

# MAR 20030009: OTAUWAWU

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20030009

JUN 27 2003

**756736 ALBERTA LTD.**

**2001 - 2003 EXPLORATION OF  
OTAUWAWU AREA PROPERTY**

**NORTH-CENTRAL, ALBERTA**

**Metallic and Industrial Minerals Permit  
9395020018**

**Geographic Co-ordinates  
55°06'30" to 55°12'00"N  
114°27'30" to 114°37'00"W**

**NTS Sheets 83 O/1 and O/2**

**2003.05.25**

**Prepared by**

**A. Hangartner, Prospector**

**756736 Alberta Ltd.  
4011 - 37 Avenue  
Leduc, Alberta  
T9E 6E1**

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## **1. SUMMARY**

Alberta metallic and industrial minerals permit 9395020018, herein referred to as Otauwau Area Property, located south of Mitsu Lake, Alberta in the northeastern part of the Swan Hills was further explored for primary diamond deposits. A number of anomalous areas depicted from several high resolution aeromagnetic (HRAM) surveys acquired from Spectra Exploration Geoscience Corporation and Terraquest Ltd. along with areas recommended by Halferdahl & Associates Ltd. were investigated.

756736 Alberta Ltd. conducted ground magnetic surveys to more precisely localize the source or possible sources, of some of the aeromagnetic anomalies. Several topographic circular oval-shaped physiographic features were also investigated.

## **2. INTRODUCTION**

During 1997 through to early 2001 exploration for primary diamond deposits was conducted within the Otauwau property. These activities included the acquisition of high-resolution aeromagnetic data from Spectra Exploration Geoscience Corp. and Terraquest Ltd.; ground magnetometer surveys by Blanket Earth Resources Ltd. in conjunction with 756736 Alberta Ltd.; and a brief review of aerial photographs, digital elevation data, and other publicly available information by Halferdahl & Associates Ltd.. Assessment reports, '1997 and Early 1998 Exploration of the Lesser Slave Lake Property', '1998 - 1999 Exploration of the Lesser Slave Lake Otauwau Area Property', and '1999 - 2001 Exploration of the Lesser Slave Lake Otauwau Area Property', describes the exploration conducted.

The assessment report herein, describes the exploration conducted at the Otauwau Area Property during 2001 through early 2003. It has been prepared by 756736 Alberta Ltd. who is the owner of the metallic and industrial minerals permit 9395020018.

### 3. LOCATION AND ACCESS

#### Property Location

The property is located in north-central Alberta, about 200 km northwest of the City of Edmonton and 13 km southeast of the town of Slave Lake. The property extends from  $55^{\circ}06'30''$  to  $55^{\circ}12'00''$  north latitude and  $114^{\circ}27'30''$  to  $114^{\circ}37'00''$  west longitude, within NTS map sheets 83 O/1 and O/2.

#### Property Access

The property is accessible by graveled oil and gas service roads leading from Highway 2, 16 km east of the town of Slave Lake, due south of the Mitsu Industrial Area turn-off approximately 4 km. (Fig. 3.1). There are many logging and oilfield service roads throughout 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.

Infrastructure near the area includes accommodations, food, and vehicles at Slave Lake.

#### Property Geology

Most of the property was devastated by a major forest fire that occurred in July 1998 and was extensively logged for salvage during the exploration period. The property also contains substantial amounts of oilfield culture. Economic activities in the area are dominated by logging and timber operations and oil and gas exploration and development. The property is in the northeastern part of Swan Hills within the hydrographic basin of the Otauwau River.

## **4. EXPLORATION**

### **Work Description**

Between Feb 27, 2001 and Feb 27, 2003, 756736 Alberta Ltd. carried out more preliminary ground follow-ups of the HRAM anomalies and other features that were identified in a preceding report<sup>1</sup>. Other lower intensity HRAM anomalies<sup>2</sup> and several circular physiographical features were flagged and ground magnetic survey follow-ups were done on several of these.

### **Site Selection**

The property contained considerable amounts of cultural interference complicating selection. HRAM data processing and editing may have eliminated geographically significant anomalies not shown on the aeromagnetic maps but that perhaps could be confirmed by ground measurements. Raw data processing using Geosoft Software showed that there were several small anomalies that do not have verified cultural sources.

The strategy chosen was to profile areas of the property that were indicated as weak magnetic anomalies on the HRMS flyby then using this information we discarded unlikely prospects, downsizing being the key objective. Profiles were flagged and stations measured using hip chain, compass, and GPS on sixteen of these areas. The length of the profile chosen depended on the terrain and the data available. Many planned profiles were abandoned when it became evident that the anomalies were attributable to man made cultural interference.

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

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<sup>1</sup> See assessment report: 1997 and Early 1998 Exploration of the Lesser Slave Lake Property by Halferdahl & Associates Ltd.

<sup>2</sup> Terraquest Ltd. (1998). High resolution aeromagnetic survey. Lesser Slave Lake Project.

**Table 4.1 Exploration, Grid Flagging, Soil Sampling, and  
Magnetic Ground Survey Locations, Febuary. 2001 - 2003.  
Locations of field work performed by 756736 Alberta Ltd.**

Report Identifier	UTM		Work Description	Distance in meters	Dates	Shown in Figure
	Easting	Northing				
P5214	652840	6114580	Exploration & Deculturing Magnetic Profiling	1050	Oct 14/01	4.2
P5314	653610	6114000	Exploration & Deculturing Magnetic Profiling	750	Oct 15/01	4.3
P5613	656580	6113680	Exploration & Deculturing Magnetic Profiling	1270	Oct 17/01	4.4
P5611	656390	6111720	Exploration & Deculturing Magnetic Profiling	780	Oct 18/01	4.5
Tp. 71 R4W5	Sections					4.1
	33	34	Exploration & Deculturing		Oct 11/01	
	32		Exploration & Deculturing		Oct 12/01	
	31		Exploration & Deculturing		Oct 13/01	
	18	19	Exploration & Deculturing		Oct 14/01	
	17	28	Exploration & Deculturing		Oct 15/01	
	29	30	Exploration & Deculturing		Oct 16/01	
	15	16	Exploration & Deculturing		Oct 17/01	
	4, 9	8	Exploration & Deculturing		Oct 18/01	
	26	27	Exploration & Deculturing		Oct 19/01	
	24	25	Exploration & Deculturing		Oct 20/01	
12	23	Exploration & Deculturing		Oct 21/01		

## Findings

**P5214 – This magnetic profile varied by less than 5 nT once the noise spikes attributed to near surface magnetic rocks were filtered out.**

**P5314 – This magnetic profile varied by about 5 nT once the noise spikes attributed to near surface magnetic rocks were filtered out.**

**P5611 – This magnetic profile varied by about 5 nT once the noise spikes attributed to near surface magnetic rocks were filtered out.**

**P5613 – This magnetic profile varied by about 10 nT once the noise spikes attributed to near surface magnetic rocks were filtered out. The variations appear to be the influence of proximity to the Otawau River and its old channel beds. The higher variations may be due to natural placer concentrations of iron particles.**

## 5. CONCLUSIONS

The ground magnetic profiles conducted do not confirm the presence of anything significant in the selected weak anomalies depicted on the aeromagnetic survey maps and none of the areas investigated warrant further exploration. The results were not unexpected. The strategy taken was to investigate the weaker anomalies and use this information to downsize the exploration area. Many other small anomalies were confirmed oil field culture and those profiles were abandoned. All anomalies depicted on the aeromagnetic map should still be investigated.

## 6. PERMIT TABULATION

**TABLE 6.1** Property Descriptions and Location Permit

Claim:	February 2003 - 2005, Retained Active Area, MAIM permit # 9395020018.
Legal Land Description:	Tp.71 - 4w5 (Sec. 8L8, L9, L13-15; 9L2-4; 12L7, L8; 16SW, L7, L9, L12, L13; 17L1, L4, L5, L12, L15, L16; 18L1, L7, L8, L10, L11, L14, L15; 19L3-5, L12, L13; 20L1-3; 23L8; 24L5-9, L16; 25L1, L7, L11, L12, L14; 26L3, L4, L7, L8; 27L1-3, L5; 28NE, L8, L11, L13, L14; 29L13, L14; 30L3, L4, L6, L10, L12, L13, L15, L16; 31NW, L4, L5; 32L3, L4, L7-9; 33L1-4, L6, L7, L11, L15; 34L3, L5, L7, L8; 35L4, L5)
Area:	1616 ha
See Figure:	Fig. 6.1 Property Map - Retained Active Area.

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 in the figure. Cancel all shaded areas of the original permits as depicted in figure 6.1.

### Distances Gridded and Surveyed

Total ground magnetic survey line/km = 3.85

### Exploration Expenditures

Total expenditures for Feb. 2001 – Feb. 2003: \$12637.75

Please allocate the exploration expenditures to the Retained Active Area.

For a summary of expenditures see Appendix 1 – Statement of Reasonable Expenditures. Retained Active Areas are depicted in Fig. 6.1. (A detailed breakdown of dates, activities and equipment used has been retained and is available upon request.)

Metallic and industrial minerals permit 9395020018 is held privately by 756736 Alberta Ltd. and exploration expenditures are not financed by share holders.

## 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 only a hobby.

  
August Hangartner  
Part time prospector,  
Leduc, Alberta  
May 25, 2003.

Distribution:  
Minister of Energy: 2 copies  
756736 Alberta Ltd. 2 copies

## **8. REFERENCES**

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

**Lesser Slave Lake project; unpublished report dated 1998/02/16 to Halferdahl and Associates Ltd., Edmonton, by Terraquest Ltd., Toronto, 15 p., 5 fig., 9 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, Sawridge Block, 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 p. 11 fig., 6 app.**

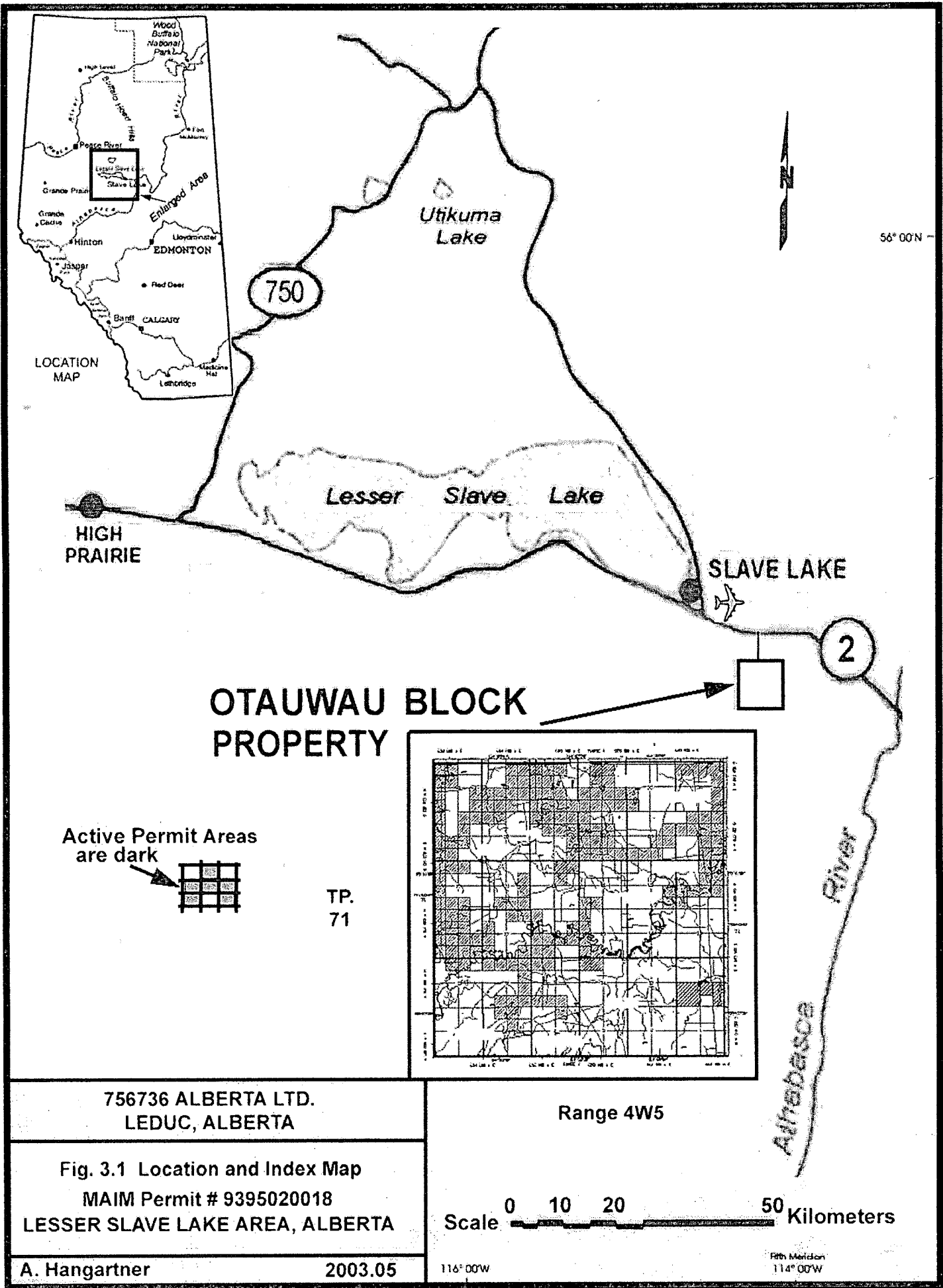
- 1. 10. Conclusions – Anomalies warrant additional exploration.**
- 2. Appendix 2 – Location of Anomalies.**
- 3. Appendix 2 - Selected Physiographic Features.**
- 4. Appendix 2 – Coincident Anomalies and Physiographic Features.**

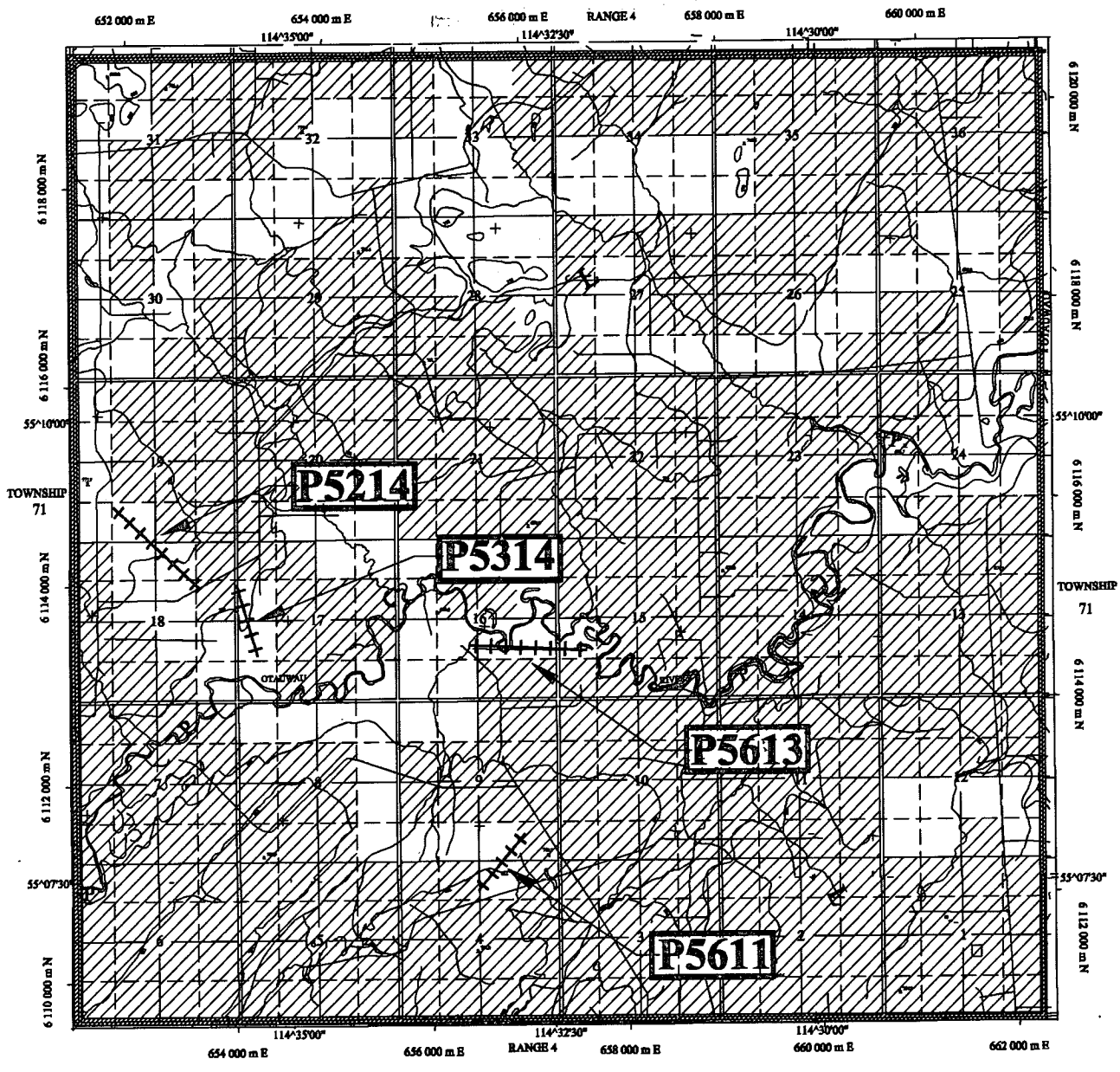
**756736 Alberta Ltd. (2000) Assessment Report. 1998 - 1999 Exploration of the Lesser Slave Lake Otawau Area Property, North - Central, Alberta date 1999/05/25, 11 p. 7 fig., 3 app.**

**Finding and Conclusions.**

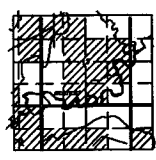
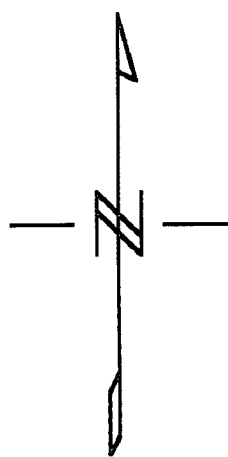
**756736 Alberta Ltd. (2002) Assessment Report. 1999 - 2001 Exploration of the Lesser Slave Lake Otawau Area Property, North - Central, Alberta date 2001/05/25, 7 p. 16 fig., 2 app.**

**Finding and Conclusions.**





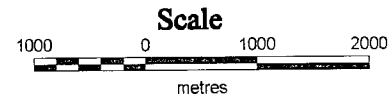
**SYMBOLS**



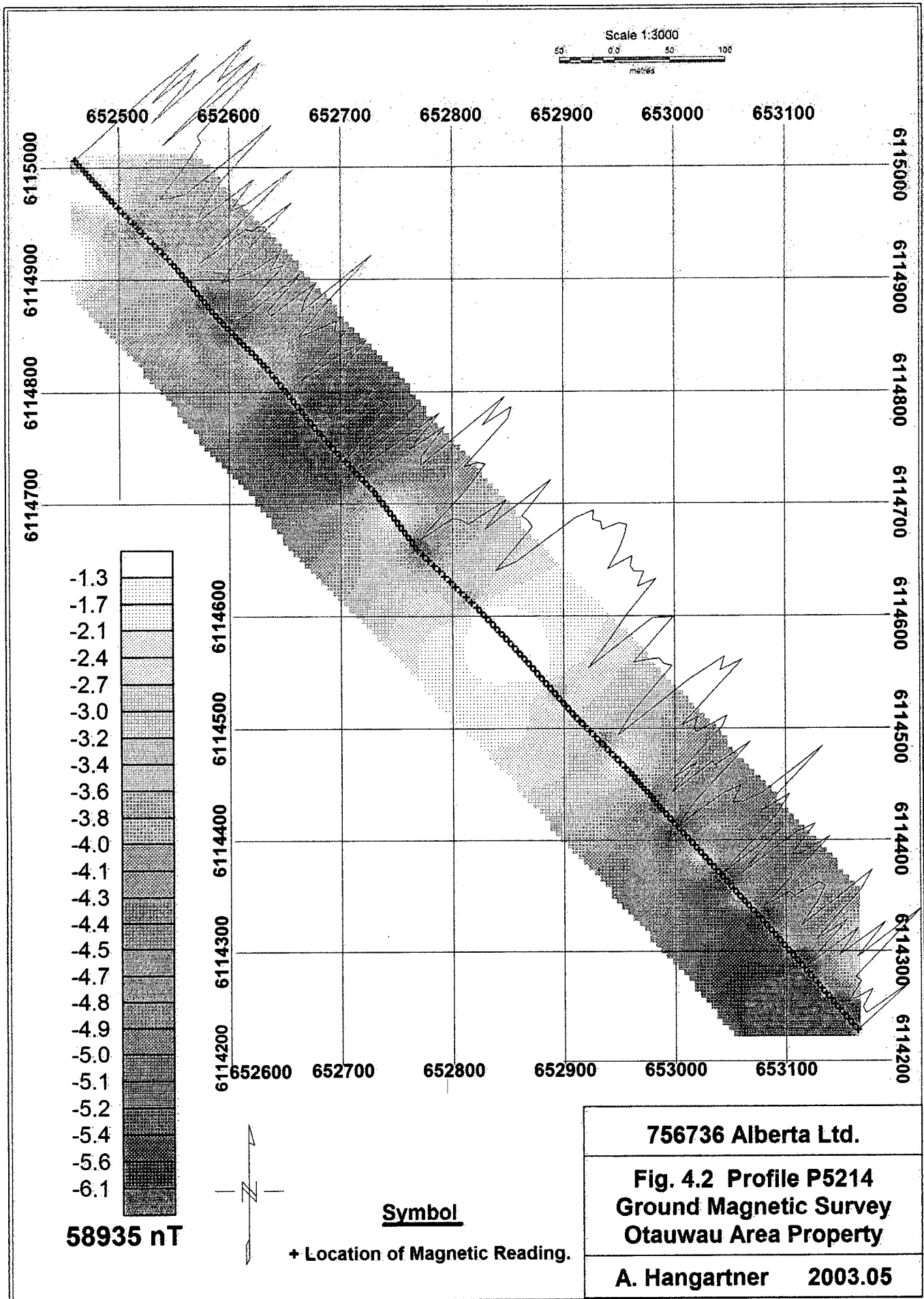
Active Area is the light squares

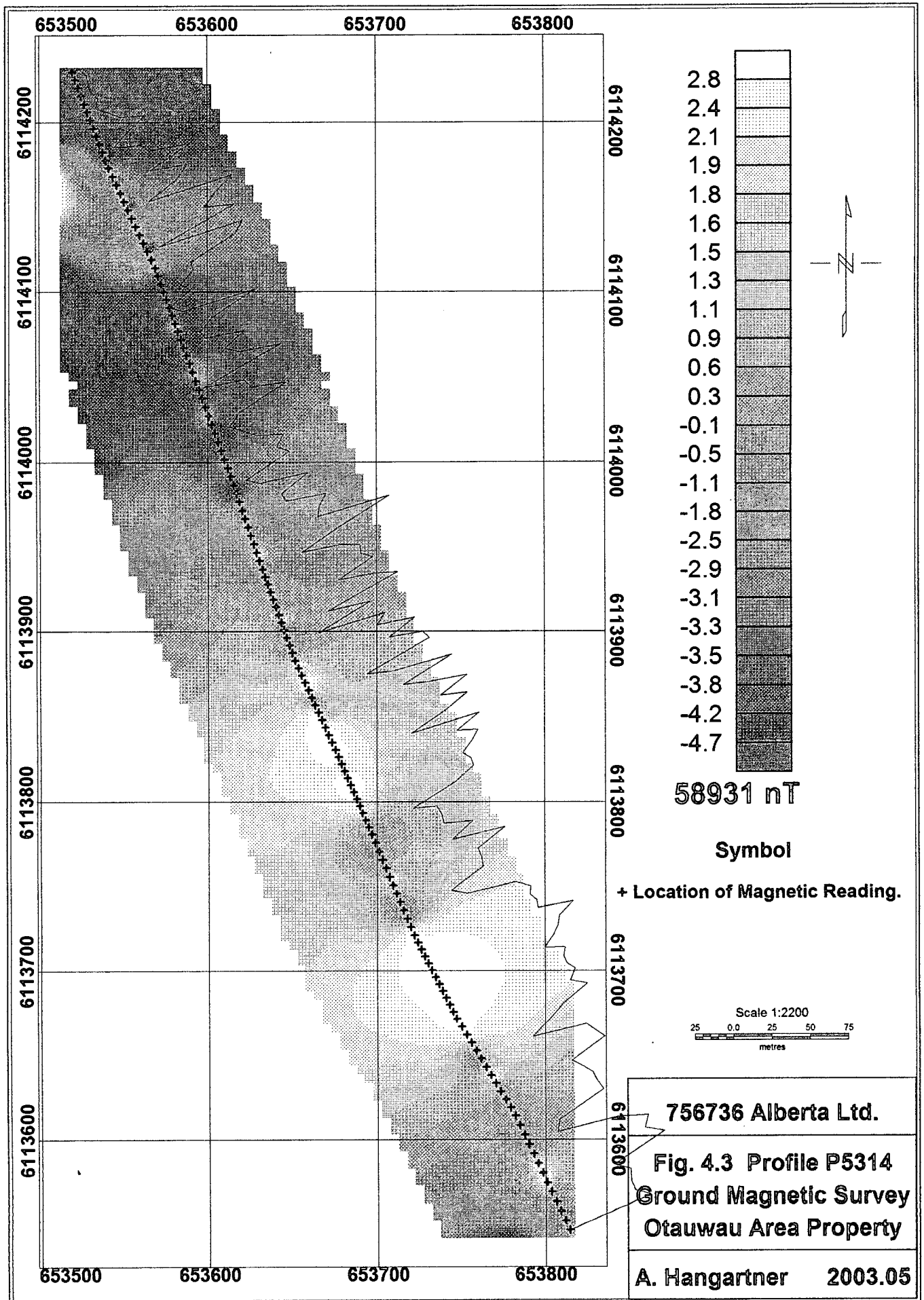


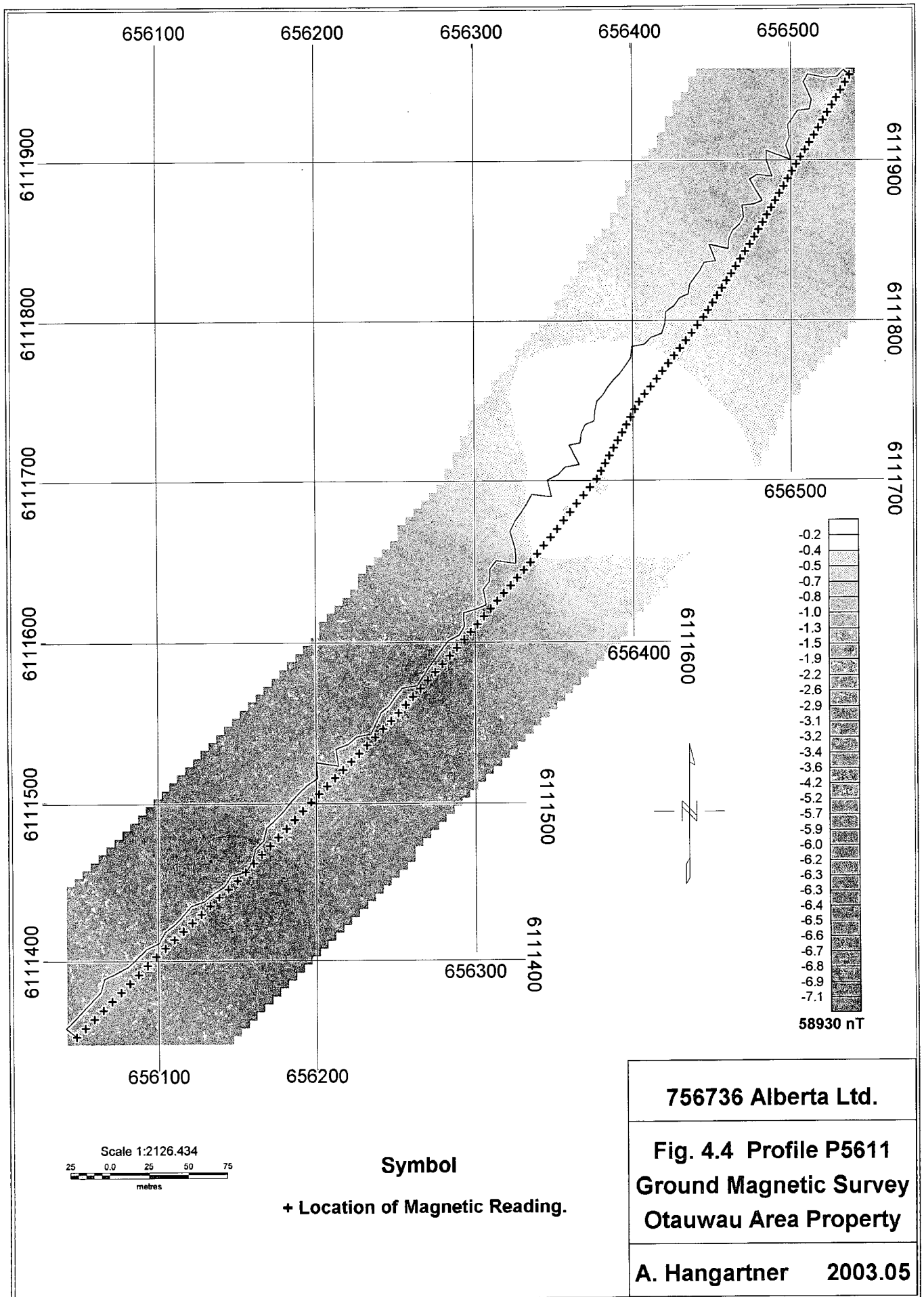
Location of Magnetic Profile



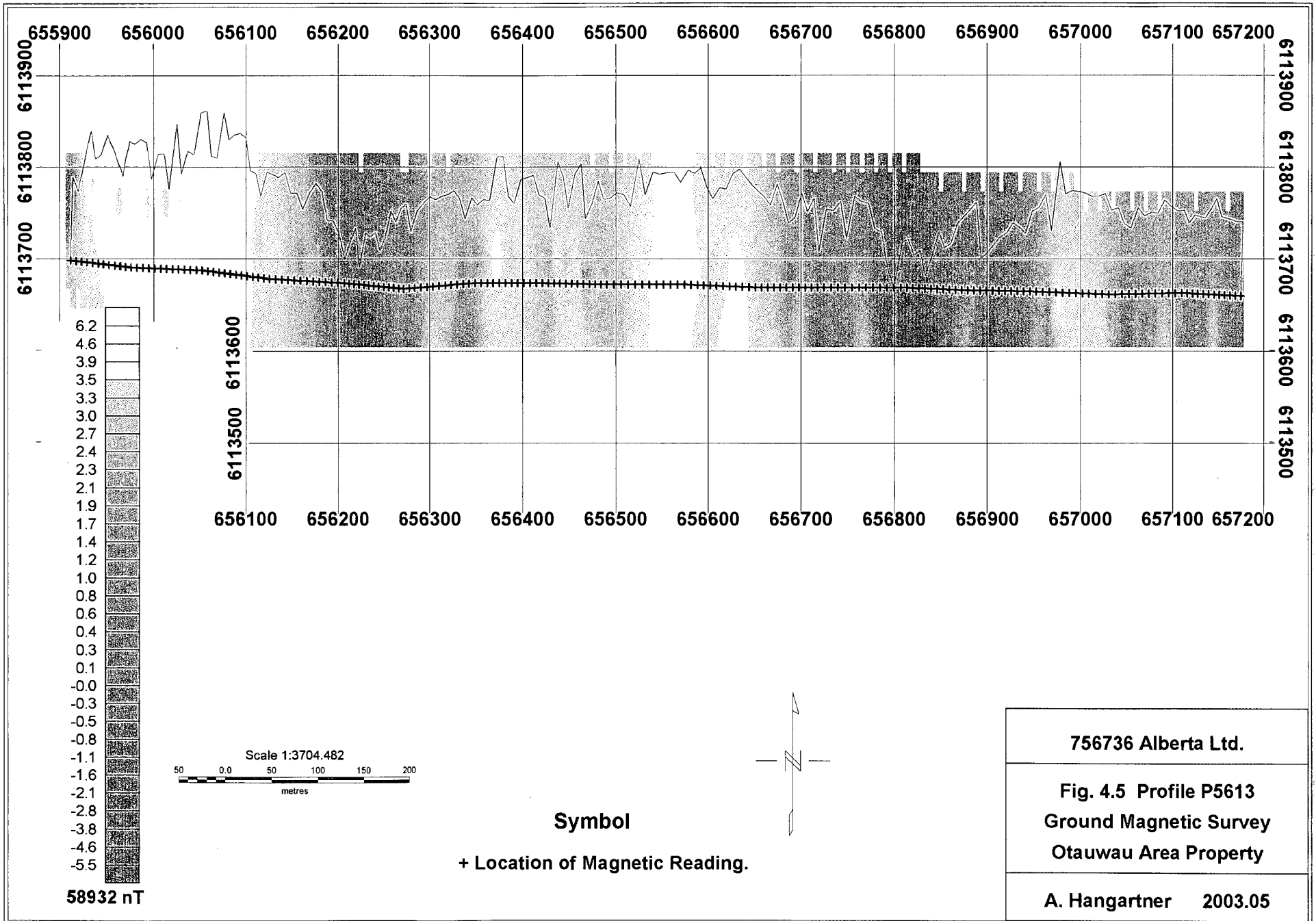
756736 Alberta Ltd. Leduc, Alberta	
Fig. 4.1 Locations of Work Performed Otauwau Area Property	
A. Hangartner	2003.05



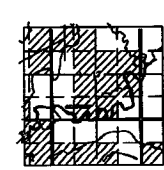
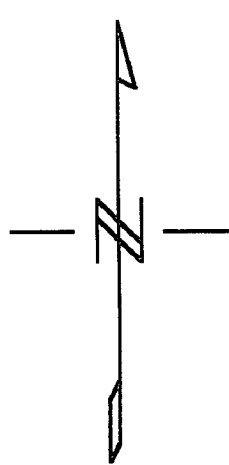
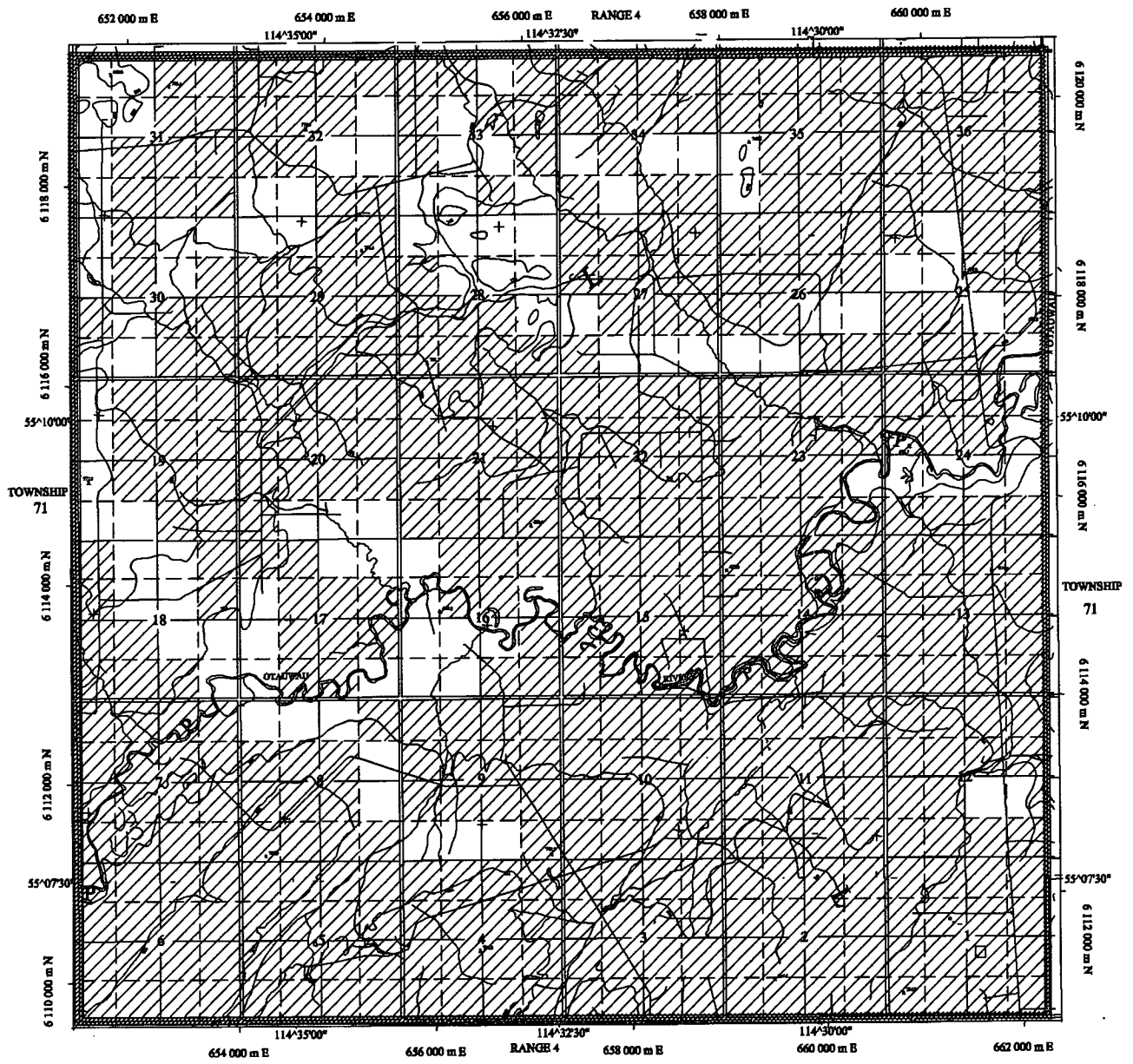




F6

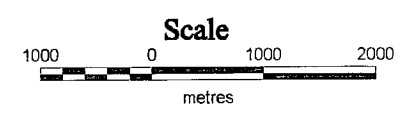






**SYMBOLS**

Active Area is the light squares



756736 Alberta Ltd. Leduc, Alberta	
Fig. 6.1 Property Map Maim Permit # 9395020018 Otauwau Area	
A. Hangartner	2003.05

**Appendix 1: Statement of Reasonable Expenditures  
Metallic and Industrial Minerals Permit 9395020018, Otauwau Block.**

Description	Rates	Time	Cost	Total Cost
<b>Salary and Wages</b>				
A. Hangartner - consultations, data processing, drafting, exploration, ground magnetometer surveys, gridding, mineral sampling, reporting				
Helper				
-travel (2 per.) - trip preparation				
- total travel time for services				
			<b>Total Cost</b>	<b>\$7,500.00 \$7,500.00</b>
<b>Field Costs</b>				
-meals & lodging - total meal expenses for services (2 per.)	\$20.00	22 dy	\$440.00	
- total accomodations expenses for services	\$30.00	22 nt	\$660.00	
-field supplies - cords, batteries, ribbon, hip chain, etc.	\$25.25		\$25.25	
			<b>Total Cost</b>	<b>\$1,125.25 \$1,125.25</b>
<b>Rental Equipment</b>				
- truck rental, 3/4 ton	\$80.00	13 dy	\$1,040.00	
- GSM-19 Magnetometer rental	\$54.00	4 dy	\$216.00	
- GSM-19 Magnetometer Base Station rental	\$54.00	4 dy	\$216.00	
- pentium computer system rental	\$25.00	8 dy	\$200.00	
- data logging device rental	\$25.00	4 dy	\$100.00	
- global positioning system rental	\$25.00	8 dy	\$200.00	
- gridding equipment rental	\$20.00	4 dy	\$80.00	
- lap top CPU pentium rental	\$25.00	10 dy	\$250.00	
- quad 6x6 rental	\$100.00	11 dy	\$1,100.00	
- utility trailer rental	\$25.00	11 dy	\$275.00	
			<b>Total Cost</b>	<b>\$3,677.00 \$3,677.00</b>
<b>Office Charges, Administrative, General</b>				
- phone, internet, Fax, etc.			\$250.00	
- office supplies, paper, ink carts., lamination			\$85.50	
			<b>Total Cost</b>	<b>\$335.50 \$335.50</b>
			<b>Grand Total:</b>	<b>\$12,637.75</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 \$50.00 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.

I, August Hangartner, hereby certify that the costs as outlined above for the assessment of metallic and industrial permit 9395020018 for Feb 2001 - 2003, were expended as indicated.

[redacted signature]

## **Appendix 2: Methods 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/266 based laptop processor for post processing and plotting at a later date.

Post Processing: Using a program, written in Microsoft Access on a Pentium II/300 PC processor, variations of the base station were subtracted from the field mobile instrument data to give a data set which varies only with position. The GPS information was used to map the survey and the survey description was used to scale the location of each station. The logged location time and survey reading time 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 were then contoured using Geosoft Oasis Software. The maps produced represent a profile of the magnetic field intensity measurements which in turn are determined from a survey of equally spaced points between nodes that have been interpolated from the original data.