# **Calibre Deposit**

# Surface Electromagnetic and Ground Magnetic Survey Results

# Highlights

- Surface electromagnetic survey at Calibre identifies conductivity anomaly up to 400 metres long.
- High resolution ground magnetic survey confirms very large scale of Calibre target.
- Two North Telfer Project tenements granted.

Australian precious and base metal exploration company Antipa Minerals Limited (ASX:AZY) ("Antipa" or the "Company") is pleased to announce results and findings from recent exploration activities at its Calibre prospect, forming part of the Citadel Project located in the world-class Proterozoic Paterson Province.

## **Calibre Prospect – Overview**

The Company has completed a total of six diamond drillholes (Table 1) at its Calibre prospect, testing only a small portion of a magnetic anomaly 800m long by 600m wide by 630m thick all of which have delivered 255 to 450m intersections of semi-continuous precious and base metal sulphide mineralisation.

Calibre gold-copper-silver±tungsten mineralisation now extended along 190m of strike length (north-south), across a horizontal thickness of 400m (east-west), down to a vertical depth of 470m and remains open.

## Surface Fixed-Loop Electromagnetic Survey

At Calibre the recently completed large surface fixed-loop electromagnetic (FLEM) survey identified an electromagnetic conductivity anomaly up to 400m long extending beyond the limits of existing drilling (Figure 1).

The FLEM survey was designed by the Company's geophysical consultants, Resource Potentials Pty Ltd, to provide suitable electromagnetic coupling with the Calibre sulphide mineralisation. The survey data was acquired by GEM Geophysics using a Jessy Squid B-Field sensor. The FLEM transmitter was 900m long by 600m wide, with 100m line spacing and 50m station spacing along survey lines. The FLEM transmitter loop frequency was 1 Hz providing a recording time of approximately 200ms at each survey station. A current of 30A was achieved using a Zonge ZT-30 transmitter.



ASX: AZY

#### **Corporate Directory**

Stephen Power *Executive Chairman* Roger Mason *Managing Director* Mark Rodda *Non-Executive Director* Peter Buck *Non-Executive Director* Gary Johnson *Non-Executive Director* 

#### **Company Background**

Listed on ASX 19 April 2011 following successful completion of A\$10 million IPO.

Citadel Project acquired from Centaurus Metals in April 2011 for shares/options upon completion of IPO.

North Telfer Project priority application lodged May 2011, pursuant to an agreement with Paladin Energy.

Maiden Mineral Resource for Magnum deposit announced March 2012.

Corker high-grade precious and base metal deposit discovered April 2012.

Calibre gold-copper deposit discovered November 2012.

## **Company Projects**

1,714km<sup>2</sup> package of prospective tenements in the Proterozoic Paterson Province of Western Australia known as the Citadel Project.

Citadel Project is located approximately 100km north of Newcrest's Telfer gold-copper mine and includes the drill defined gold and copper Magnum Deposit.

North Telfer Project comprises exploration licences covering an additional 1,295km<sup>2</sup> of ground which is located approximately just 20km north of Newcrest's Telfer goldcopper mine.



The survey identified a mid-channel time FLEM Z-component northwest-southeast striking electromagnetic conductivity anomaly interpreted by Resource Potentials to be due to the up-dip and along strike extensions of the Calibre sulphide mineralisation (Figure 1). The conductivity anomaly is between 350 to 450m long and demonstrates that there is significant potential to extend the sulphide mineralisation along strike to the north and south of the existing drillholes.

It should be noted that the Calibre gold-copper-silver±tungsten mineralisation has been intersected more than 100m to the west of the FLEM conductivity anomaly in drillhole 13AMD0034 and a large proportion of the Calibre sulphide mineralisation is unlikely to be conductive. The Company is also reviewing the FLEM data for resistivity anomalies which may relate to siliceous alteration and veining associated with the broader mineralisation envelope and/or structures.

### **High Resolution Ground Magnetics Survey**

A recently completed the high resolution ground magnetic survey has significantly refined the location and 3D shape of the Calibre magnetic anomaly. The ground magnetic anomaly is 800m long, 600m wide and potentially open 630m below the surface. The 3D inversion isosurface model which correlates best with both the drilled defined mineralisation "envelope" and base of cover extends beyond the drilling limits in all directions, particularly along strike, and has a volume of 122,000,000 cubic metres (refer to Figures 2 - 8).

The ground magnetic survey was completed by Resource Potentials and was conducted on 50m spaced, with 25m infill, local grid east-west lines totaling 37.7km. The survey utilised a Geometrics G-856 Proton Precession Magnetometer base-station and Geometrics G-859 Cesium Vapour roving Magnetometer with inbuilt GPS. For comparison purposes note that the flight-line spacing for the 2002 aeromagnetic survey was 150m.

3D inversion modeling of the Calibre high resolution ground magnetic data will provide an aid for interpretation and targeting purposes. In addition, 2.5D forward modeling of the ground magnetic data will also be completed to provide more accurate tabular-shaped magnetic models to represent the source/s of the Calibre magnetic anomaly. In conjunction with other data these ground magnetic models will be utilised in the design of future Calibre drilling programs.

## North Telfer Project Update

Antipa has applied for additional exploration licences, now known as the North Telfer Project, covering approximately 1,295km<sup>2</sup> of land adjoining its current Citadel Project landholding and extending south to within 20km and 30km of Newcrest's Telfer gold-copper-silver Mine and O'Callaghan's tungsten and base metal deposit respectively.

Antipa is pleased to advise that two of the North Telfer Project exploration licence applications, being E45/3918 and E45/3919 (combined area 861km<sup>2</sup>), have now been granted. The remaining North Telfer Project exploration licence applications, being E45/3917 and E45/3925 (combined area 458km<sup>2</sup>) are expected to be granted in the normal course following negotiations with relevant stakeholders including native title parties.

#### Phase 2 Exploration Programme

The next phase of Calibre drilling will be refined using the available geophysical (i.e. DHEM, FLEM and ground magnetics) and geological data. An announcement in due course will outline the key





objectives and physical components of the 2013 Phase 2 exploration programme which, as a minimum, will involve additional diamond drilling and geophysical surveys at Calibre.

For further information, please visit <u>www.antipaminerals.com.au</u> or contact:

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### About Antipa Minerals:

Antipa Minerals Ltd is an Australian public company which was formed with the objective of identifying under-explored mineral projects in mineral provinces which have the potential to host world class mineral deposits, thereby offering high leverage exploration potential. The Company owns a 1,714km<sup>2</sup> package of prospective tenements in the Proterozoic Paterson Province of Western Australia known as the Citadel Project. The Citadel Project is located approximately 100km north of Newcrest's Telfer gold-copper-silver mine and includes the Magnum and Calibre gold, copper and silver deposits, and the Corker polymetallic base and precious metal deposit (Figure 9).

The Company also holds a package of exploration licences and applications known as the North Telfer Project covering an additional 1,295km<sup>2</sup> which extend its ground holding in the Paterson Province to within 20km of Telfer and 30km of O'Callaghan's.





Figure 1: Calibre prospect FLEM Z-component gradient, Channel 16 electromagnetic conductivity anomaly showing location (projected vertically to surface) of the drillholes and DHEM conductivity plate models (numbered 1 to 4). Notes: FLEM conductivity anomaly is 350 to 450m long extending 100 to 200m north and south of the current limits of drilling and undrilled DHEM Conductor 4 is 254m long.



Figure 2: Calibre prospect total (ground) magnetic intensity reduced to the magnetic pole with a northeast sun shading showing location (projected vertically to surface) of the drillholes and DHEM conductivity plate models (numbered 1 to 4). Notes: Ground magnetic anomaly is +800m long by +600m wide and undrilled DHEM Conductor 4 is 254m long.



Figure 3: Calibre prospect drillhole cross-section 11,400 North (local grid) showing slices of 3D ground magnetic inversion model and DHEM conductivity plate models



Figure 4: Calibre prospect drillhole cross-section 11,350 North (local grid) showing slices of 3D ground magnetic inversion model



Figure 5: Calibre prospect drillhole cross-section 11,300 North (local grid) showing slices of 3D ground magnetic inversion model and DHEM conductivity plate models



Figure 6: Calibre prospect drillhole cross-section 11,250 North (local grid) showing slices of 3D ground magnetic inversion model and DHEM conductivity plate model



Figure 7: Calibre prospect drillhole cross-section 11,100 North (local grid) showing slices of 3D ground magnetic inversion model, historic aircore drillhole and location of interpreted mineralisation corridor



Figure 8: Calibre prospect drillhole cross-section 11,000 North (local grid) showing slices of 3D ground magnetic inversion model, historic aircore drillhole and location of interpreted mineralisation corridor





Figure 9: Magnum Dome Geology Plan (MGA94 Zone 51) and Composite Long Section Showing interpreted Magnum Gabbro and Maximum downhole gold-copper values and various prospects/targets over 1VD-Aeromagnetics.

NOTE: Multiple mineral (Au-Cu-Ag±Zn±Pb±W) deposits within 2 to 3km of each other around the Magnum Dome



**Competent Persons Statement:** The information in this document that relates to Exploration Results is based on information compiled by Mr Roger Mason who is a full-time employee of the Company and is a member of the Australasian Institute of Mining and Metallurgy. Roger Mason has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Roger Mason consents to the inclusion in the document of the matters based on his information in the form and context in which it appears.

**Forward-Looking Statements:** This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Antipa Mineral Ltd's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may," "potential," "should," and similar expressions are forward-looking statements. Although Antipa Minerals Ltd believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

Hole ID	Northing (m)	Easting (m)	RL (m)	Final Hole Depth (m)	Azimuth (degrees)	Dip (degrees)
Calibre:						
12AMD0029	7702684	416846	262	375.3	066	-62
12AMD0032	7702686	416852	262	445.7	020	-75
13AMD0033	7702682	416755	263	471.4	040	-66
13AMD0034	7702575	416715	263	564.1	042	-60
13AMD0035	7702784	416804	264	397.8	042	-63
13AMD0036	7702560	416800	264	558.4	040	-63

#### Notes:

#### Metal Equivalent Grades:

Gold equivalent grade (AuEq or Gold Equiv g/t) and Copper equivalent grade (CuEq or Copper Equiv %) are based on the following (30/01/2013) USD metal prices:

1,676.40/oz Au, 32.02/oz Ag, 3.71/lb Cu and 27,000/t W as scheelite (CaWO<sub>4</sub>) and/or Wolframite, ((Fe,Mn)WO<sub>4</sub>) in concentrate.

Currency Exchange Rate AUD to USD = 1.04056

Using the following formulae;

Gold equivalent grade =  $Au (g/t) + %Cu \times (78.70/51.80) + Ag (g/t) \times (0.99/51.80) + %W \times (259.48/51.80)$ 

Copper equivalent grade = %Cu + Au (g/t) x (51.80/78.70) + Ag (g/t) x (0.99/78.70) + %W x (259.48/78.70)





Grades have not been adjusted for the metallurgical or refining recoveries and the gold equivalent and copper equivalent grades are an exploration nature only; intended for summarising grade. Tungsten is the only by-product credit used in determining the Metal Equivalent grades.

\*Note: These metal prices have been used for all Metal Equivalent Grades announced by the Company for all Phase 1 Calibre drillholes completed during 2013 and for comparative purposes these prices will be used for reporting on all drillholes in Phase 1. As equivalent grade calculations are relative, recent price falls in the value of gold and copper mean that only marginal differences would result from updating the prices used to current prices.

### Survey:

Drillhole co-ordinates in Table 1 are MGA94 Zone 51 datum and determined via handheld GPS (± 5 metres).

m = metre

## Calibre Local Grid:

The Company has switched to a local grid at Calibre which is defined below. References in the text and the Calibre deposit diagrams are all in the Local Grid. Table 1 is in MGA94 Zone 51.

Local Grid 0.00m east is 421,535.53m east in MGA94 Zone 51

Local Grid 0.00m north is 7,691,393.40m north in MGA94 Zone 51

Local Grid North (360°) is equal to 315° in MGA94 Zone 51

Local Grid elevation is equal to MGA94 Zone 51

## Intersections tabulated are composited from individual assays using the following criteria:

Interval = A <u>nominal</u> cut-off grade of 0.1 g/t gold equivalent which also satisfy a minimum grade x metre value of 0.5 gmm gold equivalent. In some instances zones grading less than the cut-off grade have been included in calculating composites.

#### Analytical:

Sampling of NQ2 diamond drill-core was conducted to geological boundaries ( $\leq 2.0$  metres).

≤ 1.5 metres approximately half NQ2 diamond drill-core submitted for assay.

 $\geq$  1.5 metres approximately quarter NQ2 diamond drill-core submitted for assay.

Assay Laboratory = MinAnalytical Laboratory Services Australia Pty Ltd

Gold assayed for using a four acid digest of a 50 gram charge by fire assay method.

All other elements assayed for using a four acid digest, inductively coupled plasma - optical emission spectroscopy (ICP-OES/MS) technique.

Diamond drill-core Specific Gravity (SG) determinations by water immersion method.