



A TETRA TECH COMPANY

April 10, 2012

Yukon Energy Corporation
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ISSUED FOR USE
EBA FILE: W23101159.118
Via Email: David.Morrison@yec.yk.ca

Attention: David Morrison, YEC, President and CEO

Subject: Summary of Results: Geophysics Survey of the Partridge Creek Warm Spring, Yukon

1.0 INTRODUCTION

As part of the 2011 Yukon Geothermal Exploration Program, EBA, A Tetra Tech Company (EBA) contracted Aurora Geoscience Limited (AGL) to conduct a Total Magnetic Field and ELF Survey in the area of the Partridge Creek Warm Spring. The warm spring is located on NTS Map 115P/11 about 120 km southeast of Dawson City, Yukon and 15 km north of the McQuesten River Bridge on the Klondike Highway (Figure 1). The information collected will be used to enhance the understanding of the geological conditions in which the thermal spring occurs and to guide future sub-surface exploration of the area.

The Partridge Creek Warm Spring (PCWS) is a shallow (less than 150 mm deep) pond less than 10 m average diameter, located at the base of a sub-vertical, about 5 m-high bluff of granitic bedrock. The springs are sourced from numerous gaseous springs on the floor of the pond.

The key objectives of this Phase 118 of the 2011 Geothermal Exploration Program was to conduct a geophysical survey over a representative, approximately 2 km² area, centered on the springs. The geophysical methods used for the project were selected to provide definition of geological structures identified by air photo interpretation that may be associated with the warm spring.

2.0 RESULTS

The fieldwork was completed by a crew of two AGL technicians from September 2 to 9 and September 19 to October 2, 2011. The interruption in the field program was required to complete repairs to equipment. The geophysics crew was based in Dawson City for the initial program. A small camp was established at the southern end of the survey grid to complete the balance of the program. There is presently no road access to the study area and crews were mobilized by helicopter provided by Trans North Helicopters.

32.8 km of Total Magnetic Field survey and 35.6 km of ELF (the extremely low frequency portion of the earth's electromagnetic field spectrum) survey was completed over a period of 22 days. Details of the crew, equipment, survey specifications and data processing are appended as Aurora Geosciences Field Report (Appendix B).

The survey grid was optimally located to cover the main valley of Partridge Creek and prominent tributary valleys that are interpreted to follow prominent geological structures (Figure 2). The Total Magnetic Field (TMF) survey, and particularly the ELF survey, were successful in identifying geophysical expressions of geological structures that are likely related to the warm spring (Figures 3 and 4).

The TMF survey shows a distinct magnetic anomaly at the warm spring; the spring is located in the southwest area of the anomaly. West and east boundaries of the anomaly are relatively linear and distinct; the west boundary corresponds to the Partridge Creek Valley structure and the east boundary does not follow a distinct erosional surface feature.

The results of the ELF survey show a distinct linear anomaly that corresponds with the westerly oriented tributary valley of Partridge Creek that hosts the warm spring. This corresponds with an assumed geological structure, probably a sub-vertical normal fault, with a steeply dipping fault plane to the south.

3.0 SUMMARY, CONCLUSIONS and RECOMMENDATIONS

The results of the geophysical surveys support the geological mapping and identify a significant structure associated with the warm spring. The findings of the geophysical surveys enhance the favourability of the warm springs for advanced exploration and potential for development as a geothermal power production facility.

Testing of the geothermal gradient is recommended as the next stage of exploration. Drilling a minimum of two boreholes to a depth of about 300 m is recommended to provide ground temperature and geology data. This work would entail either the construction of a winter road following a relic trail up the Partridge Creek Valley, or a helicopter-supported program. Costs for this program would be in the order of \$0.5 million.

Prior to further investment in exploration, staking of mineral claims to cover the structural anomaly associated with the warm spring is recommended. The land is presently open to staking of mineral claims and there has been some recent claims staking in the region.

4.0 LIMITATIONS OF REPORT

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5.0 CLOSURE

We trust this report meets your present requirements. Should you have any questions or comments, please contact the undersigned at your convenience.

Sincerely,
EBA, A Tetra Tech Company

Reviewed by:

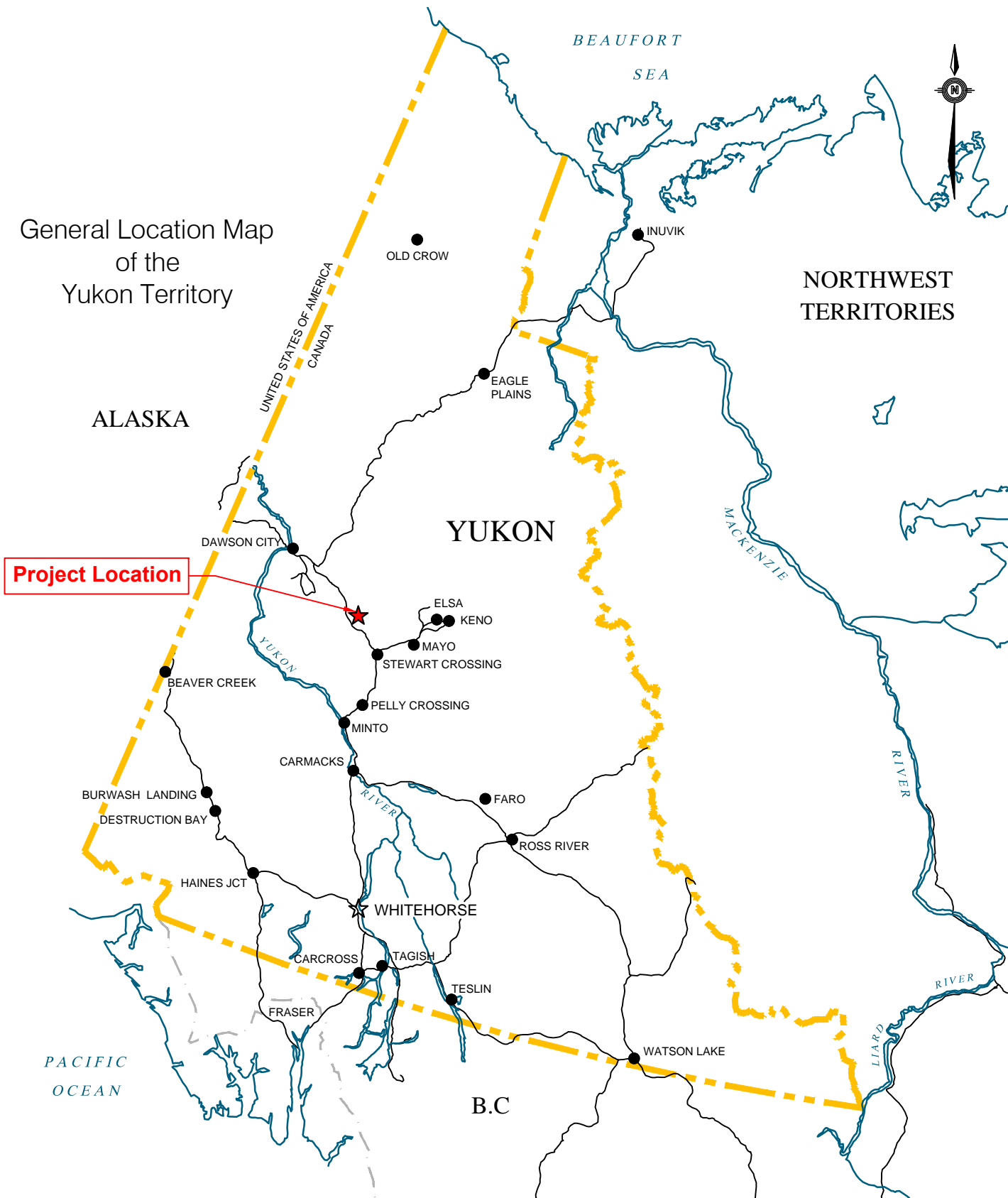
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FIGURES

- Figure 1 Location Map
- Figure 2 Partridge Creek Grid – Mag/ELF Survey Lines
- Figure 3 Partridge Creek – Total Magnetic Field
- Figure 4 Partridge Creek – ELF

General Location Map
of the
Yukon Territory



CLIENT



YUKON ENERGY CORPORATION

**YUKON-WIDE GEOTHERMAL EXPLORATION PROGRAM
PARTRIDGE CREEK WARM SPRINGS, YUKON**

LOCATION PLAN



eba
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PROJECT NO. W23101159.118	DWN CB	CKD JTD	REV 0
OFFICE EBA-WHSE	DATE April 10, 2012		

Figure 1

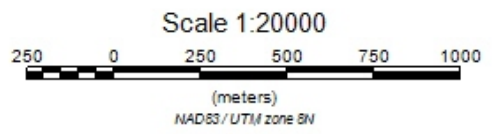
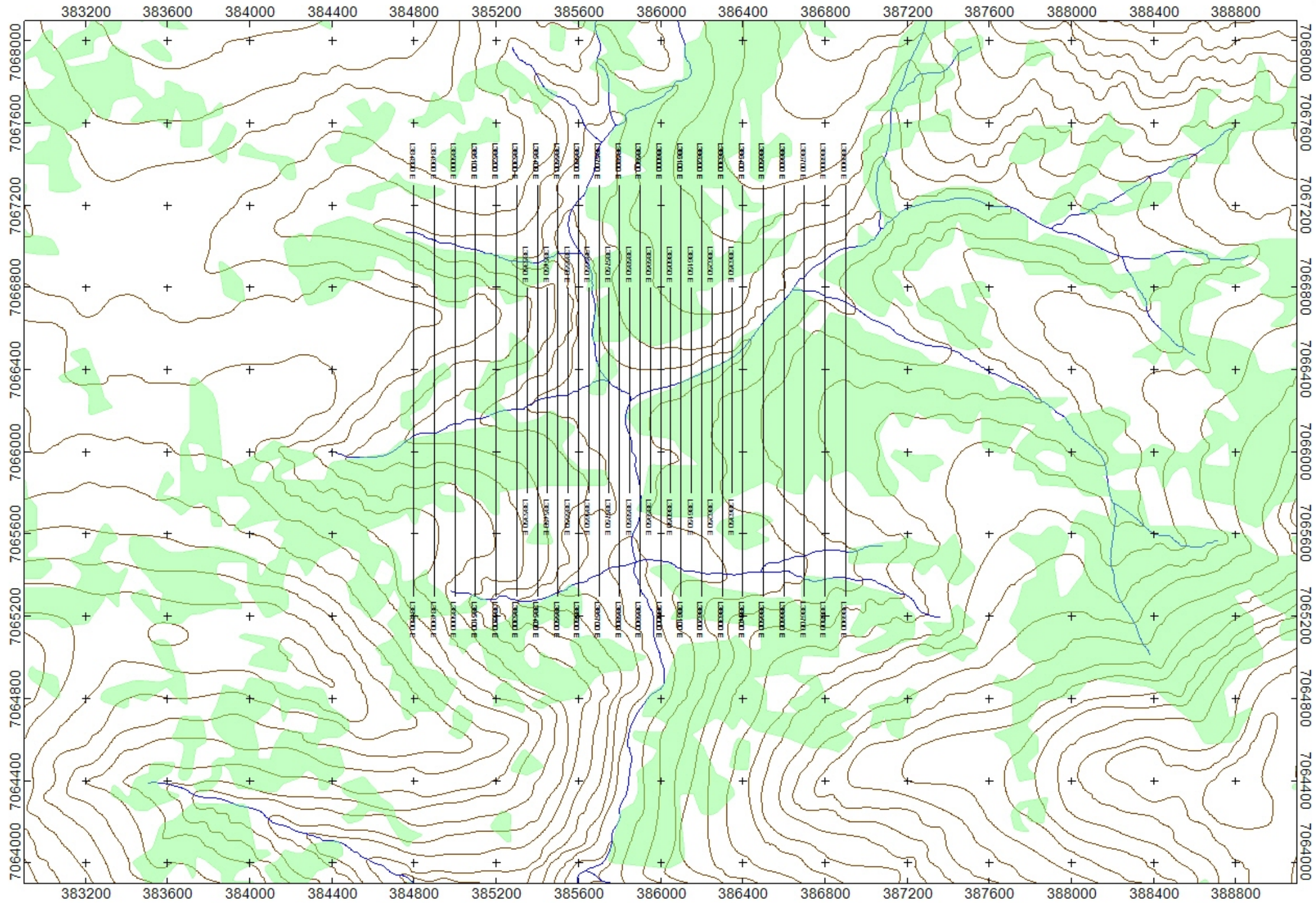
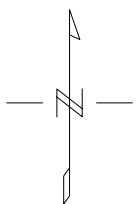
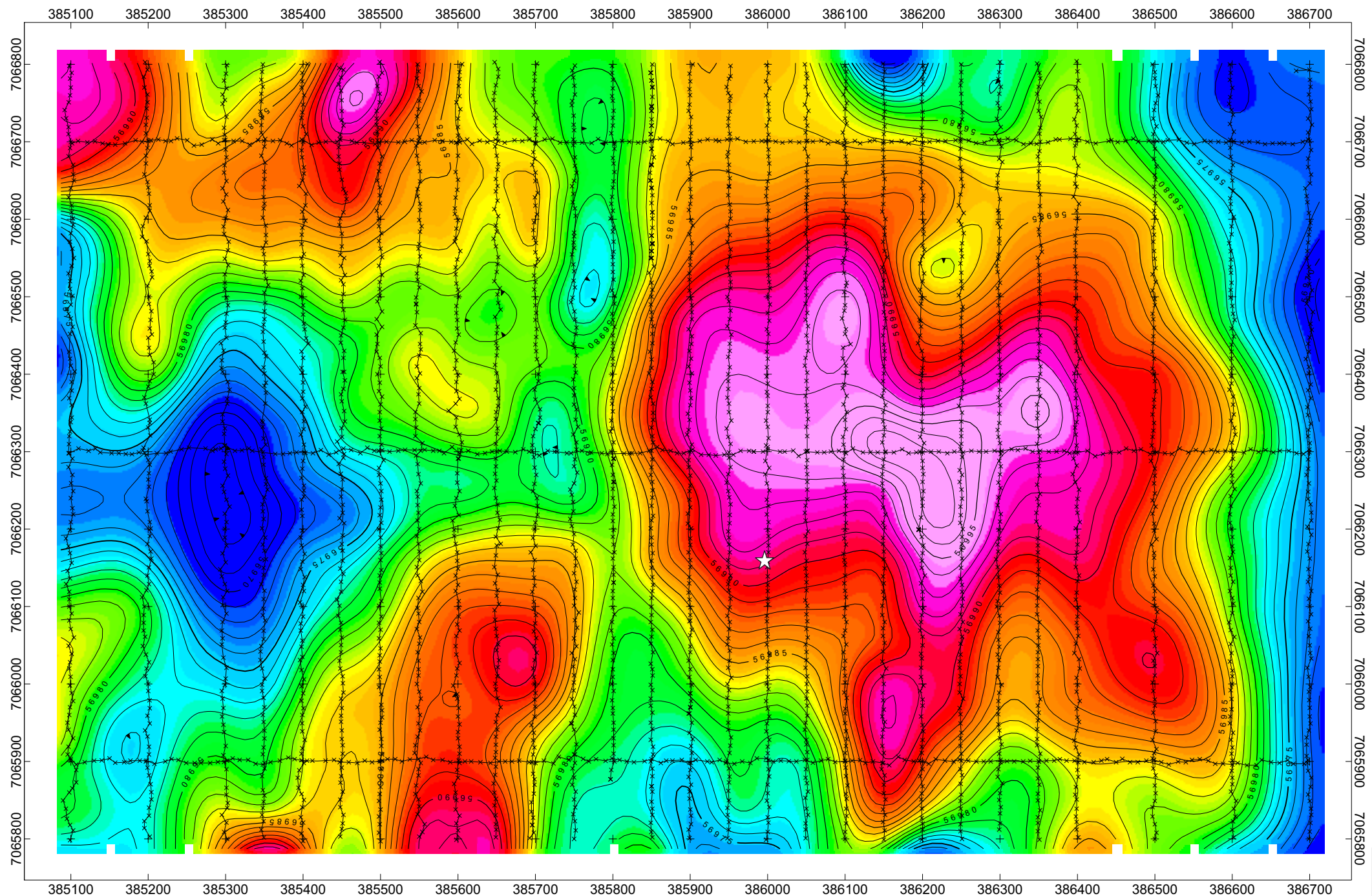


Figure 2

EBA ENGINEERING CONSULTANTS LTD	
PARTRIDGE CREEK GRID MAG/ELF SURVEY LINE LOCATION MAP	
JOB: EBA-11565-YT	DATE SURVEYED: SEPT 2- SEPT 9, 2011 & SEPT 19 -OCT 2, 2011
NTS SHEET: 105P/11	MINING DISTRICT: DAWSON
PROJ:UTM ZONE 8N	DATUM:NAD 83
DATE: OCT 6, 2011	DRAWN BY: J WATT
AURORA GEOSCIENCES LTD	



LEGEND
TOTAL FIELD MAGNETICS

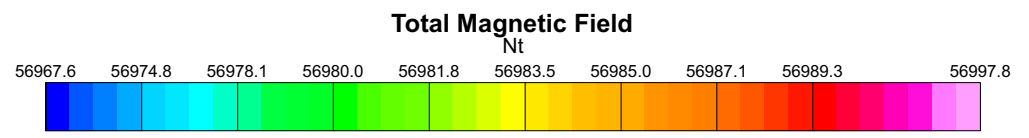
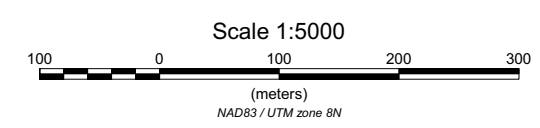
CONTOUR INTERVALS (nT)

1
5
25

REFERENCE FIELD : 57,000 nT
 INSTRUMENT : GEM GSM-19T
 GRIDDING ALGORITHM : MINIMUM CURVATURE
 GRID CELL SIZE : 12.5 m then upward continued 50 m
 GRID HANNING FILTER : 0 PASSES
 DATA FILE : Partridge Creek Grid Mag_Final.gdb
 OPERATOR : JW&JL
 STATION SEPARATION : 10 m
 LINE-KM SURVEYED THIS SHEET : 32.8 km

Figure 3

☆ Partridge Creek Warm Spring



EBA ENGINEERING CONSULTANTS LTD

**PARTRIDGE CREEK GRID
TOTAL MAGNETIC FIELD
COLOUR CONTOURED MAP**

Loc: YT	Date Surveyed: Sept 2 to Sept 9, 2011 & Sept 19 to Oct 2, 2011
NTS Sheet: 115P/11	Mining District: Dawson
Proj: UTM Zone 8N	Datum: Nad83
Job: EBA-11656-YT	Drawn by: J Watt

AURORA GEOSCIENCES LTD.

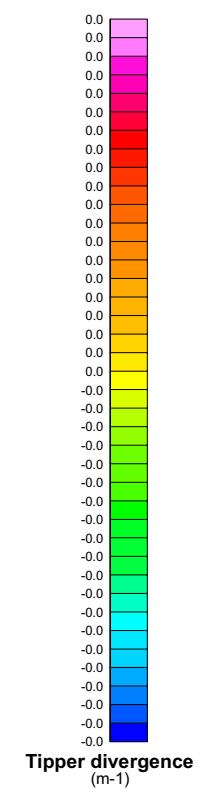
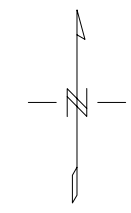
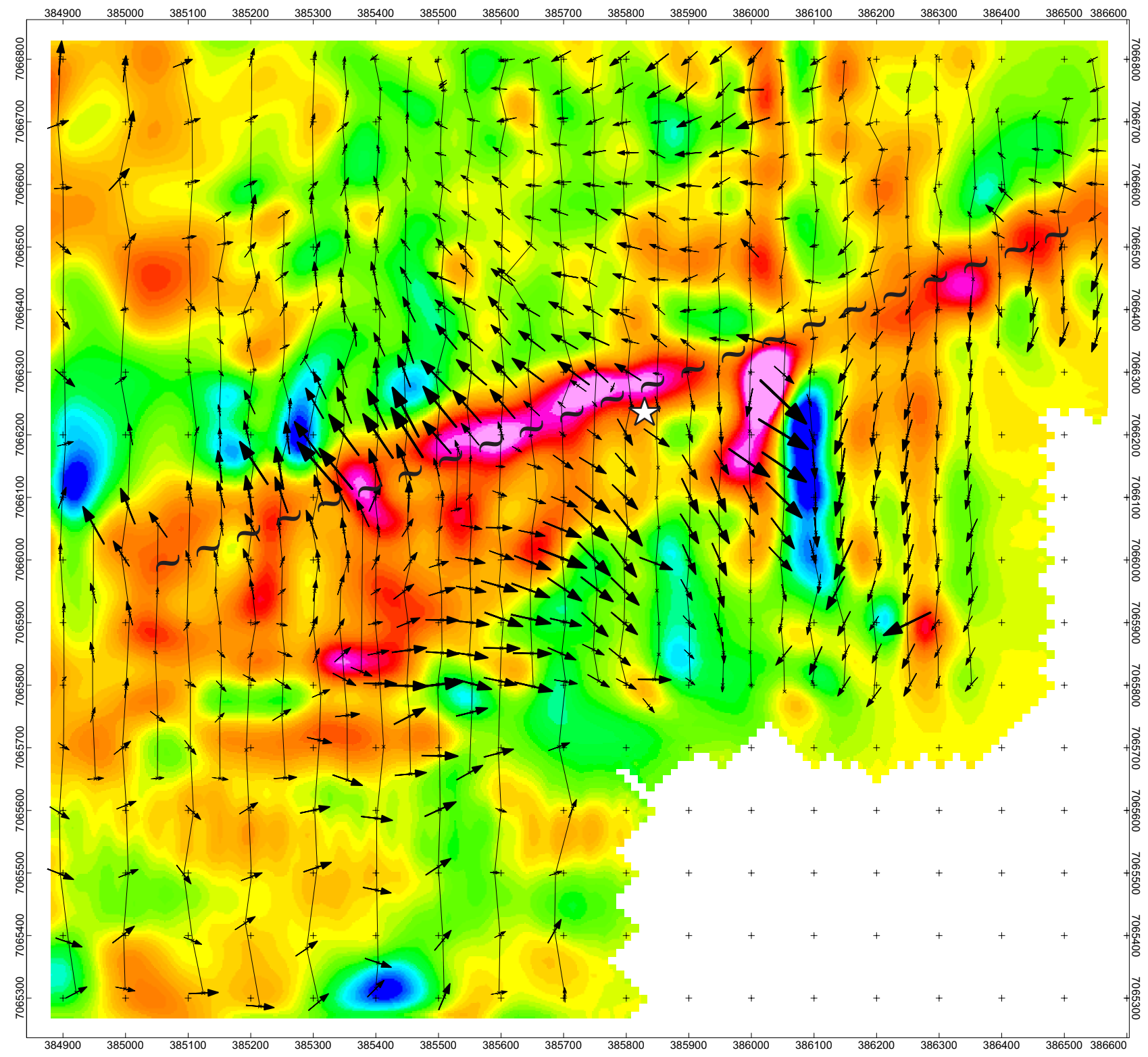
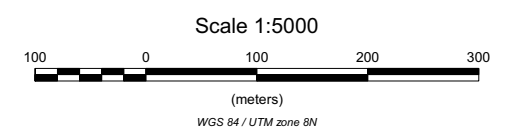


Figure 4

- ~ ~ Fault Structure
- ☆ Partridge Creek Warm Spring



EBA ENGINEERING CONSULTANTS LTD	
PARTRIDGE CREEK GRID ELF SURVEY REAL_360 Div Plot	
Loc: YT NTS Sheet: 115P/11 Proj: UTM Zone 8N Job: EBA-11565-YT	Date Surveyed: Sept - Oct, 2011 Mining District: Dawson Datum: WGS 84 Drawn by: J Watt Date: Oct 6, 2011
AURORA GEOSCIENCES LTD.	

APPENDIX A

APPENDIX A GENERAL CONDITIONS

GENERAL CONDITIONS

GEO-ENVIRONMENTAL REPORT

This report incorporates and is subject to these “General Conditions”.

1.0 USE OF REPORT AND OWNERSHIP

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During the performance of the work and the preparation of the report, EBA may rely on information provided by persons other than the Client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.

APPENDIX B

APPENDIX B 2011 PARTRIDGE CREEK MAGNETIC & ELF SURVEY – FIELD REPORT
