

ARCTURUS VENTURES INC.



ASSESSMENT REPORT ON THE  
NOVEMBER 23, 2015 GEOPHYSICAL MAGNETICS AND VLF SURVEY  
on

Claim Name	Numbers	Grant Numbers	Registered Owner
BC	1-10	YC39387-YC39396	Mona L. Blusson
BC No.	18, 20, 57	Y23043, Y23045, Y23078	Mona L. Blusson
YT	76-80, 102-109, 111, 113-115	YC39353-YC39357 YC39379-YC39386 YC66973 YC66975-YC66977	Arcturus Ventures Inc

60° 36' 59" N 134° 55' 0" W  
Whitehorse Copper Belt

NTS 105 D/10

In the

Whitehorse Mining District  
Yukon Territory

Prepared by  
Brandon Macdonald, P.Geo

May 23, 2016

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## SUMMARY AND RECOMMENDATIONS

The YT, BC No. & BC claims are located within the city limits of Whitehorse, Yukon Territory near Wolf Creek Campground, North of the Alaska Highway. The property consists of 30 quartz claims located on NTS Map Sheet 105 D/10.

A virtual line grid was used to conduct a magnetic and VLF survey guided by GPS. The object of the survey was to provide infill magnetic data and VLF data to compliment past magnetic and IP surveys in the project area.

It is recommended to use the data gathered in this survey, in conjunction with data from past geophysical surveys on the property, to identify targets for a diamond drilling program and subsequently test them.

## INTRODUCTION

The 2015 exploration program consisted of a virtual line magnetic and VLF survey guided solely by GPS. The project area is covered by glacial till deposits with no outcrops in the immediate area.

Geophysical surveys enable the operators to possibly trace sub-surface lithological contacts and mineralization. Magnetic surveys are able to detect magnetic mineralization and variations in the magnetic susceptibility of different lithological units.

## PROPERTY DESCRIPTION AND LOCATION

The property consists of 30 quartz claims on Map Sheet NTS 105D 10 in the Whitehorse Mining District of Yukon and lie just to the north of the Alaska Highway at the Klondike Highway juncture, near the Wolf Creek area within the Whitehorse City limits. The claims are:

Claim Name	Numbers	Grant Numbers	Registered Owner
BC	1-10	YC39387-YC39396	Mona L. Blusson
BC No.	18, 20, 57	Y23043, Y23045, Y23078	Mona L. Blusson
YT	76-80, 102-109, 111, 113-115	YC39353-YC39357 YC39379-YC39386 YC66973 YC66975-YC66977	Arcturus Ventures Inc

The 17 YT claims are owned 100% by Arcturus Ventures Inc., while the 13 BC claims are under option by Arcturus Ventures Inc from Mona Blusson. Arcturus Ventures Inc is the Operator of these claims.

The claim locations can be seen in Figure 1, and in more detail in Figure 2.

## HISTORY

Copper mineralization was first discovered in 1897 on the Whitehorse Copper Belt as it became to be known. Exploration and mining development have been carried out intermittently since that time with the main production era lasting between 1967 and 1982 where production totaled 267,500,000 pounds

copper, 225,000 ounces of gold and 2,838,000 ounces of silver from 11 .1 million tons of mineralized skarn ore milled.

The list of references that is included with this report provides a more complete history of the Whitehorse Copper Belt.

The BC-YT property was first staked by Lewes River Mines Ltd. prior to 1968. Lewes River Mines carried out an aeromagnetic survey in 1968 followed by line cutting, ground magnetic, geochemical and IP surveys.

Canex-Placer optioned the property from Lewes River Mines in 1969 and carried out an IP survey followed by diamond drilling five holes. A vertical drill hole intersected 40 meters grading 1.04% copper including 12 meters grading 2.04% copper (Assessment report 091117). Despite the positive results Canex-Placer dropped the option on the property.

One of the principals of Lewes River Mines maintained three BC claims until optioning the property to Arcturus Ventures Inc. who subsequently added the remaining BC and YT claims in 2006. Arcturus carried out a ground magnetic survey and GPS mapping on the claims in 2006 & 2008, as well as an IP survey in 2008. Drill targets on the property have been defined where there are coincident IP chargeability anomalies and magnetic embayments consistent with known mineralization styles in the Whitehorse Copper Belt.

## REGIONAL GEOLOGICAL SETTING

The Whitehorse Copper Belt is located within the Whitehorse Trough, a structural/geological subdivision of the Intermontane Belt. The trough trends northwesterly through south central Yukon and is comprised of rocks that formed an Island Arch Complex that ranges from upper Paleozoic through Jurassic time period.

Within the Whitehorse Copper Belt, clastic and carbonate rocks of the Upper Triassic Lewes River Group and clastic rocks of the Lower Jurassic Laberge Group predominate. The copper bearing skarns occur over a length of 32 kilometers along the western flank of the Whitehorse Batholith, a Cretaceous diorite body of the Coast Plutonic Complex.

Locally flows of the Miles Canyon Basalt were deposited in depressions during the Tertiary. The flows are shallow and generally mask the underlying bedrock formations.

## GEOLOGY OF SKARN DEPOSITS

Ore bodies occur mainly within limestone of the Lewes River Group adjacent to or in proximity of the Whitehorse Batholith contact. Skarn deposits commonly form within irregularities or pendants of the batholith. The most extensive ore zones are developed in coarsely crystalline limestones of the Lewes River Group near the contact with quartzite footwall rocks of the Laberge Group where the contact sup- parallels the diorite batholith contact.

Iron-rich magnetite skarns contain abundant serpentine, talc and chlorite. Calc-silicate skarn deposits contain only minor magnetite and serpentine but are rich in garnet, tremolite, wollastonite, actinolite and diopside.



## 2015 EXPLORATION PROGRAM

The 2015 exploration program consisted of a 10-line ground magnetic and VLF survey. A virtual line grid was used to conduct the survey guided by GPS. The object of the survey is to locate a potential enclosed block of sedimentary rocks within the Whitehorse Batholith. The Whitehorse Batholith was integral to the formation of copper-gold rich skarn deposits that formed within pendants and embayments of the batholith.

The magnetics survey was carried out using a GEM GSM 19 Magnetometer. The VLF data was taken on a frequency of 24.8 kHz from the station located at Jim Creek, Washington. Readings were taken every 10 metres along 8 long lines and 2 perpendicular lines for leveling.

## INTERPRETATION AND CONCLUSIONS

The magnetics results (figure 3) show a broadly anomalous zone in the western corner of the survey area. This anomaly occurs as a circular feature centered near UTM coordinates 672000 N and 504300 E (NAD 83). This anomaly is interpreted as a possible embayment of Lewes River Group sedimentary rocks and the Whitehorse Batholith.

The strength of the magnetic feature indicates that there is potential magnetic mineralization and an exploration target.

VLF results (figure 4) are inconclusive, however it is worth noting the VLF anomalies along the edges and at the centre of the aforementioned mag anomaly.

## STATEMENT OF EXPENDITURES

Magnetic survey conducted November 22, 2015:

Aurora Geosciences (crew, equipment, field report) - \$1785

Pelly River Ventures (prep, field report, analysis) - \$1260

Bonus assessment - \$3045

TOTAL: \$6090

## REFERENCES

Dobrowolsky, H., Ingram, R., 1993, A History of the Whitehorse Copper Belt. Department of Indian and Northern Affairs Canada, Open File 1993-1, 31 p.

Gordey, S.P., Makepeace, A.J. , 1999, Yukon Digital Geology. Geological Survey of Canada, Open File 03826; Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File #1999-1 (D).

Mackay, G., et.al., 1993, Whitehorse Copper Belt - A Simplified Technical History. Department of Indian and Northern Affairs Canada, Open File 1993-2 (1), 48p.

Tenney, D., 1981, The Whitehorse Copper Belt: Mining Exploration and Geology (1967-1980). Department of Indian and Northern Affairs, Geology Section, Yukon Region, Bulletin 1, 29p.

Watson, P.H., 1984, The Whitehorse Copper Belt - A Compilation. Exploration and Geological Services Division - Yukon, Indian and Northern Affairs Canada, Open File #1984-1, 1 :25,000 scale map with marginal notes.

Assessment Reports 091117 & 095203

## STATEMENT OF QUALIFICATIONS

**Brandon Macdonald, P.Ge**

I, Brandon Macdonald, of the City of Vancouver, BC, hereby certify that:

1. I am a Professional Geologist registered (No. 42924) as a member of the Association of Professional Engineers and Geoscientists of British Columbia.
2. I graduated from the University of British Columbia in 2000 with a Bachelor of Science Degree in Geology.
3. I have been actively engaged as an Exploration Geologist in the Mineral Industry since graduation including previous work programs in the Whitehorse Copper Belt on these claims and others.
4. I am an officer of Arcturus Ventures Inc. and assisted in this exploration program and completed this Assessment Report on the 2015 exploration program on the YT & BC claims.
5. My business mailing address is:

P.O. Box 696  
141 – 757 Hastings St. W.  
Vancouver, B.C.  
V6C 1A1  
Canada

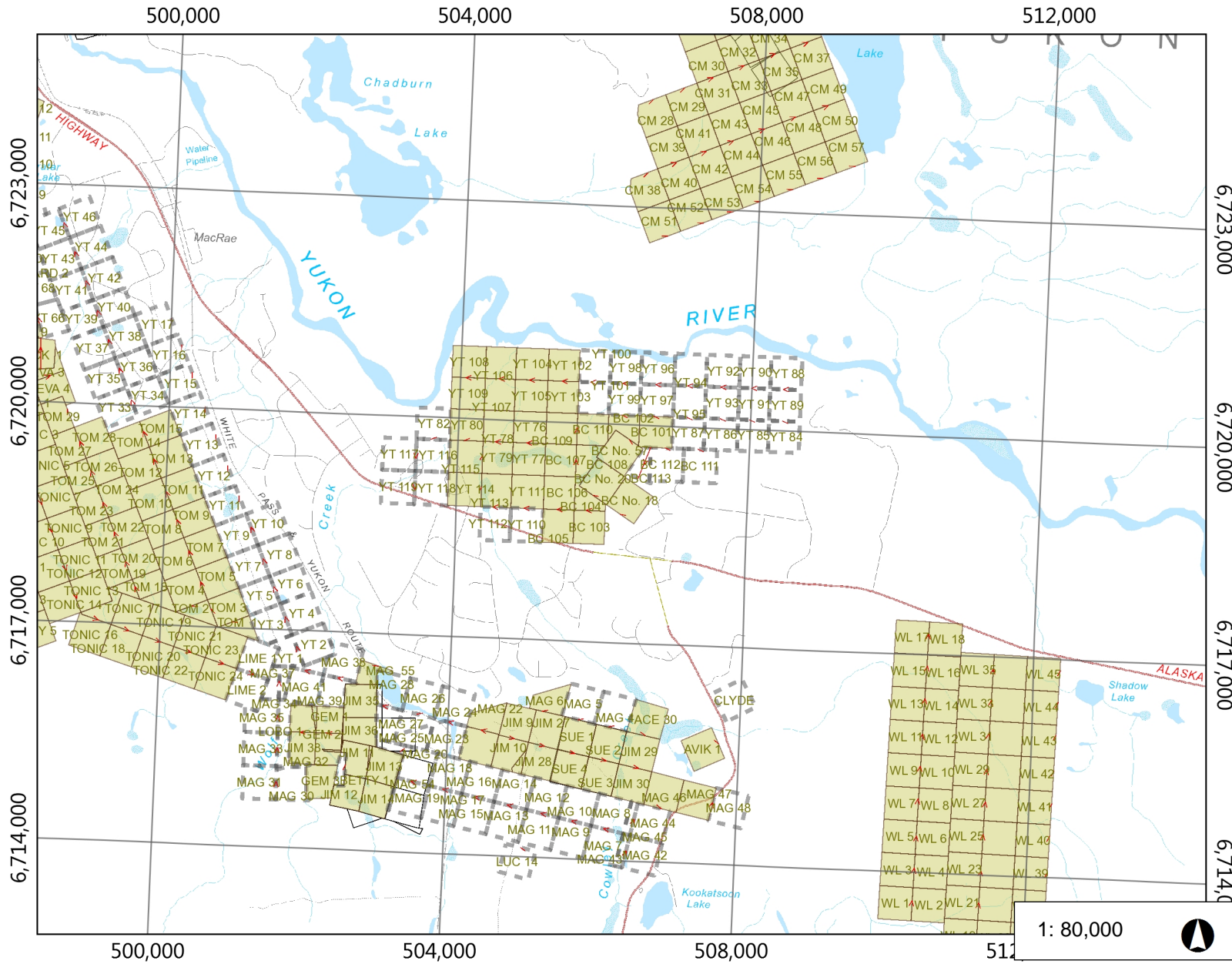
Signed,

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Brandon Macdonald, P.Ge

May 23, 2016

**FIGURE 1 - YT & BC Claims Location**

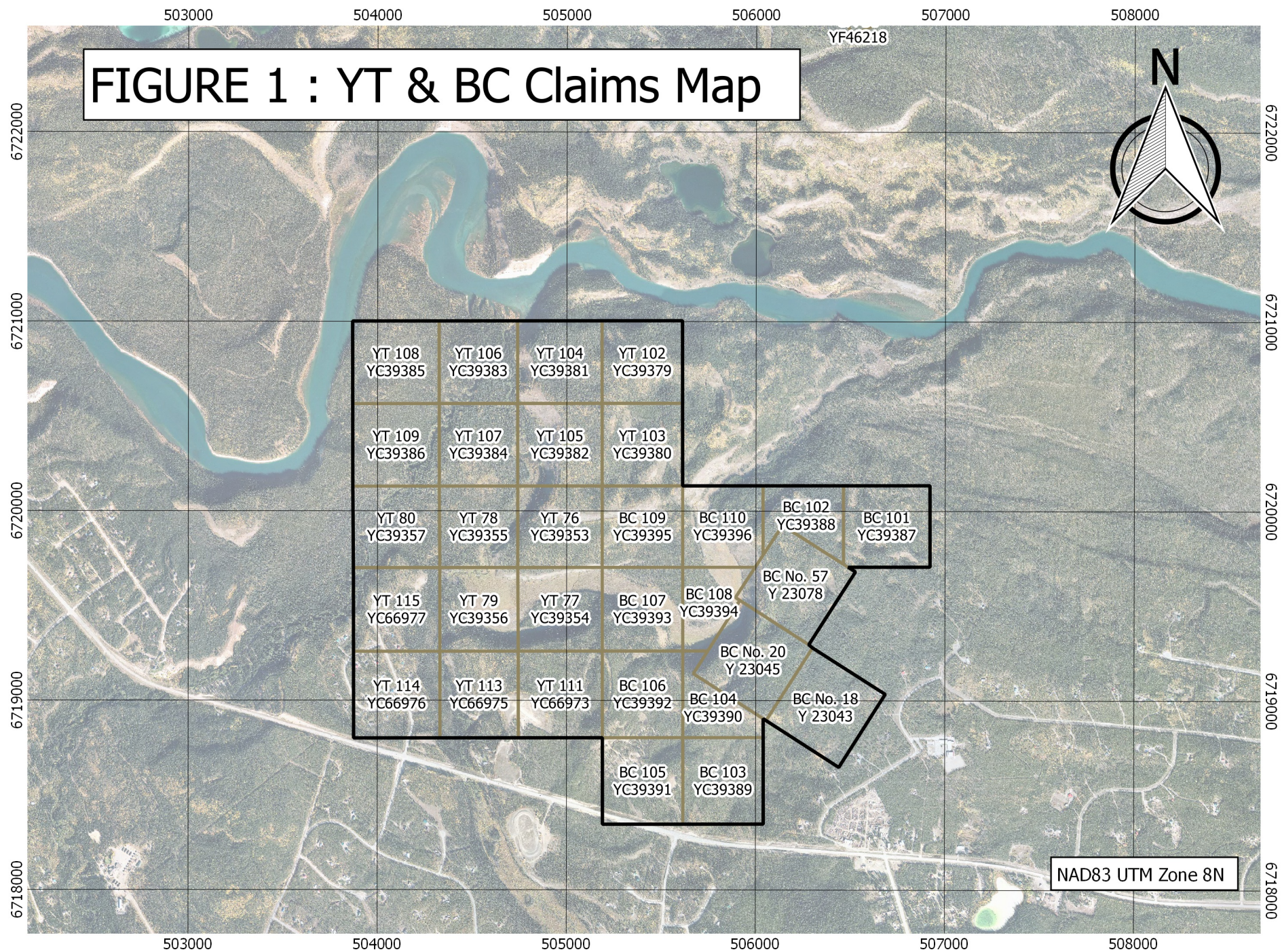


**Legend**

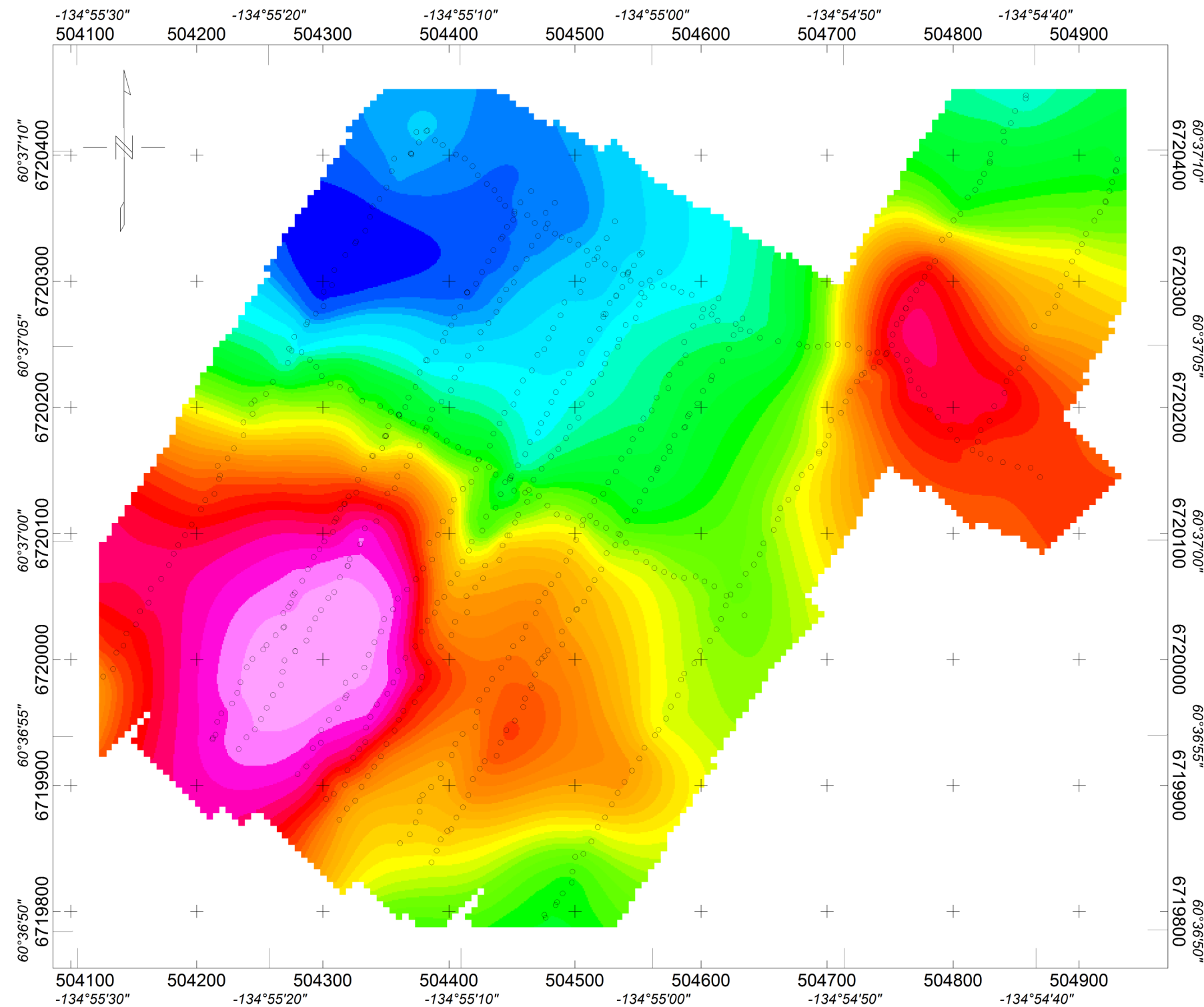
- Quartz Staking Direction
- Quartz Claims (50K)
  - Active and Pending
  - Expired
- Quartz Leases (50K)
- Adjoin Quartz
- Quartz Mining Land Use Perm
  - Class 3
  - Class 4
- Quartz Mining License
- Surveyed Mineral Claims

**Notes**

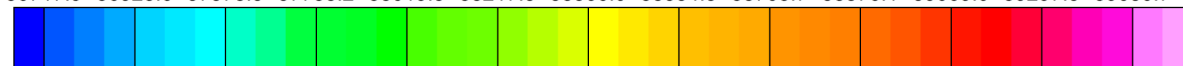






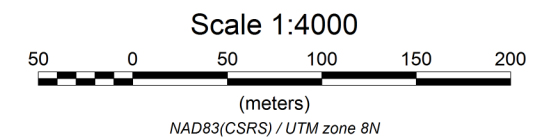


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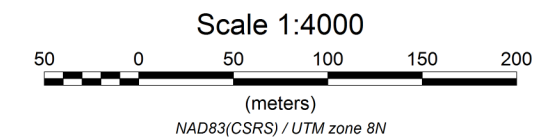
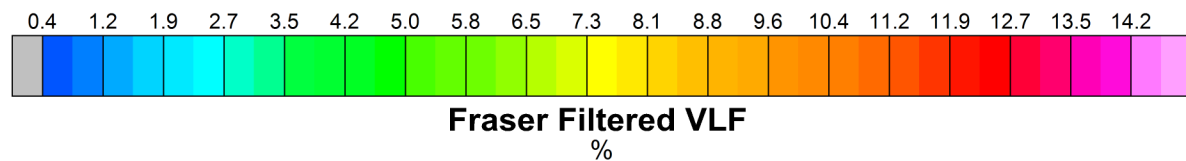
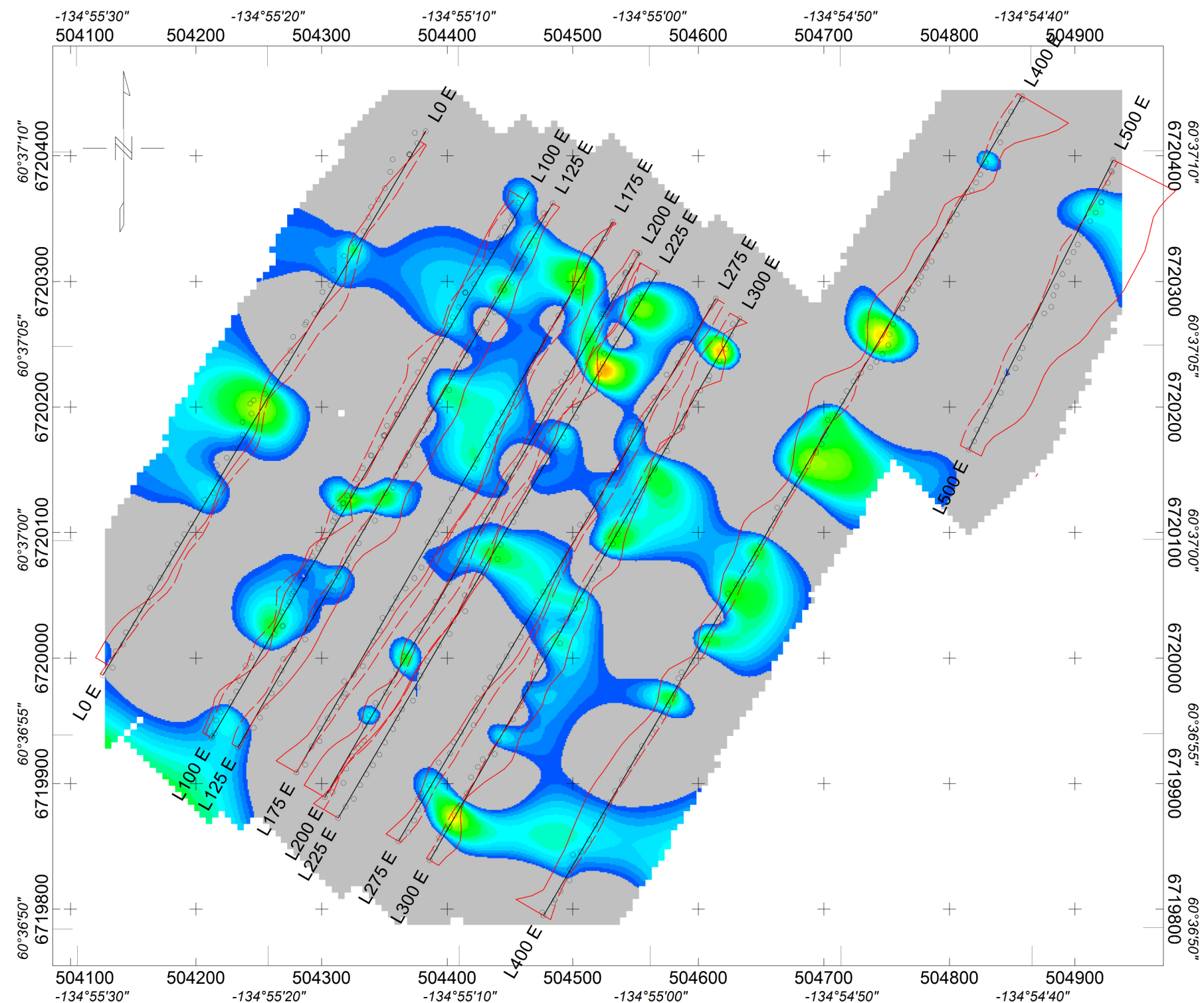


**Total Magnetic Field**  
nT

**FIGURE 2**  
**Total Magnetic Field**  
**Datum:57196 nT**



Arcturus Ventures Inc.
<b>Total Magnetic Field</b> <b>YT Claims</b>
Date Surveyed:Nov 22, 2015



**FIGURE 3**

**Fraser Filtered In-phase VLF**

**VLF Frequency: 24.8 KHz**  
**Profile Scale: 20% per cm**  
**Profile Base: 0**

**Filters: Positive Fraser Filter**  
**In-phase: Red line**  
**Quadrature: dashed red line**

Arcturus Ventures Inc.
Fraser Filtered In-phase VLF 24.8 KHz YT Claims
Date Surveyed: Nov 22, 2015

## APPENDIX – LIST OF CLAIMS

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	CLAIM NUM	OWNER	STAKE_DATE	RECORDED	EXPIRY_DAT	DISTRICT
YC39387	Quartz	Active	BC	101	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39388	Quartz	Active	BC	102	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39389	Quartz	Active	BC	103	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39390	Quartz	Active	BC	104	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39391	Quartz	Active	BC	105	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39392	Quartz	Active	BC	106	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39393	Quartz	Active	BC	107	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39394	Quartz	Active	BC	108	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39395	Quartz	Active	BC	109	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
YC39396	Quartz	Active	BC	110	Mona L. Blusson - 100%	2005-05-13	2005-05-24	2019-05-24	Whitehorse
Y 23043	Quartz	Active	BC No.	18	Mona L. Blusson - 100%	1968-01-20	1968-01-26	2019-01-26	Whitehorse
Y 23045	Quartz	Active	BC No.	20	Mona L. Blusson - 100%	1968-01-20	1968-01-26	2019-01-26	Whitehorse
Y 23078	Quartz	Active	BC No.	57	Mona L. Blusson - 100%	1968-01-20	1968-01-26	2019-01-26	Whitehorse
YC39353	Quartz	Active	YT	76	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39354	Quartz	Active	YT	77	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39355	Quartz	Active	YT	78	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39356	Quartz	Active	YT	79	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39357	Quartz	Active	YT	80	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39379	Quartz	Active	YT	102	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39380	Quartz	Active	YT	103	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39381	Quartz	Active	YT	104	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39382	Quartz	Active	YT	105	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39383	Quartz	Active	YT	106	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39384	Quartz	Active	YT	107	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39385	Quartz	Active	YT	108	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC39386	Quartz	Active	YT	109	Arcturus Ventures Inc. - 100%	2005-05-13	2005-05-24	2017-11-24	Whitehorse
YC66973	Quartz	Active	YT	111	Arcturus Ventures Inc. - 100%	2008-04-28	2008-04-28	2018-04-28	Whitehorse
YC66975	Quartz	Active	YT	113	Arcturus Ventures Inc. - 100%	2008-04-28	2008-04-28	2018-04-28	Whitehorse
YC66976	Quartz	Active	YT	114	Arcturus Ventures Inc. - 100%	2008-04-28	2008-04-28	2018-04-28	Whitehorse
YC66977	Quartz	Active	YT	115	Arcturus Ventures Inc. - 100%	2008-04-28	2008-04-28	2018-04-28	Whitehorse