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CANADIAN EXPLORATION SERVICES LTD

BATTERY MINERAL RESOURCES LIMITED

Q2406e – White Reserve Project Magnetometer Survey

C Jason Ploeger, P.Geo. – August 29, 2017

BAT-ERY MINERAL RESOURCES

Abstract

CXS was contracted by Battery Mineral Resources Limited to perform a magnetometer survey over a portion of the White Reserve Project. Approximately 5 line kilometers of magnetic traverses were performed.

BATTERY MINERAL RESOURCES LIMITED.

Q2406e – White Reserve Project Magnetometer Survey

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TABLE OF CONTENTS

| 1. | | SURVEY DETAILS | .3 |
|----|-----|----------------------------|----|
| | 1.1 | PROJECT NAME | 3 |
| | 1.2 | CLIENT | 3 |
| | 1.3 | LOCATION | 3 |
| | 1.4 | Access | 4 |
| | 1.5 | SURVEY GRID | 4 |
| 2. | | SURVEY WORK UNDERTAKEN | .5 |
| | 2.1 | SURVEY LOG | 5 |
| | 2.2 | Personnel | 5 |
| | 2.3 | SURVEY SPECIFICATIONS | 5 |
| 3. | | OVERVIEW OF SURVEY RESULTS | .6 |
| | 3.1 | SUMMARY | 6 |

LIST OF APPENDICES

APPENDIX A: STATEMENT OF QUALIFICATIONS APPENDIX B: THEORETICAL BASIS AND SURVEY PROCEDURES APPENDIX C: INSTRUMENT SPECIFICATIONS APPENDIX D: LIST OF MAPS (IN MAP POCKET)

LIST OF TABLES AND FIGURES

| Figure 1: Location of the White Reserve Property | 3 |
|--|---|
| Figure 2: Claim Map with White Reserve Traverses | 4 |
| Figure 3: Magnetometer Plan on Google Earth | 6 |
| | |

| Table 1: Survey Log | 5 |
|---------------------|---|
|---------------------|---|





1. SURVEY DETAILS

1.1 PROJECT NAME

This project is known as the White Reserve Project - Van Nostrand.

1.2 CLIENT

Battery Mineral Resources Limited Level 36 Governor Phillip Tower 1 Farer Place Sydney Australia

1.3 LOCATION

The White Reserve Property is located in Van Nostrand Township, approximately 32 kilometres south of Elk Lake. The survey area is located on a portion of mining claims 4220227 and 4282429, located in Whitson and Van Nostrand Townships, within the Larder Lake Mining Division.

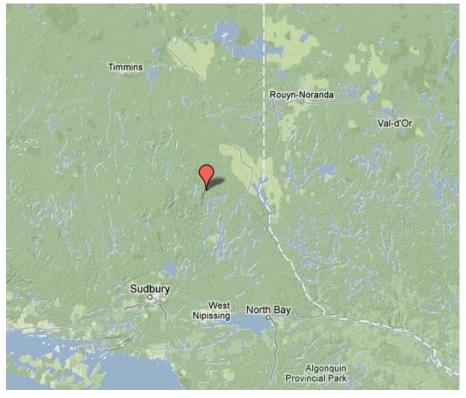


Figure 1: Location of the White Reserve Property





1.4 ACCESS

Access to the property was attained with a 4x4 truck via the Town of Elk Lake, Ontario. From Elk Lake, the Cooke Lake Road extends southward. The Cooke Lake Road along with the Anvil Lake road was travelled for approximately 41 kilometers to access the survey area.

1.5 SURVEY GRID

The traversed lines were established using a GPS in conjunction with the execution of the survey. The GPS operator would establish sample locations while remaining approximately 12.5m in front of the magnetometer operator. GPS waypoints, magnetic samples were taken every 12.5m along these controlled traverses. The GPS used was a Garmin GPSMAP 62s with an external antenna for added accuracy.



Figure 2: Claim Map with White Reserve Traverses





2. SURVEY WORK UNDERTAKEN

2.1 SURVEY LOG

| | | | Min | Max | Total Survey |
|-----------------|------------------------------|-------|--------|--------|-----------------|
| Date | Description | Line | Extent | Extent | (m) |
| August 19, 2017 | Locate survey area and begin | | | | |
| August 19, 2017 | magnetometer survey. | 200N | 700E | 1500E | 800 |
| | | 700E | 575S | 200N | 775 |
| | | 800E | 450S | 200N | 650 |
| | | 900E | 375S | 200N | 575 |
| | | 1000E | 200S | 25N | 225 |
| | | | | | |
| August 20, 2017 | Complete magnetometer survey | | | | |
| | as scheduled. | 1000E | 25N | 525N | 500 |
| | | 1100E | 0 | 450N | 450 |
| | | 1200E | 150S | 400N | 550 |
| | | 1300E | 0 | 400N | 400 |
| | | 400N | 1000E | 1300E | 300 |

Table 1: Survey Log

2.2 PERSONNEL

Patrick McGuinty of Pickering, Ontario conducted all the magnetic data collection while Claudia Moraga of Britt, Ontario was responsible for the GPS control and GPS waypoint collection.

2.3 SURVEY SPECIFICATIONS

The survey was conducted with a GSM-19 v7 Overhauser magnetometer with a second GSM-19 magnetometer for a base station mode for diurnal correction.

A total of 5.2 line kilometers of magnetometer was read over the White Reserve Project between August 19th and 20th, 2017. This consisted of 416 magnetometer samples taken at a 12.5 metre sample interval.





3. OVERVIEW OF SURVEY RESULTS

3.1 SUMMARY

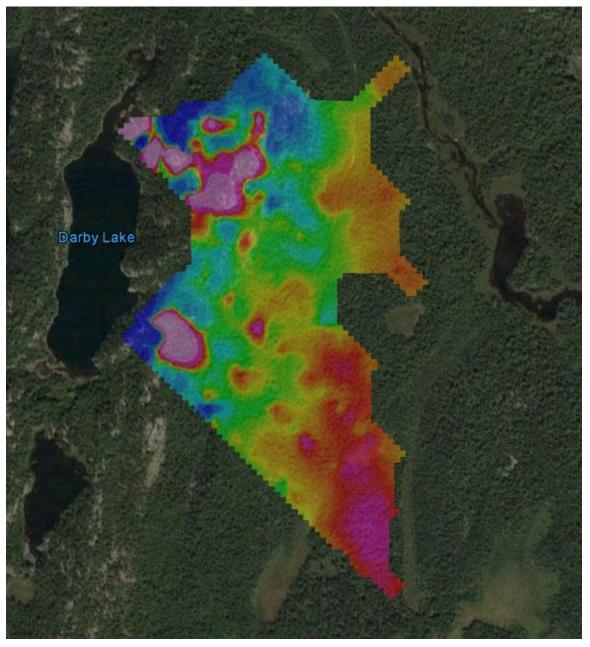


Figure 3: Magnetometer Plan on Google Earth

The survey covered a portion of claims number 4220227 and 4282429 which falls within the White Reserve Project. The magnetometer crew encountered no culture that would interfere with the results of the survey. They did make note of the extreme terrain located on the north part of the traverse area.





The magnetic survey indicates the presence of two distinct magnetic signatures. West of tie-line 200N appears a strong erratic magnetic signature. This signature is similar to that expected from a Nipissing Diabase source. This signature may exhibit an east-west shift near line 900E and 200N. To better determine if a shift exists, I would recommend extending the survey to the north-west.

The east part of the survey area indicates a magnetic signature with generally little variation. This indicates a shift in the underlying geology which may represent the Huronian Sediments. This package appears to exhibit the building of a magnetically elevated region. This region may represent the shallowing of the sedimentary unit of a Nipissing Diabase high within the Huronian Sedimentary unit.





APPENDIX A

STATEMENT OF QUALIFICATIONS

I, C. Jason Ploeger, hereby declare that:

- 1. I am a professional geophysicist with residence in Larder Lake, Ontario and am presently employed as a Geophysicist and Geophysical Manager of Canadian Exploration Services Inc. of Larder Lake, Ontario.
- 2. I am a Practicing Member of the Association of Professional Geoscientists, with membership number 2172.
- 3. I graduated with a Bachelor of Science degree in geophysics from the University of Western Ontario, in London Ontario, in 1999.
- 4. I have practiced my profession continuously since graduation in Africa, Bulgaria, Canada, Mexico and Mongolia.
- 5. I am a member of the Ontario Prospectors Association, a Director of the Northern Prospectors Association and a member of the Society of Exploration Geophysicists.
- 6. I do not have nor expect an interest in the properties and securities of **Battery Mineral Resources Limited.**
- 7. I am responsible for the final processing and validation of the survey results and the compilation of the presentation of this report. The statements made in this report represent my professional opinion based on my consideration of the information available to me at the time of writing this report.



C. Jason Ploeger, P.Geo., B.Sc. Geophysical Manager Canadian Exploration Services Inc.

> Larder Lake, ON August 29, 2017





APPENDIX B

THEORETICAL BASIS AND SURVEY PROCEDURES

TOTAL FIELD MAGNETIC SURVEY

Base station corrected Total Field Magnetic surveying is conducted using at least two synchronized magnetometers of identical type. One magnetometer unit is set in a fixed position in a region of stable geomagnetic gradient, and away from possible cultural effects (i.e. moving vehicles) to monitor and correct for daily diurnal drift. This magnetometer, given the term 'base station', stores the time, date and total field measurement at fixed time intervals over the survey day. The second, remote mobile unit stores the coordinates, time, date, and the total field measurements of the Earth's field at stations, along individual profiles, including Tie and Base lines. A 2 meter staff is used to mount the sensor, in order to optimally minimize localized near-surface geologic noise. At the end of a survey day, the mobile and base-station units are linked, via RS-232 ports, for diurnal drift and other magnetic activity (ionospheric and sferic) corrections using internal software.

For the gradiometer application, two identical sensors are mounted vertically at the ends of a rigid fiberglass tube. The centers of the coils are spaced a fixed distance apart (0.5 to 1.0m). The two coils are then read simultaneously, which alleviates the need to correct the gradient readings for diurnal variations, to measure the gradient of the total magnetic field.





APPENDIX C

GSM 19



Specifications

Overhauser Performance

Resolution: 0.01 nT Relative Sensitivity: 0.02 nT Absolute Accuracy: 0.2nT Range: 20,000 to 120,000 nT Gradient Tolerance: Over 10,000nT/m Operating Temperature: -40°C to +60°C

Operation Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals. Walking Mag: Time, date and reading stored at coordinates of fiducial. Remote Control: Optional remote control using RS-232 interface. Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Operating Parameters

Power Consumption: Only 2Ws per reading. Operates continuously for 45 hours on standby.

Power Source: 12V 2.6Ah sealed lead acid battery standard, other batteries available

Operating Temperature: -50°C to +60°C

Storage Capacity

Manual Operation: 29,000 readings standard, with up to 116,000 optional. With 3 VLF stations: 12,000 standard and up to 48,000 optional.

Base Station: 105,000 readings standard, with up to 419,000 optional (88 hours or 14 days uninterrupted operation with 3 sec. intervals)

Gradiometer: 25,000 readings standard, with up to 100,000 optional. With 3 VLF stations: 12,000, with up to 45,000 optional.





Omnidirectional VLF

Performance Parameters: Resolution 0.5% and range to $\pm 200\%$ of total field. Frequency 15 to 30 kHz.

Measured Parameters: Vertical in-phase & out-of-phase, 2 horizontal components, total field coordinates, date, and time.

Features: Up to 3 stations measured automatically, in-field data review, displays station field strength continuously, and tilt correction for up to $\pm 10^{\circ}$ tilts.

Dimensions and Weights: 93 x 143 x 150mm and weighs only 1.0kg.

Dimensions and Weights

Dimensions: Console: 223 x 69 x 240mm Sensor: 170 x 71mm diameter cylinder Weight: Console: 2.1kg Sensor and Staff Assembly: 2.0kg

Standard Components

GSM-19 magnetometer console, harness, battery charger, shipping case, sensor with cable, staff, instruction manual, data transfer cable and software.

Taking Advantage of a "Quirk" of Physics

Overhauser effect magnetometers are essentially proton precession devices except that they produce an order-of magnitude greater sensitivity. These "supercharged" quantum magnetometers also deliver high absolute accuracy, rapid cycling (up to 5 readings / second), and exceptionally low power consumption.

The Overhauser effect occurs when a special liquid (with unpaired electrons) is combined with hydrogen atoms and then exposed to secondary polarization from a radio frequency (RF) magnetic field. The unpaired electrons transfer their stronger polarization to hydrogen atoms, thereby generating a strong precession signal-- that is ideal for very high-sensitivity total field measurement. In comparison with proton precession methods, RF signal generation also keeps power consumption to an absolute minimum and reduces noise (i.e. generating RF frequencies are well out of the bandwidth of the precession signal).

In addition, polarization and signal measurement can occur simultaneously - which enables faster, sequential measurements. This, in turn, facilitates advanced statistical averaging over the sampling period and/or increased cycling rates (i.e. sampling speeds). The unique Overhauser unit blends physics, data quality, operational efficiency, system design and options into an instrumentation package that ... exceeds proton precession and matches costlier optically pumped cesium capabilities





APPENDIX C

GARMIN GPS MAP 62S



| Physical & Performance: | | | | |
|---------------------------------|---|--|--|--|
| Unit dimensions, WxHxD: | 2.4" x 6.3" x 1.4" (6.1 x 16.0 x 3.6 cm) | | | |
| Display size, WxH: | 1.43" x 2.15" (3.6 x 5.5 cm); 2.6" diag (6.6 cm) | | | |
| Display resolution, WxH: | 160 x 240 pixels | | | |
| Display type: | transflective, 65-K color TFT | | | |
| Weight: | 9.2 oz (260.1 g) with batteries | | | |
| Battery: | 2 AA batteries (not included); NiMH or Lithium recom- mended | | | |
| Battery life: | 20 hours | | | |
| Waterproof: | yes (IPX7) | | | |
| Floats: | no | | | |
| High-sensitivity re- ceiver: | yes | | | |



E



| Interface: | erface: high-speed USB and NMEA 0183 compatible | | |
|---|---|---|--|
| Maps & Memory: | | | |
| Basemap: | | yes | |
| Preloaded maps: | | no | |
| Ability to add maps: | | yes | |
| Built-in memory: | | 1.7 GB | |
| Accepts data cards: | | microSD™ card (not included) | |
| Waypoints/favorites/loc | ations: | 2000 | |
| Routes: | | 200 | |
| Track log: | | 10,000 points, 200 saved tracks | |
| Features & Benefits: | | | |
| Automatic routing (turn | by turn routing | yes (with optional mapping for detailed | |
| on roads): | | roads) | |
| Electronic compass: | | yes (tilt-compensated, 3-axis) | |
| Touchscreen: | | no | |
| Barometric altimeter: | | yes | |
| Camera: | | no | |
| Geocaching-friendly: | | yes (paperless) | |
| Custom maps compatil | <u>ole</u> : | yes | |
| Photo navigation (navigate to ge- otagged photos): | | yes | |
| Outdoor GPS games: | | no | |
| Hunt/fish calendar: | | yes | |
| Sun and moon informa | tion: | yes | |



Magnetometer Survey White Reserve Project Van Nostrand Township, Ontario



| Tide tables: | yes |
|---|-----|
| Area calculation: | yes |
| Custom POIs (ability to add additional points of interest): | yes |
| Unit-to-unit transfer (shares data wire- lessly with similar units): | yes |
| Picture viewer: | yes |
| Garmin Connect™ compatible (online community where you analyze, catego- rize and share data): | yes |

• Specifications obtained from www.garmin.com





APPENDIX D

LIST OF MAPS (IN MAP POCKET)

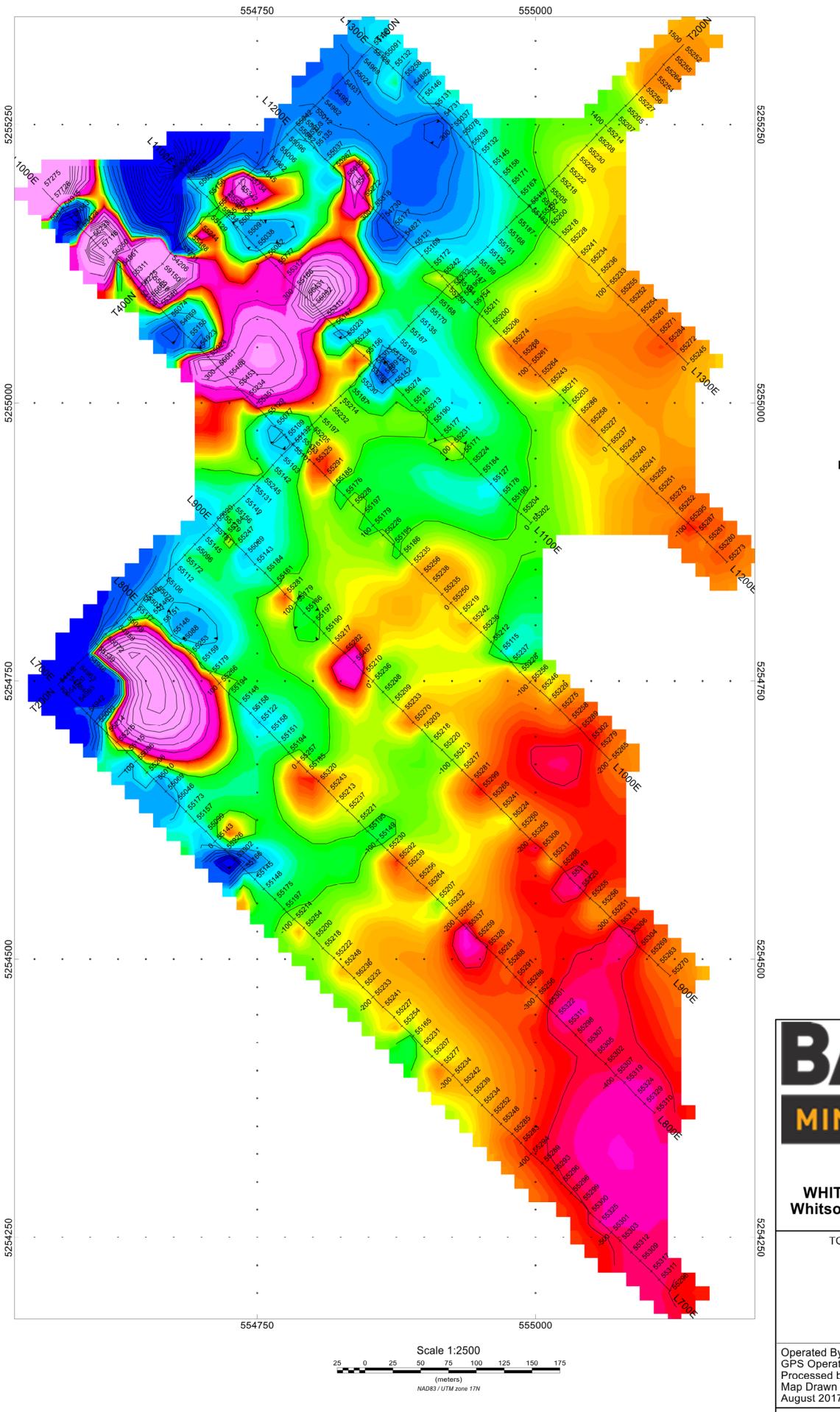
Magnetometer Plan Map (1:2500)

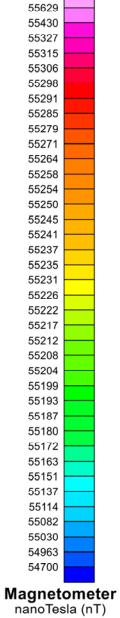
1) Q2406e-Battery-White Reserve-Van Nostrand-Mag-Cont

Traverse Plan Map (1:20000)

2) Q2406e-Battery-White Reserve-Van Nostrand-Traverse

TOTAL MAPS = 2







WHITE RESERVE PROJECT - Van Nostrand Whitson and Van Nostrand Townships, Ontario

TOTAL FIELD MAGNETIC CONTOURED PLAN MAP Base Station Corrected

Posting Level: 0nT Field Inclination/Declination: 74degN/12degW Station Seperation: 12.5 meters Total Field Magnetic Contours: 100nT

GSM-19 OVERHAUSER MAGNETOMETER v7

Operated By: Patrick McGuinty GPS Operated By: Claudia Moraga Processed by: C Jason Ploeger, P.Geo. Map Drawn By: C Jason Ploeger, P.Geo. August 2017



Drawing: Q2406e-Battery-White Reserve - Van Nostrand-Mag-Cont

