# MAR 20070001: ATHABASCA SOUTH

Received date: Jan 16, 2007

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**STRATHMORE MINERALS CORP.**

# 2004 to 2006 EXPLORATION OF THE ATHABASCA SOUTH PROPERTY, NORTHEAST ALBERTA

## PART B

Metallic and Industrial Mineral Permits
9304110445 and 9305031020

110.6666
57.9833

Geographic Coordinates

57°54' N to 57°59' N
110°00' W to 110°40' W

NTS Sheets

74 E/15 and16

110.00
57.9000


Owner and Operator: MAIM Permits 9304110445 and 9305031020
Strathmore Minerals Corp.
#810-1708 Dolphin Ave.
Kelowna, BC V1Y 9S4

Consultant: Dahrouge Geological Consulting Ltd.
18, 10509 - 81 Avenue
Edmonton, Alberta T6E 1X7

Authors: J. Dahrouge, B.Sc., P.Geol
D. Smith, M.Sc., Geol. I. T


Date: January 19, 2007

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# 1. SUMMARY

From November 22, 2004 to March 9, 2005, Strathmore Minerals Corporation acquired two Metallic and Industrial Minerals (MAIM) permits, totaling 15,232 ha, south of Lake Athabasca in northern Alberta. The Athabasca South Property is situated approximately 90 kilometres south-southeast of Fort Chipewyan and extends east to the Alberta-Saskatchewan border. The South Property includes MAIM permits 9304110445 and 9305031020.

Between June 30th and July 19th, 2006, Dahrouge Geological Consulting Ltd. contracted Fugro Airborne Surveys on behalf of Strathmore Minerals Corporation, to conduct an airborne GEOTEM electromagnetic and magnetic survey over their basin holdings, south of Lake Athabasca including the Athabasca South Property. The intent of the survey was to map conductive horizons at depth near the sub-Athabasca unconformity. No precise correlation of magnetic and electromagnetic data was found. One potential basement conductor was identified within MAIM permit 9305031020 at a depth of 300 m or greater. Several possible kimberlite targets were also identified.

The 2006 exploration work was authorized by David Miller, President and CEO of Strathmore Minerals Corporation.

Exploration expenditures for the Athabasca South Property totalled $78,271.88 (Appendix 1). The expenditures were sufficient to maintain the entirety of the property in good standing; as such, all of MAIM permits 9304110445 and 9305031020 will be retained. Exploration expenditures have been allocated in the following manner (Table 1.1).

**TABLE 1.1 ALLOCATION OF EXPENDITURES***

| Permit | Assessment Period | Expected Expiry Date | Permit Area (ha) | Required Expenditures | Assigned Expenditures |
|---|---|---|---|---|---|
| 9304110445 | Years 1 & 2 | November 22, 2006 | 6528 | $ 32,640 | $ 32,640.00 |
| 9305031020 | Years 1 & 2 | March 9, 2006 | 8704 | 43,520 | 43,520.00 |
| 9305031020 | Years 3 & 4 | March 9, 2008 | 8704 | 87,040 | 2111.88 |
| | | | | **Total:** | $ 78,271.88 |

* Based upon the current permit area; expenditures allocated based on permit area size and Line km of survey flown (Detailed in Part A)

## 2. INTRODUCTION

The objectives of the 2006 exploration was to locate areas of high conductivity associated with graphitic units at depth near the sub-Athabasca unconformity. The area was flown with Fugro's GEOTEM system in order to achieve this objective.

## 3. LOCATION AND ACCESS

MAIM permits 9304110445 and 9305031020 (Fig's. 3.1 and 3.2) are located within National Topographic System Map Sheets 74 E/15 and16. The permit area is bounded by geographic coordinates 57°54' N to 57°59' N and 110°00' W to 110°40' W.

Fort McMurray is located approximately 140 km to the southwest and Fort Chipewyan approximately 100 km to the northwest. Access to the property is not optimal and must be airborne via float plane or helicopter.

Local vegetation consists of jack pine, black spruce, and tamaracks, with willows and alders in the lower wet areas.

## 4. WORK PERFORMED

Between June 30th and July 19th, 2006, Dahrouge Geological Consulting Ltd. contracted Fugro Airborne Surveys on behalf of Strathmore Minerals Corporation, to conduct an airborne GEOTEM electromagnetic and magnetic survey over their basin holdings, south of Lake Athabasca including the Athabasca South Property. The intent of the survey was to map conductive horizons at depth near the sub-Athabasca unconformity.

A total of 5317 line km were flown at a spacing of 400 m with tie lines every 4000 m for the entirety of the survey. Approximately 549 of the 5317 line kilometers were flown over the Athabasca South Property, with the remainder flown over the other nearby Strathmore holdings south of Lake Athabasca.

## 5. RESULTS

The results of the GEOTEM survey are presented in figures 6.1 to 6.7. A full interpretation, with a list of targets, is contained in Appendix 2.

## 6. CONCLUSIONS

An airborne GEOTEM electromagnetic survey was completed over MAIM permits 9304110445 and 9305031020 during the summer of 2006. One conductive horizon at depth was identified, as well as several potential kimberlite targets. As expenditure requirements were met, all of MAIM permits 9304110445 and 9305031020 will be retained.

## STATEMENT OF AUTHOR

I, Jody Dahrouge, residing at 11 Country Lane, Stony Plain, Alberta, do hereby certify that:

- I am a geologist of Dahrouge Geological Consulting Ltd., Suite 18, 10509 - 81 Ave., Edmonton, Alberta, T6E 1X7.
- I am a graduate of the University of Alberta, Edmonton, Alberta with a B.Sc. in Geology, 1988 and a Special Certificate (Sp.C.) in Computing Science in 1994.
- I have practiced my profession as a geologist intermittently from 1988 to 1994, and continuously since 1994.
- I am a registered professional geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, member M48123.
- I hereby consent to the copying or reproduction of this Technical Report following the one-year confidentiality period.
- I am the author of the report entitled "2004 to 2006 Exploration of the Athabasca South Property, Northeast Alberta" and accept responsibility for the veracity of technical data and results.

Dated this 19st day of January, 2007.

[redacted]

Jody Dahrouge, BSc, PGeol
APEGGA M48123



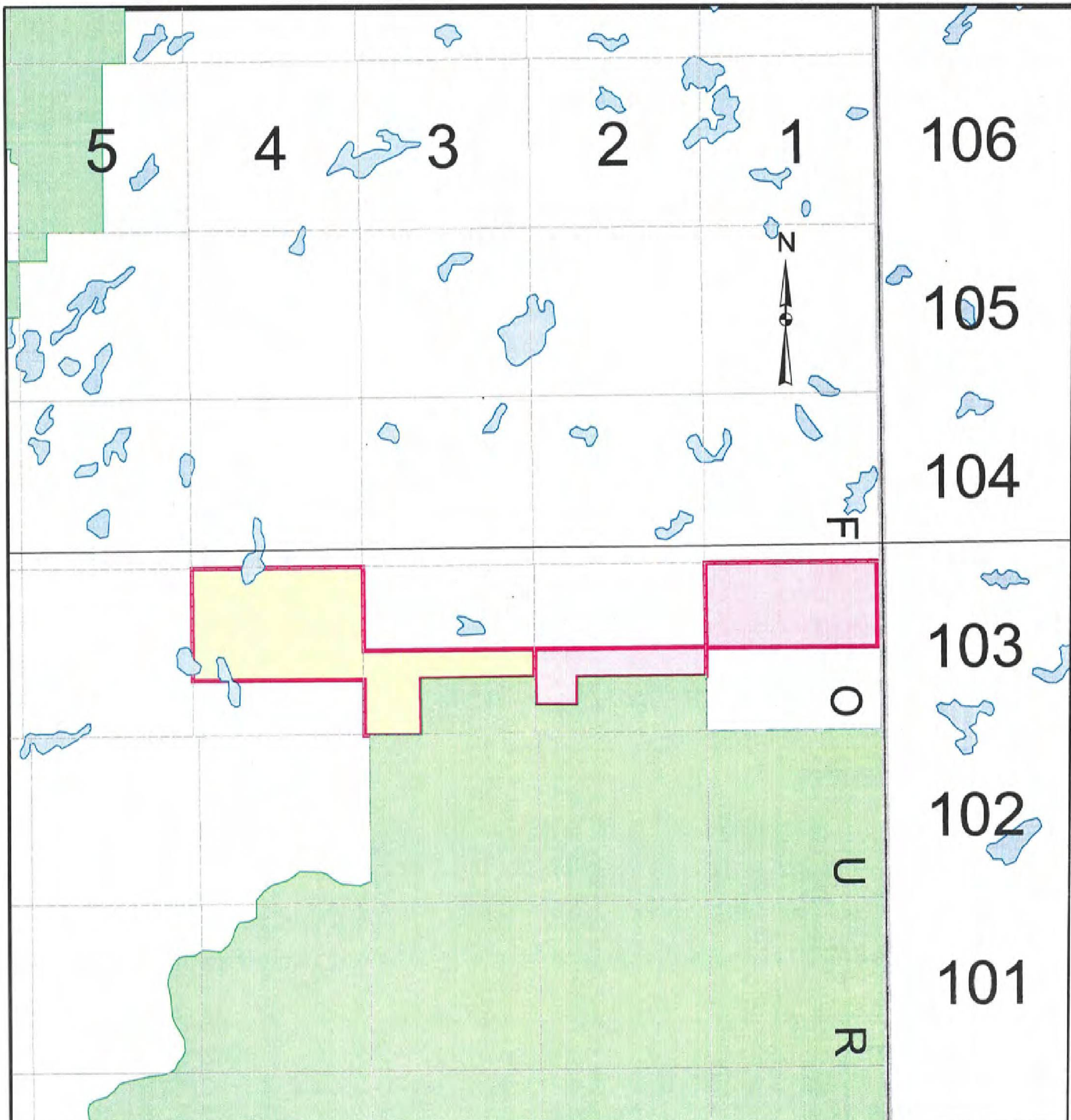

STRATHMORE MINERALS CORP.

DAHROUGE GEOLOGICAL CONSULTING LTD.
Edmonton, Alberta

Athabasca South Property,
Northeastern Alberta

Fig. 3.1 Location Map

DS 2006.12




**Athabasca South Group**

MAIM Permit 9304110445

MAIM Permit 9305031020

Alberta Border

Lake

Provincial Park

4 2 0 4 8 12 16 Kilometers

**STRATHMORE MINERALS CORP.**

**Dahrouge Geological Consulting Ltd.**
EDMONTON, ALBERTA

FIGURE 3.2
ATHABASCA SOUTH
PROPERTY

Drawn by: W. McGuire November 20, 2006

## APPENDIX 1: ITEMIZED COST STATEMENT

| | | AMOUNT SPENT |
|---|---|---|
| 1. Prospecting | | $ |
| 2. Geological mapping and petrography | | $ |
| 3. geophysical Surveys | | |
| a. Airborne | | $ 71,156.25 |
| b. Ground | | $ |
| 4. Geochemical Surveys | | $ |
| 5. Trenching and Stripping | | $ |
| 6. Drilling | | $ |
| 7. Assaying and whole rock analysis | | $ |
| 8. Other Work | | $ |
| | **SUBTOTAL** | $ 71,156.25 |
| 9. Administration (10% of subtotal) | | $ 7,115.63 |
| | **TOTAL** | $ 78,271.88 |

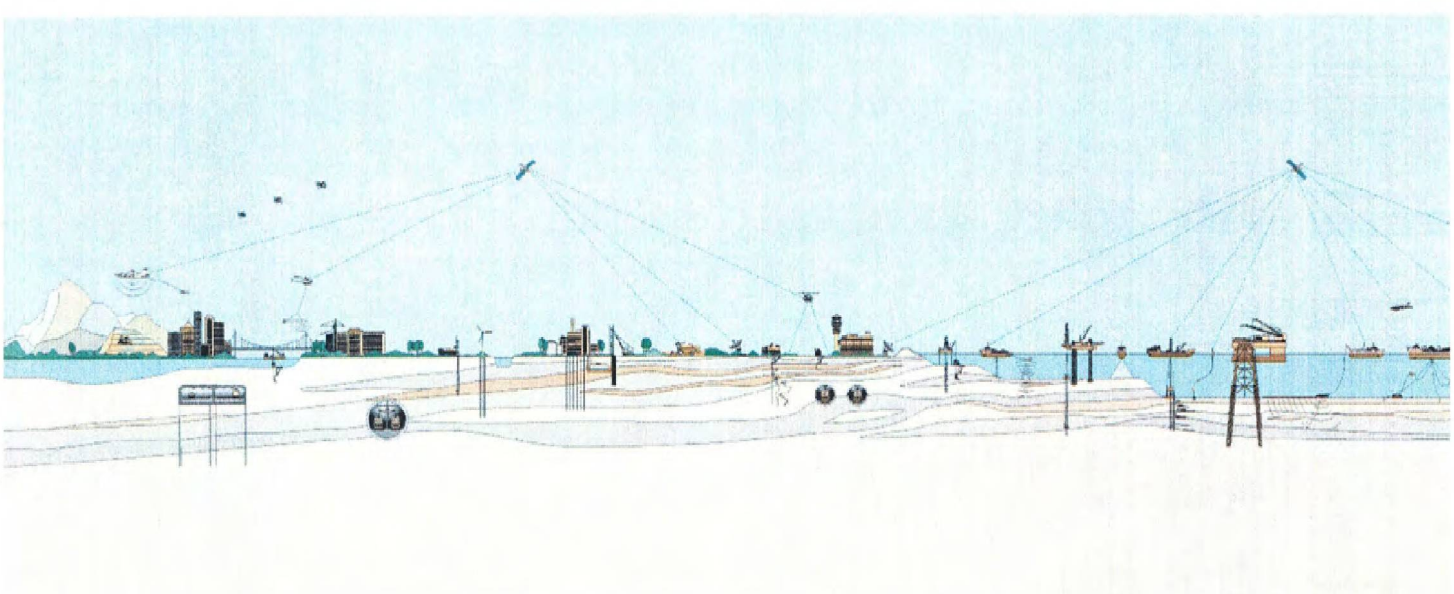
**Fugro Airborne Surveys**

**MAGNETIC INTERPRETATION REPORT**
**Airborne Magnetic and GEOTEM® Survey**

WEST ATHABASCA
ALBERTA

**Job No. 06418**

Strathmore Minerals Corp.



# MAGNETIC INTERPRETATION REPORT
# AIRBORNE MAGNETIC AND GEOTEM® SURVEY
# WEST ATHABASCA
# ALBERTA

## JOB NO. 06418

Client: Strathmore Minerals Corp.
810 – 1708 Dolphin Ave
Kelowna, BC
V1Y 9S4

Date of Report: December 2006

# TABLE OF CONTENTS

# I

# Introduction

Between June 30 and July 19, 2006 Fugro Airborne Surveys conducted a GEOTEM® electromagnetic and magnetic survey of West Athabasca on behalf of Strathmore Minerals Corp. Using Fort McMurray, Alberta as the base of operations, a total of 5317 line kilometres of data was collected using a Casa 212 modified aircraft (Figure 1).


Figure 1: Specially modified Casa 212 aircraft used by Fugro Airborne Surveys.

The interpretation is presented in colour on paper and Geosoft digital map files. EM interpretation and processing reports are presented as two separate documents. Refer to the processing report for more details on the survey and system specifications as well as information on the data processing and final products.

# II

## Survey Location

The West Athabasca Block (Figure 2) was flown with Fort McMurray, Alberta as the base of operations. A total of 233 traverse lines were flown, ranging in length from 4.4 km to 41 km, with a spacing of 400 m between lines; and 27 tie lines were flown, with a spacing of 4000 m, totalling 5317 km in the complete survey.

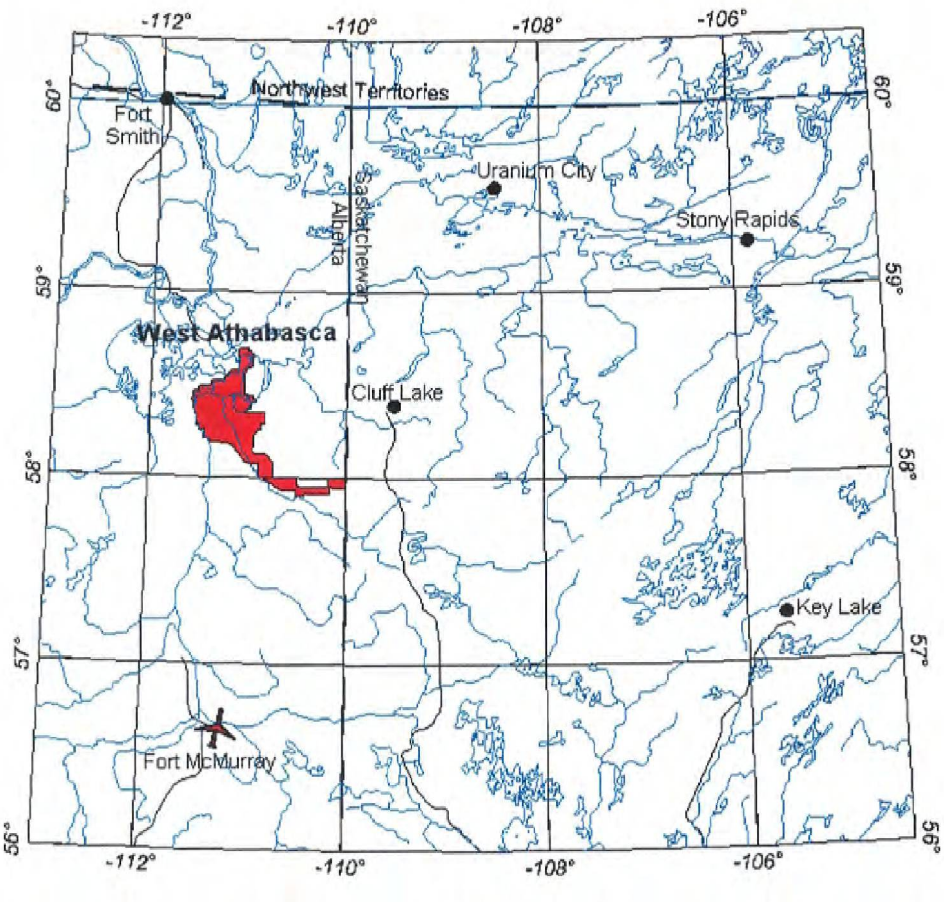



Figure 2: Survey location.

# III

# INTERPRETATION

**General Magnetic Theory**

The Earth's magnetic field, which changes from over 60,000 gammas in a vertical direction at the poles to about 30,000 gammas in a horizontal direction at the equator, induces a secondary magnetic field in rock bodies containing ferromagnetic minerals. It is this property to become magnetized by an external field that is described as the susceptibility of a rock.

Some rocks contain a natural or thermoremanent magnetization that was acquired when the rock was last heated above the Curie point and subsequently cooled. The direction of this remanent magnetization is parallel to the magnetic field that prevailed during the cooling period. These fields, both the induced and remanent, disturb the otherwise smooth magnetic pattern of the Earth's field, and it is these perturbations that are of prime interest in aeromagnetic interpretation.

The crystalline rocks of igneous or high-grade metamorphic origin, such as granite, basalt, gneiss and schist, usually contain sufficient quantities of ferromagnetic minerals (mainly magnetite) that their influence on the earth's field can be observed even when covered by sedimentary sections thousands of feet thick.

The magnetic pattern over large areas of a single rock type is generally consistent throughout, and whenever the magnetic character changes, it usually implies a change in the rock composition. For example, the contact between a granitic mass and an ultrabasic unit can usually be precisely positioned where the magnetic pattern begins to change from the usual quiet character of granite to the more disturbed pattern of an ultrabasic rock body.

The study of magnetic anomalies does, to some degree, depend upon the latitude; in high latitudes attention is devoted to positive anomalies, while at the equator negative anomalies are of prime interest. This is due to the inclination of the earth's magnetic field, which is near vertical, 90°, at the poles, horizontal, 0°, at the equator, and about 78° north in this survey area. In such a steep magnetic inclination, the strike of a magnetic body has little effect upon the magnitude and symmetry of the anomaly it produces. An E-W dyke will be primarily positive, with a very weak negative on its north side. The same dyke striking magnetic north (azimuth 017 in this area) will be a symmetrical positive, but only about 95% of its E-W amplitude.

## Magnetic Interpretation Procedures

In this qualitative interpretation (no depth estimates) magnetic features on the contour maps are studied with regard to shape, size, strike and grouping. Whenever an anomaly is adequately defined by the contours, the outline of the source is shown as a magnetic/lithologic boundary. These boundaries follow the magnetic contours and can be relied on to represent a definite change in lithology and/or structure. Any of these boundaries, but particularly the linear ones, may represent faults; but as we can rarely be certain (unless it coincides with a geologically mapped fault) the boundary symbol is retained since it is an indication of greater reliability than a fault.

The various levels of magnetic intensity appearing on the interpretation map are based simply on the total field amplitudes, making allowances for background levels and the probable size and depth of the source.

Faults are located by offsets, terminations and strike changes in linear anomalies, or level shifts, or simply changes in character. Since the fault symbol is usually used to join isolated points of disruption, its location is rather subjective.

## Geological Background

Even with the help of the GSC map library, we failed to discover any detailed geological map of the Precambrian in this area. The most current map[1] deals only with the Phanerozoic. The 1:6 000 000 map of Canada[2] shows the west end of the Athabasca basin rimmed by about 25 kilometres of outcropping Archean basement. This Archean belt covers over half of this survey area; the Athabasca basin is only mapped over the small, easternmost rectangle within sheet 3.

The current edge of the Paleozoic sediments on sheet 1 appears to be erosional in nature, as there are no coincident faults noted in the magnetic field. However, the north edge of sheet 2 displays a basement, linear, magnetic feature which parallels the Paleozoic limit, and could be fault bounded on its northeast side. It lies roughly 20 kilometers northeast of the Paleozoics; but, moving south across the sheet, the gap gradually closes. At the junction of sheets 2 & 3 this magnetic lineation noses out exactly where the outcrop ends its southeastern extent and continues only as a chain of outliers. However, any genetic relation between this magnetic lineation and the Paleozoic erosional edge is bedeviled by the fact that magnetic amplitudes and wavelengths suggest a magnetic basement rising to the southwest, where the Paleozoic sediments gradually thicken; and the eastern portions of all 3 sheets contain magnetic wavelengths arising from several hundred metres subsurface, where Archean outcrop is mapped!?! Assuming no errors in the geologic map, these deep magnetic sources must lie beneath the Archean surface; but it is unusual to see a potentially consistent (no precise depth estimates have been made) subsurface horizon in Archean terrain.

[1] Okulitch, A. V. 2006: Phanerozoic bedrock geology, lake Athabasca, Alta. & Sask.; Geol. Surv. Can., Open File 5280, scale 1:1 000 000
[2] Geological Map of Canada 2000: Map 1860A ; Geol. Surv. Can.

## Interpretation Discussion

We have attempted to present this magnetic interpretation as a geological map, as much as possible. This discussion will focus on areas that cannot be fully explained by the map legend.

### Sheet 1

This sheet contains a number of well-defined, basement conductors whose north-south strike matches the surrounding magnetic anomalies and confirms their basement origin. As these conductors move north into the Athabasca river delta, their numbers quickly drop to zero. This is not because of a lack of conductors; the highly conductive delta sediments simply overwhelm the basement signal.

The possible basement conductive zone which extends south from the delta does not gain any support from the magnetic field.

### Sheet 2

As on sheet 1, the common strike direction shared by the magnetic field and the many conductive axes leaves little doubt of their basement origin; however, the zone of potential basement origin derives no notable support from the magnetic field.

The Athabasca river delta is also evident in this sheet's northwest corner, where its sediments dominate the conductivity but fail to obscure basement conductors within.

Although the magnetic field from recent and Pleistocene deposits is generally ignored as geologic noise, the Maybelle river, in the northeast corner of this sheet, is too clearly defined to overlook. Its consistently negative response indicates that the surface through which it has eroded is substantially magnetic.

### Sheet 3

Although there is no precise correlation of magnetic and electromagnetic features on this sheet, the comfortable manner in which the southernmost conductive zone fits into the magnetic surroundings suggests a basement origin for the conductivity; furthermore, this zone follows no topographic or Phanerozoic sedimentary feature which could account for it. The magnetic field suggests a basement 300 metres subsurface or more in this area; and this would contribute to the subdued, surficial characteristics of this conductive zone. Thus it could be viewed as a potential basement conductor, despite its surficial designation.

We trust this data will further your exploration program; and we remain available for questions and any feedback that you are able to provide.

Respectfully Submitted:

Brian Schacht Consulting Geophysicist

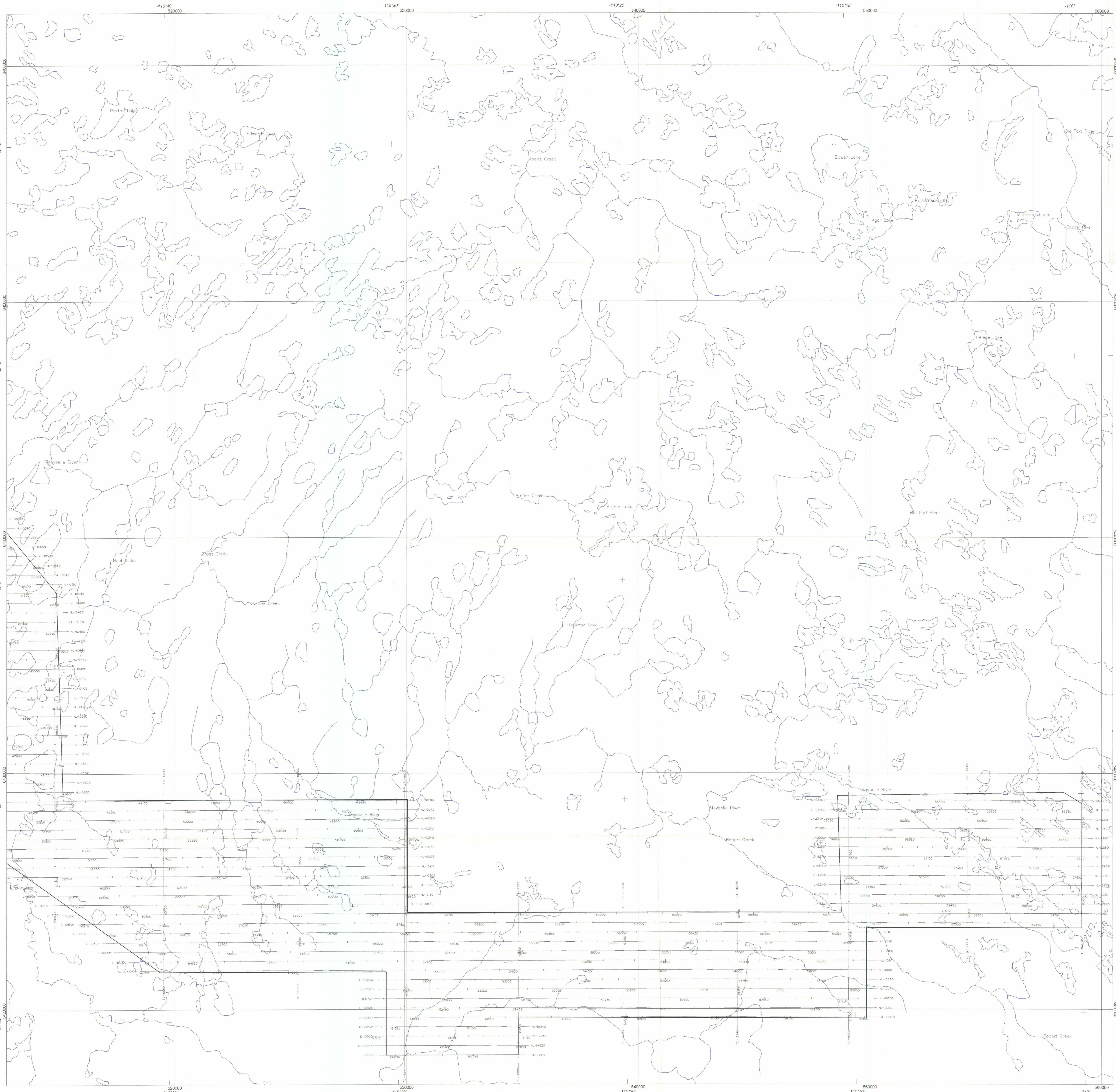
Strathmore MINERALS CORP.

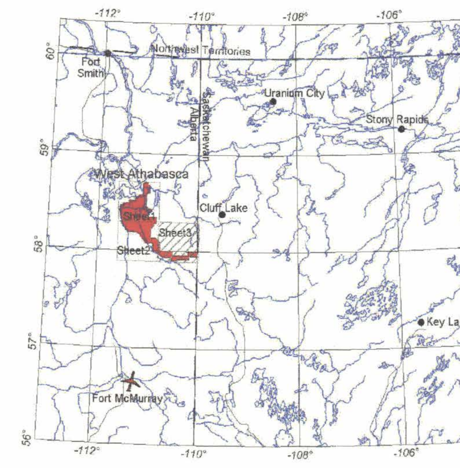
# Airborne GEOTEM® Survey
For
## Strathmore Minerals Corp.
## West Athabasca
## Alberta

### Flight Path

### FIG. 6.1

Sheet 3 of 3




Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
| Line Azimuth | 90°-270° |
| Tie-Line Spacing | 4000m |
| Tie-Line Azimuth | 0°-180° |

Aircraft Specifications

| | |
|---|---|
| Aircraft | CASA C-212-200 |
| Aircraft Altitude | 120m Mean Terrain Clearance |
| Average Aircraft Speed | 65m/s |
| GPS Receiver | NovAtel Propak 4E-3151-R |
| GPS Sample Rate | 1.0s |

Magnetic Specifications

| | |
|---|---|
| Magnetometer | Scintrex CS-2 Cesium Vapour |
| Magnetometer Installation | Towed Bird |
| Magnetometer Sensitivity | 0.01nT |
| Sample Rate | 0.10s |
| I.G.R.F. Model | 2003 |
| I.G.R.F. Correction Date | 2006.5 |

Electromagnetic Specifications

| | |
|---|---|
| Electromagnetic System | GEOTEM® 20 Channel Multicoil System |
| Transmitter Installation | Vertical Axis Loop Mounted on Aircraft |
| Transmitter Loop Area | $231m^2$ |
| Transmitter Loop Turns | 6 |
| Transmitter Base Frequency | 30Hz |
| Pulse Width | 4110µs |
| Off-time Period | 12456µs |
| Receiver Installation | Towed Bird |
| Receiver Coils | Multiple Coils in X, Y, Z Orientation |
| Receiver Sample Rate | 0.25s |
| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
| Video Acquisition | Colour VHS Video |

Geodetic Specifications

| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

N

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000

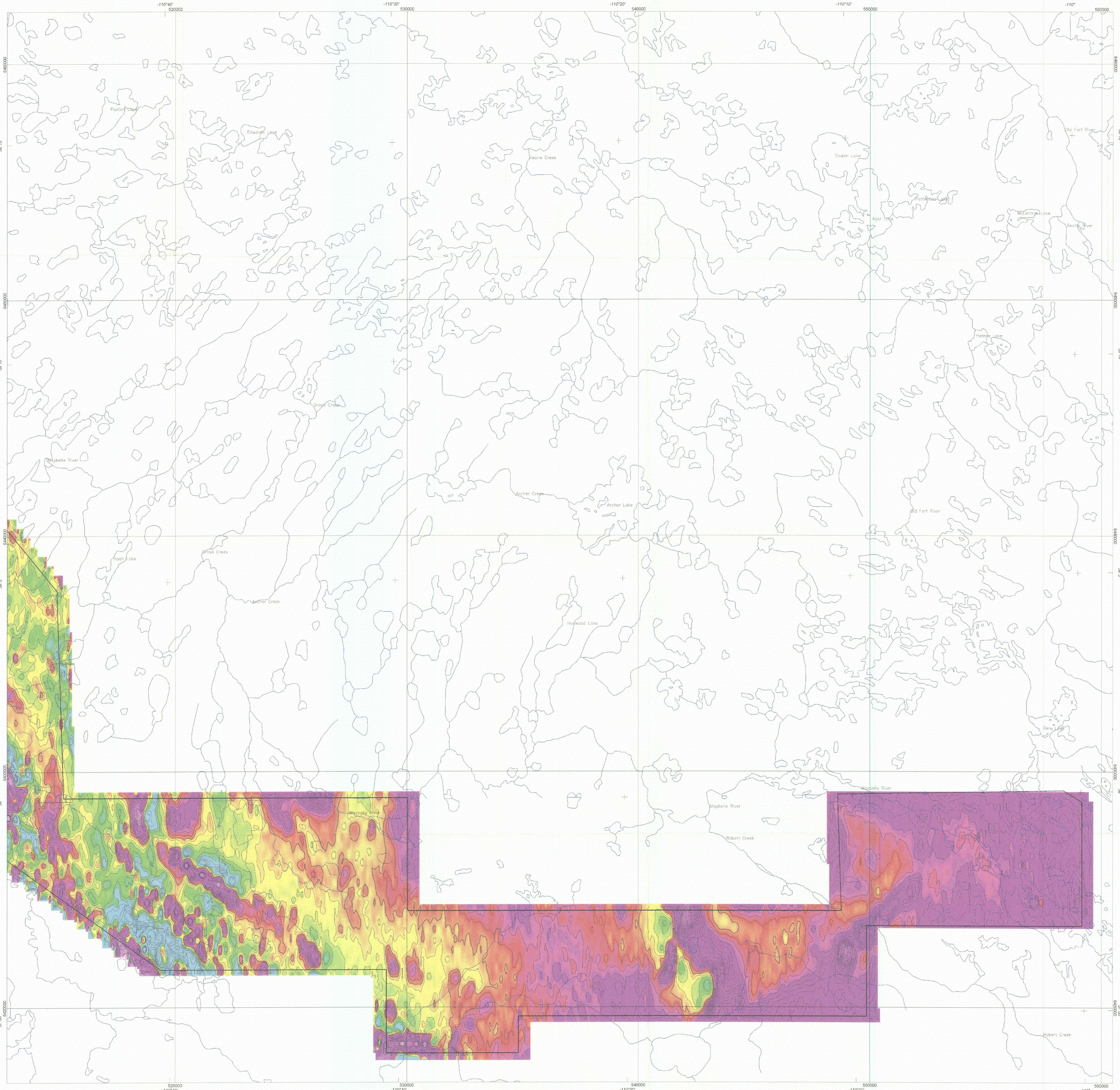
1000 0 1000 2000 3000

metres

NAD83 / UTM zone 12N

Fugro Project 06418
Map Creation 08.08.06

FUGRO AIRBORNE SURVEYS




Project 06418
Creation 08.08.06

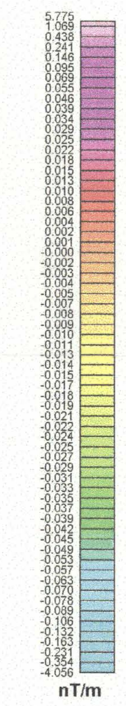
Airborne GEOTEM® Survey
For
Strathmore Minerals Corp.
West Athabasca
Alberta

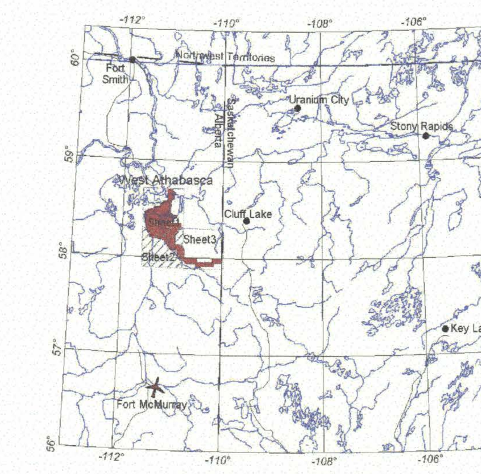
# First Vertical Derivative

of Residual Magnetic Intensity
Contour Interval 0.01 nanoteslas

Sheet 3 of 3

## FIG. 6.2



Survey Specifications

Line Spacing .......... 400m
Line Azimuth .......... 90°-270°
Tie-Line Spacing .......... 4000m
Tie-Line Azimuth .......... 0°-180°

Aircraft Specifications

Aircraft .......... CASA C-212-200
Aircraft Altitude .......... 120m Mean Terrain Clearance
Average Aircraft Speed .......... 65m/s
GPS Receiver .......... NovAtel Propak 4E-3151-R
GPS Sample Rate .......... 1.0s

Magnetic Specifications

Magnetometer .......... Scintrex CS-2 Cesium Vapour
Magnetometer Installation .......... Towed Bird
Magnetometer Sensitivity .......... 0.01nT
Sample Rate .......... 0.10s
I.G.R.F. Model .......... 2003
I.G.R.F. Correction Date .......... 2006.5

Electromagnetic Specifications

Electromagnetic System .......... GEOTEM® 20 Channel Multicoil System
Transmitter Installation .......... Vertical Axis Loop Mounted on Aircraft
Transmitter Loop Area .......... 231m²
Transmitter Loop Turns .......... 6
Transmitter Base Frequency .......... 30Hz
Pulse Width .......... 4110µs
Off-time Period .......... 12456µs
Receiver Installation .......... Towed Bird
Receiver Coils .......... Multiple Coils in X, Y, Z Orientation
Receiver Sample Rate .......... 0.25s
Digital Acquisition .......... Fugro Airborne Surveys Geodas System
Analogue Acquisition .......... RMS GR-33 Chart Recorder
Video Acquisition .......... Colour VHS Video

Geodetic Specifications

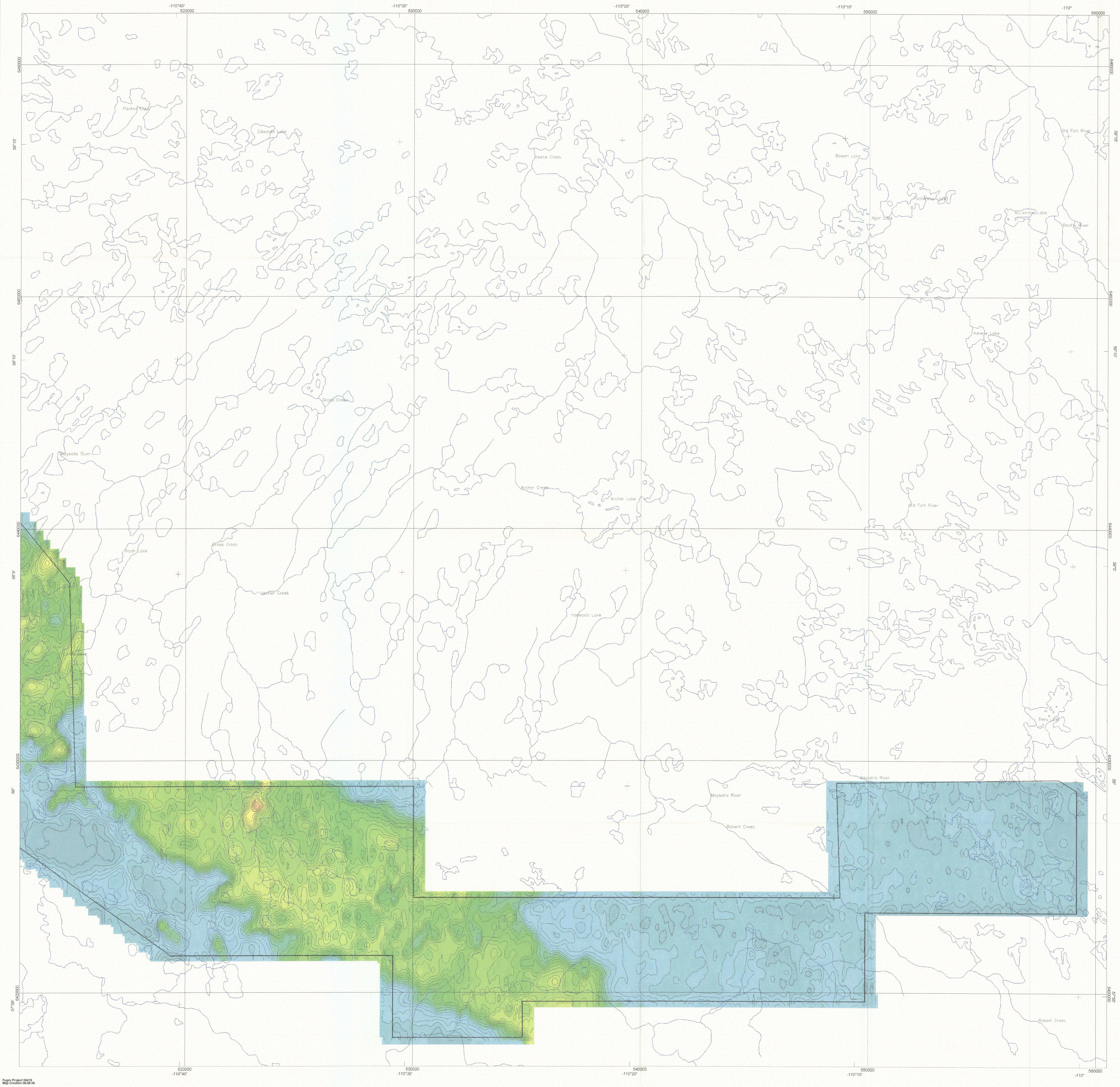
Map Projection .......... UTM
Datum .......... NAD83
UTM Zone .......... 12 North
Central Meridian .......... 111° West
False Easting .......... 500000m
False Northing .......... 0m
Scale Factor .......... 0.9996

N

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000
1000 0 1000 2000 3000
metres
NAD83 / UTM zone 12N

FUGRO AIRBORNE SURVEYS




Strathmore MINERALS CORP.

# Airborne GEOTEM® Survey

For

## Strathmore Minerals Corp.
## West Athabasca
## Alberta

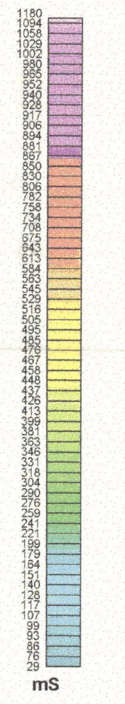
### Apparent Conductance

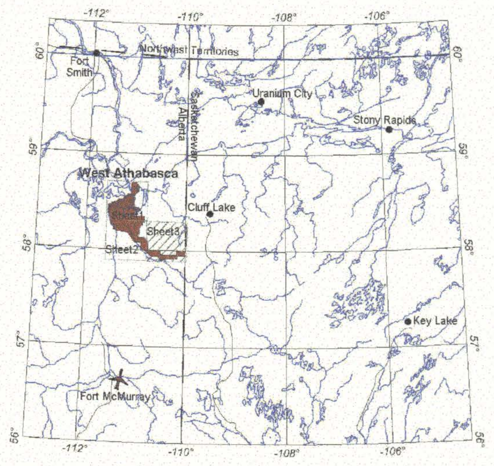
**Derived from dB/dt X and Z Coils**

Contour Interval 20 millisiemens

Sheet 3 of 3

## FIG. 6.3



Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
| Line Azimuth | 90°-270° |
| Tie-Line Spacing | 4000m |
| Tie-Line Azimuth | 0°-180° |

Aircraft Specifications

| | |
|---|---|
| Aircraft | CASA C-212-200 |
| Aircraft Altitude | 120m Mean Terrain Clearance |
| Average Aircraft Speed | 65m/s |
| GPS Receiver | NovAtel Propak 4E-3151-R |
| GPS Sample Rate | 1.0s |

Magnetic Specifications

| | |
|---|---|
| Magnetometer | Scintrex CS-2 Cesium Vapour |
| Magnetometer Installation | Towed Bird |
| Magnetometer Sensitivity | 0.01nT |
| Sample Rate | 0.10s |
| I.G.R.F. Model | 2003 |
| I.G.R.F. Correction Date | 2006.5 |

Electromagnetic Specifications

| | |
|---|---|
| Electromagnetic System | GEOTEM® 20 Channel Multicoil System |
| Transmitter Installation | Vertical Axis Loop Mounted on Aircraft |
| Transmitter Loop Area | $231m^2$ |
| Transmitter Loop Turns | 6 |
| Transmitter Base Frequency | 30Hz |
| Pulse Width | 4110µs |
| Off-time Period | 12456µs |
| Receiver Installation | Towed Bird |
| Receiver Coils | Multiple Coils in X, Y, Z Orientation |
| Receiver Sample Rate | 0.25s |
| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
| Video Acquisition | Colour VHS Video |

Geodetic Specifications

| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000

1000 0 1000 2000 3000

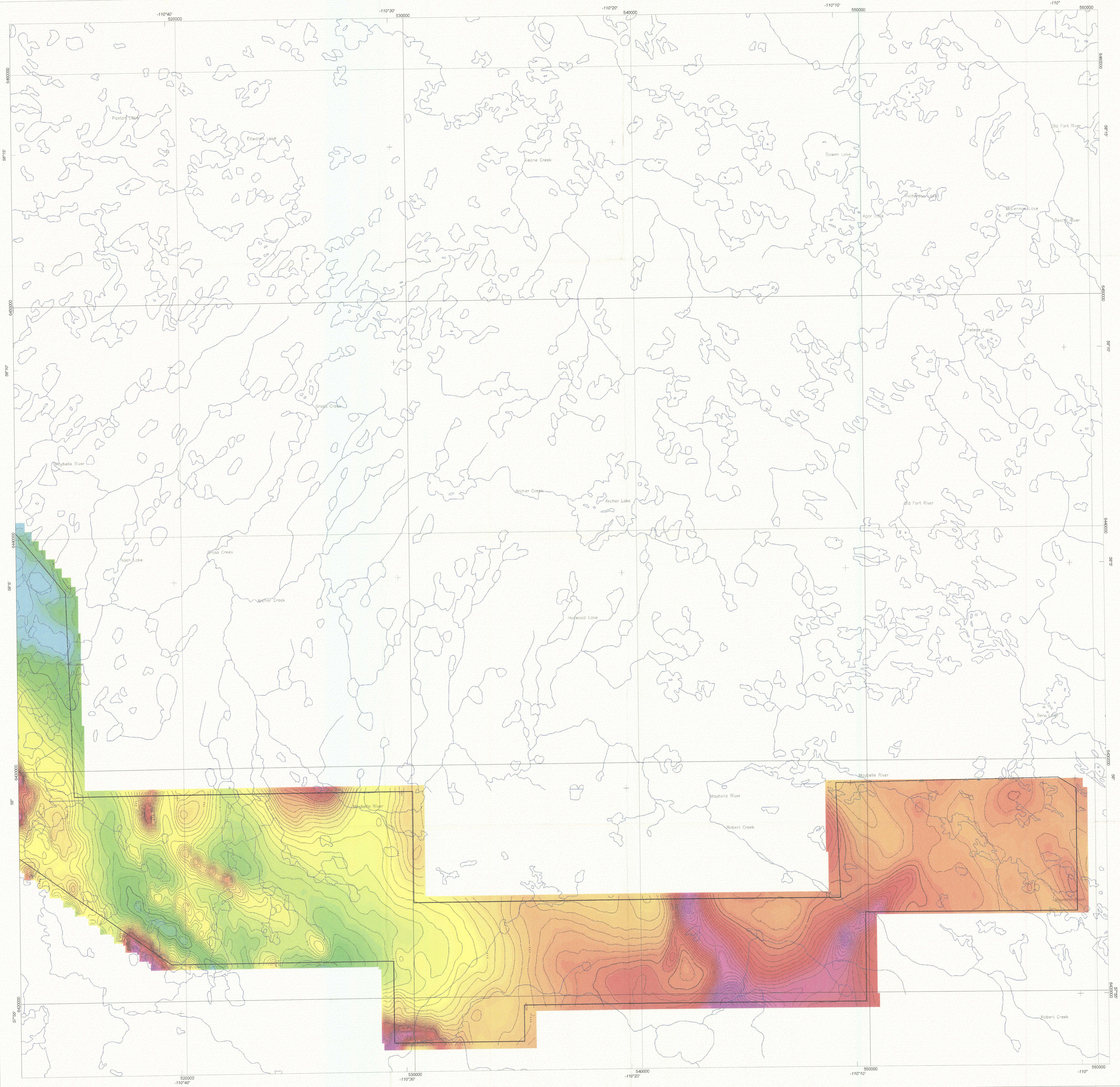
metres

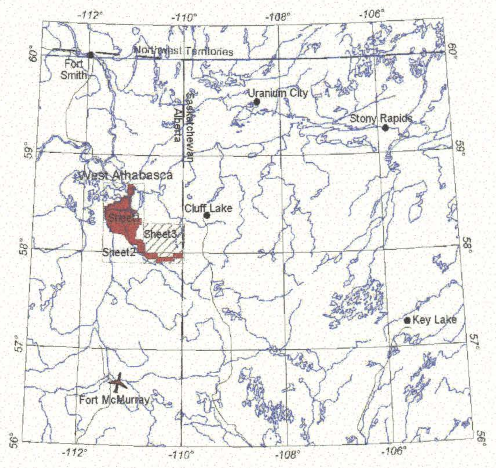
NAD83 / UTM zone 12N

Fugro Project 06418
Map Creation 08.08.06

FUGRO AIRBORNE SURVEYS

200700





Strathmore MINERALS CORP.

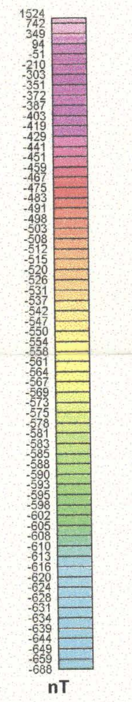
# Airborne GEOTEM® Survey
For
## Strathmore Minerals Corp.
## West Athabasca
## Alberta

## Residual Magnetic Intensity

Contour Interval 5 nanoteslas

Sheet 3 of 3

**FIG. 6.4**



Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
| Line Azimuth | 90°-270° |
| Tie-Line Spacing | 4000m |
| Tie-Line Azimuth | 0°-180° |

Aircraft Specifications

| | |
|---|---|
| Aircraft | CASA C-212-200 |
| Aircraft Altitude | 120m Mean Terrain Clearance |
| Average Aircraft Speed | 65m/s |
| GPS Receiver | NovAtel Propak 4E-3151-R |
| GPS Sample Rate | 1.0s |

Magnetic Specifications

| | |
|---|---|
| Magnetometer | Scintrex CS-2 Cesium Vapour |
| Magnetometer Installation | Towed Bird |
| Magnetometer Sensitivity | 0.01nT |
| Sample Rate | 0.10s |
| I.G.R.F. Model | 2003 |
| I.G.R.F. Correction Date | 2006.5 |

Electromagnetic Specifications

| | |
|---|---|
| Electromagnetic System | GEOTEM® 20 Channel Multicoil System |
| Transmitter Installation | Vertical Axis Loop Mounted on Aircraft |
| Transmitter Loop Area | $231m^2$ |
| Transmitter Loop Turns | 6 |
| Transmitter Base Frequency | 30Hz |
| Pulse Width | 4110µs |
| Off-time Period | 12456µs |
| Receiver Installation | Towed Bird |
| Receiver Coils | Multiple Coils in X, Y, Z Orientation |
| Receiver Sample Rate | 0.25s |
| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
| Video Acquisition | Colour VHS Video |

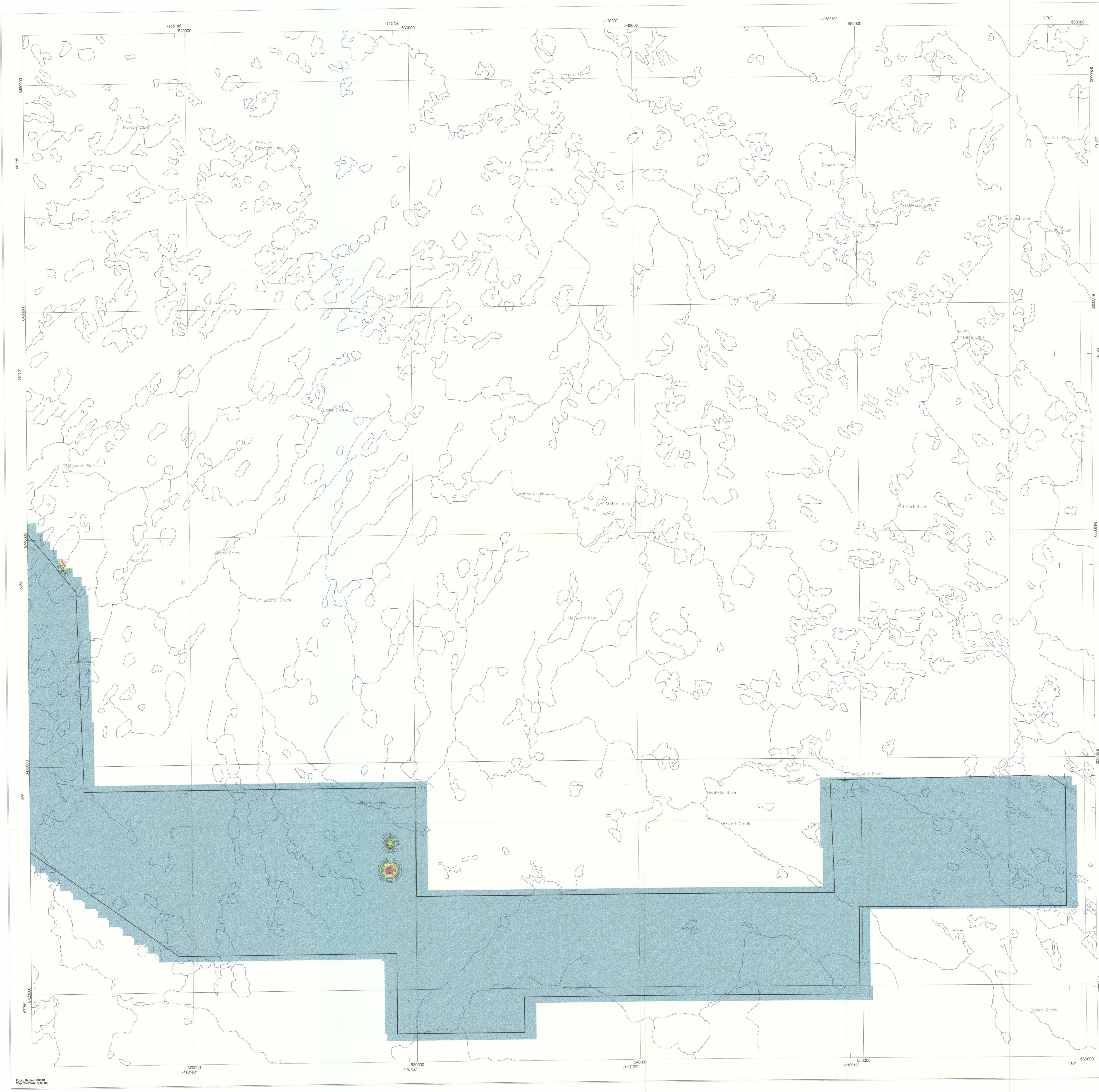
Geodetic Specifications

| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000

FUGRO AIRBORNE SURVEYS




Strathmore MINERALS CORP.

# Airborne GEOTEM® Survey

For

## Strathmore Minerals Corp.
## West Athabasca
## Alberta

## Decay Constant (Tau)

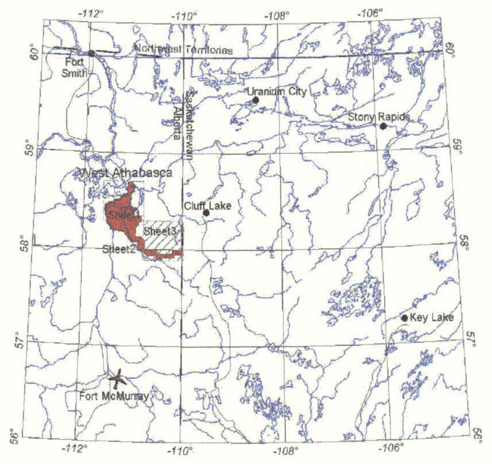
**Derived from B Field X Coil Channels 6-20**

Contour Interval 10 microseconds

Sheet 3 of 3

**FIG. 6.5**

µs



### Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
| Line Azimuth | 90°-270° |
| Tie-Line Spacing | 4000m |
| Tie-Line Azimuth | 0°-180° |

### Aircraft Specifications

| | |
|---|---|
| Aircraft | CASA C-212-200 |
| Aircraft Altitude | 120m Mean Terrain Clearance |
| Average Aircraft Speed | 65m/s |
| GPS Receiver | NovAtel Propak 4E-3151-R |
| GPS Sample Rate | 1.0s |

### Magnetic Specifications

| | |
|---|---|
| Magnetometer | Scintrex CS-2 Cesium Vapour |
| Magnetometer Installation | Towed Bird |
| Magnetometer Sensitivity | 0.01nT |
| Sample Rate | 0.10s |
| I.G.R.F. Model | 2003 |
| I.G.R.F. Correction Date | 2006.5 |

### Electromagnetic Specifications

| | |
|---|---|
| Electromagnetic System | GEOTEM® 20 Channel Multicoil System |
| Transmitter Installation | Vertical Axis Loop Mounted on Aircraft |
| Transmitter Loop Area | 231m² |
| Transmitter Loop Turns | 6 |
| Transmitter Base Frequency | 30Hz |
| Pulse Width | 4110µs |
| Off-time Period | 12456µs |
| Receiver Installation | Towed Bird |
| Receiver Coils | Multiple Coils in X, Y, Z Orientation |
| Receiver Sample Rate | 0.25s |
| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
| Video Acquisition | Colour VHS Video |

### Geodetic Specifications

| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

N

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000

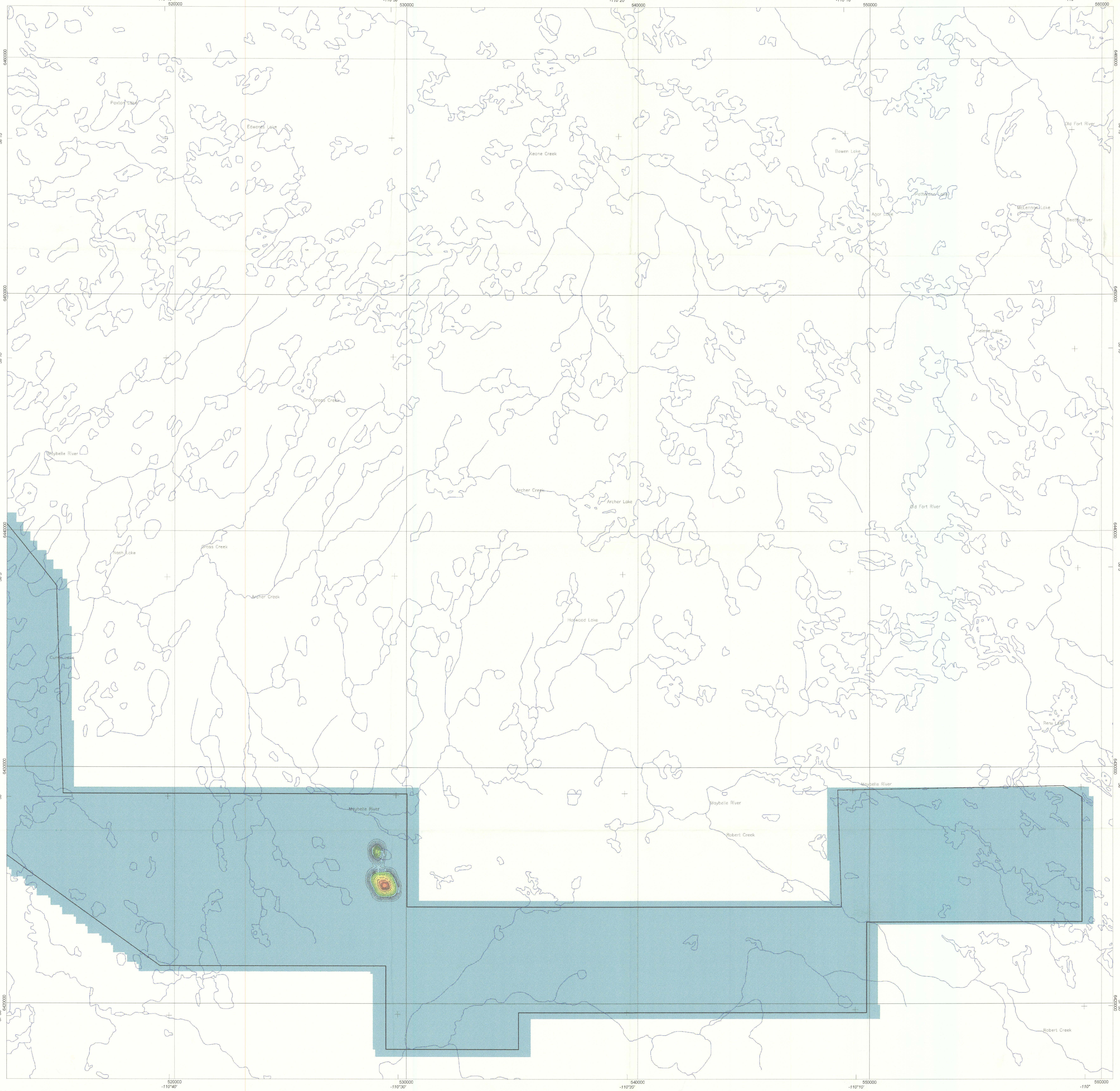
1000 0 1000 2000 3000

metres

NAD83 / UTM zone 12N

**FUGRO AIRBORNE SURVEYS**

Fugro Project 06418
Map Creation 08.08.06



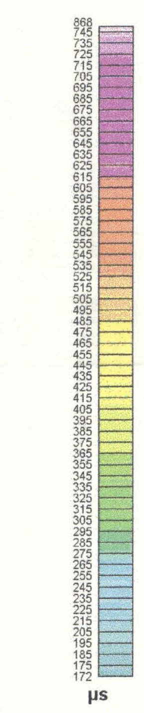

Strathmore MINERALS CORP.

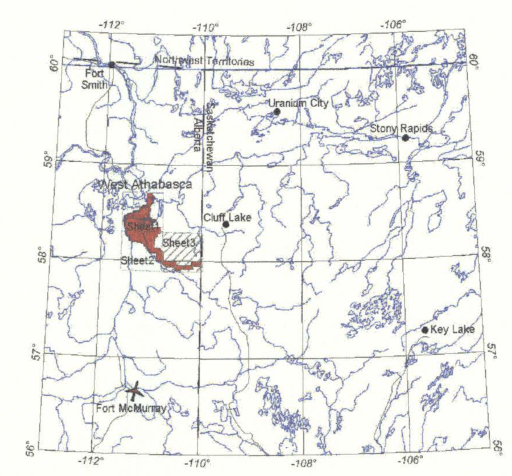
# Airborne GEOTEM® Survey
For
## Strathmore Minerals Corp.
## West Athabasca
## Alberta

## Decay Constant (Tau)
**Derived from dB/dt Z Coil Channels 8-20**
Contour Interval 10 microseconds

Sheet 3 of 3

**FIG. 6.6**



### Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
| Line Azimuth | 90°-270° |
| Tie-Line Spacing | 4000m |
| Tie-Line Azimuth | 0°-180° |

### Aircraft Specifications

| | |
|---|---|
| Aircraft | CASA C-212-200 |
| Aircraft Altitude | 120m Mean Terrain Clearance |
| Average Aircraft Speed | 65m/s |
| GPS Receiver | NovAtel Propak 4E-3151-R |
| GPS Sample Rate | 1.0s |

### Magnetic Specifications

| | |
|---|---|
| Magnetometer | Scintrex CS-2 Cesium Vapour |
| Magnetometer Installation | Towed Bird |
| Magnetometer Sensitivity | 0.01nT |
| Sample Rate | 0.10s |
| I.G.R.F. Model | 2003 |
| I.G.R.F. Correction Date | 2006.5 |

### Electromagnetic Specifications

| | |
|---|---|
| Electromagnetic System | GEOTEM® 20 Channel Multicoil System |
| Transmitter Installation | Vertical Axis Loop Mounted on Aircraft |
| Transmitter Loop Area | 231m² |
| Transmitter Loop Turns | 6 |
| Transmitter Base Frequency | 30Hz |
| Pulse Width | 4110μs |
| Off-time Period | 12456μs |
| Receiver Installation | Towed Bird |
| Receiver Coils | Multiple Coils in X, Y, Z Orientation |
| Receiver Sample Rate | 0.25s |
| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
| Video Acquisition | Colour VHS Video |

### Geodetic Specifications

| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

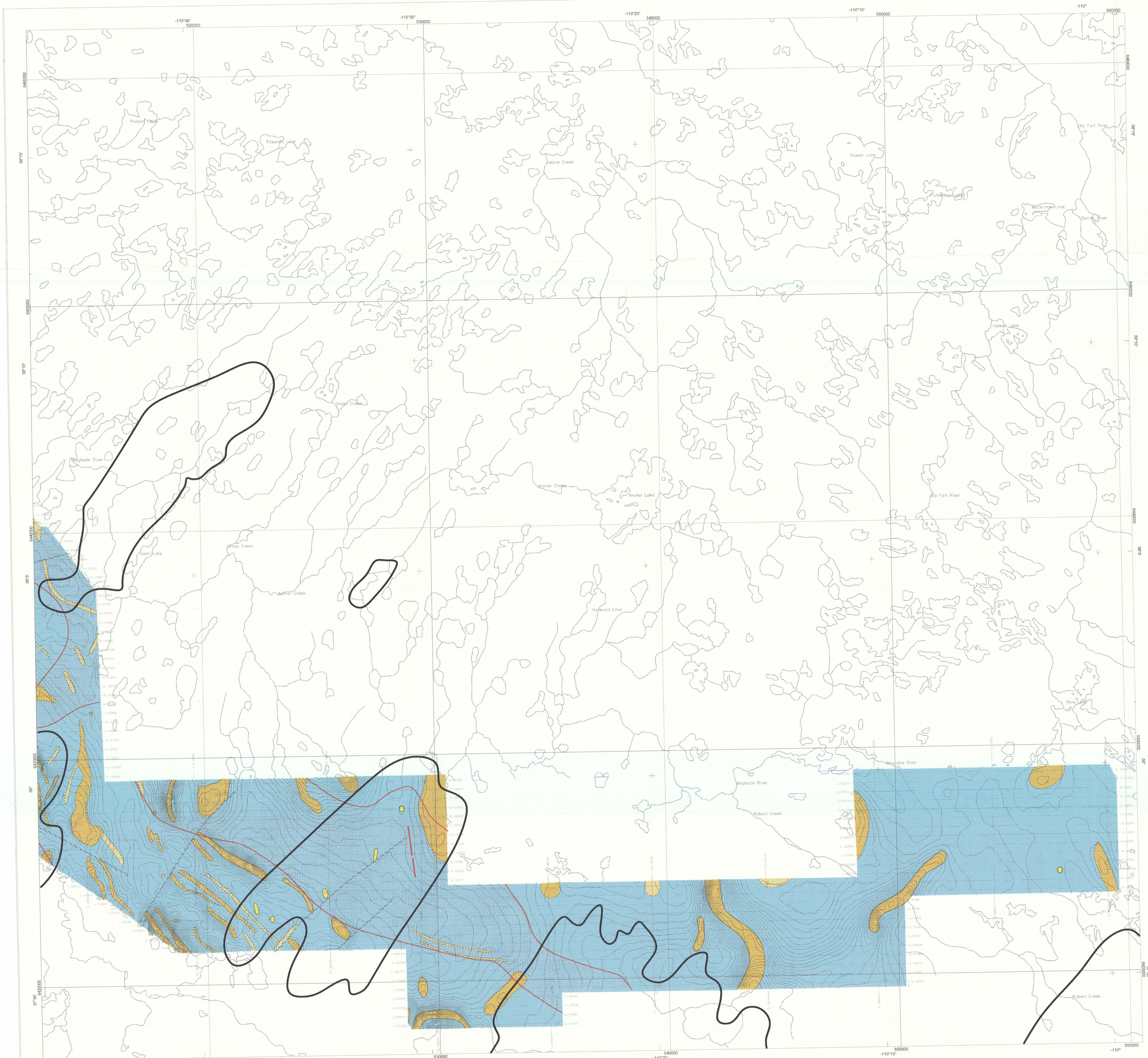
N

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000
1000 0 1000 2000 3000
metres
NAD83 / UTM zone 12N

Fugro Project 06418
Map Creation 08.08.06

FUGRO AIRBORNE SURVEYS




Fugro Project 06418
Map Creation 19.12.06

Strathmore MINERALS CORP.

# Airborne GEOTEM® Survey
For
## Strathmore Minerals Corp.
## West Athabasca
## Alberta

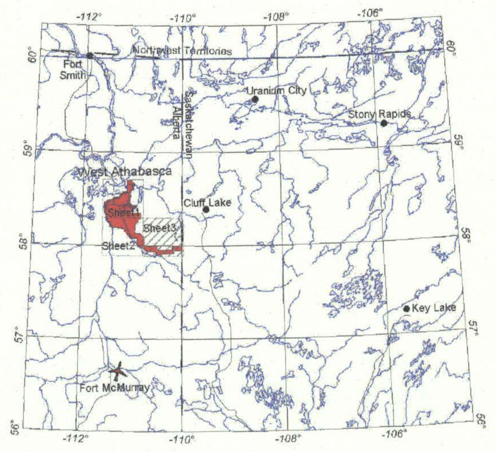
## Magnetic Qualitative Interpretation
### Over Residual Magnetic Intensity
Contour Interval 5 NanoTeslas

Sheet 3 of 3

**FIG. 6.7**

### Interpretation Legend

- Magnetic/Lithologic Boundary at or below the Archean basement surface (probable, possible)
- Possible Fault of basement origin
- Mafic Dyke
- Possible Kimberlite
- Mafic Lithologies at or below the basement surface, in descending magnetic intensity levels, from the left
- Felsic Lithologies at or below the basement surface, in descending magnetic intensity levels, from the left
- Highly Conductive Surficial Deposits
- Weakly Conductive Surficial Deposits
- Potential Basement Conductive Zone
- Basement Conductive Axis
- Northeast Limit of Paleozoic Sediments



#### Survey Specifications

| | |
|---|---|
| Line Spacing | 400m |
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| | |
|---|---|
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| | |
|---|---|
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| Digital Acquisition | Fugro Airborne Surveys Geodas System |
| Analogue Acquisition | RMS GR-33 Chart Recorder |
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| | |
|---|---|
| Map Projection | UTM |
| Datum | NAD83 |
| UTM Zone | 12 North |
| Central Meridian | 111° West |
| False Easting | 500000m |
| False Northing | 0m |
| Scale Factor | 0.9996 |

N

Inclination 78 degrees
Declination 17 degrees

Scale 1:50000
1000 0 1000 2000 3000
(meters)
NAD83 / UTM zone 12N

FUGRO AIRBORNE SURVEYS