on the BOND property.
- 6) I consent to the filing of the Technical Report with the Mining Recorder's Office, Ministry of Energy, Mines and Resources, Government of Yukon.

Dated this 14th Day of April, 2010.

"Dennis Ouellette"

Dennis Ouellette, BSc, PGeo
Address: 34 1780 Glastonbury Blvd
Edmonton, Alberta T5T 6P9
Telephone: 780-930-1485
E-mail: djmo@telus.net

**Appendix 3: Work Performed,
2009 Program**

BOND 1-70 Claims, Northern Tiger Resources Inc.

Type of Work	No. of Units	Value/Unit	Value
Wages, Project Geologist:	4	\$ 450.00	\$ 1,800.00
Camp costs (pro-rated)	12	\$ 50.00	\$ 600.00
Precision Geosurvey:	173	\$ 72.00	\$ 12,470.00
Pre-survey drafting (Stewart Basin):	1	\$ 520.00	\$ 520.00
Report writing, digitizing (estimate):	2	\$ 450.00	\$ 900.00
Totals:			\$ 16,290.00