



# RIO TINTO/ANTIPA – CITADEL PROJECT 2017 EXPLORATION PROGRAMME UPDATE

# **Highlights**

- 2017 Exploration Programme fully funded by Rio Tinto Exploration Pty Ltd.
- Induced Polarisation (IP) electrical geophysical survey identifies further drill targets.
- Rimfire region Air Core drilling programme commenced.
- Phase 2 Exploration programme Reverse Circulation (RC) drilling programme on track to be completed this year.
- Aerial Electromagnetic (AEM) survey completed and awaiting final processed data.

Antipa Minerals Ltd ("Antipa") (ASX: **AZY**) is pleased to announce available results of the Citadel Project 2017 exploration programme, which is fully funded by Rio Tinto Exploration Pty Limited ("Rio Tinto"), a wholly owned subsidiary of Rio Tinto Limited.

The Phase 1 and Phase 2 funding is part of Rio Tinto's \$8 million earn-in expenditure pursuant the second stage of the Citadel Project farm-in agreement between Rio Tinto and Antipa. The Citadel Project is 80km from Newcrest's world-class Telfer gold-copper-silver mine in the Paterson Province of Western Australia.

#### **2017 Exploration Programme**

The Citadel Project 2017 exploration programme has been divided into two phases with the Phase 1 geophysical surveys recently completed (pending final AEM results) and the Rimfire region Air Core drilling programme recently commenced. The Phase 2 RC programme is outlined below, subject to any changes which may be made consequent upon results, field conditions and ongoing review.

### Phase 1 - IP Survey:

Extensive IP survey completed covering a 15km strike corridor of the Calibre structural trend from Calibre to south of Le Tigre as outlined below (refer to Figure 1). Geophysical contractor Moombarriga Geoscience Pty Ltd completed the IP survey.

- Calibre and Magnum:
  - Gradient Array IP (GAIP) survey covering an area of approximately 4km<sup>2</sup> was completed which delivered the following results:
    - Confirmation of the GAIP's ability to identify the known gold-coppersilver±tungsten mineralisation including the two Mineral Resource regions.
    - Identified an untested possible 500m southwest extension to Calibre gold-copper-silver-tungsten mineralisation commencing from the southern side of the Calibre Mineral Resource (Figure 2). The Calibre

- deposit has a current drill defined strike extent of in excess of 1km and remains open in several directions (Figure 3). The Calibre IP target is being considered for RC drill testing during the Phase 2 programme.
- Confirmed the Magnum North 2016 DDIP/PDIP target which represents untested possible extensions to the gold-copper-silver±tungsten mineralisation between 600 to 1,200m northwest of the Magnum Mineral Resource. The Magnum mineralisation has a current drill defined strike extent of in excess of 1km and in the Magnum North area limited existing drilling, mainly shallow Air Core drilling and an isolated diamond drillhole (i.e. 12AMD0022) encountered anomalous to significant gold, copper, silver and tungsten and in conjunction with the IP results suggests the potential for further mineralisation.

#### Blue Steel:

- Pole-Dipole IP (PDIP) survey involved two IP lines (5.1 line-km) which extended the IP coverage to the south of the 2016 Blue Steel IP lines and delivered the following results (refer to Figure 4):
  - Closed off the IP chargeability anomaly which is approximately 1.5km in size.
  - 3D inversion modelling resulted in the interpretation that source of the IP anomaly is greater than 500m below the surface.
  - Existing (2016) drilling ineffective in the testing the deep Blue Steel target, with the revised interpretation being that 'Magnum style' sulphide mineralisation may exist at depth.
  - Evaluation ongoing.
- Southern region of the Calibre IP anomaly trend:
  - Gradient Array IP (GAIP) survey across 9 strike kilometres covering a total area of approximately 18km<sup>2</sup> of the southern half of the Calibre IP anomaly trend to evaluate high priority target areas from south of Blue Steel to south of Le Tigre, including geochemical and structural targets:
    - No significant IP anomalies were identified within this area.

### Phase 1 - AEM Survey:

O Aerial Electromagnetic (AEM) survey over the southwestern region of the Citadel Project, using New Resolution Geophysics' (NRG™) Xcite™ and their new generation Xcite™ helicopter-borne time-domain electromagnetic (HTDEM) system, covered approximately 1,100 line-km and an area of 280km² completed with final data pending.

#### • Phase 1 - Air Core drilling Programme:

- o Air Core drilling (approximately 6,000m) commenced on the 20 September:
  - Testing key target areas within the greater Rimfire 4.8km copper mineral system including several adjacent targets identified from the aeromagnetics, including possible domal structures (Figure 5).

### Phase 2 – RC Drilling:

 RC drill programme (up to approximately 3,000m) testing of targets resulting from Phase 1, including the current high priority Sundance drill target (within

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- the Rimfire mineral system Figure 5) and targets generated from the Phase 1 IP survey, with the latter being funded up to \$150,000 by the Western Australian Government through its Exploration Incentive Scheme (EIS).
- Further details of Phase 2 will be announced after Phase 1, which is expected in fourth calendar quarter of 2017.

## **Timing**

The Citadel Project 2017 Phase 1 Rimfire Air Core drilling programme is expected to be completed in four to six weeks. As usual, samples will be batched and dispatched for assay on a periodic basis and announcements will be made periodically as assays are received.

### For further information, please visit <a href="www.antipaminerals.com.au">www.antipaminerals.com.au</a> or contact:

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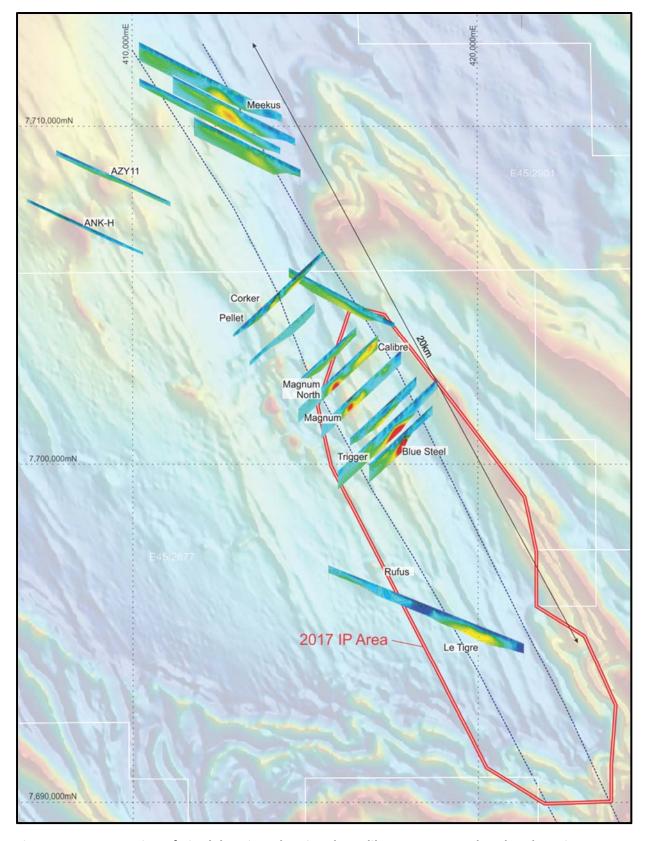


Figure 1: Eastern region of Citadel Project showing the Calibre Magnum and Corker deposits, targets (including Blue Steel and Le Tigre), 2016 IP survey Chargeability Inversion sections highlighting multiple IP chargeability anomalies along a 20 km NNW-SSE trending corridor and the 2017 Phase 1 IP survey region which provided coverage over an area of approximately 70km<sup>2</sup>.

NB: Also shows Antipa tenements over Airborne magnetic image (150m flight-line spacing at an altitude of 30m; Pseudocolour First Vertical Derivative, Reduced to Pole, northeast sun illumination) Regional GDA94 / MGA Zone 51 co-ordinates, 10km grid.

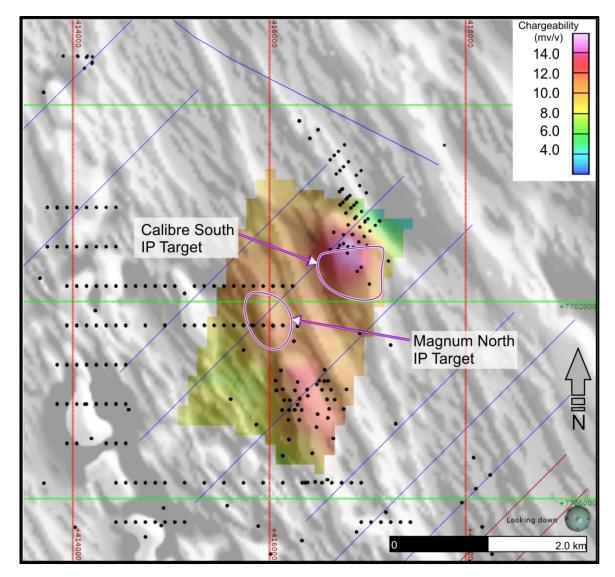


Figure 2: Gradient Array IP (GAIP) survey results for the Calibre and Magnum deposit region showing the IP chargeability anomalies defined over the known mineralisation and associated with possible untested mineralisation southwest of the Calibre deposit and northwest of the Magnum deposit (i.e. Magnum North).

Calibre Deposit Inferred Mineral Resource = 47.8 Mt at 0.56 g/t gold, 0.17% copper and 0.60 g/t silver for 867,000 ounces of gold, 81,000 tonnes of copper and 918,000 ounces of silver (see Figure 3).

Magnum Deposit Inferred Mineral Resource = 16.1 Mt at 0.66 g/t gold, 0.36% copper and 0.99 g/t silver for 339,000 ounces of gold, 57,800 tonnes of copper and 511,000 ounces of silver.

NB: Also shows 2016 IP lines in blue. Over Airborne magnetic image (150m flight-line spacing at an altitude of 30m; grey-scale First Vertical Derivative) Regional GDA94 / MGA Zone 51 co-ordinates, 2km grid.

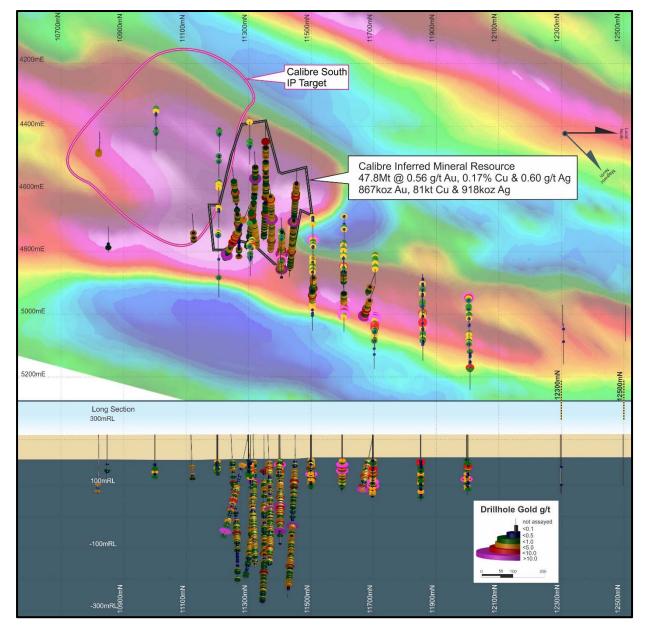


Figure 3: Calibre Deposit Plan view (top) and west looking Vertical Projection (bottom) showing drill hole gold grade distribution and limit of Calibre JORC Code (2012 Edition) Mineral Resource which covers approximately 300m of strike. Note that the northern high-grade gold mineralisation extends approximately 700m north of the resource boundary and the 2017 Gradient Array IP chargeability anomaly, associated with possible untested mineralisation, extends approximately 500m southwest of the resource boundary.

NB: Over Airborne magnetic image (150m flight-line spacing at an altitude of 30m; Reduced to Pole, NE-Sun illumination, First Vertical Derivative) 200m Calibre Local Grid.

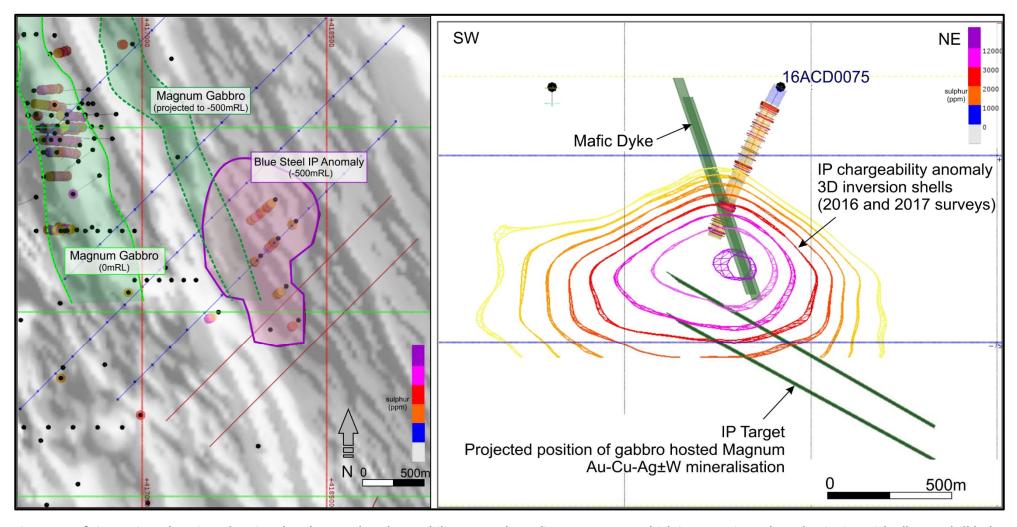


Figure 4: Left image is a plan view showing the Blue Steel IP chargeability anomaly outline at -500mRL which is approximately 1.5km is size with all 2016 drill holes apparently terminated above the re-modelled IP anomaly depth. Also shows location at the 0mRL of the thick (approx. 250m) Magnum Gabbro sill which hosts the majority of the gold-copper-silver±tungsten mineralisation at the Magnum deposit (including the Magnum Inferred Resource) and the sill's projected location at the -500mRL.

Right image is a cross-sectional view of the Blue Steel area showing slices of 3D IP chargeability inversions, 2016 diamond drillhole 16ACD0075 (coloured by sulphur grades), location of thin (< 25m) gabbro dyke intersected by 16ACD0075 and projected location of the Magnum Gabbro sill which hosts the majority of the Magnum deposit mineralisation and remains untested in the Blue Steel area.

NB: Right image also shows 2016 IP lines in blue and 2017 IP lines in red. Drill holes in both images are coloured by sulphur. Over Airborne magnetic image (150m flight-line spacing at an altitude of 30m; grey-scale First Vertical Derivative) Regional GDA94 / MGA Zone 51 co-ordinates. Plan view = 1,500m grid and Cross-sectional view = 750m grid. Surface of earth at approximately 270mRL.

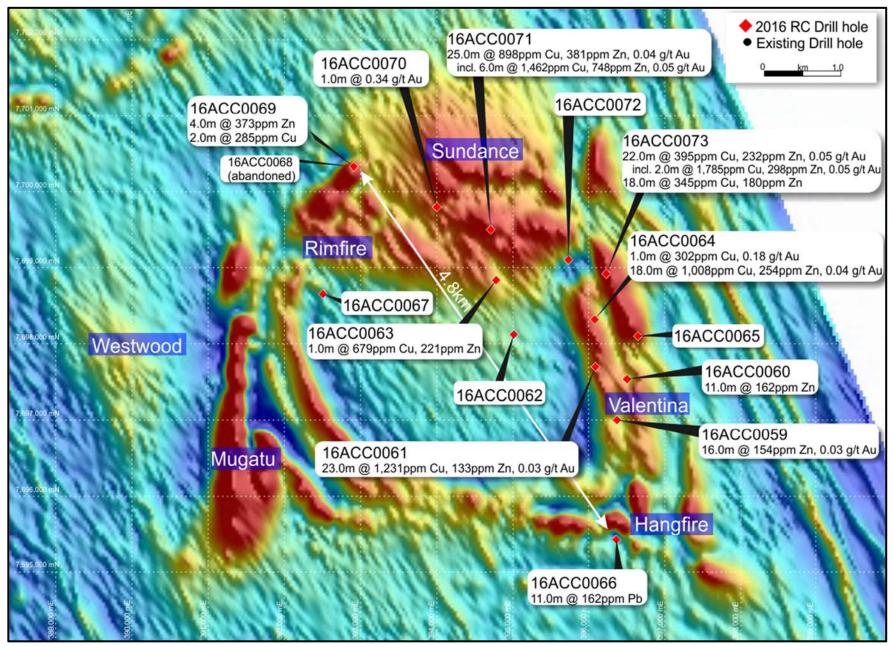
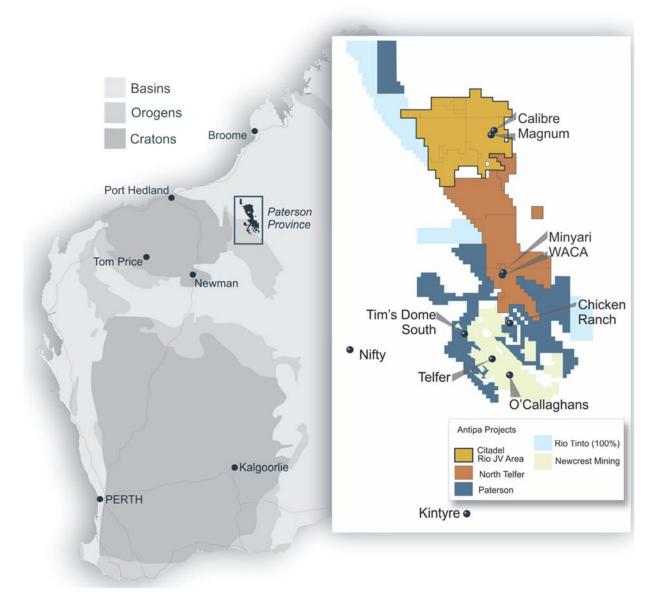


Figure 5: Sundance and Rimfire area showing location and intercepts from 2016 widespread reconnaissance vertical RC drill holes and magnetic anomalies; geophysical and geochemical targets in this area are to be followed up during the Phase 1 Air Core drilling programme. NB: Airborne magnetic image (150m flight-line spacing at an altitude of 30m; Pseudo-colour Half Vertical Derivative, Reduced to Pole, northeast sun illumination) Regional GDA94 / MGA Zone 51 co-ordinates, 1km grid.

#### **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 1,335km² package of prospective granted tenements in the Paterson Province of Western Australia known as the Citadel Project. The Citadel Project is located approximately 75km north of Newcrest's Telfer gold-copper-silver mine and includes the gold-copper-silver±tungsten Mineral Resources at the Calibre and Magnum deposits and high-grade polymetallic Corker deposit. Under the terms of a Farm-in and Joint Venture Agreement with Rio Tinto Exploration Pty Limited ("Rio Tinto"), a wholly owned subsidiary of Rio Tinto Limited, Rio Tinto can fund up to \$60 million of exploration expenditure to earn up to a 75% interest in Antipa's Citadel Project.

The Company has an additional 1,310km² of granted exploration licences, known as the North Telfer Project which hosts the high-grade gold-copper Minyari and WACA deposits and extends its ground holding in the Paterson Province to within 20km of the Telfer Gold-Copper-Silver Mine and 30km of the O'Callaghans tungsten and base metal deposit. The Company has also acquired, from the Mark Creasy controlled company Kitchener Resources Pty Ltd, additional exploration licences in the Paterson Province which are now all granted and cover 1,573km² and the Company owns a further 138km² of exploration licences (including both granted tenements and applications), which combined are known as the Paterson Project, which comes to within 3km of the Telfer mine and 5km of the O'Callaghans deposit.



#### **Competent Persons Statement:**

The information in this report that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Roger Mason, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Mason is a full-time employee of the Company. Mr Mason is the Managing Director of Antipa Minerals Limited, is a substantial shareholder of the Company and is an option holder of the Company. Mr Mason has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Mason consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to relates to the estimation and reporting of the Calibre deposit Mineral Resource and Magnum deposit Mineral Resource is extracted from the report entitled "Calibre and Magnum Deposit Mineral Resource JORC 2012 Updates" created on 23 February 2015 and are available to view on <a href="www.antipaminerals.com.au">www.antipaminerals.com.au</a>. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Various information in this report which relates to Citadel Project Exploration Results reported here is extracted from the following:

- Report entitled "Rio Tinto Antipa Citadel Project Joint Venture" created on 9 October 2015;
- Report entitled "Citadel Project IP Survey Identifies Multiple Chargeability Anomalies along 20km Calibre Trend" created on 24 June 2016;
- Report entitled "Citadel JV Drilling Programme Update No. 2" created on 16 January 2017;
- Report entitled "Minyari Dome and Citadel Phase 2 Update" created on 9 February 2017;
- Report entitled "Rio Tinto Elects to Proceed to Stage 2 of Citadel Farm-In" created on 12 April 2017;
- Report entitled "Citadel Project Rio Tinto Funded 2017 Exploration Programme" created on 12 April 2017;
- Report entitled "Rio Tinto Elects to Proceed to Stage 2 of Citadel Farm-In" created on 12 April 2017; and
- Report entitled "Citadel Project Phase 1 Exploration Programme Commences" created on 13 June 2017.

Which are available to view on <a href="www.antipaminerals.com.au">www.antipaminerals.com.au</a> and <a href="www.asx.com.au">www.asx.com.au</a>. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements.

#### **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 programme 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.

# CITADEL PROJECT – 2017 INDUCED POLARISATION (IP) SURVEY:

JORC Code 2012 Edition: Table 1 - Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The ground based 2017 Induced Polarisation survey was undertaken by Moombarriga Geoscience Pty Ltd, an independent geophysical contractor/service provider.</li> <li>The IP survey employed the following equipment and sampling techniques: <ul> <li>Survey Type = Induced Polarisation;</li> <li>Array = Gradient or Pole—Dipole;</li> <li>Number of Arrays = 5;</li> <li>Rx Dipole spacing = 100m;</li> <li>Receiver line spacing = 300m (generally);</li> <li>Transmitter dipole spacing = 100 (PDIP) &amp; 5000m (Gradient);</li> <li>Domain = Time Domain;</li> <li>Cycle = 0.125 Hz;</li> <li>Blue Steel PDIP line modelled using UBC DCIP2D inversion code;</li> <li>No inversions completed on Gradient IP data; and</li> <li>Resultant inversion final output = Pseudo-sections (using n spacings) and Inversions (cross-sections) of Apparent Chargeability (Milliseconds) and Apparent Resistivity (Ohm.m).</li> </ul> </li> <li>This release has no reference to previously unreported drilling.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	This release has no reference to previously unreported drilling.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	This release has no reference to previously unreported drilling.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	This release has no reference to previously unreported drilling.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	This release has no reference to previously unreported drilling.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The ground Induced Polarisation (IP) survey was undertaken by Moombarriga Geoscience Pty Ltd, an independent geophysical contractor/service provider.</li> <li>The survey involved both gradient and pole-dipole arrays with 100m spaced receiver and transmitter electrodes for the PDIP and 1500m transmitter and 200m receiver spaced electrodes.</li> <li>A total of 4 gradient arrays and one PDIP lines were surveyed for a total of 22.05 km² of gradient array and 5.1 line kilometres of PDIP.</li> <li>Each gradient array consisted of separate 100m receiver electrodes with 100m spacings. These electrodes were connected to the receiver to provide up to eight 100m.</li> <li>PDIP data was collected using 100m Receiver dipoles providing up to 8 dipoles (i.e. n=1-8).</li> <li>The Induced Polarisation equipment consisted of Transmitter(s) and Receiver apparatus. A motor generator drove M transmitter(s) supplying up to 50.0 kva continuous power.</li> <li>Electrodes were used to inject a stable current. The bipolar current waveform had an 8-second period with a 50% duty cycle.</li> <li>The secondary voltage, denoted Vs, was nominally measured every 100 metres, using a EMIT SMARTem receiver.</li> <li>The receiver was used to take all of the data for the survey. From the Vs Apparent Resistivity and Apparent Chargeability were derived. The decay curve was separated into pre-programmed windows. Stack size was typically 20 cycles.</li> <li>This release has no reference to previously unreported drilling, sampling, assays or mineralisation.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	This release has no reference to previously unreported drilling, sampling, assays or mineralisation.

Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>km = kilometre; m = metre; mm = millimetre.</li> <li>IP Stations were determined by a standard hand-held Garmin GPS.</li> <li>The IP survey coordinates are in GDA94 MGA Zone 51 coordinates.</li> <li>Local IP survey coordinates are for the purposes of line and station reference points.</li> <li>This release has no reference to previously unreported drilling.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>The IP survey line spacing varied due to the nature of the programme and varied from single IP lines to multiple IP lines. The closest spaced lines were 300m.</li> <li>IP receiver electrodes were spaced at 100m.</li> <li>This release has no reference to previously unreported drilling, sampling, assays or mineralisation.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	This release has no reference to previously unreported drilling, sampling, assays or mineralisation.
Sample security	The measures taken to ensure sample security.	This release has no reference to previously unreported drilling, sampling, assays or mineralisation.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>All digital IP data was subjected to rigorous auditing and vetting by the independent geophysical contractor/service provider and data manager Moombarriga Geoscience Pty Ltd.</li> </ul>

### MINYARI DOME AREA

Section 2 – Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The IP survey is located within Exploration License E45/2877.</li> <li>Antipa currently has a 100% interest in all these tenements and there are no royalties on these tenements.</li> <li>On 9 October 2015 Farm-in and JV Agreements were executed between Antipa and Rio Tinto Exploration Pty Limited (Rio Tinto).</li> <li>E45/2876 and E45/2877 are contained completely within land where the Martu People have been determined to hold Native Title rights. No historical or environmentally sensitive sites have been identified in the area of work.</li> <li>E45/2874 and E45/2901 are contained completely within land where the Nyangumarta People have been determined to hold Native Title rights. No historical or environmentally sensitive sites have been identified in the area of work.</li> <li>The tenements are all in 'good standing' with the Western Australian DMIRS.</li> </ul>

Criteria	JORC Code explanation	Commentary
		There are no known impediments exist, including to obtain a licence to operate in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Prior to 1991 limited to no mineral exploration activities.</li> <li>1991 to 1996 BHP Australia completed various regional airborne geophysical surveys (e.g. aeromagnetics, radiometrics, GeoTEM, ground magnetics, surface EM), geochemical Aircore and selected diamond drilling programmes across a significant area which covered the Citadel Project. Whilst this era of exploration highlighted a number of areas as being variously anomalous, BHP did not locate any basement (Proterozoic) precious or base metal mineralisation. In 1995 BHP Minerals completed an MMI-A/MMI-B soil programme over an area which was ultimately found to be the region within which the Magnum deposit was located.</li> <li>1997 to 2002 JV partners Croesus-Gindalbie completed minor surface geophysical surveys (e.g. electromagnetics) and various drilling programmes across parts of the Citadel Project (i.e. 17 x Diamond, 10 x RC and 134 x Aircore drillholes) leading to the discovery of the Magnum Au-Cu-Ag deposit, and its partial delineation, in 1998.</li> <li>2002 to 2003 JV partners Teck Cominco and Croesus-Gindalbie completed detailed aeromagnetic and radiometric surveys over the entire Citadel Project, Pole-Pole IP over 8 targets and limited drilling (i.e. 4 x Diamond drillholes) within the Citadel Project.</li> <li>2004 to 2005 JV partners NGM Resources and Croesus-Gindalbie completed limited drilling (i.e. 3 x Diamond drillholes) at selected Citadel Project prospects intersecting minor Au-Cu-Ag mineralisation at the Colt prospect.</li> <li>2006 to 2010 Glengarry Resources/Centaurus Metals undertook re-processing of existing data and re-logging of some drillcore. No drilling or geophysical surveys were undertaken and so no new exploration results were forthcoming.</li> <li>2011 to 2015 Antipa Minerals Ltd exploration of the Citadel Project including both regional and prospect/area scale geophysical surveys (i.e. VTEM, ground EM, DHEM, ground magnetics and ground gravity) and geochemical surveys (i.e. MMI-M<sup>m</sup></li></ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The geological setting is Paterson Province Proterozoic aged meta-sediment hosted hydrothermal shear, fault and strata/contact controlled precious and/or base metal mineralisation which is typically sulphide bearing. The mineralisation in the region is interpreted to be granite related. The Paterson is a low grade metamorphic terrane but local hydrothermal alteration and/or contact metamorphic mineral assemblages and styles are indicative of a high-temperature local</li> </ul>

Criteria	JORC Code explanation	Commentary
		environment. Mineralisation styles include vein, stockwork, breccia and skarns.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	This release has no reference to drilling.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	This release has no reference to previously unreported drilling, sampling, assays or mineralisation.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	This release has no reference to previously unreported drilling, sampling, assays or mineralisation.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>All appropriate maps and IP sections (with scales) and tabulations of survey parameters are reported.</li> <li>This release has no reference to previously unreported drilling, sampling, assays or mineralisation.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>The Company believes that the ASX announcement is a balanced report with all material results reported.</li> <li>Additional significant results can be found in previous public reports.</li> </ul>

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>This announcement refers to previous exploration results including geophysics, drill results and geology.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>At this stage, it is envisaged that the IP chargeability anomalies identified by the 2017 IP survey will be the subject of further investigation and evaluation via a Reverse-circulation (RC) drilling programme the exact nature and scale of which is currently being determined.</li> <li>Relevant diagrams can be found in the attached report or in previous public reports.</li> </ul>