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ARIS Summary Report

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Location:	NAD 27 Latitude: 56 49 38 NAD 83 Latitude: 56 49 33 NTS: 104B16E BCGS: 104B086	. T	130 55 21	UTM:	09	6299770	382679	
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FUGRO AIRBORNE SURVEYS

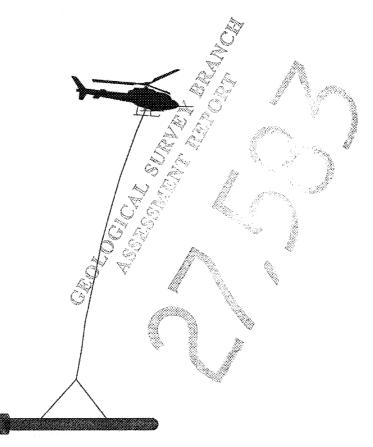
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Gold Commissioner's Office ACCOUVER, B.C. FUGRO AIRBORNE SURVEYS FOR MCLYMONT MINES INC. NEWMONT LAKE PROJECT BRITISH COLUMBIA

NTS: 104B/15



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December, 2004

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SUMMARY

This report describes the logistics, data acquisition, processing and presentation of results of an airborne magnetic geophysical survey carried out for Ram Explorations Inc., over a property located near Newmont Lake, British Columbia. Total coverage of the survey block amounted to 580 km. The survey was flown from August 30 to August 31, 2004.

The purpose of the survey was to detect previously unidentified intrusive units and to provide information that could be used to map the geology and structure of the survey area. This was accomplished by using a high sensitivity cesium magnetometer. The information from this sensor was processed to produce maps that display the magnetic properties of the survey area. A GPS electronic navigation system ensured accurate positioning of the geophysical data with respect to the base maps.

The survey data were processed and compiled in the Fugro Airborne Surveys Toronto office. Map products and digital data were provided in accordance with the scales and formats specified in the Survey Agreement.

Locating previously unidentified small intrusive units was one of the goals of the survey. From the information contained within the magnetic datasets the survey area displays a good potential for this. Several possible small intrusive units have been identified from the magnetic survey data that may warrant additional work. In addition to this, there is evidence to suggest that some of the known intrusive units may be slightly larger than previously mapped. After initial investigations have been carried out, it may be necessary to re-evaluate the magnetic data based on the information acquired from the follow-up program.

The survey results were also useful in mapping several of the known geological units and faults. Many of the geological boundaries and structural features can be redefined or extended based upon the results inferred from magnetic datasets. Such structural breaks are considered to be of particular interest as they may have influenced mineral deposition within the survey area. The survey was also successful in mapping susceptibilities changes within the known geologic units and identifying new contacts and structural features.

CONTENTS

1.	INTRODUCTION
2.	SURVEY OPERATIONS
3.	SURVEY EQUIPMENT.3.1Airborne Magnetometer3.1Magnetic Base Station3.2Navigation (Global Positioning System)3.5Radar Altimeter3.7Barometric Pressure and Temperature Sensors3.8Analog Recorder3.8Digital Data Acquisition System3.9Table 3-1. The Analog Profiles3.9Video Flight Path Recording System3.10
4.	QUALITY CONTROL AND IN-FIELD PROCESSING
5.	DATA PROCESSING5.1Flight Path Recovery5.1Total Magnetic Field5.1Calculated Vertical Magnetic Gradient5.2Digital Elevation (optional)5.2Contour, Colour and Shadow Map Displays5.3
6.	PRODUCTS
7.	SURVEY RESULTS7.1General Discussion7.1Magnetics7.1Regional Overview7.3Potential Targets in the Survey Area7.10
8.	CONCLUSIONS AND RECOMMENDATIONS

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APPENDICES

- A. List of PersonnelB. Background InformationC. Data Archive Description

1. INTRODUCTION

A Fugro Airborne Surveys magnetic survey was flown for Ram Explorations Inc., from August 30 to August 31, 2004, over a survey block(s) located near Newmont Lake, British Columbia. The survey area can be located on NTS map sheet 104B/15 (Figure 2).

Survey coverage consisted of approximately 580 line-km, including 48 line-km of tie lines. Flight lines were flown in an azimuthal direction of 90° with a line separation of 100 metres. Some infill lines in the southern part of the survey area provided coverage with an average line separation of 50 metres. Tie lines were flown orthogonal to the traverse lines with a line separation of 1000 metres.

The survey employed a magnetometer housed in its own bird with ancillary equipment consisting of radar and barometric altimeters, video camera, analog and digital recorders, and an electronic navigation system. The instrumentation was installed in an AS350B3 turbine helicopter (Registration C-GECL) which was provided by Questral Helicopters Ltd. The helicopter flew at an average airspeed of 65 km/h with an average magnetometer sensor height of approximately 41 m. There was significant sensor altitude variation due to the topography in the survey area.

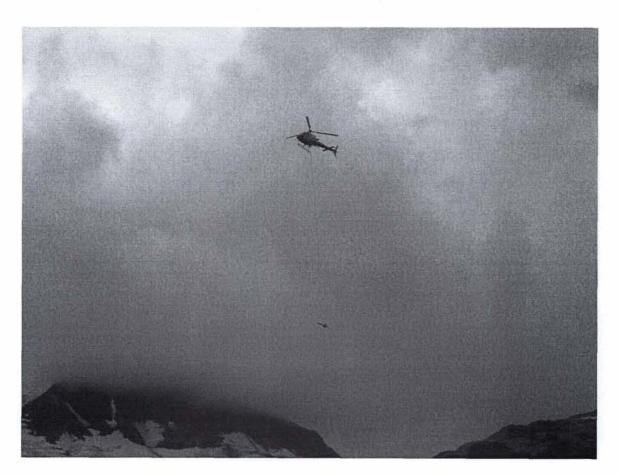


Figure 1: Fugro Airborne Surveys magnetometer bird towed by AS350B3

Section 3 provides details on the survey equipment, the data channels, their respective sensitivities, and the navigation/flight path recovery procedure

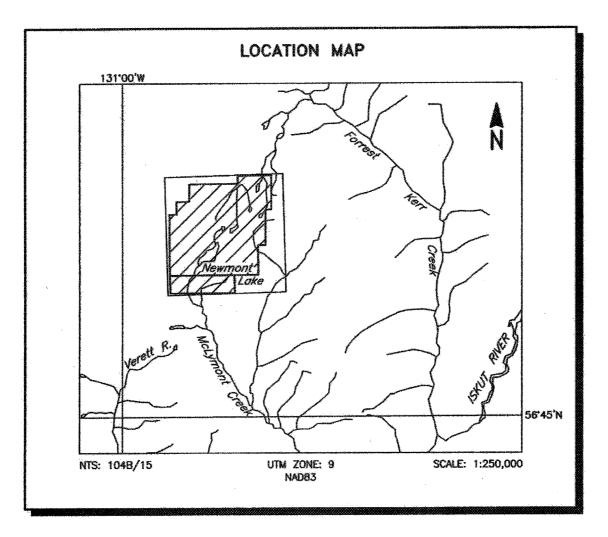
2. SURVEY OPERATIONS

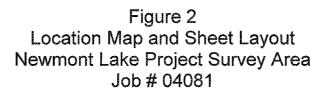
The base of operations for the survey was established at Bronson Creek Camp, B.C. The survey area can be located on NTS map sheets 104B/15 (Figure 2).

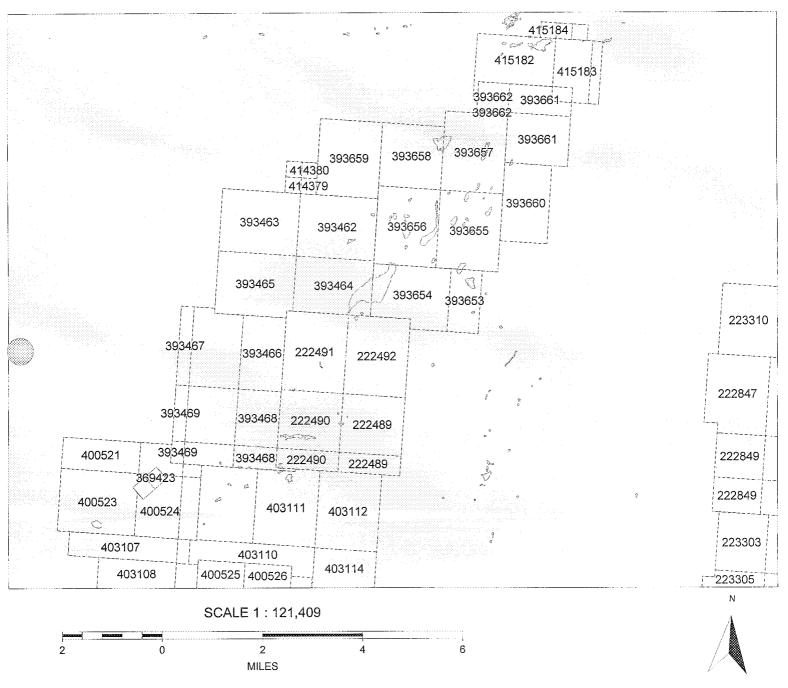
Table 2-1 lists the corner coordinates of the survey area(s) in NAD83, UTM Zone 9, central meridian 129° W.

	Block	X-UTM (E)	Y-UTM (N)
1	1 Newmont Lake	381250	6304948
2		381730	6304941
3		381744	6305801
4		382594	6305780
5		382643	6306973
6		385927	6306916
7		385927	6307459
8		388220	6307416
9		388146	6305087
10		387753	6305091
11		387687	6302688
12		387194	6302691
13		387145	6300698
14		385522	6300733
15		385518	6299531
16		381152	6299627
17		381153	6300829
18		381153	6301492

Table 2-1







The survey specifications were as follows:

Parameter	Specifications
Traverse line direction	E-W
Traverse line spacing	100 m with partial infill at 50 m
Tie line direction	N-S
Tie line spacing	1000 m
Sample interval	10 Hz, 3.3 m @ 120 km/h
Aircraft mean terrain clearance	58 m
EM sensor mean terrain clearance	30 m
Mag sensor mean terrain clearance	30 m
Average speed	120 km/h
Navigation (guidance)	±5 m, Real-time GPS
Post-survey flight path	±2 m, Differential GPS

3. SURVEY EQUIPMENT

This section provides a brief description of the geophysical instruments used to acquire the survey data and the calibration procedures employed. The geophysical equipment was installed in an AS350B3 helicopter. This aircraft provides a safe and efficient platform for surveys of this type.

Airborne Magnetometer

Model:	Fugro AM102 processor with Scintrex CS2 sensor
Туре:	Optically pumped cesium vapour
Sensitivity:	0.01 nT
Sample rate:	10 per second

The magnetometer sensor is housed in its own towed bird, 28 m below the helicopter.

Magnetic Base Station

<u>Primary</u>

Model:	Fugro CF1 base station with timing provided by integrated GPS		
Sensor type:	Geometrics G822 cesium magnetometer		
Counter specifications:	Accuracy: Resolution: Sample rate	±0.1 nT 0.01 nT 1 Hz	
GPS specifications:	Model: Type: Sensitivity: Accuracy:	Marconi Allstar Code and carrier tracking of L1 band, 12-channel, C/A code at 1575.42 MHz -90 dBm, 1.0 second update Manufacturer's stated accuracy for differential corrected GPS is 2 metres	
Environmental Monitor specifications:	 Accuracy: Resolution: Sample rate Range: Barometric pres Model: Accuracy: 	e: 1 Hz -40°C to +75°C sure: Motorola MPXA4115A ±3.0° kPa max (-20°C to 105°C temp. ranges) 0.013 kPa	
Backup			
Model: 0	GEM Systems GS	6 M- 19T	
Туре: [Digital recording p	proton precession	

Sensitivity: 0.10 nT Sample rate: 3 second intervals

A digital recorder is operated in conjunction with the base station magnetometer to record the diurnal variations of the earth's magnetic field. The clock of the base station is synchronized with that of the airborne system, using GPS time, to permit subsequent removal of diurnal drift. The Fugro CF1 was the primary magnetic base station and was setup in the northwest corner of camp. It was located at UTM 372606.67E, 6284402.88N NAD83, UTM Z9N. The second back-up unit was set up on the riverbank, level with the storage shed.



Figure 3 : CF1 Base Station Setup

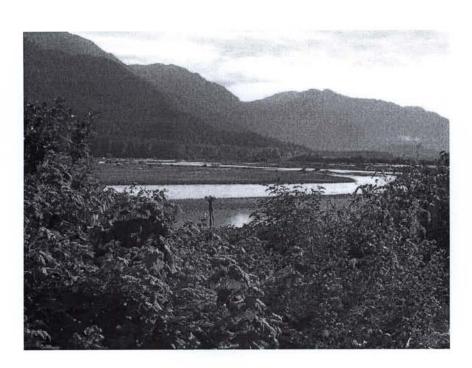


Figure 4: Backup Magnetic Base Station Setup

Navigation (Global Positioning System)

Airborne Receiver for Real-time Navigation & Guidance

Model:	Ashtech Glonass GG24 with PNAV 2100 interface	
Туре:	SPS (L1 band), 24-channel, C/A code at 1575.42 MHz,	
	S code at 0.5625 MHz, Real-time differential.	
Sensitivity:	-132 dBm, 0.5 second update	
Accuracy:	Manufacturer's stated accuracy is better than 5 metres real-time	
Antenna:	Mounted on tail of aircraft	
Airborne Receiver for Fl	ight Path Recovery	
Model:	Novatel Millennium.	
Туре:	Code and carrier tracking of L1-C/A code at 1575.42 MHz and L2-P code at 1227.0 MHz. Dual frequency, 24-channel.	
Sample rate:	10 Hz update.	
Accuracy:	Better than 1 metre in differential mode.	
Antenna:	Mounted on nose of mag bird	
Primary Base Station for Post-Survey Differential Correction		
Model:	Ashtech Z-Surveyor	
Туре:	Code and carrier tracking of L1 band, 12-channel, dual frequency C/A code at 1575.2 MHz, and L2 P-code 1227 MHz	
Sample rate:	0.5 second update	
Accuracy:	Manufacturer's stated accuracy for differential corrected GPS is better than 1 metre	

Secondary GPS Base Station

Model:	Marconi Allstar OEM, CMT-1200
Туре:	Code and carrier tracking of L1 band, 12-channel, C/A code at 1575.42 MHz
Sensitivity:	-90 dBm, 1.0 second update
Accuracy:	Manufacturer's stated accuracy for differential corrected GPS is 2 metres.

The Ashtech GG24 is a line of sight, satellite navigation system that utilizes time-coded signals from at least four of forty-eight available satellites. Both Russian GLONASS and American NAVSTAR satellite constellations are used to calculate the position and to provide real time guidance to the helicopter. For flight path processing, a Novatel Millenium was used as the mobile receiver. An Ashtech Z surveyor was used as the primary base station receiver. The mobile and base station raw XYZ data were recorded, thereby permitting post-survey differential corrections for theoretical accuracies of better than 2 metres. A Marconi Allstar GPS unit, part of the CF-1, was used as a secondary (back-up) base station.

Each base station receiver is able to calculate its own latitude and longitude. For this survey, the primary GPS station was located at latitude 56° 41' 10.81968" N, longitude 131° 04' 45.07316" W, at an elevation of 92.23 metres above the ellipsoid. The secondary GPS unit was located at latitude 56° 41' 10.782"N, longitude 131° 04' 47.2764" W, at an ellipsoidal elevation of 82.2 metres. The GPS records data relative to the WGS84 ellipsoid, which is the basis of the revised North American Datum (NAD83). Conversion

software is used to transform the WGS84 coordinates to the NAD83 UTM system displayed on the maps.



Figure 5: Base GPS Setup

Radar Altimeter

Manufacturer:	Honeywell/Sperry
Model:	AA 330 or RT220
Туре:	Short pulse modulation, 4.3 GHz
Sensitivity:	0.3 m
Sample rate:	2 per second

The radar altimeter measures the vertical distance between the helicopter and the ground. This information can be used in conjunction with the barometric altimeter or GPS height data to estimate the digital terrain profile.

Barometric Pressure and Temperature Sensors

Model:	DIGHEM D 130	00
Туре:		1115AP analog pressure sensor -impedance remote temperature sensors
Sensitivity:	Pressure: Temperature:	150 mV/kPa 100 mV/°C or 10 mV/°C (selectable)
Sample rate:	10 per second	

The D1300 circuit is used in conjunction with one barometric sensor and up to three temperature sensors. Two sensors (baro and temp) are installed in the EM console in the aircraft, to monitor pressure (1KPA) and internal operating temperatures (2TDC).

Analog Recorder

Manufacturer:	RMS Instruments

Type: DGR33 dot-matrix graphics recorder

Resolution: 4x4 dots/mm

Speed: 1.5 mm/sec

The analog profiles are recorded on chart paper in the aircraft during the survey. Table 3-1 lists the geophysical data channels and the vertical scale of each profile.

Digital Data Acquisition System

Manufacturer:	RMS Instruments
Model:	DGR 33
Recorder:	San Disk compact flash card (PCMCIA)

The stored data are downloaded to the field workstation PC at the survey base, for verification, backup and preparation of in-field products.

Table 3-1. The Analog Profiles

Channel Name	Parameter	Scale units/mm
ALTR	altimeter (radar)	3 m
MAGC	magnetics, coarse	20 nT
MAGF	magnetics, fine	2.0 nT
1KPA	altimeter (barometric)	30 m
2TDC	internal (console) temperature	1º C
3TDC	external temperature	1º C

Video Flight Path Recording System

Type:Panasonic WVCL322 Colour Video CameraRecorder:Panasonic AG 2400Format:NTSC (VHS)

Fiducial numbers are recorded continuously and are displayed on the margin of each image. This procedure ensures accurate correlation of data with respect to visible features on the ground.

4. QUALITY CONTROL AND IN-FIELD PROCESSING

Digital data for each flight were transferred to the field workstation, in order to verify data quality and completeness. A database was created and updated using Geosoft Oasis Montaj and proprietary Fugro Atlas software. This allowed the field personnel to calculate, display and verify both the positional (flight path) and geophysical data on a screen or printer. Records were examined as a preliminary assessment of the data acquired for each flight.

In-field processing of Fugro survey data consists of differential corrections to the airborne GPS data, spike rejection and filtering of all geophysical and ancillary data, verification of flight videos, diurnal correction, and preliminary leveling of magnetic data.

All data, including base station records, were checked on a daily basis, to ensure compliance with the survey contract specifications. Reflights were required if any of the following specifications were not met.

- Navigation Positional (x,y) accuracy of better than 10 m, with a CEP (circular error of probability) of 95%.
- Flight Path No lines to exceed ±50% departure from nominal line spacing over a continuous distance of more than 2 km, except for reasons of safety.
- Clearance Mean terrain sensor clearance of 30 m, ±10 m, except where precluded by safety considerations, e.g., restricted or populated areas, severe topography, obstructions, tree canopy, aerodynamic limitations, etc.
- Airborne Mag Aerodynamic magnetometer noise envelope not to exceed 0.5 nT over a distance of more than 500 metres.
- Base Mag Diurnal variations not to exceed 10 nT over a straight line time chord of 1 minute.

5. DATA PROCESSING

Flight Path Recovery

The raw range data from at least four satellites are simultaneously recorded by both the base and mobile GPS units. The geographic positions of both units, relative to the model ellipsoid, are calculated from this information. Differential corrections, which are obtained from the base station, are applied to the mobile unit data to provide a post-flight track of the aircraft, accurate to within 2 m. Speed checks of the flight path are also carried out to determine if there are any spikes or gaps in the data.

The corrected WGS84 latitude/longitude coordinates are transformed to the coordinate system used on the final maps. Images or plots are then created to provide a visual check of the flight path.

Total Magnetic Field

A fourth difference editing routine was applied to the magnetic data to remove any spikes. The aeromagnetic data were lagged according to the lag determined from the lag test and then corrected for diurnal variation using the magnetic base station data. The results were then leveled using tie and traverse line intercepts. Manual adjustments were applied to any lines that required leveling, as indicated by shadowed images of the gridded magnetic data. The manually leveled data were then subjected to a microleveling filter, where needed.

Calculated Vertical Magnetic Gradient

The diurnally-corrected total magnetic field data were subjected to a processing algorithm that enhances the response of magnetic bodies in the upper 500 m and attenuates the response of deeper bodies. The resulting vertical gradient map provides better definition and resolution of near-surface magnetic units. It also identifies weak magnetic features that may not be evident on the total field map. However, regional magnetic variations and changes in lithology may be better defined on the total magnetic field map.

Digital Elevation (optional)

The radar altimeter values (ALTR – aircraft to ground clearance) are subtracted from the differentially corrected and de-spiked GPS-Z values to produce profiles of the height above the ellipsoid along the survey lines. These values are gridded to produce contour maps showing approximate elevations within the survey area. The calculated digital terrain data are then tie-line leveled and adjusted to mean sea level. Any remaining subtle line-to-line discrepancies are manually removed. After the manual corrections are applied, the digital terrain data are filtered with a microleveling algorithm where necessary.

The accuracy of the elevation calculation is directly dependent on the accuracy of the two input parameters, ALTR and GPS-Z. The ALTR value may be erroneous in areas of heavy tree cover, where the altimeter reflects the distance to the tree canopy rather than the ground. The GPS-Z value is primarily dependent on the number of available satellites. Although post-processing of GPS data will yield X and Y accuracies in the order of 1-2 metres, the accuracy of the Z value is usually much less, sometimes in the ± 10 metre range. Further inaccuracies may be introduced during the interpolation and gridding process.

Because of the inherent inaccuracies of this method, no guarantee is made or implied that the information displayed is a true representation of the height above sea level. Although this product may be of some use as a general reference, <u>THIS PRODUCT</u> <u>MUST NOT BE USED FOR NAVIGATION PURPOSES.</u>

Contour, Colour and Shadow Map Displays

The geophysical data are interpolated onto a regular grid using a modified Akima spline technique. The resulting grid is suitable for image processing and generation of contour maps. The grid cell size is 20% of the line interval.

Colour maps are produced by interpolating the grid down to the pixel size. The parameter is then incremented with respect to specific amplitude ranges to provide colour "contour" maps.

Monochromatic shadow maps or images are generated by employing an artificial sun to cast shadows on a surface defined by the geophysical grid. There are many variations in the shadowing technique. These techniques can be applied to total field or enhanced magnetic data, magnetic derivatives, resistivity, etc. The shadowing technique is also used as a quality control method to detect subtle changes between lines.

6. PRODUCTS

This section lists the final maps and products that have been provided under the terms of the survey agreement. Other products can be prepared from the existing dataset, if requested.

Base Maps

Base map information for the survey area was provided by the client from government supplied digital topographic services. This process provides a relatively accurate, distortion-free base that facilitates correlation of the navigation data to the map coordinate system. The topographic files were combined with geophysical data for plotting the final maps. All maps were created using the following parameters:

Projection Description:

Datum: Ellipsoid: Projection: Central Meridian: False Northing: NAD 83 GRS80 UTM Zone: 9 N 129 W 0 False Easting:500000Scale Factor:0.9996WGS84 to Local Conversion:MolodenskyDatum Shifts:DX: 0DY: 0DZ: 0

The following parameters are presented on one map sheet, at a scale of 1:10,000. All maps include flight lines and topography, unless otherwise indicated. Preliminary products are not listed.

Final Products

	No. of Map Sets	
	Mylar Blackline Colour	
Total Magnetic Field	2	
Calculated Vertical Magnetic Gradient	2	

Additional Products

Digital Archive (see Archive Description) Survey Report Analog Chart Records Flight Path Video (VHS) 1 CD-ROM 2 copies All lines – 4 analog rolls 2 cassettes

7. SURVEY RESULTS

General Discussion

Magnetics

A Fugro CF-1 cesium vapour magnetometer was operated at the survey base to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to permit subsequent removal of diurnal drift. (A GEM Systems GSM-19T proton precession magnetometer was also operated as a backup unit.)

The total magnetic field data have been presented as contours on the base map using a contour interval of 56653 nT where gradients permit. The map shows the magnetic properties of the rock units underlying the survey area.

The total magnetic field data have been subjected to a processing algorithm to produce maps of the calculated vertical gradient. This procedure enhances near-surface magnetic units and suppresses regional gradients. It also provides better definition and resolution of magnetic units and displays weak magnetic features that may not be clearly evident on the total field maps.

There is some evidence on the magnetic map that suggests that the survey area has been subjected to deformation and/or alteration. These structural complexities are evident on the contour maps as variations in magnetic intensity, irregular patterns, and as offsets or changes in strike direction.

If a specific magnetic intensity can be assigned to the rock type that is believed to host the target mineralization, it may be possible to select areas of higher priority on the basis of the total field magnetic data. This is based on the assumption that the magnetite content of the host rocks will give rise to a limited range of contour values that will permit differentiation of various lithological units.

Ram Explorations Ltd. provided the geological information. The data were provided as a digitally scanned portion of a 1:100,000 scale map published by the BC Government, Bulletin 104.

The interpretation provided within this report was based primarily upon the gridded total field magnetic data and the calculated vertical magnetic datasets. Regional geological data was available at the time of writing this report. Many of the known geological units and mapped faults correlate well with the magnetic patterns. The magnetic data was quite useful as a supplement to the geological map as it helped redefine the boundaries of some rock units and locations of faults. The magnetic data also revealed much more structural and/or lithological information than was presented by the geological data.

Locating intrusive units was one of the goals of the survey. The geological map outlined several known intrusives. In describing the magnetic setting of these intrusives, some liberties were taken with the marked boundaries of these units. There is evidence within the magnetic datasets that some of these known intrusive units may be slightly larger than mapped. Both magnetic datasets were used as the basis for selecting new anomalies that displayed a good potential for locating previously unidentified intrusives. The survey has located several magnetic anomalies that have been identified as possible intrusive units.

Regional Overview

Several of the magnetic patterns relate well to the topographic features. Many of the magnetic highs correspond with the topographic highs and several breaks within the magnetic patterns correlate well with topographic lows. This indicates that much of the topography may be structurally controlled.

Within the survey area, several breaks and possible contacts have been identified. Two strong, well-developed NE/SW trending magnetic contacts extend across the survey area. Refer to figure 1. These contacts are approximately 3 km apart and map the approximate lateral extents of the central graben structure as identified from the geological information. Within this graben, the magnetic trends generally strike parallel to the two outer defining contacts. However, several crosscutting breaks are evident throughout this zone. There

are at least two major sub-parallel trending breaks that extend beyond the edges of the graben. Refer to figure 1. These breaks strike approximately in a northwest/southeast direction. Both of these breaks are within close proximity to some of the known intrusives and may have had some influence on their emplacement.

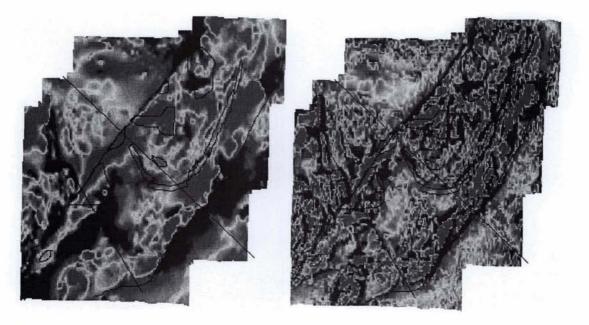


Figure 1: Total field magnetic data (left) Vertical magnetic gradient (right) with the edge of the graben, location of the intrusive units, and location of the thin limestone unit. All were digitized from the geology map. The two major crosscutting breaks interpreted from the geophysical data are also marked.

Within the graben, the vertical magnetic gradient data displays two distinctive magnetic patterns. Refer to Figure 1. The northern portion of this graben reveals higher magnetic amplitudes with more complex patterns, while towards the south, the magnetic patterns are generally less complex and lower in amplitude. The break between these two regions is one of the two major crosscutting features identified from the survey data. This change

in magnetic patterns is also coincident with an approximate northwest/southeast trending ridge evident on the topographic map and the northwest/southeast trending thin mapped limestone unit.

Applying artificial shadowing techniques to the calculated vertical magnetic gradient data has identified several zones of lower apparent magnetic intensities or relief. Refer to Figure 2. These zones may represent deeper magnetic sources or regions of low magnetic susceptibilities, as they generally do not reveal many short-wavelength magnetic features. Two of these zones are located west of the graben structure. The first is situated near the northwest corner of the survey block. The topographic base map indicates this region is located under a glacier, the thickness of which is unknown. The second is located along the western edge of the survey block near the start of line 10420, also beneath the glacier. Several other low magnetic relief zones have been located along the eastern extents of the graben and near the southern edge of the survey block. The zones near the southern edge of the survey block may be mapping the southern limit of the graben structure. There are two zones of lower magnetic susceptibilities situated within the graben near Newmont Lake. These zones are separated by the second major crosscutting magnetic break mentioned earlier.





Figure 2: Regions of long wavelength magnetic features as displayed by the shadowed calculated vertical gradient data

Along the eastern contact of the graben, several carbonate units are outlined on the geology map. These generally correspond to magnetic lows, although the exact boundaries of these carbonate units identified on the geology map can be redefined based on the magnetic information.

There are seven intrusive units identified on the geological map that occur within the graben. (Figure1 and Figure 3). These units are mapped as the Newmont Lake plugs, which are fine-grained and potassium feldspar porphyritic monzonite, granodiorite; or as the Loon lake Stock, which is identified as plagioclase-pyroxene monzonite porphyry. The geophysical data indicates that the magnetic susceptibilities vary within these intrusives, particularly within the larger units. The accuracy of the boundaries of these intrusives as defined by the geology map is not known. From the geophysical data, some of these intrusives may be larger than previously identified.

All but one of these intrusives is situated along, or in close proximity to the western edge of the graben. There is one intrusive that is located near the center of the graben but it is situated along the northern major crosscutting break mentioned earlier. Of the seven, three appear to be loosely coincident with rock units that reveal high magnetic susceptibilities while four appear to be associated with rocks of lower susceptibilities.

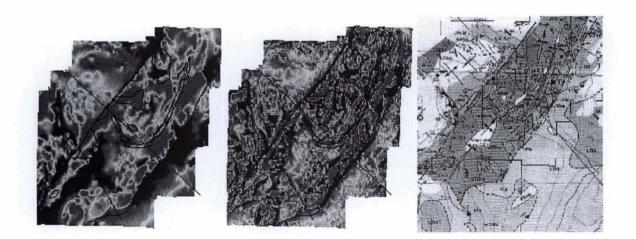


Figure 3: Total field magnetic data (left), vertical gradient data (centre), geologic data (right).

The three intrusives associated with magnetic highs are generally smaller in diameter. The most northerly one is located near UTM 385100mE, 6305500mN. Although the mapped geology places this intrusive in a non-distinct magnetic unit, this feature may be associated with the adjacent magnetic high. The magnetic high is located between the western edge of the graben and a north-south trending break, inferred from the geophysical data. This north-south break can be traced further south, where it defines the eastern limit of a mapped intrusive immediately to the south.

The second magnetic intrusive is situated near the center of the graben at UTM 383800mE, 6303500mN. Its lateral dimensions appear larger than on the geology map. This magnetic high is approximately 400 metres in diameter and is located near a major crosscutting break identified earlier.

The third magnetic intrusive is located near the southwest corner of the survey area. It is situated near the western contact of the graben and appears to be elongated in a northeast-southwest direction. The geological map suggests the dimensions of this unit are approximately 400 metres by 200 metres. However, the magnetic data indicates that this unit is probably larger than indicated on the geology map.

Of the three large intrusives outlined on the geology map, the northern and southern units are generally within an area of lower magnetic susceptibilities, although the magnetic signature is quite variable across these two units. Some of the boundaries of these two features appear to be related to breaks inferred from the magnetic datasets. The middle intrusive is also located within a highly variable magnetic feature. Its eastern extent is clearly bounded by a north-south trending break, while its western extent is truncated along the edge of the graben. It appears to be located immediate south of a highly magnetic unit, mapped as a felsic and intermediate lapilli, plagioclase tuff and layered rhyolite. The boundaries of these three large intrusive features may be better defined on the calculated vertical magnetic gradient map.

The last intrusive outlined on the geology map is located immediately south of the intersection of the regional northwest/southeast crosscutting magnetic break and the western edge of the graben. It appears to be located on the edge of a magnetic unit as evident on the vertical gradient map.

Potential Targets in the Survey Area

Several other features can be identified from the magnetic data that could indicate the presence of additional plug-like intrusive units. The locations of several targets for possible intrusives units are listed below.

Potential northern intrusives in close proximity to the eastern edge of the graben:

• 388150m E, 6306500m N

This anomaly is a small elliptical magnetic high, elongated in a north-south direction. Situated in close proximity to the eastern edge of the graben.

• 386800m E, 6303900m N

Magnetic high, approximately 450 metres in diameter. Bounded on three sides by breaks evident within the magnetic data and the in the east by the graben.

386900m E, 6305800m N; 386500mE, 6305000mN; 386250mE, 6304250mN

These locations identify three small magnetic lows that are coincident with lakes. These lows could be due to sedimentary (Algal limestone?) units or more felsic (intrusive?) rock units.

Potential intrusives near the center of the graben:

• 385770m E, 6304600m N

A small circular shaped magnetic high, less than 150 metres in diameter located on the north-central area of the graben.

• 384850m E, 6302200m N

A magnetic anomaly located within the south-central portion of the graben.

Potential intrusives in the southern region of the graben:

• 382900mE, 6300830mN

A bi-lobed magnetic high located near the southern edge of the survey boundary. It is south, by approximately 600 metres of the southern regional northwest/southeast regional magnetic break identified earlier.

• 382500mE, 6300250mN

A larger magnetic anomaly located 350 metres southwest of the above anomaly. May be part of a larger regional trend that extends beyond the southern edge of the survey area. - 7.12 -

• 383500mE, 6300350mN

This magnetic high is located close to the eastern contact of the graben and south of the regional northwest/southeast magnetic break. The vertical gradient data displays a complex magnetic pattern across this feature. This may indicate varying magnetic susceptibilities throughout this unit or the presence of crosscutting breaks.

8. CONCLUSIONS AND RECOMMENDATIONS

This report provides a very brief description of the survey results and describes the equipment, data processing procedures and logistics of the survey.

Locating previously unidentified small intrusive units was one of the goals of the survey. From the information contained within the magnetic datasets the survey area displays a good potential for this. Several possible small intrusive units have been identified from the magnetic survey data that may warrant additional work. In addition to this, there is evidence to suggest that some of the known intrusive units may be slightly larger than previously mapped. After initial investigations have been carried out, it may be necessary to re-evaluate the magnetic data based on the information acquired from the follow-up program.

The survey results were also useful in mapping several of the known geological units and faults. Many of the geological boundaries and structural features can be redefined or extended based upon the results inferred from magnetic datasets. Such structural breaks are considered to be of particular interest as they may have influenced mineral deposition within the survey area. The survey was also successful in mapping susceptibilities changes within the known geologic units and identifying new contacts and structural features.

- 8.1 -

The various maps included with this report display the magnetic properties of the survey area. It is recommended that a complete assessment and detailed evaluation of the survey results be carried out, in conjunction with all available geophysical, geological and geochemical information. Particular reference should be made to the magnetic data profiles that clearly define the characteristics of the individual anomalies.

The interpreted intrusive units defined by the survey should be subjected to further investigation, using appropriate surface exploration techniques. Targets that are currently considered to be of moderately low priority may require upgrading if follow-up results are favourable.

It is also recommended that image processing of existing geophysical data be considered, in order to extract the maximum amount of information from the survey results. Current software and imaging techniques often provide valuable information on structure and lithology, which may not be clearly evident on the colour maps. These techniques can yield images that define subtle, but significant, structural details.

Respectfully submitted,

FUGRO AIRBORNE SURVEYS CORP.

Douglas Garrie Geophysicist

R04081

APPENDIX A

LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a airborne magnetic survey carried out for Ram Explorations Inc., near Newmont Lake, B.C.

David Miles Emily Farquhar Darcy Blouin Chris Sawyer Bill Hofstede Gordon Smith Gordon Smith Douglas Garrie Lyn Vanderstarren Susan Pothiah Albina Tonello Manager, Helicopter Operations Manager, Data Processing and Interpretation Senior Geophysical Operator Field Geophysicist Pilot (Questral Helicopters Ltd.) Data Processing Supervisor Geophysical Data Processor Interpretation Geophysicist Drafting Supervisor Word Processing Operator Secretary/Expeditor

The survey consisted of 580 km of coverage, flown from August 30 to August 31, 2003.

All personnel are employees of Fugro Airborne Surveys, except for the pilot who is an employee of Questral Helicopters Ltd.

APPENDIX C

BACKGROUND INFORMATION

- Appendix C.5 -

BACKGROUND INFORMATION

Magnetic Responses

The measured total magnetic field provides information on the magnetic properties of the earth materials in the survey area. The information can be used to locate magnetic bodies of direct interest for exploration, and for structural and lithological mapping.

The total magnetic field response reflects the abundance of magnetic material in the source. Magnetite is the most common magnetic mineral. Other minerals such as ilmenite, pyrrhotite, franklinite, chromite, hematite, arsenopyrite, limonite and pyrite are also magnetic, but to a lesser extent than magnetite on average.

In some geological environments, an EM anomaly with magnetic correlation has a greater likelihood of being produced by sulphides than one which is non-magnetic. However, sulphide ore bodies may be non-magnetic (e.g., the Kidd Creek deposit near Timmins, Canada) as well as magnetic (e.g., the Mattabi deposit near Sturgeon Lake, Canada).

Iron ore deposits will be anomalously magnetic in comparison to surrounding rock due to the concentration of iron minerals such as magnetite, ilmenite and hematite.

Changes in magnetic susceptibility often allow rock units to be differentiated based on the total field magnetic response. Geophysical classifications may differ from geological classifications if various magnetite levels exist within one general geological classification. Geometric considerations of the source such as shape, dip and depth, inclination of the earth's field and remanent magnetization will complicate such an analysis.

In general, mafic lithologies contain more magnetite and are therefore more magnetic than many sediments which tend to be weakly magnetic. Metamorphism and alteration can also increase or decrease the magnetization of a rock unit.

Textural differences on a total field magnetic contour, colour or shadow map due to the frequency of activity of the magnetic parameter resulting from inhomogeneities in the distribution of magnetite within the rock, may define certain lithologies. For example, near surface volcanics may display highly complex contour patterns with little line-to-line correlation.

Rock units may be differentiated based on the plan shapes of their total field magnetic responses. Mafic intrusive plugs can appear as isolated "bulls-eye" anomalies. Granitic intrusives appear as sub-circular zones, and may have contrasting rings due to contact metamorphism. Generally, granitic terrain will lack a pronounced strike direction, although granite gneiss may display strike.

Linear north-south units are theoretically not well-defined on total field magnetic maps in equatorial regions due to the low inclination of the earth's magnetic field. However, most

- Appendix C.6 -

stratigraphic units will have variations in composition along strike that will cause the units to appear as a series of alternating magnetic highs and lows.

Faults and shear zones may be characterized by alteration that causes destruction of magnetite (e.g., weathering) that produces a contrast with surrounding rock. Structural breaks may be filled by magnetite-rich, fracture filling material as is the case with diabase dikes, or by non-magnetic felsic material.

Faulting can also be identified by patterns in the magnetic total field contours or colours. Faults and dikes tend to appear as lineaments and often have strike lengths of several kilometres. Offsets in narrow, magnetic, stratigraphic trends also delineate structure. Sharp contrasts in magnetic lithologies may arise due to large displacements along strikeslip or dip-slip faults. APPENDIX D

DATA ARCHIVE DESCRIPTION

APPENDIX D

ARCHIVE DESCRIPTION

This CD-ROM contains final data archives of an airborne survey conducted by Fugro Airborne Surveys on behalf of Ram Explorations Inc. in the Newmont Lake area, British Columbia from August 30 to August 31, 2004.

Fugro Job # 04081

The archives contain two (2) directories.

1. XYZ: XYZ data in Geosoft format, along with format description.

# CHANNAME	TIME	UNIT	S / DESCRIPTION
1 X	0.1	m	UTME-NAD83 Zone 9N
2 Y	0.1	m	UTMN-NAD83 Zone 9N
3 FID	0.1		fiducial
4 ALTB	0.1	m	Barometric Altimeter
5 ALTBIRDM	0.1	m	Radar Altimeter Bird to surface distance
6 MAGRAW	0.1	nT	raw total magnetic field
7 MAG	0.1	nT	diurnally correct lagged and levelled total magnetic field
8 DEMB	0.1	m	Digital Elevation Model NAD83 (from barometric data)
9 DEMZ	0.1	m	Digital Elevation Model NAD83 (from gpsz data)
10 DIURNAL	0.1	nT	basestation diurnal readings
11 GPSLAT	1.0	deg	DGPS latitude WGS84
12 GPSLON	1.0	deg	DGPS longitude WGS84
13 GPSZ	1.0	m	DGPS bird height above ellipsoid WGS84
14 TIME	0.1	S	local time

2. Grids: Grids in Geosoft format for the following parameters:

- 1. Magnetic Total Field
- 2. Calculated Vertical Magnetic Gradient
- 4. Report in MS-Word, Adobe PDF (on separate CDROM)

Projection Description:

Datum:	NAD83
Ellipsoid:	GRS80
Projection:	UTM Zone:9
Central Meridian:	129 W
False Northing:	0
False Easting:	500000
Scale Factor:	0.9996
WGS84-Local Conversion:	Molodensky
Datum Shifts:	DX: 0 DY: 0 DZ:0

Table 1: List of Mineral Claims

Claim No.	Claim Name	No. of Units	Expiry date	Registered Owner	
Original Gulf International claims (Property)					
222489 222490 222491 222492	Mclymont #1 Mclymont #2 Mclymont #3 Mclymont #4	20 20 20 20	10/01/2005 10/01/2005 10/01/2005 10/01/2005	Gulf International Min. Gulf International Min. Gulf International Min. Gulf International Min.	
Claims staked by Mclymont Mines in 2002 (Additional Property)					
393653 393654 393655 393656	MCX 1 MCX 2 MCX 3 MCX 4	8 20 20 20	10/01/2005 10/01/2005 10/01/2005 10/01/2005	Gulf International Min. Gulf International Min. Gulf International Min. Gulf International Min.	

393657

393658

393659

393660

393661

393662

MCX 5

MCX 6

MCX 7

MCX 8

MCX 9

MCX 10

20

16

20

15

20

4

Claims staked by Mclymont Mines in 2004 (Additional Property as provided in Para. 11 of the Option Agreement between Gulf and Mclymont dated June 25, 2004))

10/01/2005

10/01/2005

10/01/2005

10/01/2005

10/01/2005

10/01/2005

Gulf International Min.

414379	MCX 11	1	09/14/2005	Gulf International Min.
414380	MCX 12	1	09/14/2005	Gulf International Min.
414381	MCX 13	1	09/14/2005	Gulf International Min.
414382	MCX 14	1	09/14/2005	Gulf International Min.
415182	MCX 17	20	10/13/2005	Gulf International Min.
415183	MCX 18	12	10/13/2005	Gulf International Min.
415184	MCX 20	1	10/13/2005	Gulf International Min.
415185	MCX 21	1	10/13/2005	Gulf International Min.
414186	MCX 22	1	10/13/2005	Gulf International Min.

Note 1: Figure 1 shows the location of the property within British Columbia and the location of the property relative to access roads and nearby mines and developed prospects. Figure 4 shows the location of each of the individual mineral claims which comprise the subject property.

STATEMENT OF COSTS

Invoices Received from Fugro Airborne Surveys as at December 30, 2004

Fugro Airborne Surveys	
-#040823	15,750.00
-#040827	15,750.00
-#040901	15,750.00
-#040910	1,920.00
-#041005	9,642.00
-pending	6,750.00

65,562.90

