# WORK REPORT on the MOLLIE RIVER PROJECT WEST BLOCK BENNEWEIS TOWNSHIP PORCUPINE MINING DIVISION for NEWCASTLE MINERALS LTD. 

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September, 2010

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Maps

A
Posted and profiled magnetometer data

## INTRODUCTION

The following report will deal with the results of a magnetometer survey carried out on the West Block of the Mollie River Property. This property consists of a single block mining claims ( 6 units), located in Benneweis Township, Porcupine Mining Division, Ontario (Figure \#3). This work was carried out on a contract basis by Vision Exploration on behalf of Newcastle Minerals Ltd.

A total of 4.4 km of grid lines were established to cover the block. The grid was then covered in its entirety with a magnetometer survey. This work program was designed to provide reconnaissance data to test for the presence of any east west trending magnetic feature. Its purpose was to provide magnetic data that will aid in the geological interpretation of the area. This work was carried out between Sept $1^{\text {st }}, 2010$ and Sept $7^{\text {th }}, 2010$.

The general area in which the subject property lies ahs recently become of interest due to significant drill results released by Trellany Resources, ( 107.11 m of $8.2 \mathrm{~g} / \mathrm{ton} / \mathrm{Au}$ ) located in Chester Township to the west. This has resulted in a staking rush which has totally surrounded the Mollie River claims.

This report will deal with the results of the magnetometer survey carried out on the abovementioned property.


## LOCATION AND ACCESS

The West Block of the Mollie River Project consists of 1claim units made up of 6 units located in the eastern portion of Benneweis Township (Figure \#2). The property is situated approximately 130 km south-southwest of the city of Timmins (Figure \#1).

Access to the work area was gained by taking Hwy 101, west from Timmins to the junction of Hwy 144 to Sudbury. At the 23 km point, past the town of Gogama a seasonal logging road heads east from the Hwy. This road provides excellent access to the property and can be travelled by 2 wheel drive vehicle during the summer months (Figure \#3).

## PERSONNEL

The following people were directly involved in carrying out the Magnetometer survey. All were employed by Vision Exploration of Timmins, Ontario.

Project Manager
Steve Anderson
Timmins

## PREVIOUS WORK

This was first phase of exploration to be carried out on this property by Newcastle Minerals Ltd. A work history for previous operators of the property was not available to the author at the time of writing.


## GENERAL GEOLOGY

The Mollie River Property is shown by OGS Map \# P3311 "Geological Compilation of the Timmins Area, Swayze Greenstone Belt" to be underlain by mafic intrusive rocks.

## CLAIMS

The West Block of the Mollie River Property consist of 1 unpatented block mining claims ( 6 units) located in Benneweis Townships (Figure \#3). The following is a list of the claims that make up the Mollie River Project.

$\pi$

## WORK PROGRAM SUMMARY

## General Information:

Project Dates:
Survey Period:
Survey Days:
Weather:
Down days:
Survey Coverage:
September 1, 2010 - September 7, 2010
1 day
1 day
0 days
0 day
4.4 km

## Personnel:

Project Supervision: Steve Anderson

## Survey Specifications:

Reading Interval:
12.5 meters

Line interval:
400 meters

## Instrument:

Magnetometer:
GEM GSM19T magnetometer

## Surveyed by:

## 2041663 ONTARIO LTD.

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## WORK PROGRAM

The current work program involved establishing 4.4 km of cut grid lined over the subject property. The base line was set-up in an east west-south direction using a GPS along and old abandoned power line. North-south lines cross lines were then chainsaw cut every 400 meters (Figure \#3). These lines were then picketed using a 25 meter station interval and surveyed with magnetometer using a 12.5 meter reading interval

The following is a brief description of the magnetometer survey and the parameters used.

## MAGNETOMETER THEORY

A GEM - GSM 19 Proton Precession magnetometer was used to carry out the magnetometer survey. The instrument is synchronised with a GEM -GSM 19 recording base station to help eliminate magnetic diurnal variation. This should ensure an accuracy of less than 10 Nt .

The Proton Precession method involves energising a wire coil immersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess simulating spinning magnetic dipoles. When the current is removed the protons precess about the direction of the earth's magnetic field, generating a signal in the same coil which is proportional to the total magnetic field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form with values of equal intensity joined to form a contour map.

This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic responses can be interpreted for dip, depth and width estimates after profiling the data.

The following parameters were employed for the survey:
Instrument - GEM GSM-19 Proton Precession Magnetometer
Station Interval - 12.5 m
Line Interval - 400 m
Diurnal Correction Method - GEM GSM-19 Recording Base Station
Data Presentation - Magnetic Profile Map
$-1: 5000$ scale

## SURVEY RESULTS

The magnetometer survey conducted on the West Block of the Mollie River Property was successful in outlining a number of features that may be of interest.

Due to the reconnaissance nature of this program it is difficult to establish any magnetic trends with certainty. Despite this there are a number of features that do stand out. There appears to be a magnetic high located in both the southeast and southwest corners of the claim. On L0E this magnetic high is flanked to the north by a strong low.

There are also a number of magnetic highs along the base line. These may be the result of material left behind when the old power line was removed.

## RECOMMENDATIONS AND CONCLUSIONS

As mentioned under results, a number of features were outlined that may be worthy of follow-up work. In general, it is difficult to establish any definite magnetic trends.

Phase two of this project will involve conducting an Induced Polarization survey along these same cross lines. This data will then be plotted over the IP pseudo sections so it can be correlated with that data. The IP should outline any areas of sulphides or disseminated sulphides in the area. Any zones of interest should be further investigated and if warranted a 100 m fill in grid be set up and surveyed using the same parameters.

Due to the recent interest in the area as generated by Trellany Resources $(107.11 \mathrm{~m}$ of $8.2 \mathrm{~g} /$ ton Au ) to the west in Chester Township, no areas of interest should be dismissed without further investigation.

## CERTIFICATION

I, Steve Anderson of Timmins, Ontario hereby certify that:

1. I hold a three-year Geological Technologist Diploma from Sir Sandford College, Lindsay, and Ontario, obtained in May 1981.
2. I have been practising my profession since 1979 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Manitoba, Saskatchewan and Greenland.
3. I have been employed directly with Asamera Oil Inc. Urangellschaft Canada Ltd. Nanisivik Mines Ltd., R.S. Middleton Exploration Services Ltd., Rayan Exploration Ltd and I am currently co-owner of Vision Exploration.
4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the fieldwork conducted on the property during September, 2010.

Dated this 8th day of September, 2010
At Timmins, Ontario.


## APPENDIX "A" GEM GSM-19T MAGNETOMETER

## GER GSNM-19

INSTRUMENT SPECIFICATIONS
MAGNETOMETER / GRADIOMETER
Resolution: $\quad 0.01 \mathrm{nT}$ (gamma), magnetic field and gradient.
Acouracy: $\quad 0.2 \mathrm{nT}$ over operating range-

Range:
Gradient Tolerance:
Operating interval:

Inputhutiput:
Power Requirements:

Power Source:

Battery Charger: loput 110 VAC 60 Hz Optioral $110 / 220 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$
Output dual level charging
Operating Ranges: Temperature: $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
Battery Vottage: 10.0 V minimum to 15 V maximum. Humidity: up to $90 \%$ relative, roon condensing.
Storage Temperature: $-50^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$
Display:

Dimensions:
20,000 to $120,000 \mathrm{nT}$.
Over 10,000 $\mathrm{n} \mathrm{T} / \mathrm{m}$
:3 seconds minimum, fester optional. Readings initiated from keyboard, oxtemal triger, or carrage return via R5-232-C 6 pin weatherproof connectos, PS-232C, and (optional) anatog output $12 \mathrm{~V}, 200 \mathrm{~mA}$ peak (during polarization), 30 mA standby. 300 mA peak in gradiometer mode-
internal $12 \mathrm{~V}, 2.6$ Ah sealed lead-acid battery standard, others optional. An Extemal 12 V power source can atso be used.

Ouptedual

LOD: $240 \times 64$ pixets , or $8 \times 30$ characters. Built in heater for operation below $-20^{\circ} \mathrm{C}$
Corsole: $223 \times 69 \times 240 \mathrm{~mm}$.

Sensor staff. $4 \times 450 \mathrm{~mm}$ sections.
Sensor: $170 \times 71 \mathrm{~mm}$ dia.
Weejght Consale 2.7 kg Staff 0.9 kg , Sensors 1.1 kg each.

## VLF

Frequency Range: $\cdots 15-30.0 \mathrm{kHz}$
Parameters Measured: Vertical lir-phase and Out-of-phase components as percentage of total field.
2 components of horizontal field.
Absoutte amplitude of total field.
$0.1 \%$.
Up to 3 at a time.
Actomatic with: time, coordinates, magnetic fielid/gradient. stope, EM fiedd, frequency, in- and out-of-phase vertical, and both hrovizontal - components for each selected station.

Terrain Stope Range: $\quad \sigma^{\circ}-90^{\circ}$ lentered manivallyh:
Sensar Dimensions: $14 \times 15 \times 9 \mathrm{~cm}$. ( $5.5 \times 6 \times 3$ incties).
Sensor Weidrt:
$1.0 \mathrm{ke}(2.2 \mathrm{~lm})$.



LINE KILOMETRES SURVEYED: 4.325


NEWCASTLE MINERALS LTD.
MOLLIE RIVER WEST PROJECT TOTAL FIELD MAGNETIC SURVEY - PROFILES SEPTEMBER 8, 2010
BENNEWEIS TOWP. PORCUPINE MINING DIVISION PROFILE SCALE 1 CLAIM NO: 4243739 ILE BASE - 56225 nT NSTRUMENT: GEM SYSTEMS GSM-19 MAGNETOMETER

