

# MAR 20040020: CANYON CREEK

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**756736 Alberta Ltd.**

**2002 – 2004 EXPLORATION OF THE  
CANYON CREEK AREA PROPERTY**

**NORTH-CENTRAL, ALBERTA**

**Metallic and Industrial Minerals Permit  
9398070351**

**Geographic Co-ordinates  
55°12'00" to 55°22'30"N  
114°55'00" to 115°07'30"W**

**NTS Sheet 83 O/2 & O/7**

**2004.10.25**

**Prepared by**

**A. Hangartner, Prospector**

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T9E 6E1**

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## **1. SUMMARY**

**Alberta Metallic and Industrial Minerals Permit Nos. 9398070351, herein referred to as the Canyon Creek Area Property, located southwest of the town of Slave Lake, Alberta in the northern part of the Swan Hills, was explored for primary diamond deposits. A number of anomalous areas depicted from high resolution aeromagnetic (HRAM) surveys acquired from Spectra Exploration Geoscience Corp. and Terraquest Ltd. along with areas recommended by Halferdahl & Associates Ltd. were investigated.**

**756736 Alberta Ltd. explored the area to determine the source or possible sources, of some of the aeromagnetic anomalies. Several topographic circular/oval-shaped physiographic features were also investigated.**

## **2. INTRODUCTION**

**During 2002 and 2004, 756736 Alberta Ltd. conducted exploration for primary diamond deposits within the Canyon Creek Area Property. Exploration activities included the use of high-resolution aeromagnetic data from Terraquest Ltd., and a brief review of aerial photographs, digital elevation data, and other publicly available information by 756736 Alberta Ltd..**

**The assessment report herein, describes the exploration conducted at the Canyon Creek Area Property during 2002 through 2004. It has been prepared by 756736 Alberta Ltd, who is the owner of the Metallic and Industrial Minerals Permit No. 9398070351.**

### **3. LOCATION AND ACCESS**

#### **Property Location**

The property is located in north-central Alberta, about 325 km north-northwest of the City of Edmonton and 15 km southwest of the town of Slave Lake Alberta. The property extends from 55°12'00" to 55°22'30" north latitude and 114°55'00" to 115°07'30" west longitude, within NTS map sheets 83 O/2 and O/7 (Fig. 3.1).

#### **Property Access**

The property is accessible from several gravelled oil service roads leading south from Highway 2, 15 km west of the town of Slave Lake. The oilfield service roads allow access to the southern and western sides of the exploration area (Fig. 6.1). Seismic line, pipeline, and power-line lines provide all-terrain vehicle or snow-machine access to remote areas of the property.

The closest infrastructure to the area that includes accommodations, food, and vehicles is at the hamlet of Canyon Creek in the southwest corner of the property or at Slave Lake, 15 km away.

The terrain of the southern area makes access difficult. Roads and cutlines become very soft and slippery when it rains.

#### **Property Geology**

The property contains substantial amounts of oilfield culture and several communications towers. Economic activities in the area are dominated by logging and timber operations and oil and gas exploration. The property is in the northern part of Swan Hills within the hydrographic basin of the Mooney Creek.

## **4. EXPLORATION**

### **Work Description**

Between July 31, 2002 and July 31, 2004, 756736 Alberta Ltd. carried out preliminary ground follow-ups of the Spectra Exploration Geoscience Corp. and Terraquest HRAM fly-by map anomalies and other features that were identified as meriting investigation by criteria suggested in consultations with Halferdahl and Associates. Lower intensity HRAM anomalies and some of the circular physiographical features were investigated, flagged and ground magnetic survey profile follow-ups were done on several of these.

### **Site Selection**

The property contained considerable amounts of cultural interference. Raw data processing using Geosoft Software showed that there were numerous small anomalies that did not have verified cultural sources. Time was taken for ground de-culturing and locating geographically significant anomalies not shown on the aeromagnetic maps but that perhaps could be confirmed by ground measurements. (Not all kimberlite pipes are magnetic.)

Several sites were chosen to conduct magnetic surveys. A consideration in site choice was downsizing strategy. Profiles were established by flagging lines that crossed through the anomalous sources nearer to the property extremities. Stations were measured and positioned using hip chain, compass, and GPS. The length of the profile chosen depended on the terrain and the data available

Data collected for each profile was processed at a later date (For data collection methods, processing methods and equipment used see Appendix 2 – Method of Ground Magnetic Surveying Employed).

<b>Table 4.1 Exploration, Grid Flagging, and Magnetic Profile Locations, Canyon Creek Area Property, July 2002 - 2004.</b>						
Report Identifier	Length in meters	UTM		Work Description	Dates	Shown in Figure
		Easting	Northing			
9398070351		620000	6130000	Exploration & Deculturing	Apr. 17 & Apr. 18/03	4.1
P2128	800	621200	6128975	Magnetic Profile	Apr. 17/03	4.2
P2228	800	622400	6128750	Magnetic Profile	Apr. 17/03	4.3
P2328	1060	623700	6128225	Magnetic Profile	Apr. 18/03	4.4

### Findings

Many of the anomalous areas planned for survey were found to contain obvious man-made culture and therefore alternate areas were chosen. Other profiles were abandoned during flagging or when we were able to confirm that anomalies were underground oilfield culture. None of the profiles conducted displayed any data that could be considered significant.

### 5. CONCLUSIONS

The anomalous areas investigated at the perimeters of the claim contained man-made culture or no significant indications of geophysical interest. Downsizing of the investigated areas is recommended. Some areas, although they contain man-made culture, were retained to keep the claim contiguous. All small anomalies depicted on the aeromagnetic map should be investigated.

## **6. PERMIT TABULATION**

The areas retained were selected using selection criteria suggested by Halferdahl & Associates Ltd., topographic circular/oval-shaped physiographic features; anomalies depicted on 1997 Spectra Exploration Geoscience Corp. and Terraquest Ltd. HRAM survey maps; ground magnetometer surveys; and an extensive review of aerial photographs, digital elevation data, topographic maps and other publicly available information, by 756736 Alberta Ltd..

Table 6.1 lists the areas of the permits that 756736 Alberta Ltd. wants retained. Figure 6.1 should also depict this same information. If there is a discrepancy between the Table and the Figure, please use the information depicted on the Figure. Cancel all shaded areas of the original permits as depicted in Figure 6.1.

**TABLE 6.1**

**Permit Property & Location Descriptions, Canyon Creek Area Property.**

<b>Permit #</b>	<b>Legal Land Description of retained area.</b>	<b>Area (ha)</b>	<b>See Figure</b>
9398070351	Tp.73r7w5 - (Sec. 4L2,L3; 5L2,L3,L6,L7; 6L2) Tp.73r8w5 - (Sec. 1L8,L9,L12; 2L9,L11)	192	6.1

### **Distances Gridded and Surveyed**

Total ground magnetic profile survey line/km = 2.66

### **Exploration Expenditures**

Total exploration expenditures, July 2002 – July 2004: \$3,104.53



**For a summary of expenditures see Appendix 1 – Statement of Reasonable Expenditures. (A detailed breakdown of dates, activities and equipment used has been retained and is available upon request.)**

**Please allocate any additional expenditures to the retained area of MAIM permit #9398070351.**

**Metallic and Industrial Minerals Permit No. 9398070351 is privately owned and exploration expenditures are not financed by share holders.**

**MAIM Permits # 9398070351 is held by 756736 Alberta Ltd., 4011-37 Ave., Leduc, Alberta. This report is being submitted for 756736 Alberta Ltd. by August Hangartner of 756736 Alberta Ltd., 4011-37 Ave., Leduc, Alberta.**

## **7. QUALIFICATIONS**

**Qualifications and work experience of the author of this report:**


**Education:**

**Graduate of NAIT, - Electronics Engineering Technology (1970).**

**Work experience:**

**Many years experience as a Technical Systems Analyst working with complex computer systems, programming, troubleshooting, interfacing devices, etc.**

**I have no formal training in Geology. Prospecting is a hobby.**

  
**August Hangartner  
Part time prospector,  
Leduc, Alberta  
Oct 25, 2004.**

**Distribution:  
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756736 Alberta Ltd.: 2 copies**

## **8. REFERENCES**

**Terraquest Ltd. (1998) High resolution aeromagnetic survey.**

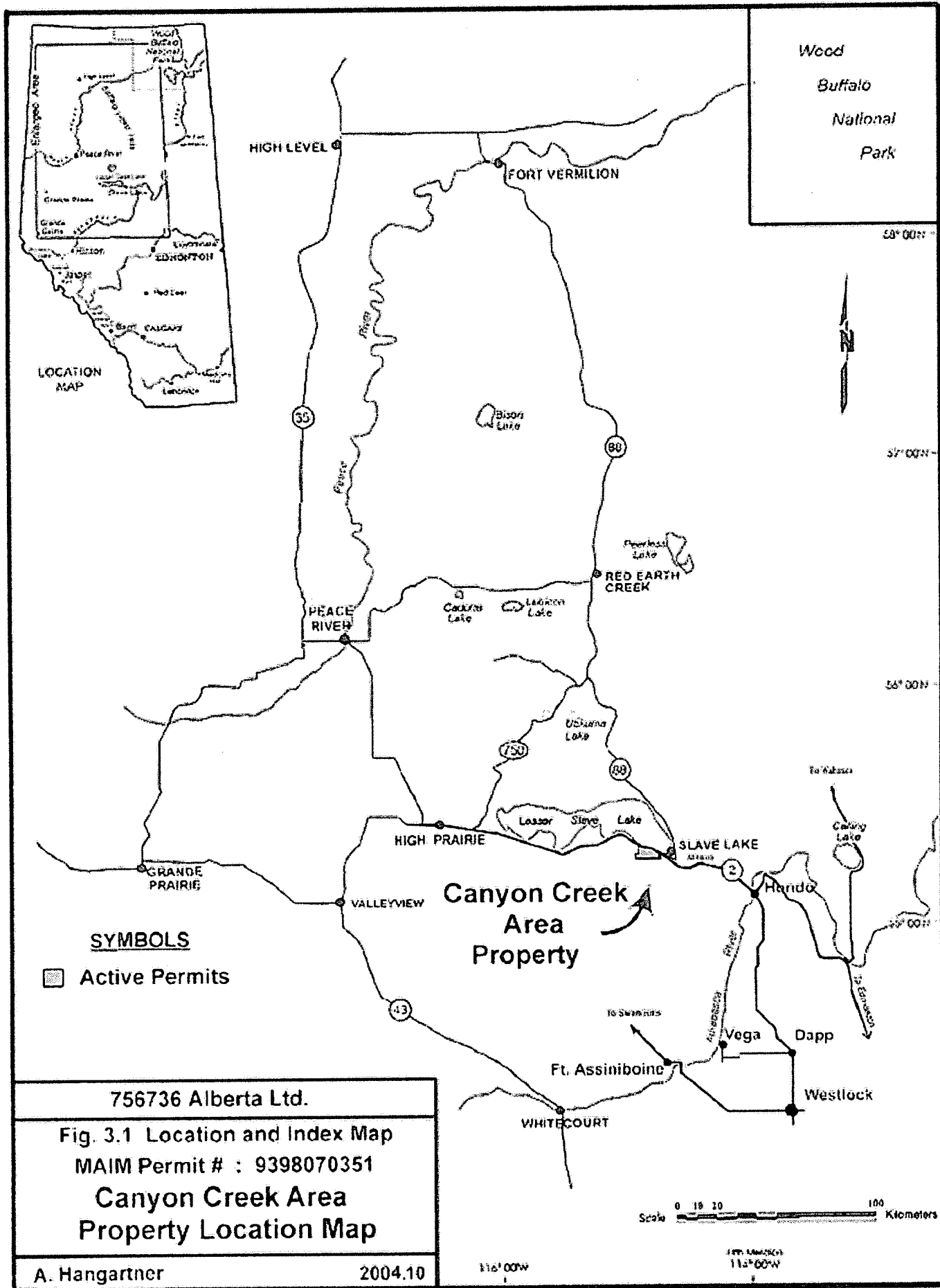
**Lesser Slave Lake project - Blocks B & C; unpublished report dated 1998/04/28 to Halferdahl and Associates Ltd., Edmonton, by Terraquest Ltd., Toronto, 22 pgs., 5 figs., 6 maps.**

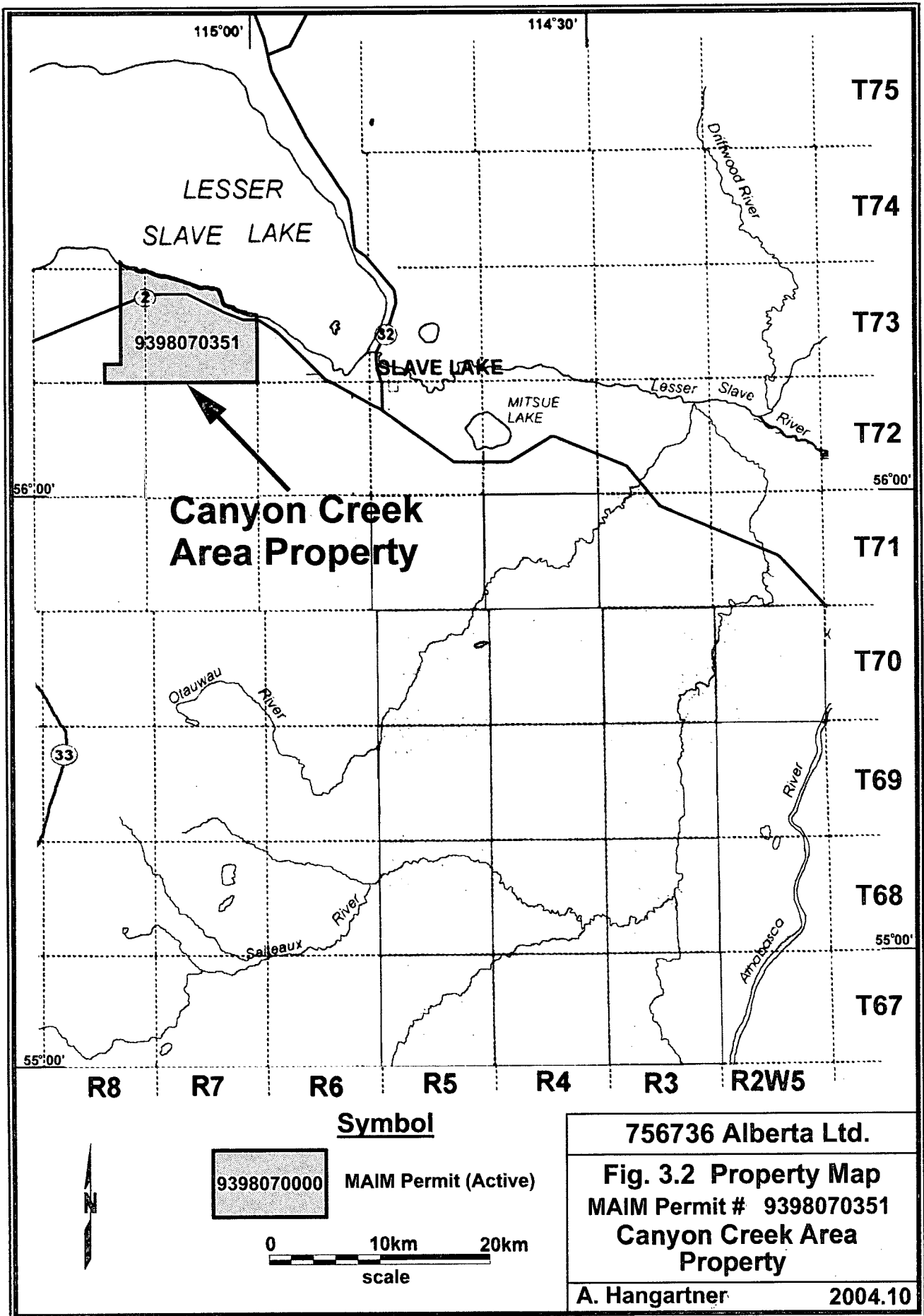
- 1. 5.0 Data Processing - Processing steps and some important concepts that should be highlighted with regard to cultural editing.**
- 2. 6.0 Interpretation -Techniques and comments offered to assist in the interpretation of the horizontal gradient vectors.**
- 3. Contoured Vertical Gradient of RTF and Horizontal Gradient Vectors, Block B, high resolution magnetic survey map.**

**Halferdahl & Associates Ltd. (1998) Assessment report. 1997 and Early 1998**

**Exploration of the Lesser Slave Lake Property, North -Central, Alberta dated 1998/05/26, 23 pgs. 11 figs., 6 apps.**

- 1. 10. Conclusions – Anomalies warrant additional exploration.**
- 2. Appendix 2 – Location of Anomalies.**
- 3. Appendix 2 - Selected Physiographic Features.**
- 4. Appendix 2 – Coincident Anomalies and Physiographic Features.**





**Canyon Creek  
Area Property**

**Symbol**

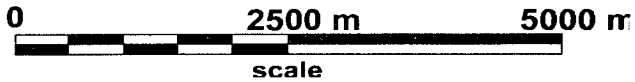
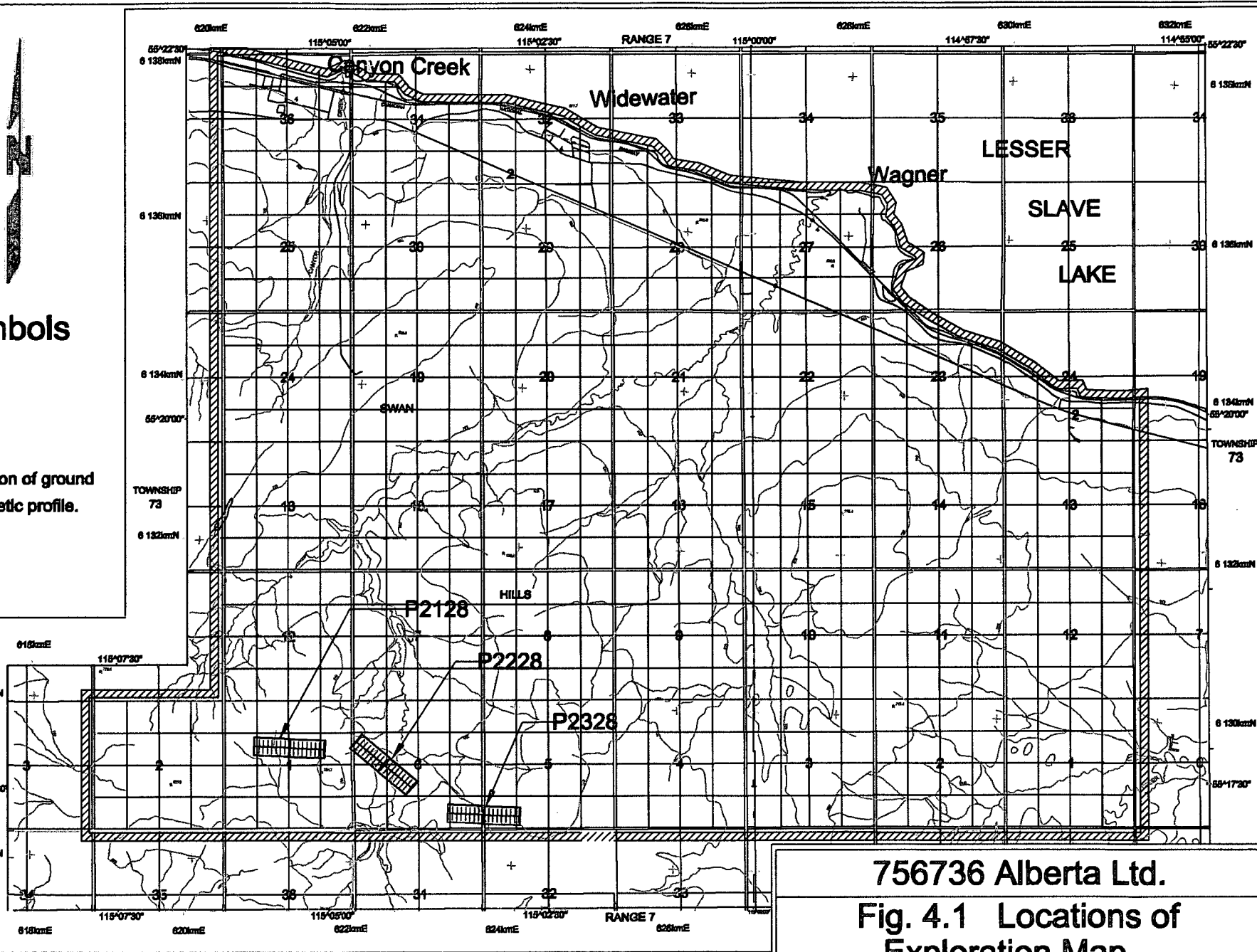
9398070000 MAIM Permit (Active)



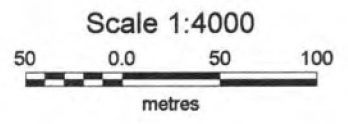
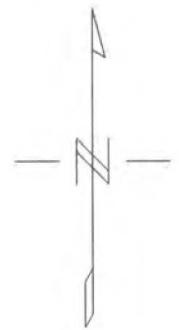
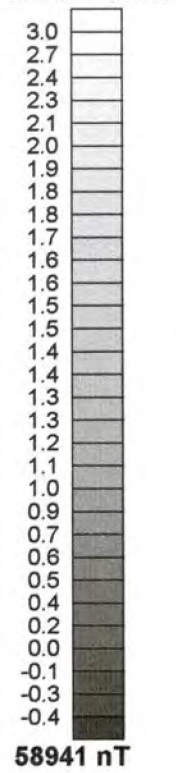
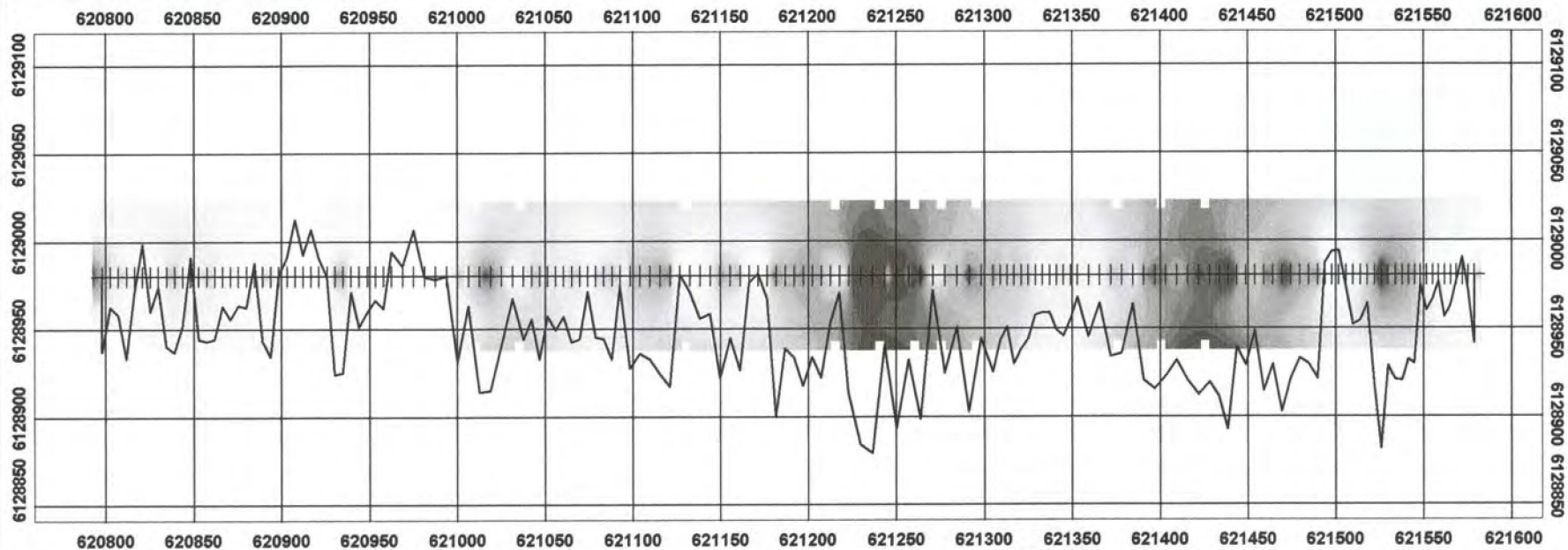
756736 Alberta Ltd.  
**Fig. 3.2 Property Map**  
 MAIM Permit # 9398070351  
**Canyon Creek Area  
 Property**  
 A. Hangartner 2004.10

**Symbols**

 Location of ground magnetic profile.



**756736 Alberta Ltd.**  
**Fig. 4.1 Locations of**  
**Exploration Map**  
**MAIM Permit #9398070351**  
**A. Hangartner** **2004.10**

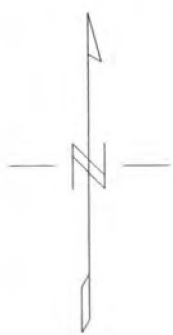
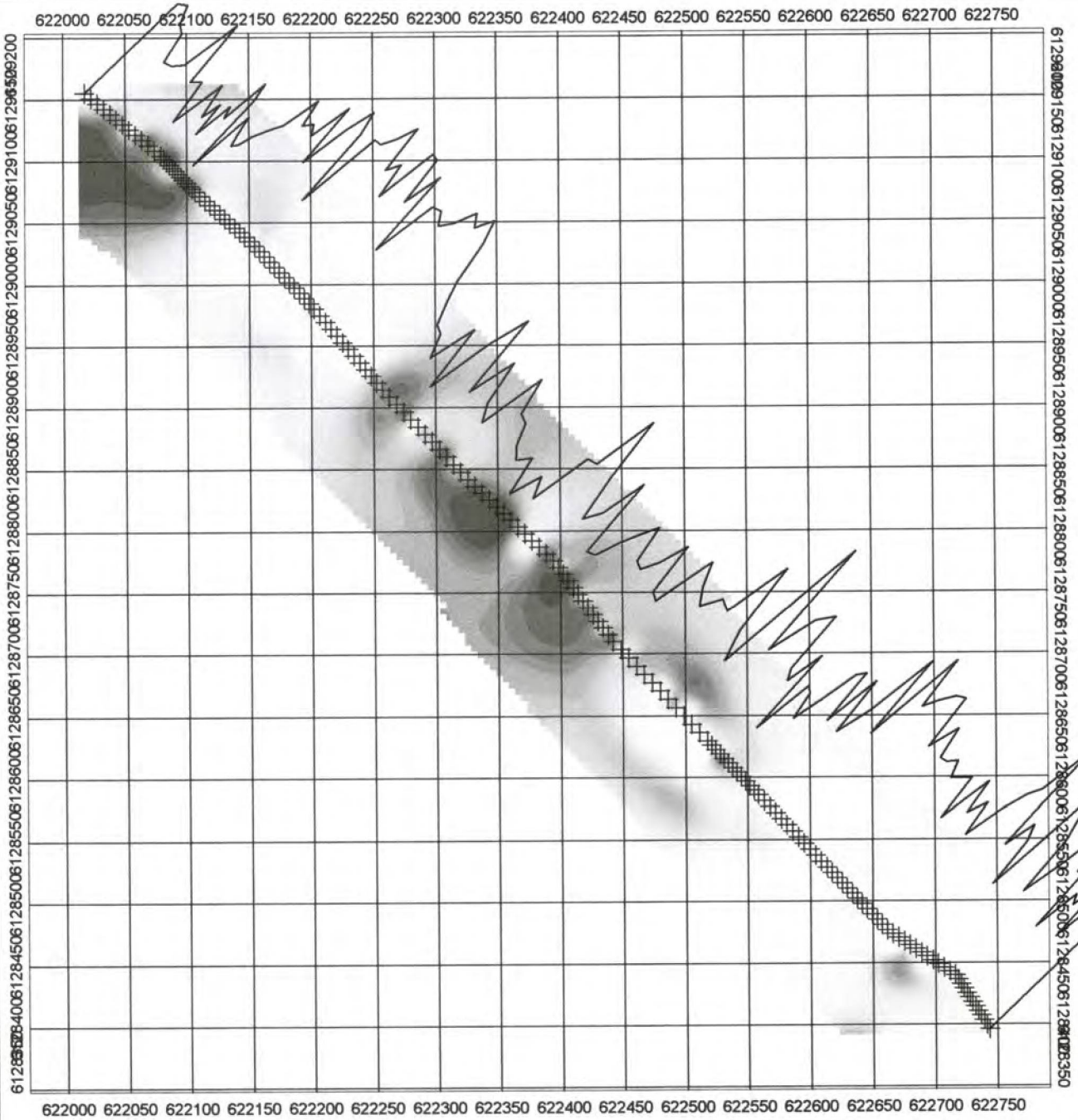


**Legend**  
 + Location of Magnetic Reading.

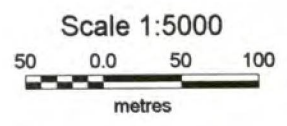
**756736 Alberta Ltd.**

**Fig. 4.2 Profile P2128**  
**Ground Magnetic Survey**  
**MAIM Permit #9398070351**

2004.10      A. Hangartner

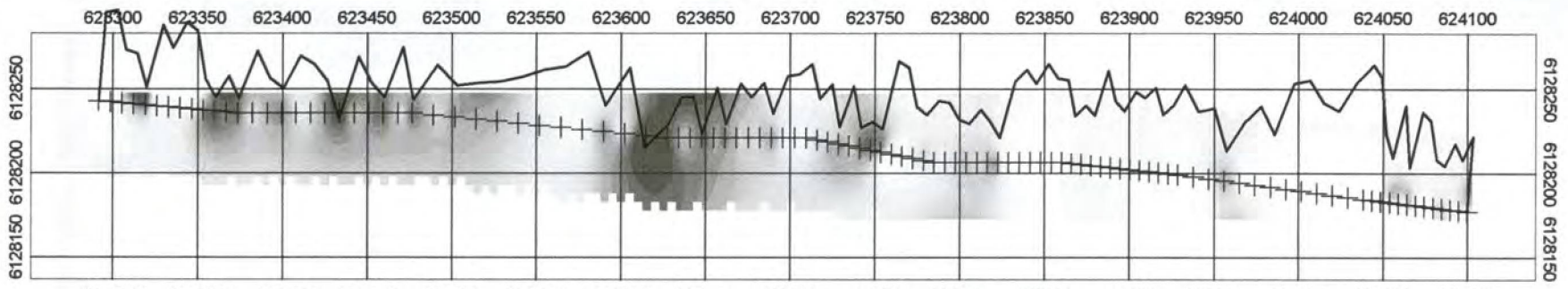


**Legend**  
 + Location of Magnetic Reading.

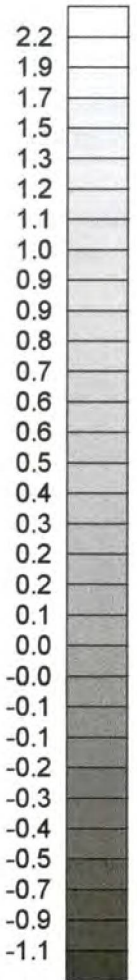


<b>756736 Alberta Ltd.</b>	
<b>Fig. 4.3 Profile P2228 Ground Magnetic Survey MAIM Permit #9398070351</b>	
<b>2004.10</b>	<b>A. Hangartner</b>

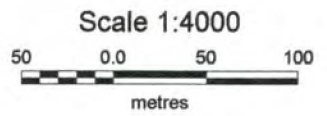
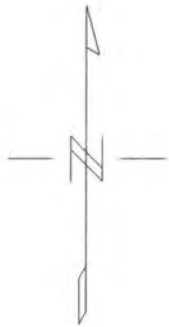




623300 623350 623400 623450 623500 623550 623600 623650 623700 623750 623800 623850 623900 623950 624000 624050 624100



58950 nT



**Legend**  
+ Location of Magnetic Reading.

<b>756736 Alberta Ltd.</b>	
Fig. 4.4 Profile P2328 Ground Magnetic Survey MAIM Permit #9398070351	
2004.10	A. Hangartner

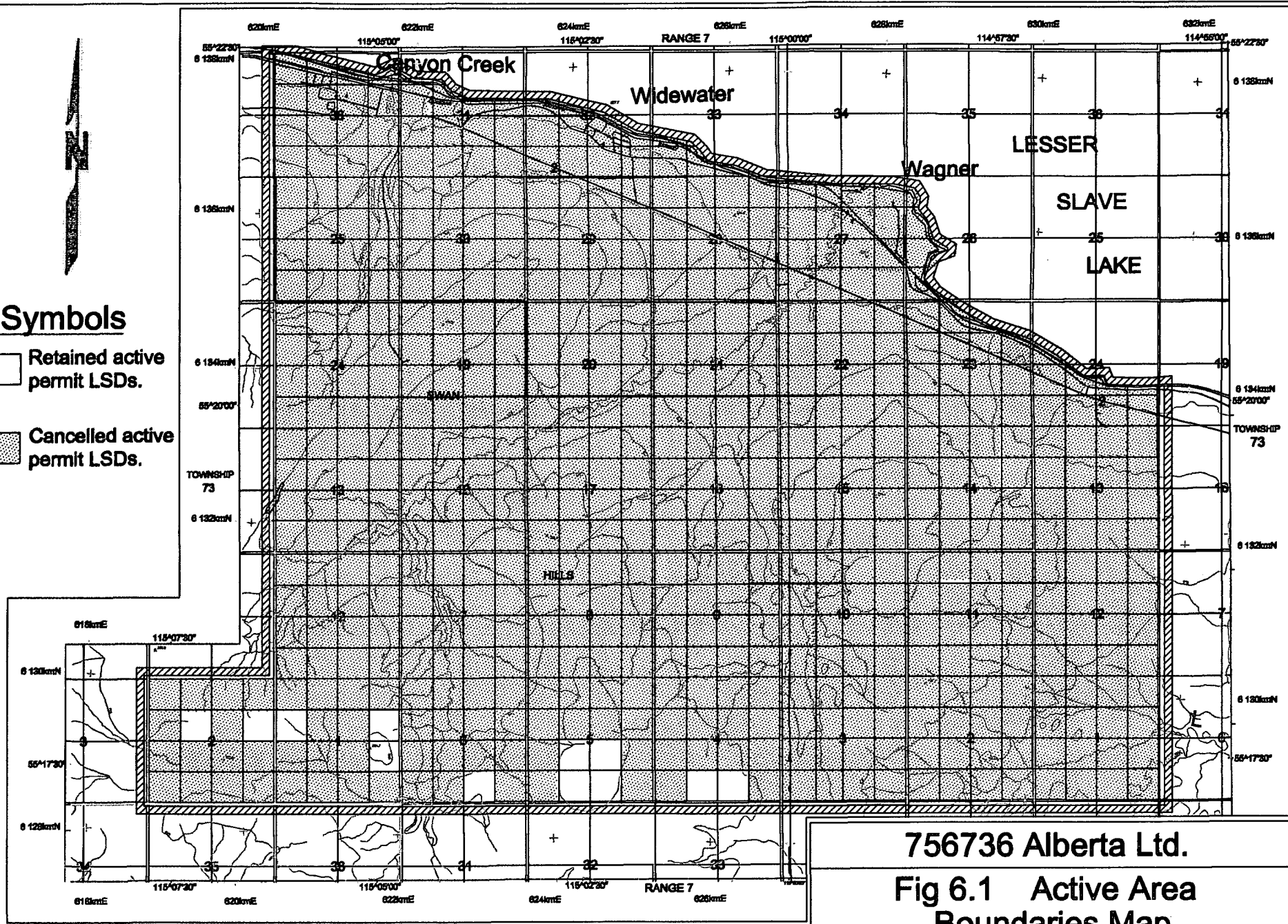




### Symbols

 Retained active permit LSDs.

 Cancelled active permit LSDs.



**756736 Alberta Ltd.**  
**Fig 6.1 Active Area**  
**Boundaries Map**  
**MAIM Permit #9398070351**  
A. Hangartner 2004.10

## APPENDIX 1: STATEMENT OF REASONABLE EXPENDITURES

METALLIC AND INDUSTRIAL MINERALS PERMITS 9398070351, Canyon Creek Area Property.

<u>EXPLORATION SERVICES - 756736 ALBERTA LTD.</u>		Rates	Cost	Total Cost
Description	Per	Charge	(\$)	(\$)
<b><u>Salary and Wages</u></b>				
A. Hangartner	- consultations, data processing, drafting, exploration, ground magnetometer surveys, gridding, mineral sampling, reporting			
Helper	"			
-travel	- trip preparation			
(2 per.)	- total travel time for services			
<b>Total Cost:</b>			<b>\$1,540.00</b>	<b>\$1,540.00</b>
<b><u>Field Costs</u></b>				
-meals & lodging	- total meal expenses for services		2 dy \$30.00	\$60.00
(2 per.)	- total accomodations expenses for servic		2 nt \$40.00	\$80.00
Field Supplies	- cords, batteries, ribbon, hip chain, etc.		\$15.00	\$15.00
<b>Total Cost:</b>			<b>\$155.00</b>	<b>\$155.00</b>
<b><u>Rental Equipment</u></b>				
	- truck rental, 3/4 ton	2 dy	\$80.00	\$160.00
	- GSM-19 Magnetometer rental	1 dy	\$64.00	\$64.00
	- GSM-19 Magnetometer Base Station rent	1 dy	\$64.00	\$64.00
	- pentium computer system rental	2 dy	\$40.00	\$80.00
	- data logging device rental	1 dy	\$30.00	\$30.00
	- global positioning system rental	2 dy	\$30.00	\$60.00
	- gridding equipment rental	1 dy	\$25.00	\$25.00
	- lap top CPU pentium	2 dy	\$30.00	\$60.00
	- quad 6x6 rental	2 dy	\$110.00	\$220.00
	- base global positioning system rental	1 dy	\$30.00	\$30.00
	- utility trailer rental	2 dy	\$35.00	\$70.00
	- office space rental	24 mo	\$20.00	\$480.00
<b>Total Cost:</b>			<b>\$1,343.00</b>	<b>\$1,343.00</b>
<b><u>Office Charges, Administrative, General</u></b>				
	- phone, internet, Fax, etc.			\$35.00
	- office supplies, paper, ink carts.,lamintation			\$22.28
	- Maps	1 map	\$9.25	\$9.25
<b>Total Cost:</b>			<b>\$66.53</b>	<b>\$66.53</b>
<b>Grand Total</b>				<b>\$3,104.53</b>

Above is a summary of reasonable expenditures ascribed from quoted commercial equipment rental rates less 10 or 20%. Many, many more man hours than the summary above indicates were spent on this project, and one could reasonably ascribe some \$60.00 per man hour to work of this nature in professional fees, however, this would be an unreasonable amount to justify considering the qualifications of the exploration teams, therefore, [REDACTED] per man hour and the shortened claimed duration should be more appropriate.

## **Appendix 2: Method of Ground Magnetic Surveying Employed.**

### **Collection Method**

The magnetic surveys were performed using an Overhauser Model GMS-19 Memory Magnetometer carried by the operator devoid of any magnetic materials and other ferrous metals. The operator walked each survey line, recording continuous time and magnetic intensity readings at 3 second intervals. At fixed stations along each survey line, the exact time of arrival and the location of the station were logged for post processing.

The base magnetometer, an Overhauser Model GSM- 19 located at a fixed position operating in base mode, recorded continuous time and magnetometer readings at 3 second intervals for post processing diurnal correction. Both units are proton magnetometers with omnidirectional sensors.

### **Processing Method**

The collected data, base (time and reading), mobile (time, reading and location) and the GPS readings- were downloaded in the field to a Pentium II/2 66 based laptop processor. The data was then uploaded, via the Internet, for post processing and plotting.

Using a program, written in Microsoft Access on a Pentium II/300 PC processor, variations of the base station were subtracted from the field (or mobile) instrument data to give a data set which varies only with position. The GPS information was used to map the grid and the grid description was used to scale the location of each station. The logged time, location and grid location information were used to correlate measurements with location. The data collected at each station is therefore attributable to local variations in magnetic materials in the underlying rocks. Another Microsoft Access program module was used to process the data collected at 3 second intervals by spacing the readings evenly between the station locations at which they occurred. The addition of the latter process gives a more accurate presentation of what data might be present between stations.

The data was then contoured using Geosoft Oasis Software. The maps produced represent a set of contours joining points of equal magnetic field intensity measurements (i.e. an isomagnetic contour map), which in turn are determined from a grid of equally spaced points between nodes that have been interpolated from the original data.