NORTHERN TIGER RESOURCES INC.

Yukon Assessment Report

on the

2011 Airborne Geophysical Survey
Spade Property
Southeastern Yukon

YD116575-YD116610 (Joker 1-36)

NTS 105H08
UTM (NAD 83): 738724 E, 761473.26 N, Zone 9
Watson Lake Mining District

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April 20, 2012

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1.0 Summary

The Spade 1-40 claims were staked as one of seven “satellite” properties of the Northern Tiger owned 3Ace property, which is located approximately 50 km north of Spade. These “satellite” properties were staked on the basis of anomalous stream sediment samples from the Yukon geological survey’s 2003 regional geochemical survey (Heon, 2003) and the current understanding of the regional geology and structural conditions.

The 2011 field season consisted of a helicopter-borne magnetics, electromagnetics and radiometrics survey that was completed in coincidence with the airborne geophysics completed at 3Ace. The survey was originally planned to obtain coverage for all of the satellite properties however, inclement weather cut the program short with only the Spade, Flush and Royal properties having been flown.

The geophysical survey on the Royal claims represents the first work ever done on this claim block. It was completed by Precision GeoSurveys Inc. between September 13 and September 15, 2011. The surveyed block was approdimately 5.5 km by 4.5 km and was flown at a 100 m line-spacing at 090°/270° heading. The survey consisted of a total of 270 line kilometers.

While the geophysics provides the first information available about the claim block surface work on the ground is required before anything can be said about the property and its mineralisation potential. It is recommended that the next field season be opened with a preliminary prospecting and property-scale mapping program. Depending on the amount of outcrop available it may prove necessary to supplement this with soil and/or stream geochemistry. It is recommended that for at least one of the satellite properties an orientation soil survey be completed to determine which soil horizon best reflects the underlying bedrock geology.

2.0 Introduction

The Spade 1-40 claims were staked as one of seven “satellite” properties of the Northern Tiger owned 3Ace property, which is located approximately 50 km north of Spade. These “satellite” properties were staked on the basis of anomalous stream sediment samples from the Yukon geological survey’s 2003 regional geochemical survey (Heon, 2003) and the current understanding of the regional geology and structural conditions.

The 2011 field season represented the first exploration to have been conducted on the property and consisted of a helicopter-borne magnetics, electromagnetics and radiometrics survey that was completed in coincidence with the airborne geophysics completed at 3Ace. The survey was originally planned to obtain coverage for all of the satellite properties however, inclement weather cut the program short with only the Spade, Flush and Royal properties having been flown.

4.0 Property Description and Location

4.1 Claims

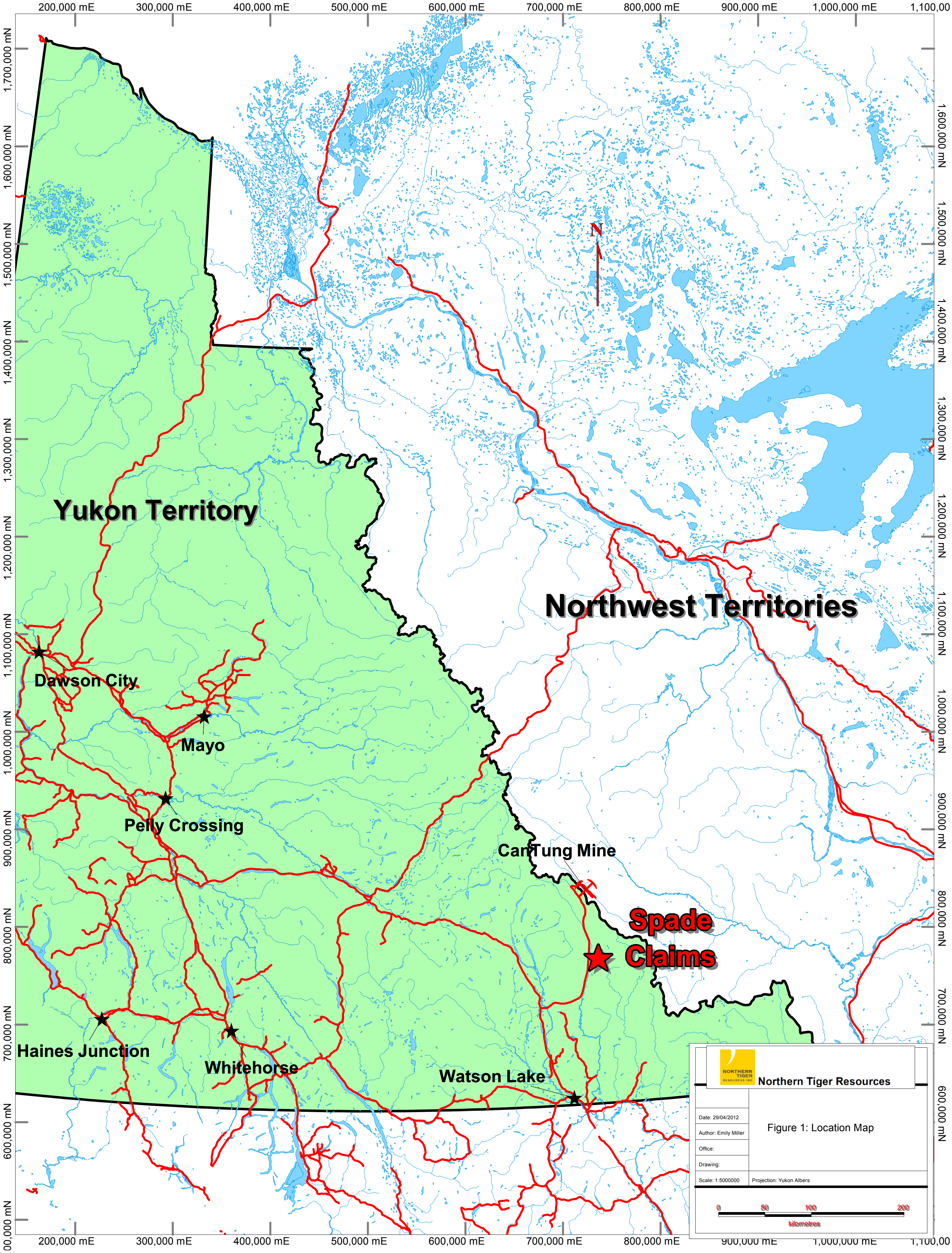
The Spade property is located in the far southeast of the Yukon Territory, approximately 140 kilometres northeast of Watson Lake, Yukon and is roughly 50 kilometres west of the border with the Northwest Territories (Figure 1). The property consists of 40 contiguous Yukon quartz mining claims covering 831.3 hectares. These claims are shown in Figure 2 and listed in Table 1. The property is centered at approximately 738724 E, 761473.26 N (UTM NAD83, Zone 9). This claim package is 100% owned and operated by Northern Tiger Resources Inc.

The property is a small prospect, staked due to a regionally favourable geological location along strike lengths from Northern Tiger's 3Ace property correlated with promising stream sediment values from the government's 2003 regional stream sediment sampling program (Heon, 2003). There has been no record of previous exploration work on the property and, as such, the current exploration consists of grass roots activities designed to determine the potential favourability of the claim blocks and surrounding areas. The property is accessible only from helicopter and all work during the 2011 field season was based out of Northern Tiger's 3Ace camp.

Table 1: Spade Claims

Grant Numbers	Claim Name	Expiry Date
YD112011-YD112050	Spade 1-40	11/15/2015

*Pending acceptance of this filing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800,000 mN
700,000 mN
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N
Yukon Territory
Northwest Territories
Dawson City
Mayo
Pelly Crossing
CanTung Mine
Spade Claims
Haines Junction
Whitehorse
Watson Lake
Northern Tiger Resources
Date: 29/04/2012
Author: Emily Miller
Office:
Drawing:
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Projection: Yukon Albers
Figure 1: Location Map
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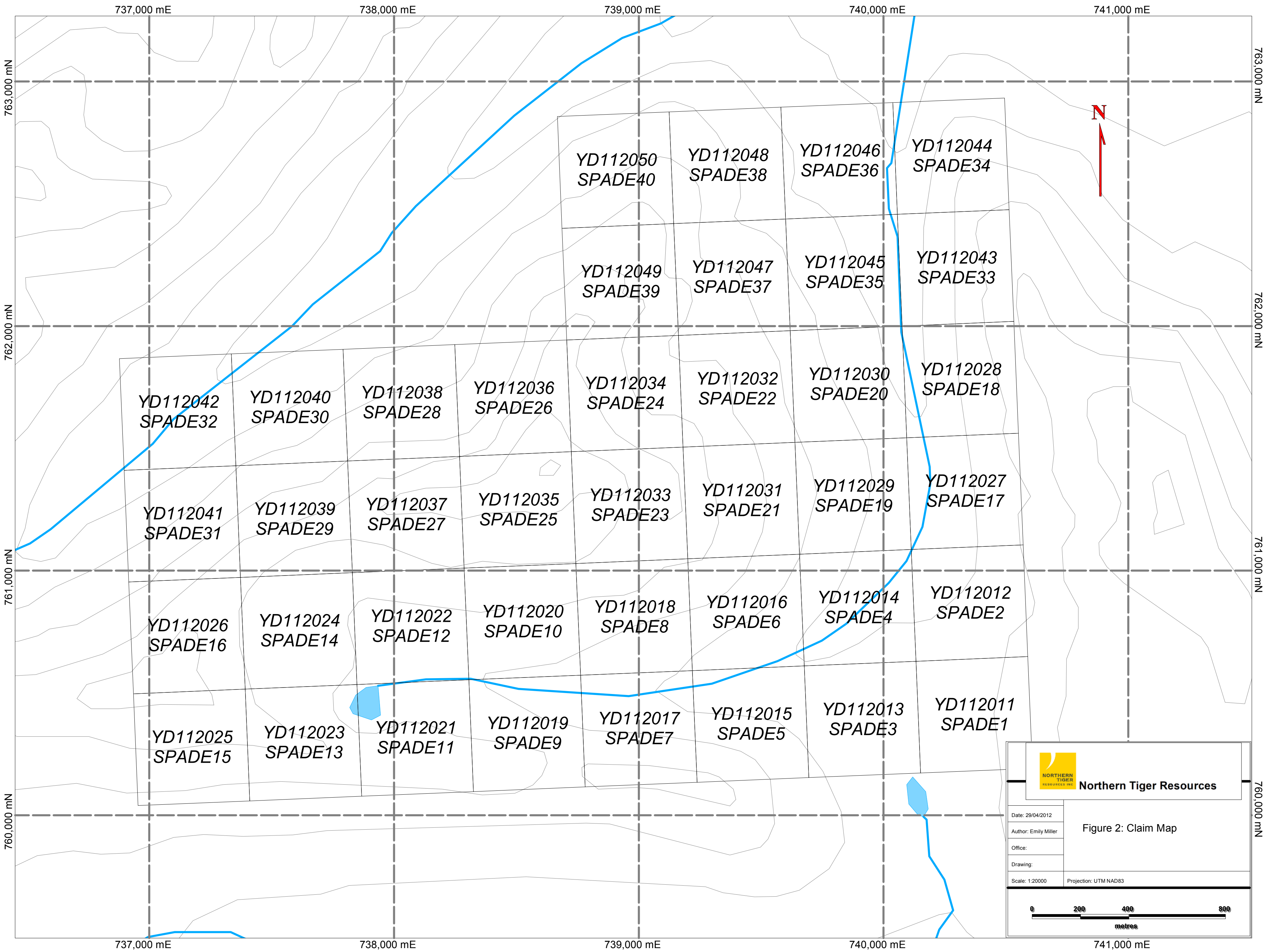
kilometres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YD112048 SPADE38
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YD112019 SPADE9
YD112017 SPADE7
YD112015 SPADE5
YD112013 SPADE3
YD112011 SPADE1
Northern Tiger Resources
Date: 29/04/2012
Author: Emily Miller
Office:
Drawing:
Figure 2: Claim Map
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metres

4.2 Physiography and Climate

The Spade Property is located in the rugged glaciated terrain typical of the Selwyn Mountains and is centered around a fast flowing, deep creek that is a major tributary to Green Creek (Figure 3). Elevations range from 1,140 meters in the valley to 2,000 at the peak in the center of the property.

The climate is typical of the south-eastern Yukon (Table 2), with short, warm summers spanning from June to August, with highly variable daily temperatures, often ranging 10 degrees between daytime peaks and night time lows. As with most of the Yukon the long winters are marked with temperatures generally below -20°C and with an average snow depth of 40cm with maximum depths reached in February (Canadian Weather Office, 2012). Most of the snow melt occurs in April. The nearest weather station at Watson Lake provides the best data on climate and weather reports for the property. The Field Season typically stretches from late May to mid-October. The climate data used in this report is sourced from Environment Canada's Weather Office.

Table 2: Watson Lake Climate Data

	(June-August) **Summer**	*(September-October)* **Fall**	*(November-February)* **Winter**	*(April-May)* **Spring**	***Annual***
Average T (°C)	13.6 °C	3.5 °C	-19.9 °C	3.7 °C	*-2.9 °C*
Average Daily High	19.8 °C	8.35 °C	-14.5 °C	10.2 °C	*3.1 °C*
Average Daily Low	7.3 °C	-1.4 °C	-25.25 °C	-2.9 °C	*-8.8 °C*
Average Total Rainfall (mm)	156.3 mm	58.5 mm	0.8 mm	39.3 mm	*255.2 mm*
Average Total Snowfall (cm)	0.3 cm	23.5 cm	136.7 cm	16.1 cm	*196.5 cm*
Average Snow Depth	0 cm	1 cm	38.75 cm	16.5 cm	*21 cm*
Total Average Precipitation (mm)	156.5 mm	78.6 mm	101 mm	53.8 mm	*404.4 mm*

4.3 Access, Infrastructure and Local Resources

The Joker property is located approximately 12 km off of the Cantung mining road off of the Campbell Highway from Watson Lake and is currently accessible only by helicopter. Heavy forestation means that most landing sites are in close proximity to the creek that bisects the property.

Watson Lake, with a population of approximately 1500 (Yukon Bureau of Statistics, 2011), is the nearest full service community and is accessed by the Alaska Highway, a major all-weather highway extending from Whitehorse. Services from Watson include food, accommodation, hardware supplies, fuel, helicopter and fixed wing services and government services.

The 2011 exploration activities were carried out from the Northern Tiger's nearby 3Ace camp and did not include any ground work. No buildings, tents or supplies were brought to or left on site.

5.0 History

The Spade 1-40 claims were staked, along with several other small ‘satellite properties’, in 2010 by Northern Tiger Resources Inc. based on the 3Ace high-grade gold discovery in 2006. Their location was chosen on the basis of anomalous stream sediment samples (Figure 3) from the Yukon geological survey’s 2003 regional geochemical survey (Heon, 2003) and the current understanding of the regional geology and structural conditions.

Spade was staked as one of 7 satellite properties of the Northern Tiger owned 3Ace property. The 3Ace property area, located approximately 50 km north of Spade, was originally explored by Hudson Bay Exploration in the late 1990s during which time soil grids delineated high gold anomalies. After the original claims were allowed to lapse due to decreased interest in gold, Alex McMillan, a Yukon prospector, staked a series of claims that has now become the 3Ace property. After his discovery of a large quartz vein with abundant visible free gold, Northern Tiger Resources optioned the property from him in 2010.

There has been a long standing tradition of exploration within the rocks of the Selwyn Basin in the Yukon. Historically, most of this exploration was focused on stratabound exhalative lead and zinc deposits, with lesser tungsten, and silver deposits and one notable jade mine (The King Arctic Mine). Most of the historic work in the region began in the 1950s when exploration, which was originally focused on copper, revealed the massive sulfide lead-zinc and tungsten deposits scattered throughout the region (Cantung 43-101). The nearest mine to the property is the Cantung tungsten mine, located 140 km northeast of the Joker property that was operational between the years of 1962 and 1968. It was closed down due to low tungsten prices but was recently reopened by the North American Tungsten Corporation in 2001 and remains in production to this day.

The only other notable gold prospect currently known in the area is the Harlan deposit. Despite its relatively short history, the Harlan property has changed hands quite rapidly since its discovery and staking in 1997 by Viceroy Exploration. After one field season consisting primarily of geochemical and geophysical work NovaGold Resources Inc. acquired 100% interest in the Harlan Property in 1999. NovaGold conducted a geological and geochemical evaluation of the property and the property lay dormant for several years. In 2005, in response to rising interest in exploration within the Yukon and increasing commodity prices, Alexco Resources Inc. acquired the Harlan Property and carried out geologic mapping, soil sampling and ground magnetic surveying in 2006. Most recently Golden Predator signed an option agreement with Alexco in 2010 and the exploration is still ongoing. Unlike at the 3Ace property the gold on the Harlan property seems to be associated with elevated bismuth and appears to have a close spatial correlation with abundant Tombstone-aged intrusions (Shulze & Johnson, 2000).

Despite the history of work in the region, the Joker property has no history of work apart from the regional government survey work and, as such, is a grass-roots prospect.

6.0 Geological Setting

6.1 Regional Geology

The property is underlain by rocks of the Selwyn Basin. The Selwyn Basin is a strongly deformed and thrust faulted package that is sandwiched between the Mackenzie foreland fold-and-thrust belt and the displaced elements of the ancient North American continental margin (Mair, et al., 2006). The rocks of the Selwyn basin represent shallow-shelf to off-shelf marine clastic and sediments of Neoproterozoic to Jurassic age (Shulze & Johnson, 2000) and were deposited in a divergent margin setting (Mair, et al., 2006). While the Selwyn Basin has seen less concentrated study than the neighbouring Tintina rocks, several workers, most notably John Mair and Craig Hart, have made efforts to consolidate the geological and tectonic history of the Selwyn Basin.

Most of the western Selwyn Basin is underlain by the Neoproterozoic to Early Cambrian Hyland group, which consists predominantly of gritty quartz sandstone, shale and carbonate rocks. Gordey and Anderson (1993) have interpreted this package of rock as belonging to a broad turbidite fan. Overlying the Hyland Group is the Cambrian to Middle Devonian Gull Lake Formation, a thick succession consisting primarily of shale that likely represents basinal sediments. This is, in turn, overlain by the Rabbitkettle Formation, which consists of Late Cambrian to Early Ordovician laminated silicious limestones to siltstones and the Early Ordovician to Early Devonian Road River group carbonaceous shales, cherts and dolomitic mudstones (Mair, et al., 2006).

The style of sedimentation shifted in the Early to Middle Devonian with the onset of rifting. This resulted in the formation of uplifted blocks and fault-bound basins. During these rifting events the Earn group, characterised by complex stratigraphy including internal unconformities and rapid facies changes, was deposited in the deep, restricted basins that resulted (Mair, et al., 2006). Overlying the Earn group are isolated belts of Mississippian aged quartz-rich clastic rocks including the Keno Hill Quartzite, Tsichu Group and Globe Quartzite.

During the development of the Selwyn Basin, there were three basic alkali volcanic episodes in the Cambrian, Early to Middle Ordovician and Middle to Late Devonian. This volcanism is thought to coincide with a subsiding continental margin setting with intermittent rifting and extension. It was during these episodes that most of the shale-hosted Pb-Zn ± Ba deposits found throughout the region were formed (Mair, et al., 2006).

Orogenesis commenced with the closing of the Slide Mountain Ocean in the Permian and the subsequent accretion of the allocthonous Yukon Tanana Terrane which is estimated to have continued into the middle Triassic (Beranek & Mortensen, 2008). The ongoing accretion of the Yukon Tanana Terrane placed the strata of the Selwyn Basin well inboard of the continental margin and resulted in large scale thrusting and folding to accommodate the shortening (Mair, et al., 2006). Within the rocks of the Selwyn Basin, most of the shortening was accommodated along two gently dipping detachments, the Robert Service and Tombstone thrust faults. While the Dawson thrust fault, also a major regional scale fault, is thought to be a basin-bounding normal fault present during the deposition of the Selwyn basin rocks that was reactivated during the orogeny, shows significantly less reverse displacement than the Robert Service and Tombstone thrusts. The initial shortening was oriented broadly orthogonal to the continental margin which then transitioned to NW directed movement during the later stages of deformation.

Unlike in the nearby Yukon Tanana terrane, the mid-Cretaceous magmatism of the Tombstone-Tungsten magmatic belt throughout the Selwyn followed the end of ductile deformation (Mair, et al., 2006). Further to the west in the core of the orogen the mid-Cretaceous magmatism was associated with a NS-SE –oriented, post-collisional extension. This extension is thought to have driven the NW-directed shear that resulted in the creation of many late dextrally offset faults including the large offset observed on the reactivated Tintina Fault (Mair, et al., 2006).

6.2 Property Geology

There has been no property-scale mapping completed on the Spade claim blocks to date. The only geological information currently available is sourced from the Yukon Geological Survey bedrock mapping (Gordey & Makepeace, 1999). This mapping shows that theclaim block is predominantly underlain by Upper Proterozoic to Lower Cambrian Highland Group sedimentary rocks (Figure 4).

Table 3: Regional Geology Legend

QUATERNARY	**Quaternary**	**Q**	unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits
MID-CRETACEOUS	**Selwyn Suite Plutonics**	**mKSg**	resistant, blocky, fine to coarse grained equigranular to porphyritic (K-feldspasr) biotite quartz monzonite and granodiorite and minor quartz diorite; minor leuco-quartz monzonite and syenite **(Selwyn Suite)**
DEVONIAN AND MISSISSIPPIAN	**Earn**	**DME**	complex assemblage of submarine fan and channel deposits (1), (5) within black siliceous shale and chert (2), (4) and including separated small occurrences of felsic volcanic rocks (3); barite common, and many occurrences of stratiform Pb-Zn
SILURIAN TO MIDDLE DEVONIAN	**McEvoy**	**SDM**	buff, platy siltstone (1) overlain by carbonate and quartzite (2)
ORDOVICIAN TO LOWER DEVONIAN	**Road River - Selwyn**	**ODR**	black shale and chert (1) overlain by orange siltstone (2) or buff platy limestone (3); locally contains beds as old as Middle Cambrian (4); correlations with basinal strata in Richardson Mountains include: ODR1 with CDR2 (upper part) and ODR2 with CDR4 **(Road River Gp.)**
UPPER CAMBRIAN AND ORDOVICIAN	**Rabbitkettle**	**COR1**	thin bedded, wavy banded, silty limestone and grey lustrous calcareous phyllite; limestone intraclast breccia and conglomerate; massive to laminated, grey quartzose siltstone and chert and rare black slate; local mafic flows, breccia, and tuff **(Rabbitkettle)**
LOWER CAMBRIAN	**Sekwi**	**lCS**	limestone, locally wavy bedded and nodular; limestone conglomerate slope breccia; massive grey dolostone; medium- to thick-bedded quartz sandstone; purple siltstone; bright orange weathering, fine crystalline dolostone **(Sekwi)**
UPPER PROTEROZOIC TO LOWER CAMBRIAN	**Hyland**	**PCH**	consists upwards of coarse turbiditic clastics (1), limestone (2) and fine clastics typified by maroon and green shale (3); may include younger (4) units; includes scattered mafic volcanic rocks (5) **(Hyland Gp.)**
UPPER PROTEROZOIC TO LOWER CAMBRIAN	**Vampire**	**uPCV**	dark brown weathering. thin-bedded, argillaceous fine-grained sandstone and siltstone, minor interbedded medium- to coarse grained white to light grey orthoquartzite; phyllite, slate, and argillite **(Vampire)**

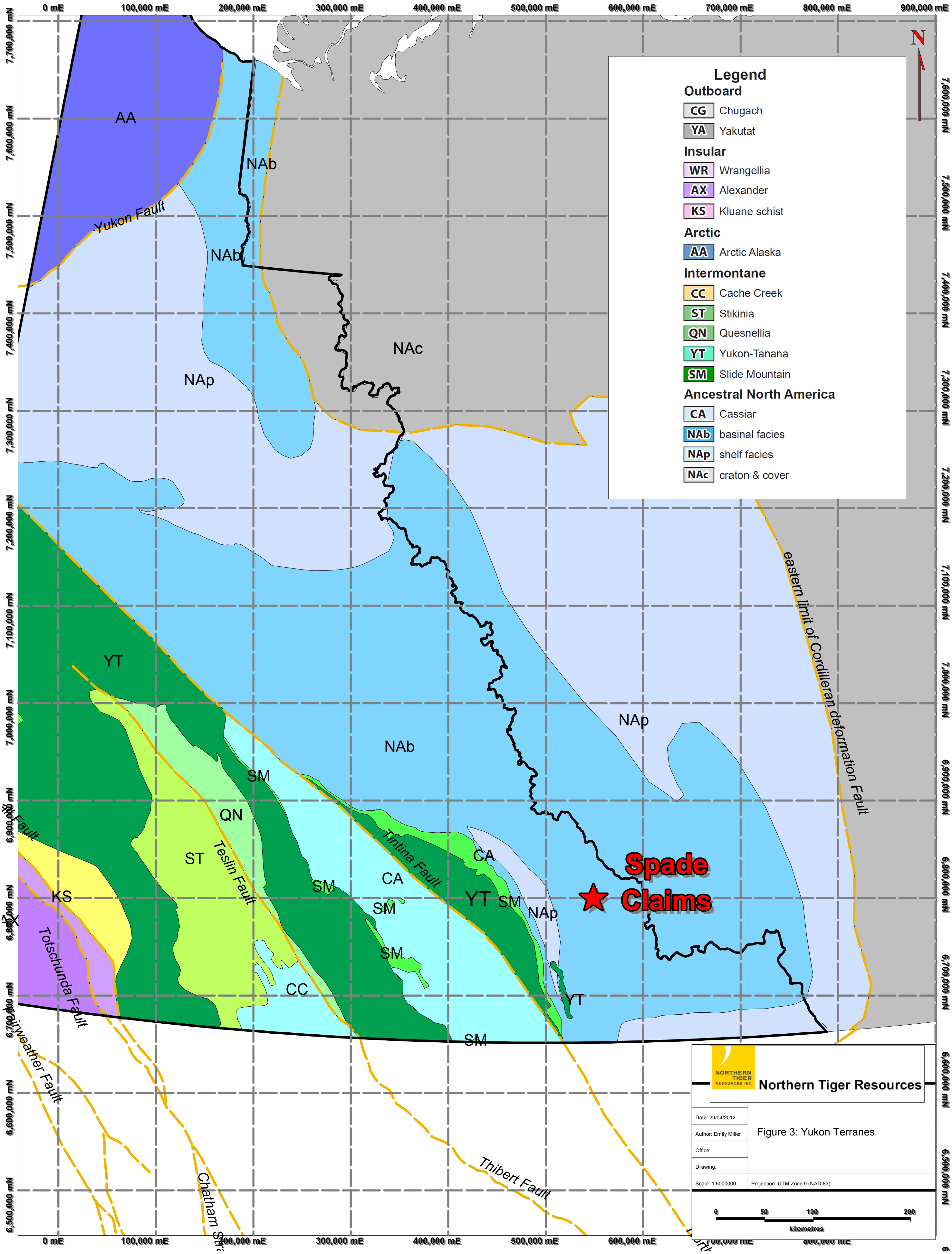


Figure 3: Yukon Terranes

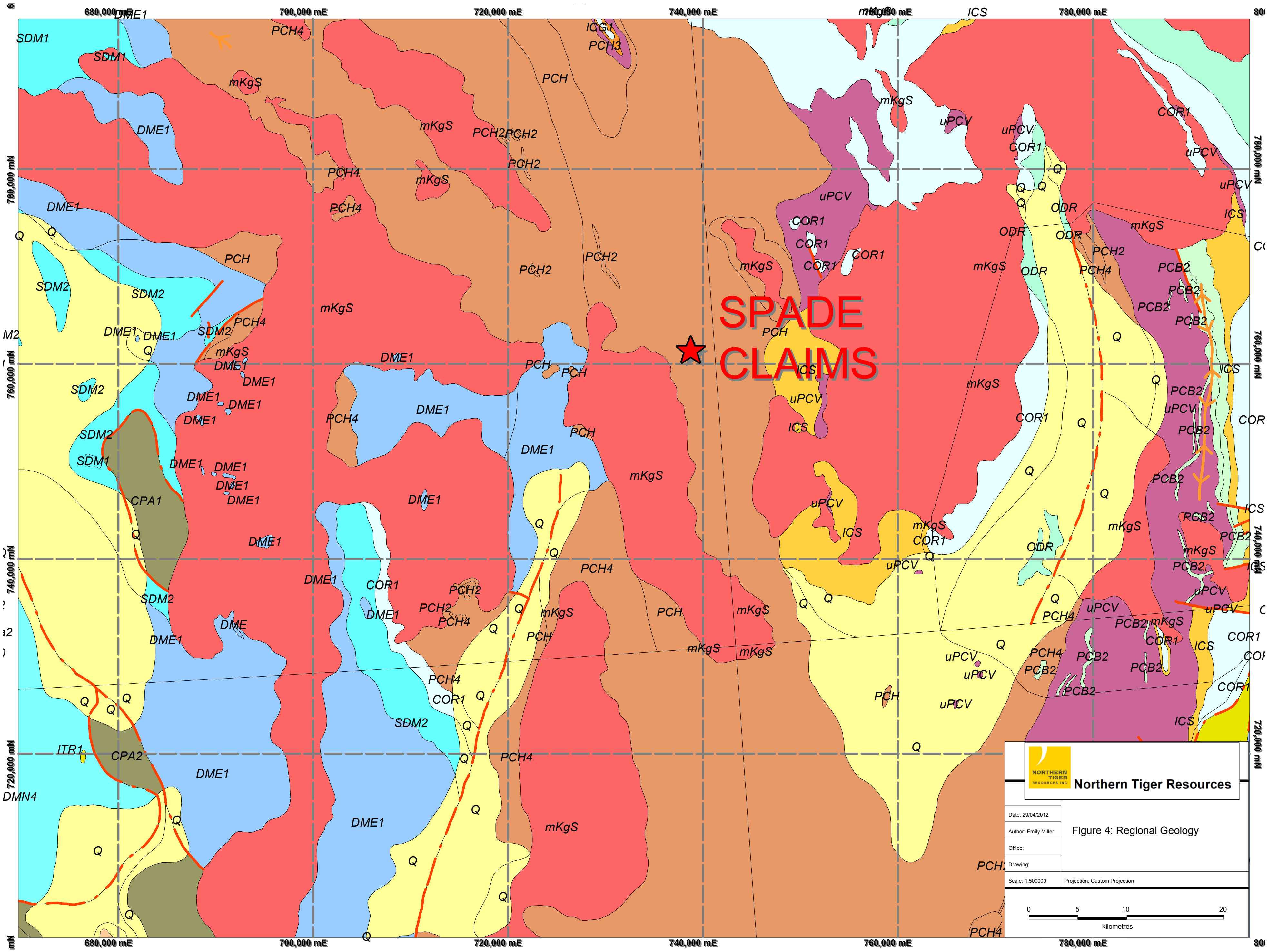


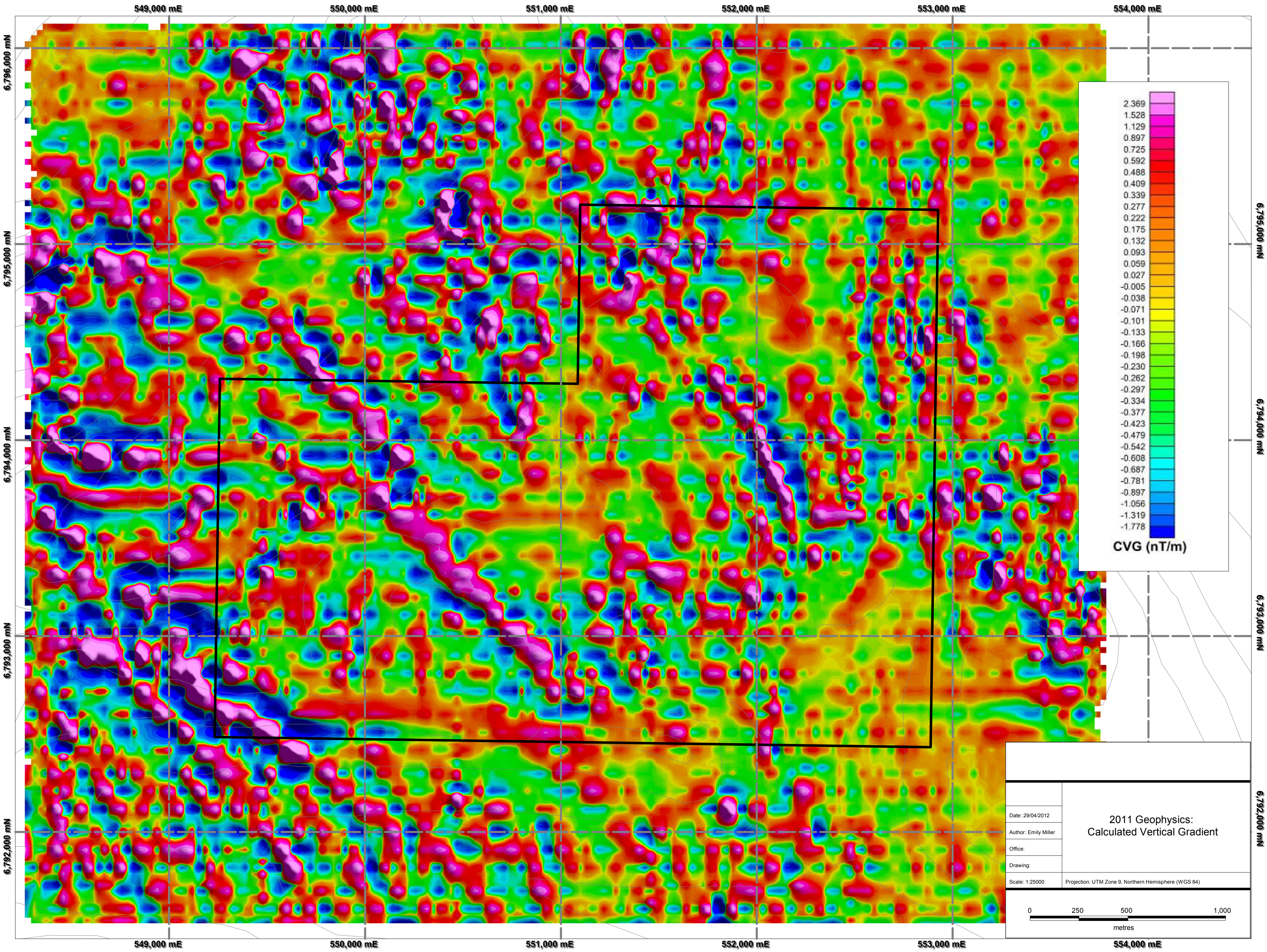
Figure 4: Regional Geology

7.0 2011 Airborne Geophysics

As well as flying a portion of the nearby 3Ace property, three of the satellite properties, the Royal, Flush and Spade, were flown for high resolution magnetics and radiometric data. The geophysical survey on the Royal claims represents the first work ever done on this claim block. It was completed by Precision GeoSurveys Inc. between September 13 and September 15, 2011. The surveyed block was approdimately 5.5 km by 4.5 km and was flown at a 100 m line-spacing at 090°/270° heading. The survey consisted of a total of 270 line kilometers. The complete technical specs of the survey are included in the survey report attached in Appendix 3.

The geophysical work completed over the Spade property showed high to moderate magnetics in the central northern and eastern extents with several smaller wavelength, high-magnetics showing a trend of ~310° (Figure 6). The western extent of the claims shows very low magnetics while the south shows moderate to low magnetics. In the eastern portion of the property a slightly curving linear low cuts the high. This shows up on the vertical gradient (Figure 5) as a linear high that trends from approximately 30° in the southern portion of the claim block to essentially N-S in the northern extent, this may be simply due to the fault curving around topography. Apart from this linear the property shows a generally flat gradient except along the edges of the central high magnetic signature. Otherwise, the property contains only minor high amplitude low wavelength magnetic anomalies.

The low gradient, moderate to high magnetics dominating the central to northern portion of the property are suggestive of a larger intrusive or other magnetic-bearing structure. The minor, pod-like, high-amplitude, low-wavelength magnetic highs that trend approximately 310° may represent a dyke swarm or other magnetics bearing feature. These higher magnetics, if they do indeed indicate the presence of intrusives, may represent smaller offshoots of the nearby mid-Cretaceous granite seen on the government geology to the south-west of the claim block. The low magnetics in the southern portion of the claim block are suggestive of the turbiditic clastics and/or limestones of the Hyland Group rocks that dominate the region.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0.175
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Author: Emily Miller
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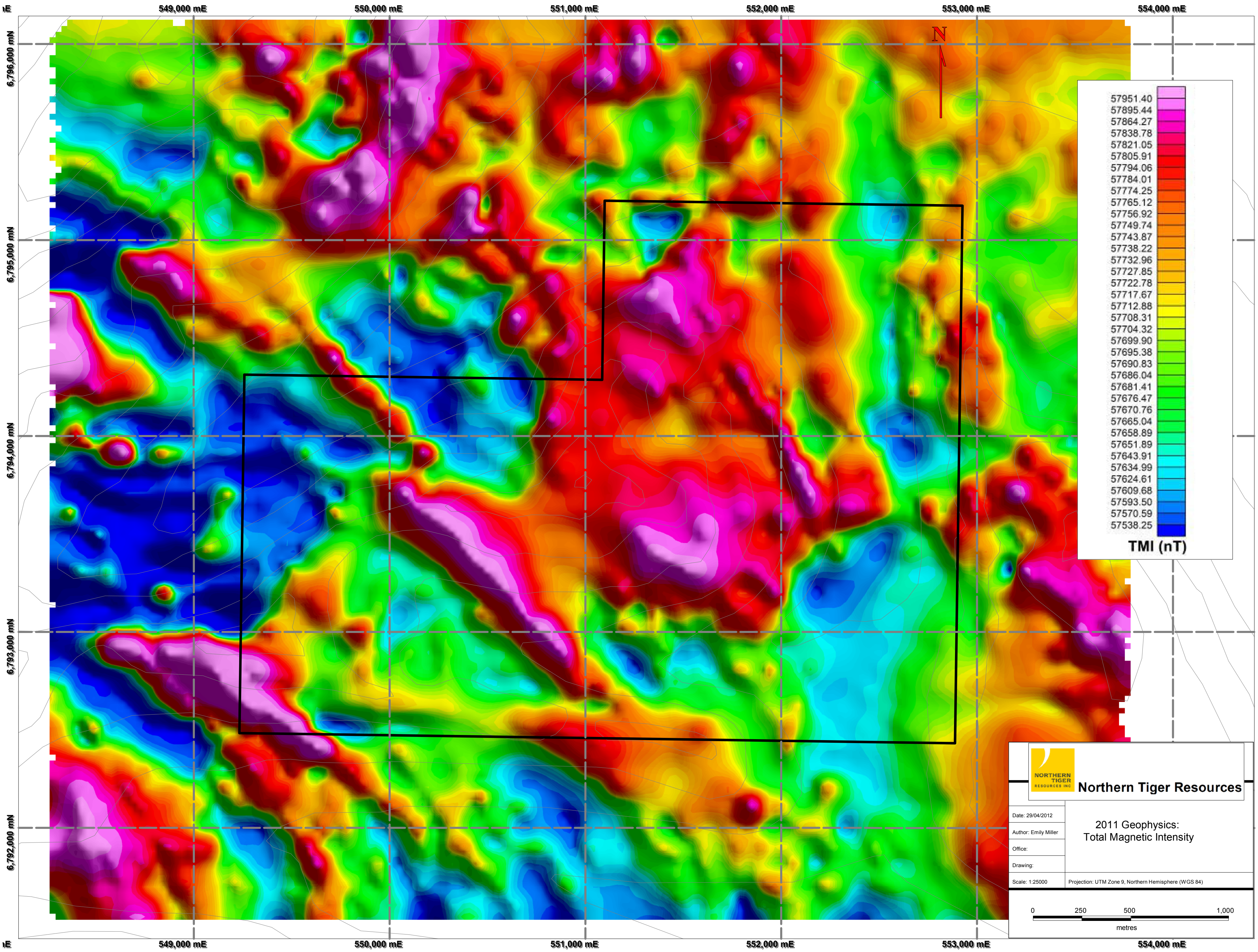
metres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TMI (nT)
NORTHERN TIGER RESOURCES INC
Northern Tiger Resources
Date: 29/04/2012
Author: Emily Miller
Office:
Drawing:
Scale: 1:25000
2011 Geophysics:
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Projection: UTM Zone 9, Northern Hemisphere (WGS 84)
0
250
500
1,000
metres

8.0 Discussion and Conclusion

The results from Spade indicate that there may be a larger intrusive presence but fewer smaller dykes than at the nearby Flush and Royal claim blocks that were part of the same survey program. While it is difficult to be certain what the magnetic highs represent without data from the ground these results should help to target and interpret the data from future programs. The eastern portion of the claim blocks show a curving linear low that may represent a decent-sized fault cutting what has been interpreted as the intrusive or may represent the intersection of two faults. Further ground work would be necessary to confirm the presence of these wholly interpretive faults. The same 310^0 trends that were seen within the Flush and Royal claims are visible in the small, linear magnetic pods that are observed scattered throughout the lower magnetic zones of the property.

As geophysics, by its very nature presents many different possibilities that can explain the observations it is impossible to determine the exact nature of the rock solely from this survey. However, the geophysics has provided a valuable window into the structural trends and the shape and nature of the geophysical trends and anomalies will assist in the interpretation of data collected on the ground in future field seasons.

While the geophysics provides the first information available about the claim block surface work on the ground is required before anything can be said about the property and its mineralisation potential. It is recommended that the next field season be opened with a preliminary prospecting and property-scale mapping program. Depending on the amount of outcrop available it may prove necessary to supplement this with soil and/or stream geochemistry. It is recommended that for at least one of the satellite properties an orientation soil survey be completed to determine which soil horizon best reflects the underlying bedrock geology.

If results from this preliminary program are promising a small trenching and/or more detailed structural mapping program, depending on the amount of available outcrop is recommended. It is not recommended that a drill be brought to this property until more surface data is acquired.

Bibliography

Beranek, L. P. & Mortensen, J. K., 2008. New stratigraphic and provenance studies of Triassic sedimentary rocks in Yukon and northern British Columbia. In: D. S. Esmond, L. R. Blackburn, R. P. Hill & L. H. Weston, eds. *Yukon Exploration and Geology 2007.* s.l.:Yukon Geological Survey, pp. 115-124.

Canadian Weather Office, 2012. *Climate Normals.* [Online]
Available at: http://www.climate.weatheroffice.gc.ca/climate_normals/index_e.html
[Accessed February 2012].

Gordey, S. P. & Anderson, R. G., 1993. Evolution of the northern Cordilleran miogeocline, Nahanni map area (105I), Yukon and Northwest Territories. *Geological Survey of Canada Memoir 428,* pp. 1236-1254.

Gordey, S. P. & Makepeace, A. J., 1999. Yukon bedrock geology in Yukon digital geology, S.P.. In: *Geological Survey of Canada Open File D3826.* s.l.:Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, pp. Open File 1999-1(D).

Heon, D., 2003. *Yukon Regional Geochemical Database 2003 - Stream sediment analyses,* s.l.: Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada.

Lee, D. B. & Johnson, G., 2001. *2000 Geological and Geochemical Assessment Report on the Sprogge Property,* Whitehorse: Yukon Energy Mines and Resources Assessment Report #094225.

Mair, J. L., Hart, C. J. & Stephens, J. R., 2006. Deformation history of the northwestern Selwyn Basin, Yukon, Canada: Implications for orogen evolution and mid-Cretaceous magmatism. *GSA Bulletin; March/April 2006; v. 118; no 3/4,* pp. 304-323.

Shulze, C. & Johnson, G., 2000. The Harlan property: A new sediment-hosted gold discovery in the Selwyn Basin, Yukon. In: *Yukon Exploration and Geology 1999.* s.l.:Exploration and Geological Services Division, Yukon , Indian and Northern Affairs Canada, pp. 267-270.

Yukon Bureau of Statistics, 2011. *Population Projections 2011.* [Online]
Available at: http://www.eco.gov.yk.ca/stats/pdf/Projections2011.pdf
[Accessed February 2012].

Appendix 1: Statement of Qualifications

I, Emily Miller, certify that:

1. I am a geologist residing at #2304 144 West 14th Street, North Vancouver, BC.
2. I have been actively engaged in mineral exploration in the Yukon Territory since 2006 and I have been involved full-time in mineral exploration in Canada since the spring of 2008.
3. I graduated with distinction from the University of Alberta with a degree of Bachelor of Science with a Specialization in Geology in 2008.
4. I am a Geologist in Training registered with APEGGA (member Number 85042).
5. I have prepared this report on the basis of data received from Northern Tiger Resources and Precision Geosurveys Inc. and I have no reason to believe any of the data provided is in error.
6. I am the author of this report titled "Assessment Report on the 2011 Airborne Geophysical Survey, Spade Property, Southeastern Yukon Territory".
7. I was employed by Northern Tiger for the entirety of the 2011 field season, and completed work on several of their Watson Lake properties
8. I have no direct or indirect interest in the properties or securities of Northern Tiger Resources Inc. or affiliated companies, nor do I expect to acquire such interest.

Dated April 20, 2012

Emily Miller, BSc.

Appendix 2: Statement of Expenditure

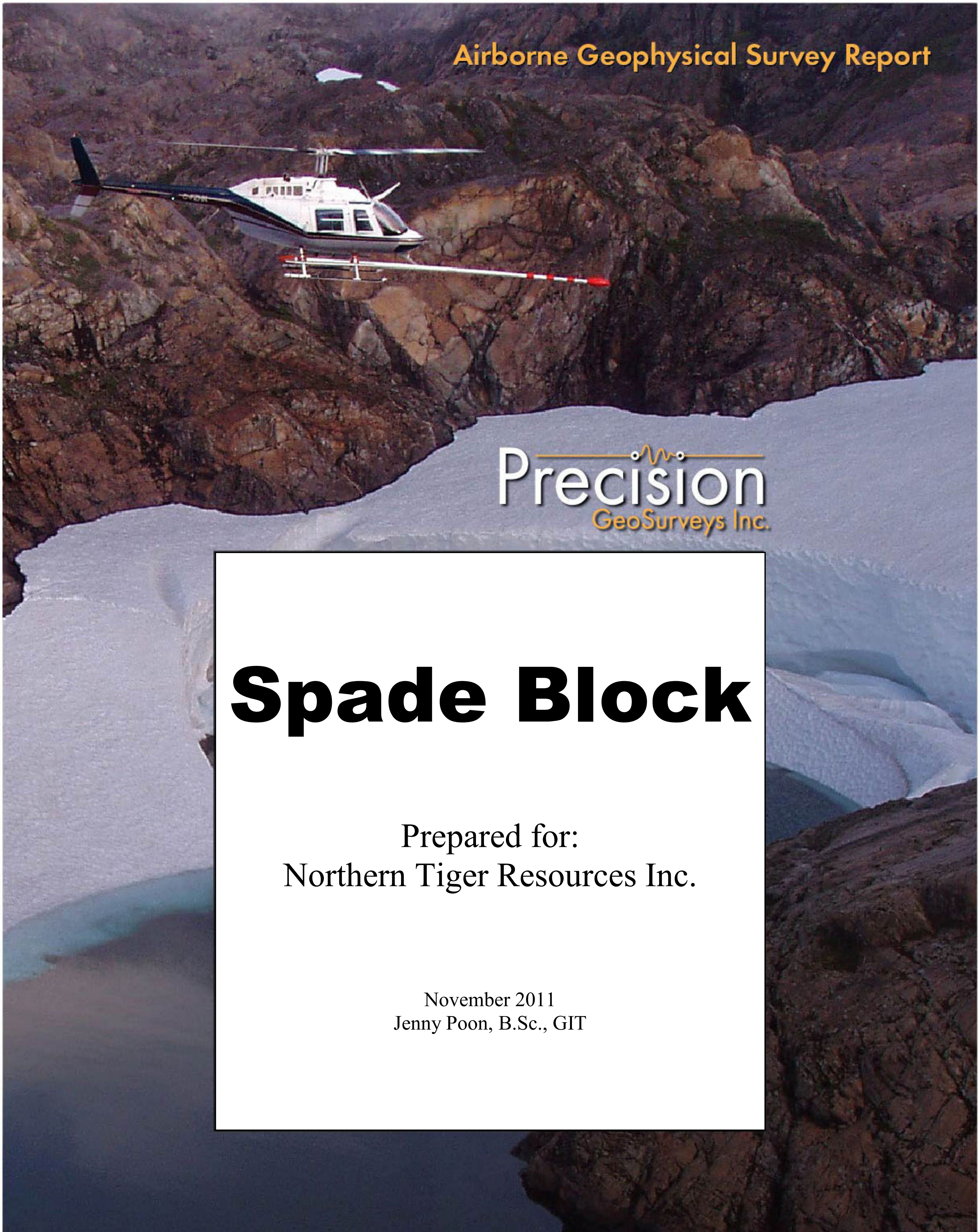
Northern Tiger Resources

2011 Spade Expenditures

Date Range	Work Description	Completed By	Expenditure
September, 2011	Planning, Map Making and Coordination (1 day)	Bonnie Pollries	$400.00
September 13-15, 2011	Flying of Geophysical Survey ($61.62/line-km)	Precision Geosurveys Inc.	$16,637.40
April, 2011	Report writing, research and interpretation (3 days)	Emily Miller	$1,050.00
		Total Expenditure	**$18,087.40**

This represents the total expenditure on the Spade Claims for the 2011 season

Appendix 3: Airborne Geophysical Survey Report



Airborne Geophysical Survey Report

Precision GeoSurveys Inc.

Spade Block

Prepared for:
Northern Tiger Resources Inc.

November 2011
Jenny Poon, B.Sc., GIT

www.precisiongeosurveys.com • 520–355 Burrard Street • Vancouver, B.C. • Canada V6C 2G8 • T: 604.484.9402

Table of Contents

1.0 Introduction:

This report outlines the survey operations and data processing actions taken during the airborne geophysical survey flown at Spade block (Figure 1). The airborne geophysical survey was flown by Precision GeoSurveys Inc. for Northern Tiger Resources Inc. The geophysical survey, carried out between September 13, 2011 and September 15, 2011, comprised the acquisition of high resolution magnetic and radiometric data.

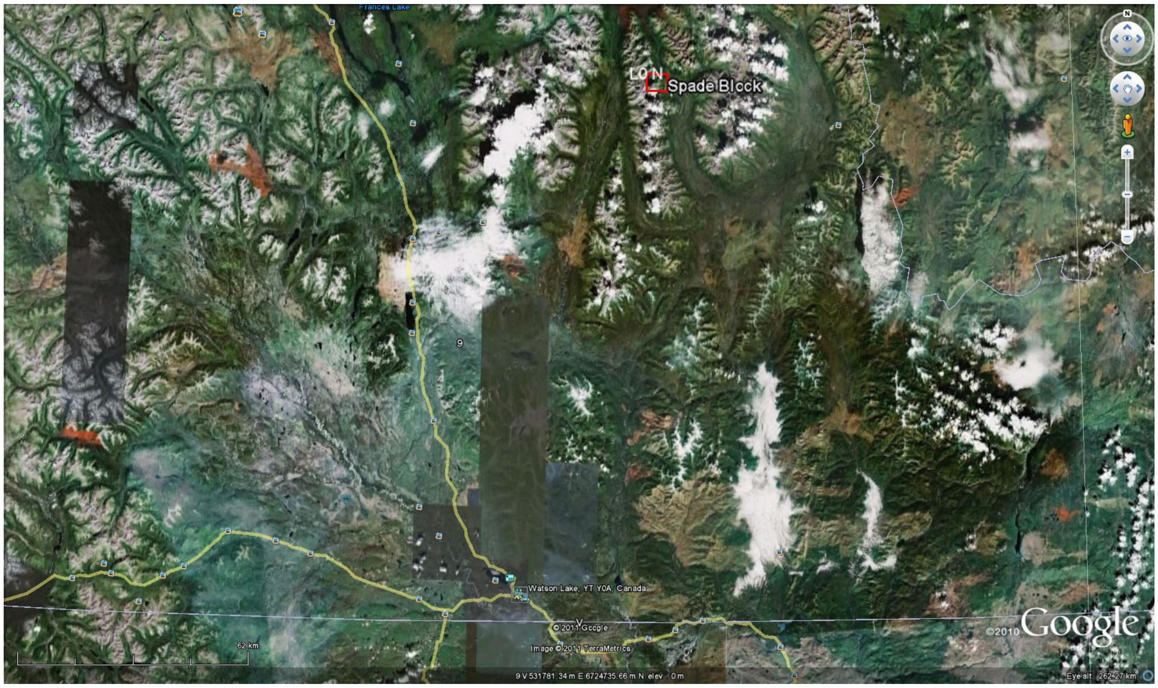


Figure 1: Spade block area location relative to Watson Lake, YT.

The Spade block is located on the southeastern side of the Yukon Territory, approximately 139 kilometers north east of Watson Lake, YT. The survey area of Spade block is approximately 5.5 km by 4.5 km (Figures 2 & 3). A total of 270 line kilometers of magnetic and radiometric data were flown for this survey; this total includes tie lines and survey lines. The survey lines were flown at 100 meter spacing at a 090°/270° heading; the tie lines were flown at 1 km spacing at a heading of 000°/180° (Figure 4).

Figure 2: Spade block with survey and tie lines outlined in yellow and the boundary in red in plan view.

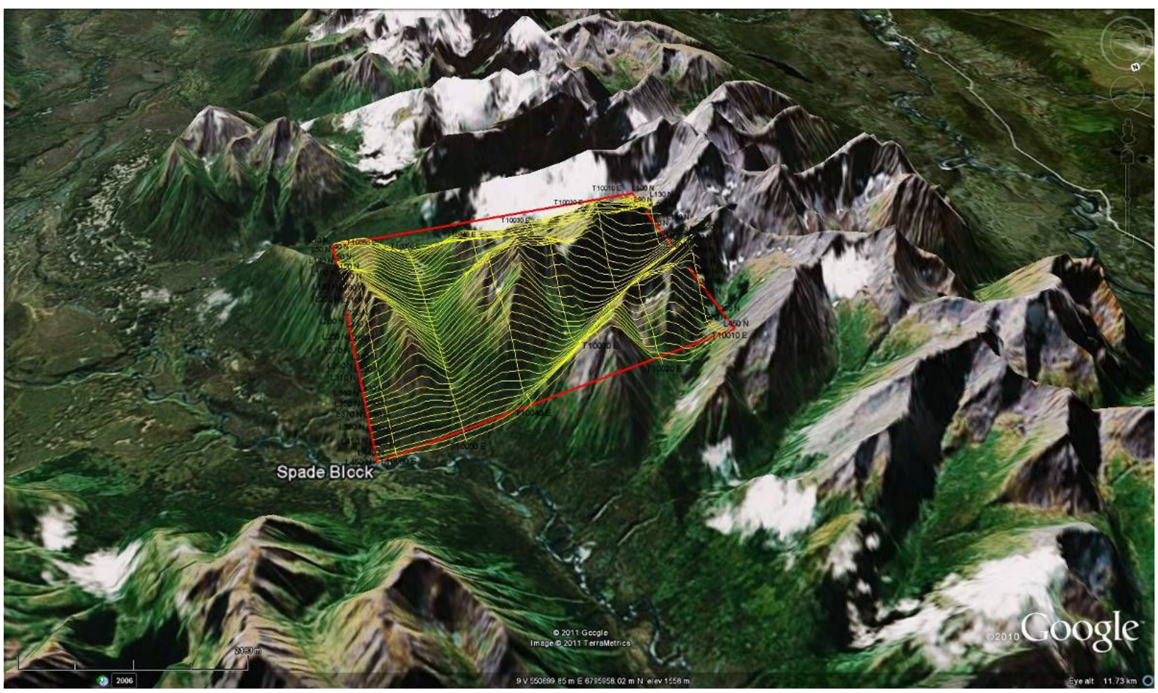


Figure 3: Spade block with survey and tie lines outlined in yellow and the boundary in red in terrain view.

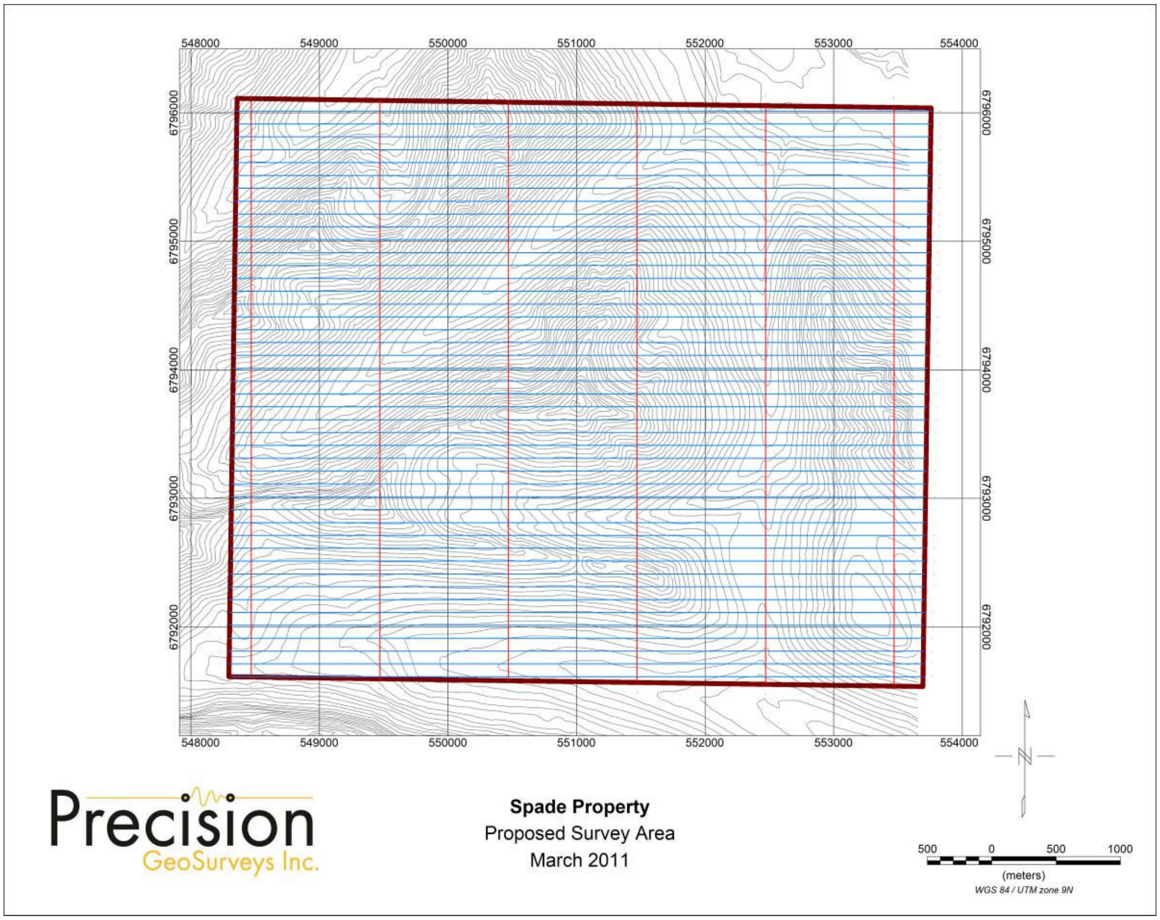


Figure 4: Proposed survey area of Spade block showing survey and tie lines and the boundary in red

1.1 Survey Specifications:

The geodetic system used for this survey is WGS 84 and the area is contained in zone 9N. The survey data acquisition specifications and coordinates for Spade block survey are specified as followed (Table 1 and Table 2).

Survey Block	Line Spacing m	Survey Line km	Tie Line km	Total Line km	Survey Line Orientation	Nominal Survey Height m
Spade	100	243	27	270	090 º -270º	35
Total				270		

Table 1: Spade block survey acquisition specifications.

Longitude	Latitude	Easting	Northing
128.0974483	61.29618859	548358.54	6796112.63
127.9967227	61.29479937	553758.01	6796036.53
127.9991846	61.25441530	553694.73	6791536.98
128.0997996	61.25580260	548295.26	6791613.10

Table 2: Spade block coordinates using WGS 84 in zone 9N.

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 Spade block 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.

3.0 Survey Operations:

Precision GeoSurveys flew the Spade block using a Bell 206 Long Ranger helicopter (Figure 5). 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 35 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 5: Bell 206 Long Ranger equipped with mag stinger for magnetic data acquisition

The base of operations for this survey was in Northern Tiger Camp, YT. The Precision crew consisted of 3 members:

Dean Scarrow - Pilot
Dan Kolasko - Operator
Jounada Oueity - On-site Geophysicist

The survey was started on September 13, 2011 and completed on September 15, 2011.

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 6), 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 6: AGIS installed in the Bell 206 Long Ranger

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 real time magnetic compensation and survey quality control procedures.

4.2 Spectrometer:

The IRIS, or Integrated Radiometric Information System is a fully integrated, gamma radiation detection system containing 8.4 litres of NaI (T1) downward looking crystals (Figure 7). 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 7: 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 8). 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 8: View of the mag stinger.

4.4 Base Station:

For monitoring and recording of the Earth's diurnal magnetic field variation, Precision GeoSurveys used the base station: GEM GSM-19T magnetometer. The base station is mounted as close to the survey block as possible to give accurate magnetic field data. The GEM GSM-19T magnetometer (Figure 9) 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.

Figure 9: 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 10). 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 10: 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 11). 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 11: 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 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 ($000^o/180^o$ and $090^o/270^o$ 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. 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.

Followed by the compensation flight, a lag test is conducted. A lag correction of 1.9 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.

A magnetic base station is set up before every flight to ensure that diurnal activity is recorded during the survey flights. In this case, the base station was located in the bushes close to Northern Tiger camp. 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 within the survey property 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.

Filtering is applied to the laser altimeter data as to remove vegetation clutter and to show the actual ground clearance. To remove vegetation clutter a Rolling Statistic filter was applied to the laser altimeter data and a low pass filter was 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.

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.

5.2 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:

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

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
Cos_f is the filtered cosmic channel

The radon backgrounds are first removed followed by Compton stripping. Spectral overlap corrections are applied on to potassium, uranium, and thorium as part of the Compton stripping process. This is done by using the striping 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 34 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:

where: E is the absorption dose rate in nG/h
K is the concentration of potassium (%)

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

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.

5.3 Final Data Format

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

Channel	Units	Description
X	m	UTM Easting - WGS84 Zone 9N
Y	m	UTM Northing - WGS84 Zone 9N
Galt	m	GPS height - WGS84 Zone 9N
Lalt	m	Laser Altimeter readings
DTM	m	Digital Terrain Model
GPStime	Hours:min:secs	GPStime
basemag	nT	Base station diurnal data
mag	nT	Total Magnetic Intensity
BaltSTP	m	Barometric Altitude
Balt	m	Barometric Altitude
Press_kP	KiloPascal	Atmospheric Pressure
Press_mbars	millibar	Atmospheric Pressure
Temp_degC	Degrees C	Air Temperature
COSFILT	counts/sec	Spectrometer - Filtered Cosmic
TCcor	µR	Dose Rate Equivalent
TCexp	µR/hour	Exposure Rate - SUM(%k, eU, eTh) * determined factors
Kcor	%	Equivalent Concentration - Potassium
Ucor	ppm	Equivalent Concentration - Uranium
THcor	ppm	Equivalent Concentration - Thorium
UpU_cps	counts/sec	Spectrometer RAW Counts - Upward Uranium
UPUTEMP	counts/sec	Spectrometer - Filtered Upward Uranium
THKratio		Spectrometer - eTh/%K ratio
UKratio		Spectrometer - eU/%K ratio
UTHratio		Spectrometer - eU/eTh ratio
Date	yyyy/mm/dd	Local Flight Date

Table 3: Spade block 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)

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

Scintrex CS-3 Survey Magnetometer

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

Pico Envirotec GRS-10 Gamma Spectrometer

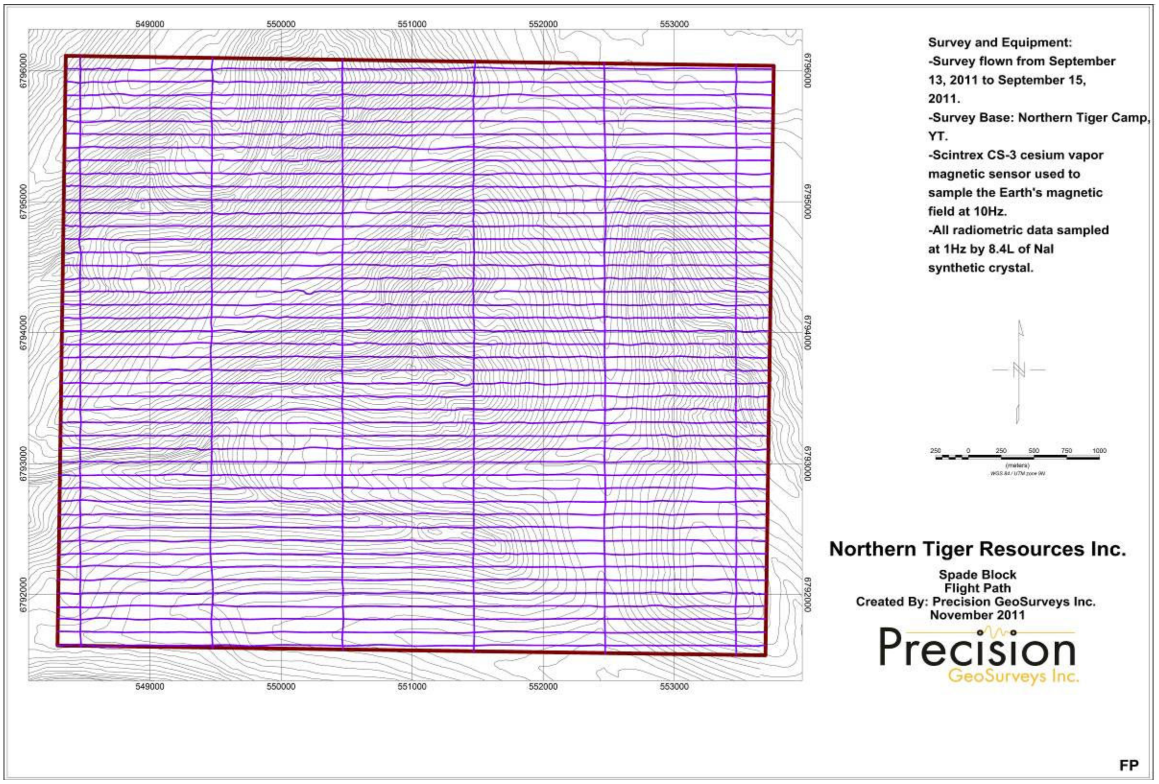
Crystal volume	2 x 4.2 litres (total 8.4 liters)
Resolution	256/512 channels
Tuning	Automatic using peak determination algorithm
Detector	Digital Peak
Calibration	Fully automated detector
Real Time	Linearization and gain stabilization
Communication	RS232
Detectors	Expandable to 10 detectors and digital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

Pico Envirotec AGIS data recorder system
(for Navigation, Gamma spectrometer, VLF-EM and Magnetometer Data Acquisition)

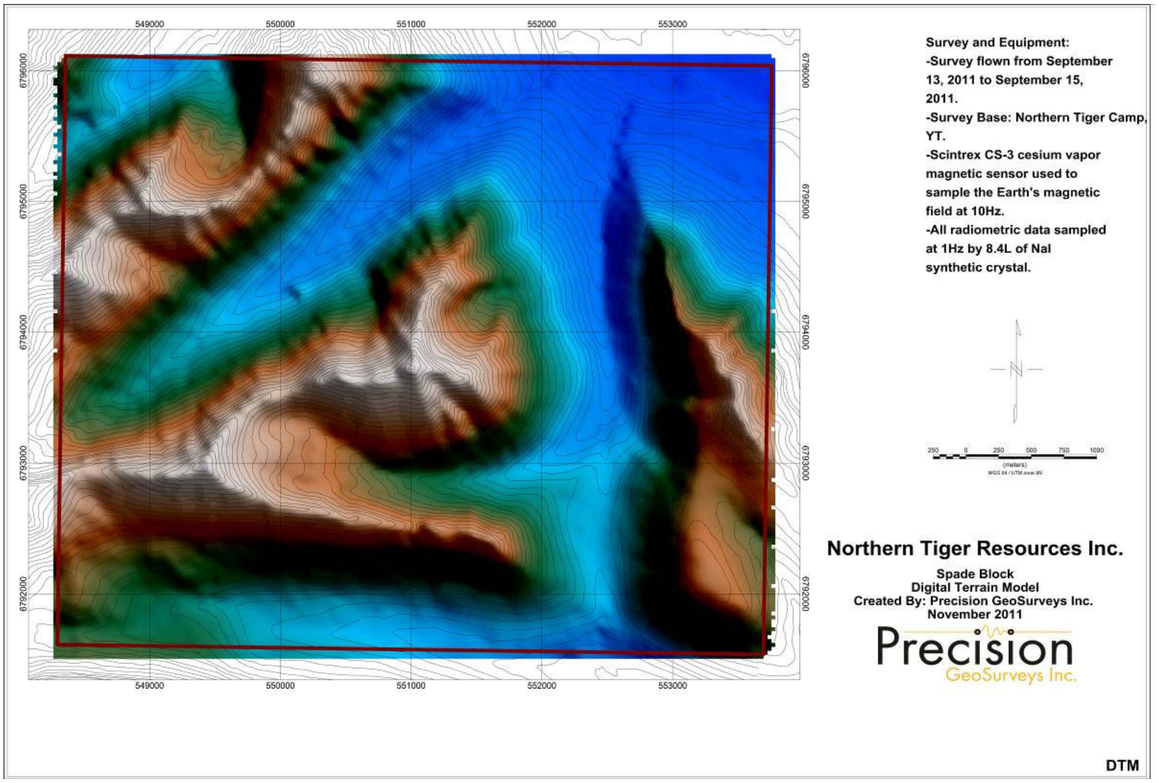
Functions	Airborne Geophysical Information System (AGIS) with integrated Global Positioning System Receiver (GPS) and all necessary navigation guidance software. Inputs for geophysical sensors - portable gamma ray spectrometer GRS-10, MMS4 Magnetometer, Totem 2A EM, A/D converter, temperature probe,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

Appendix B

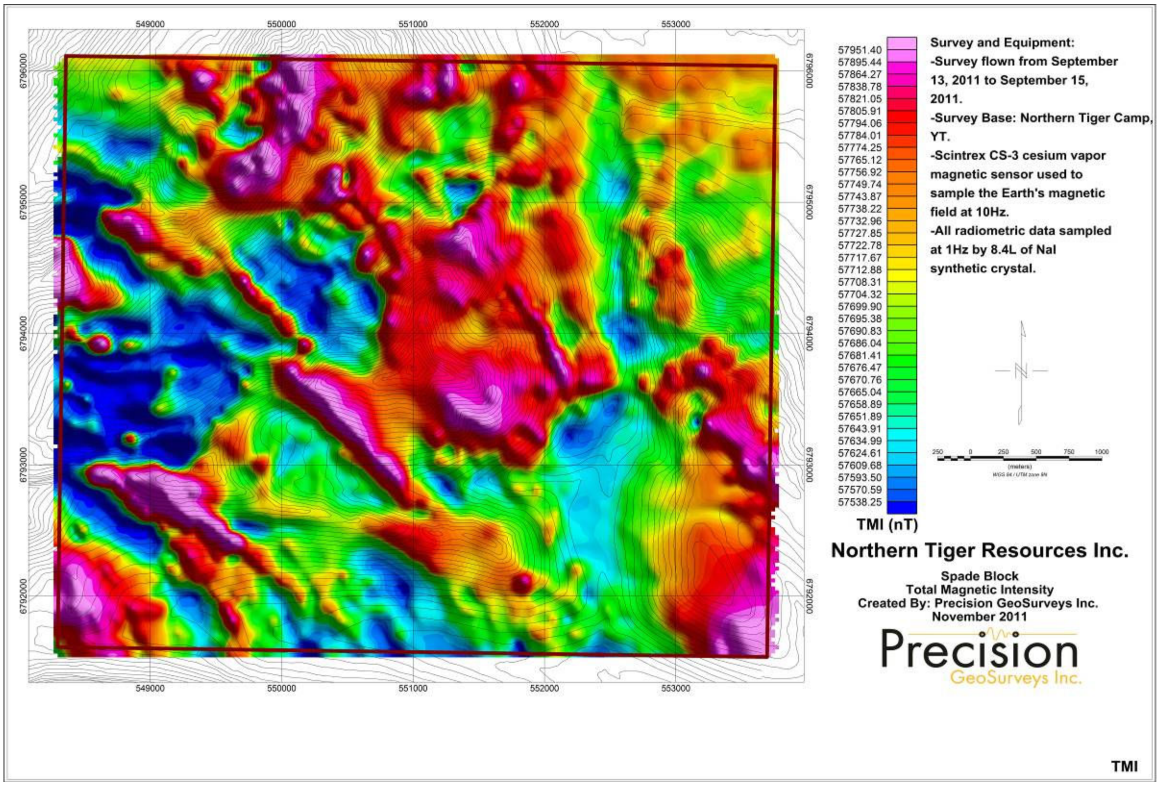
Maps



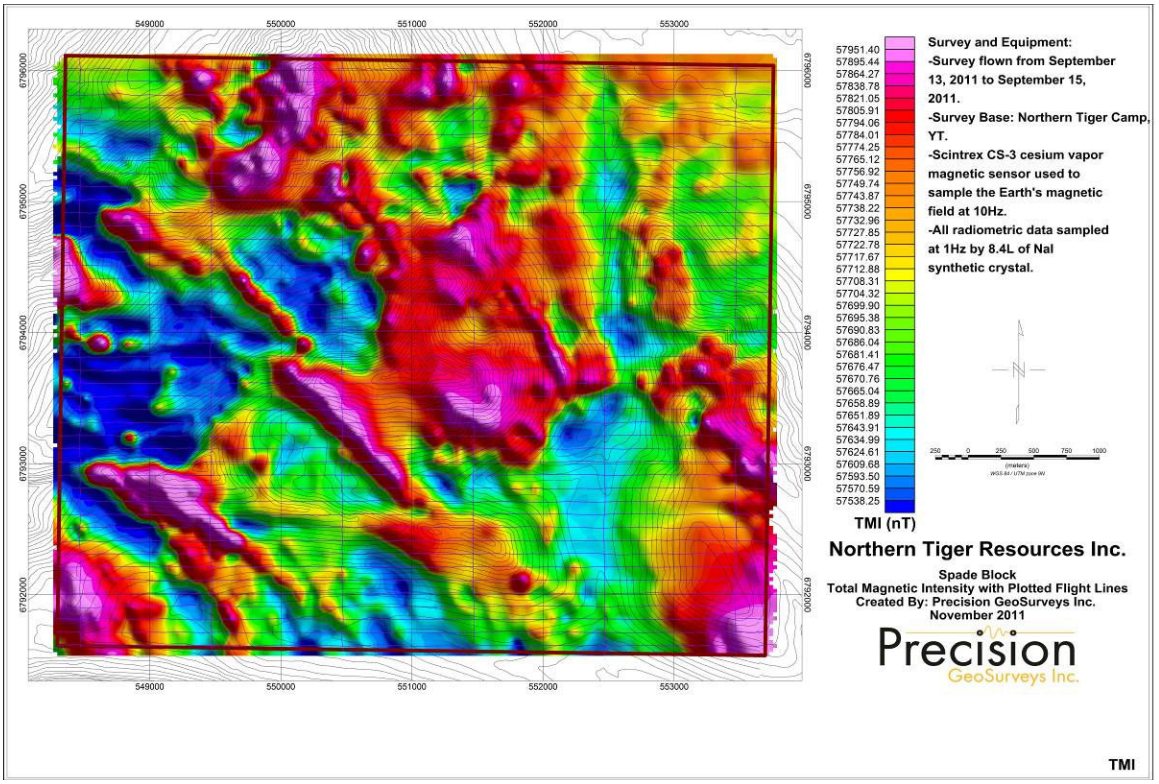
Map 1: Spade block flight path.



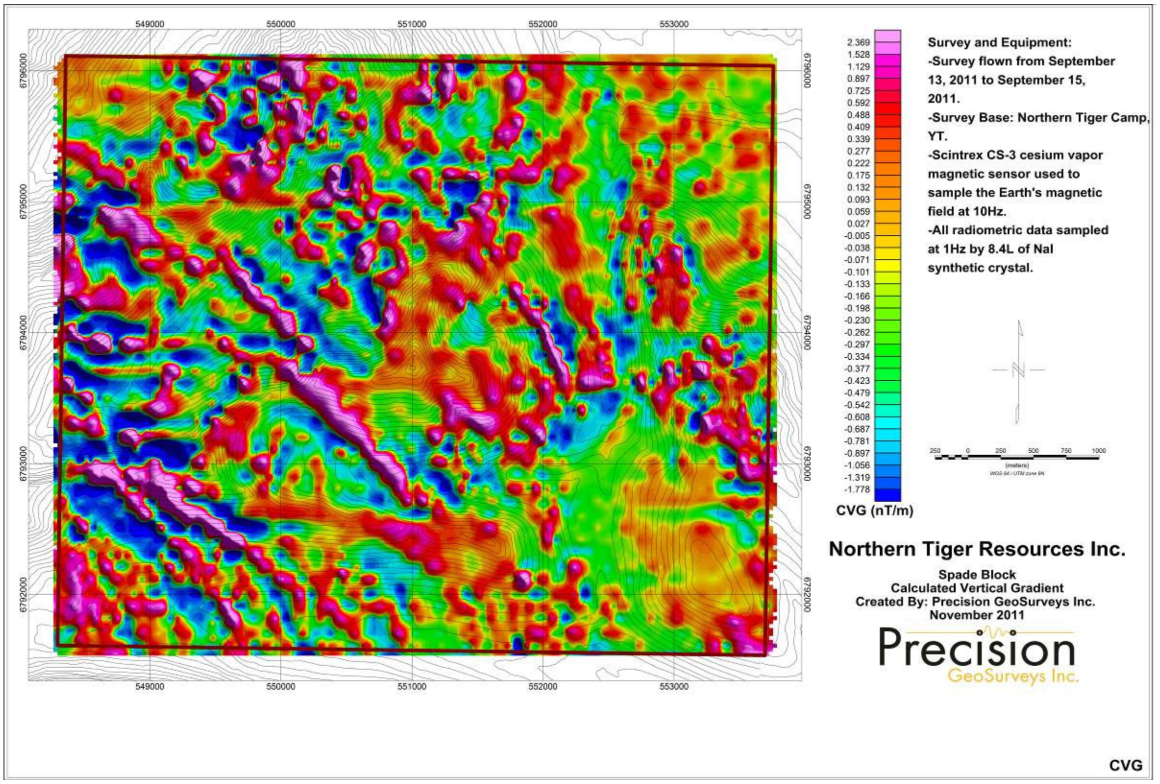
Map 2: Spade block digital terrain model.



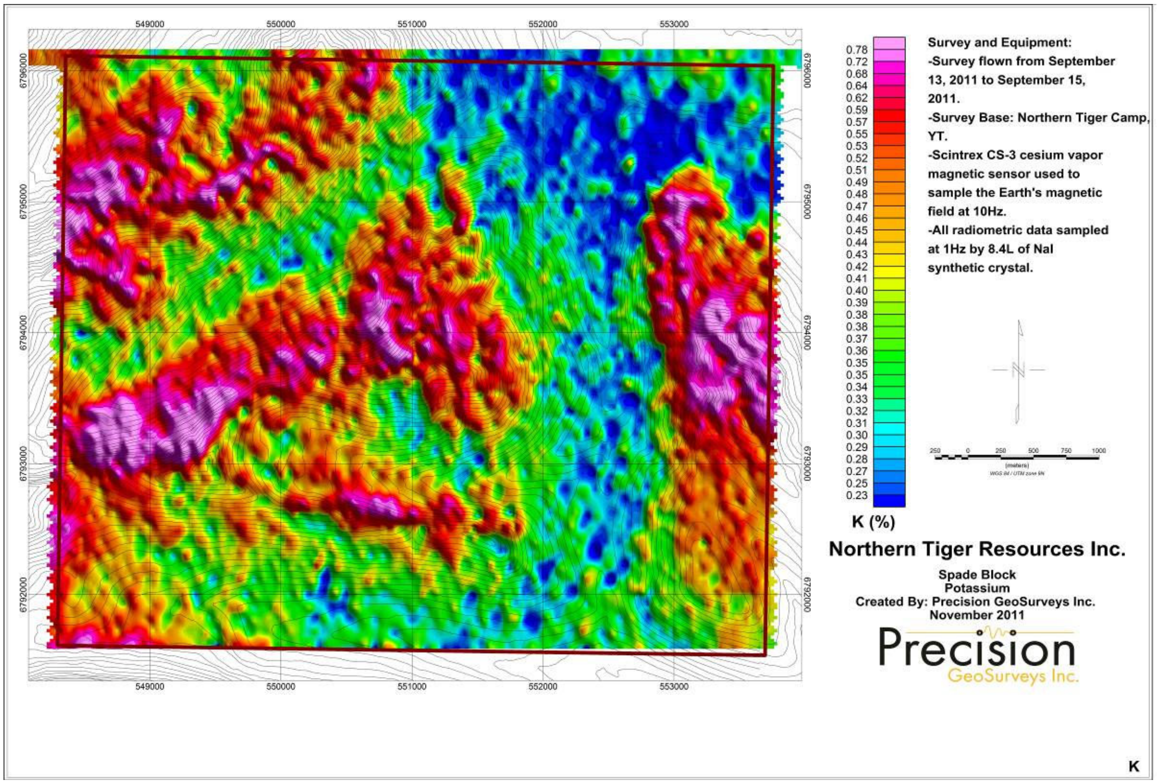
Map 3: Spade block total magnetic intensity.



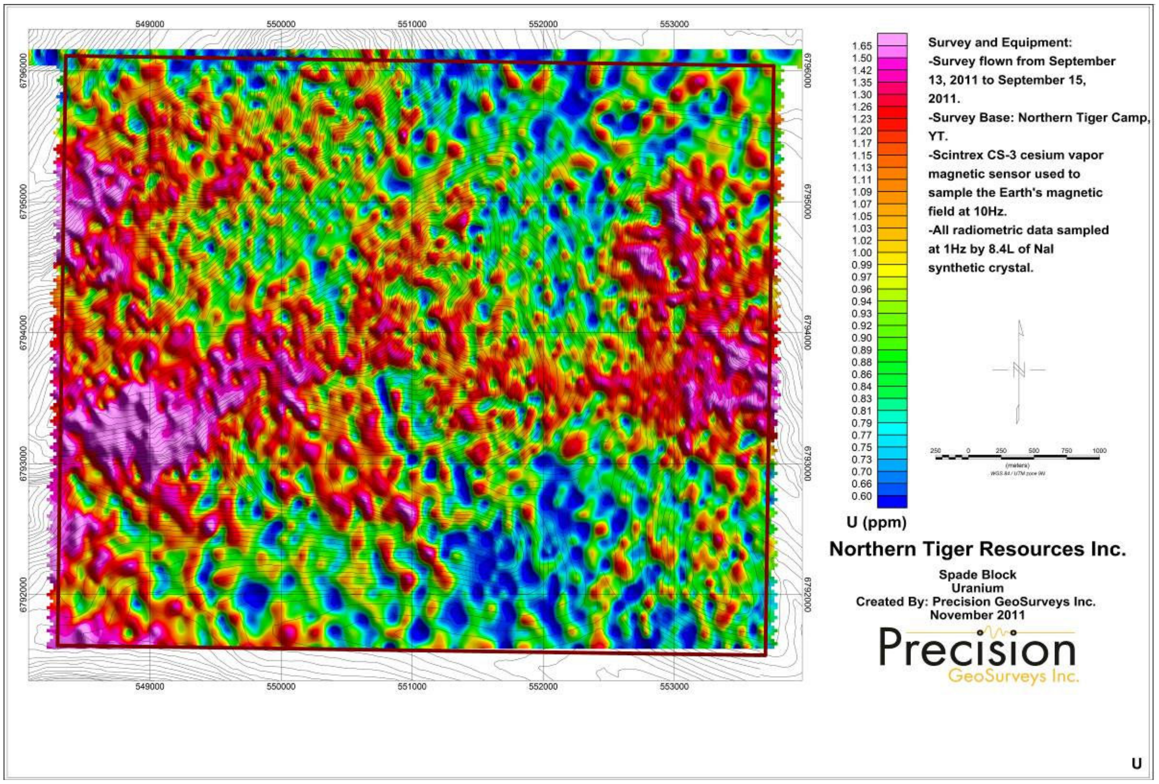
Map 4: Spade block total magnetic intensity with plotted flight lines.



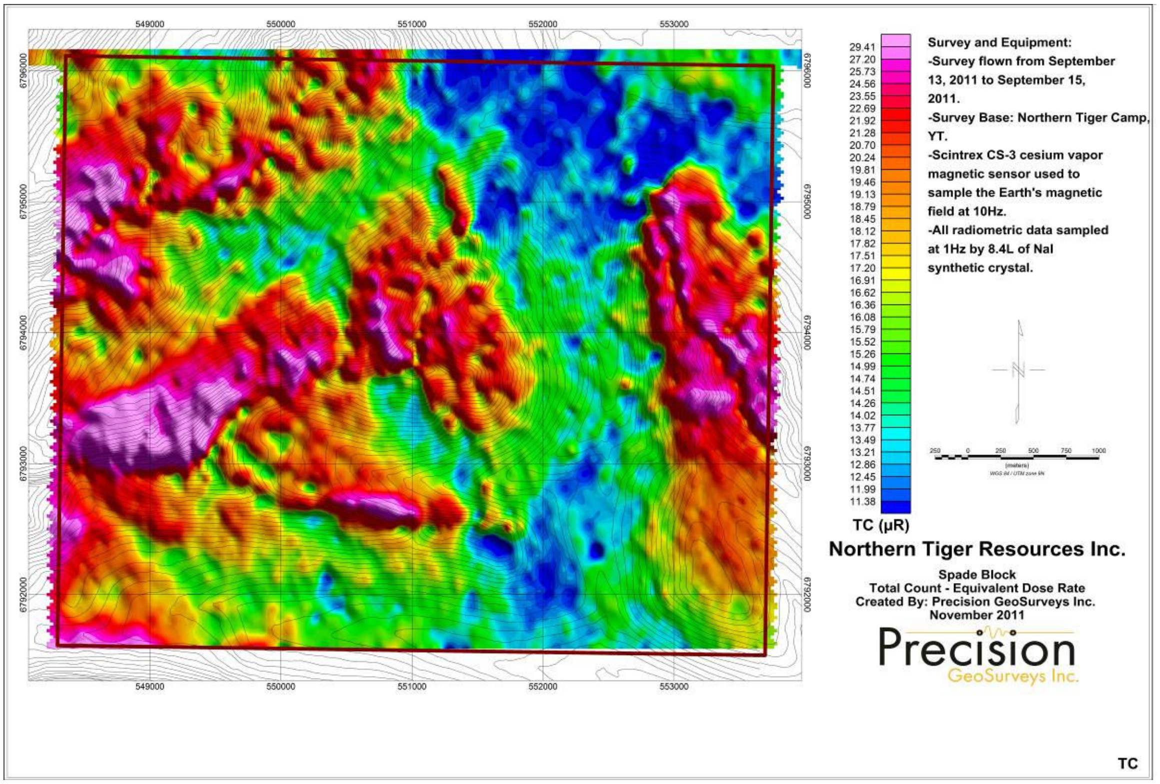
Map 5: Spade block calculated vertical gradient.



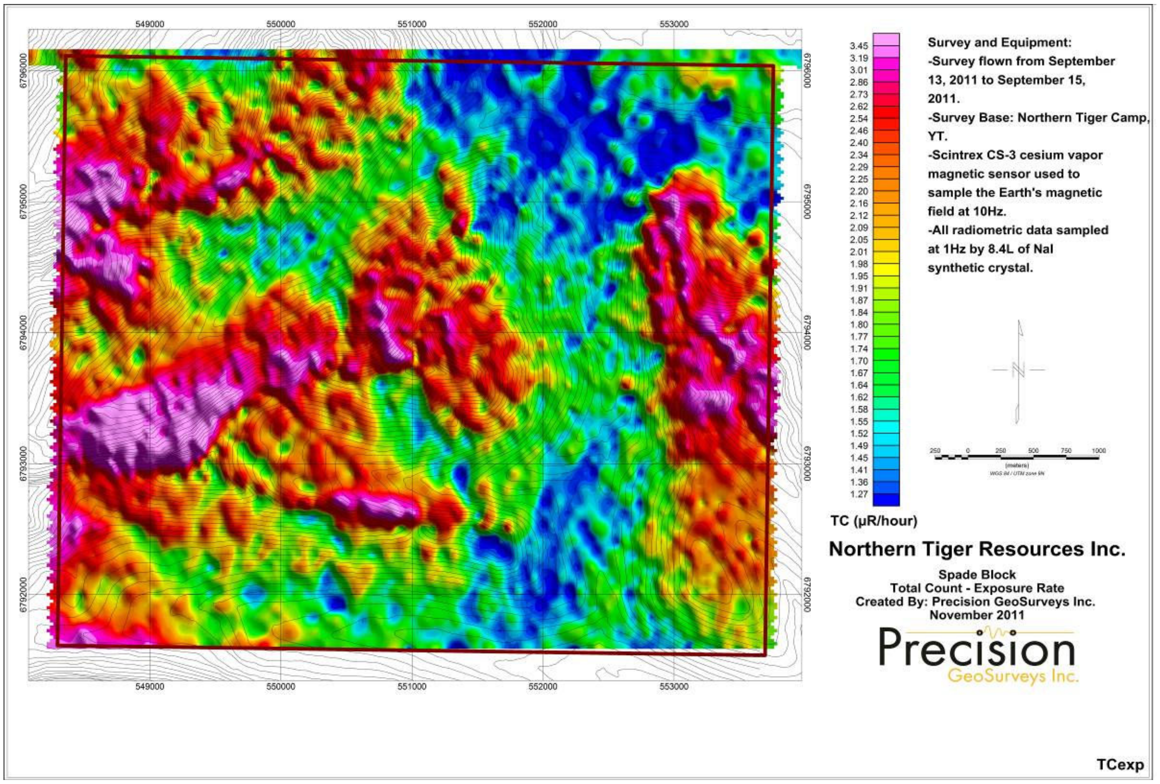
Map 6: Spade block potassium



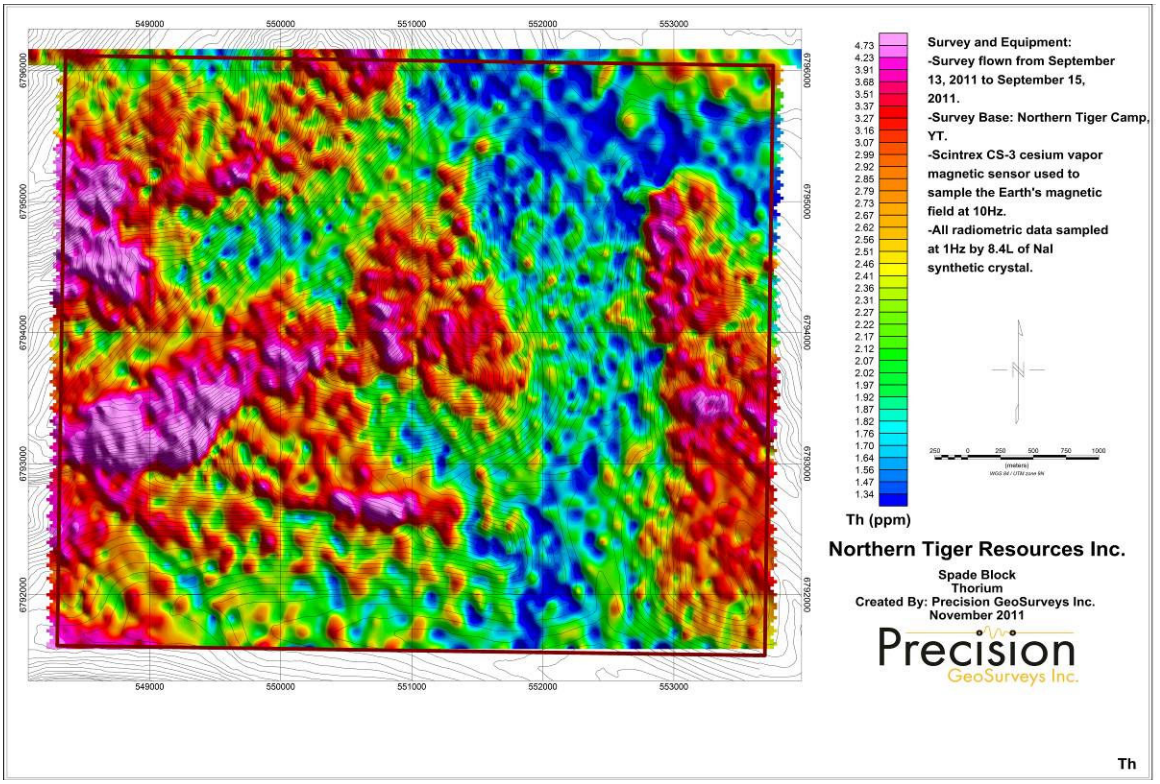
Map 7: Spade block uranium



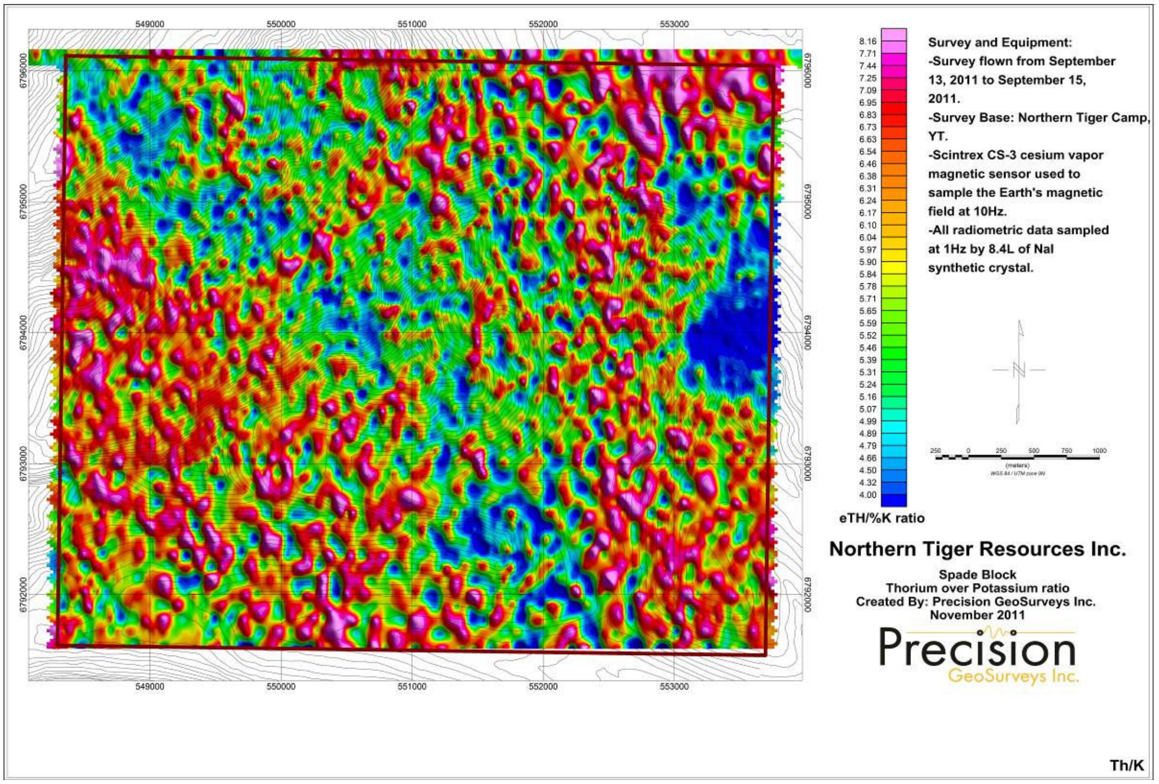
Map 8: Spade block total count – equivalent dose rate.



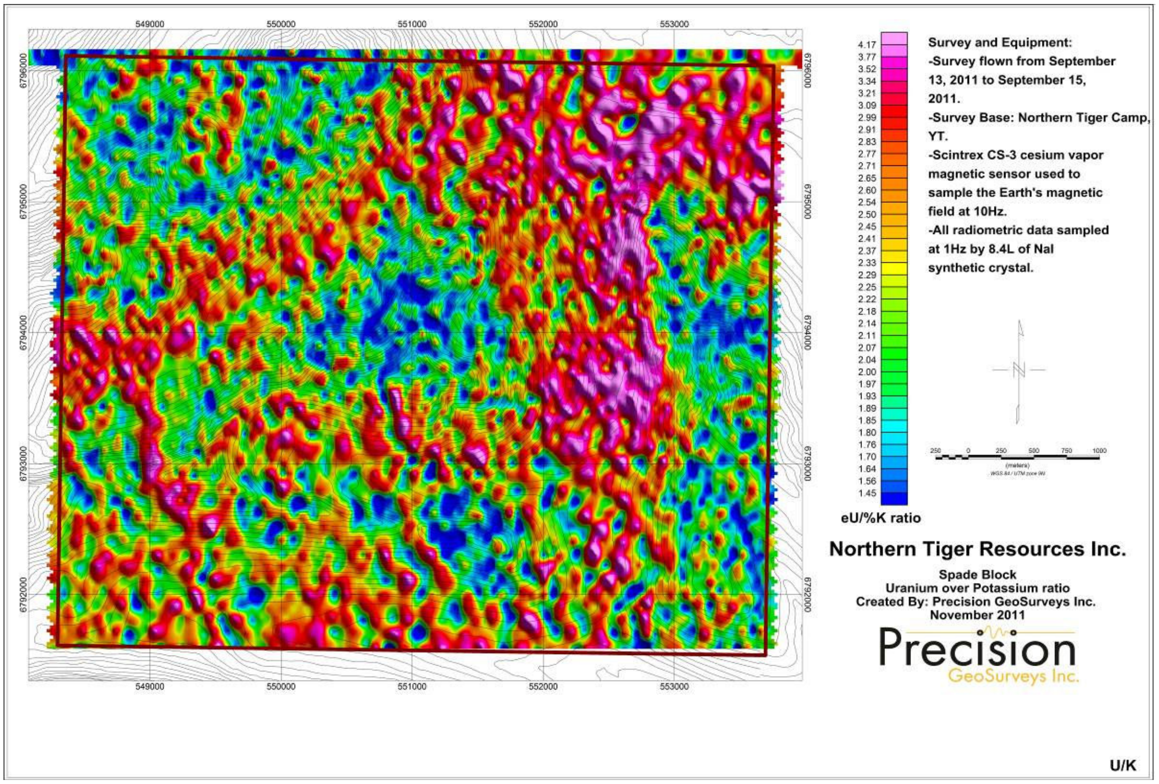
Map 9: Spade block total count – exposure rate.



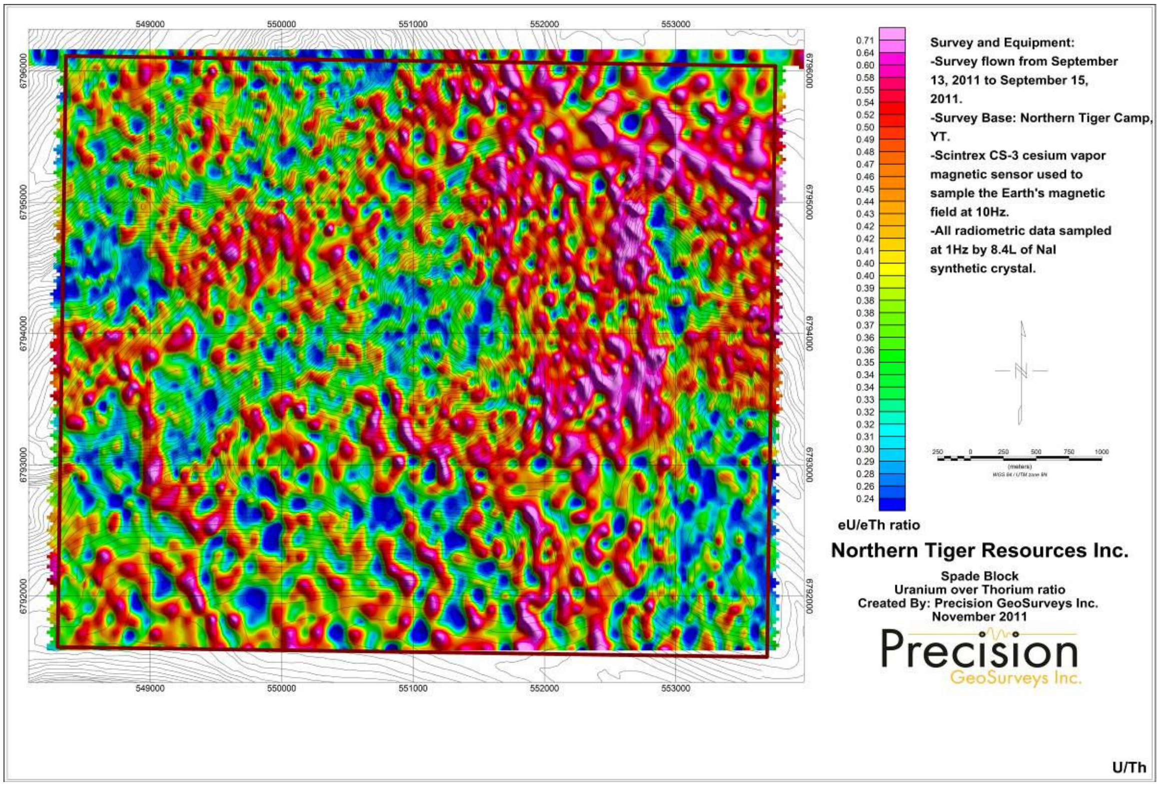
Map 10: Spade block thorium.



Map 11: Spade block thorium over potassium ratio.



Map 12: Spade block uranium over potassium ratio.



Map 13: Spade block uranium over thorium ratio.