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ALLIANCE RESOURCES LTD

ASX Code: AGS

ABN: 38 063 293 336

Market Cap: \$10 M @ \$0.096

Shares on issue: 104,293,923

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**Projects:**

**Wilcherry JV, SA (51%):** gold and base metals

**Nepean South, WA (100%):** nickel-gold

**Gundockerta Sth, WA (100%):** nickel-gold

**Bogan Gate West, NSW (100%):** gold-base metals

**Garema, NSW (100%):** gold

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## GEOPHYSICAL SURVEYS UPDATE

WILCHERRY PROJECT JOINT VENTURE

Alliance Resources Ltd (Alliance) is pleased to announce that the ground moving loop electromagnetic survey data from the **Zealous** and **Telephone Dam** base metal prospects has been interpreted and drilling targets identified. The prospects are part of the Wilcherry Project Joint Venture between Alliance (51%) and Tyranna Resources Ltd (ASX Code: TYX) (49%).

### **Background**

A high powered moving-loop electromagnetic (**MLEM**) survey programme has been completed at the Zealous and Telephone Dam prospects by Gap Geophysics Australia Pty Ltd to follow-up the regional helicopter-borne electromagnetic (**HEM**) survey conductors identified at Zealous and Telephone Dam during December 2016.

A total of 23 traverse lines were completed for 39.3 line km of surveying (416 stations).

Figure 1 provides a location plan for the MLEM survey programme.

The aims of the survey were:

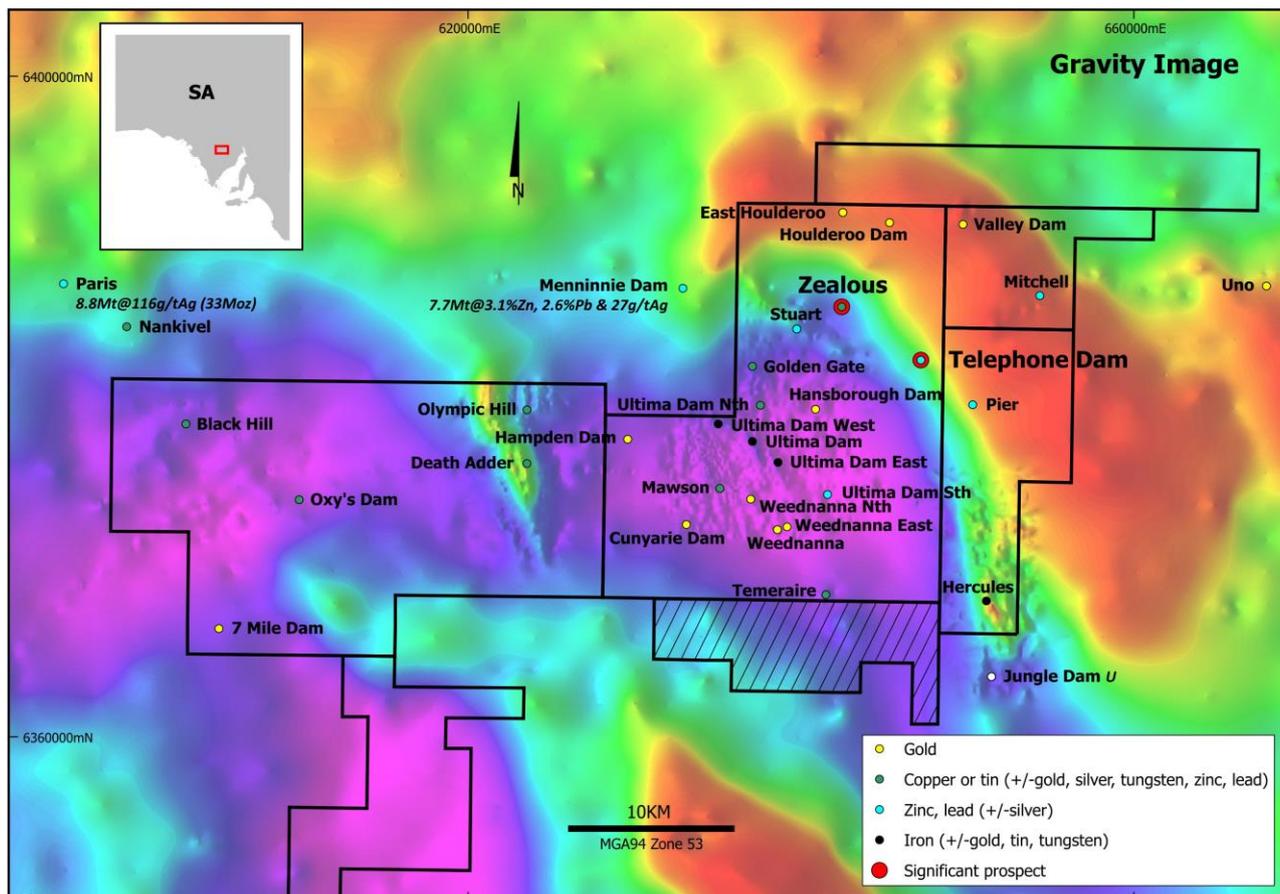
- To follow-up HEM anomalism and confirm the presence of significant bedrock conductors at the prospect areas; and
- To optimise drill targets in order to test bedrock conductors for economic concentrations of metals.

In addition, the regional HEM survey commenced at the Wilcherry Project in December (and temporarily delayed due to other helicopter commitments) was completed during late March. The final survey data is expected shortly for interpretation by the Company's geophysical consultant.

Drilling at Zealous in 2012-2014 intersected significant tin (Sn) grades, including:

- 20.0m @ 1.29% Sn from 42m in 12ZLRC007\*
- 12.3m @ 1.10% Sn from 119m in 13ZLDH001\*
- 10.0m @ 1.23% Sn from 128m in 13ZLRC001\*

\*Refer to Alliance ASX announcements dated 23 September 2016 and 16 November 2016 for details.



**Figure 1 – Wilcherry Project plan showing location of MLEM surveying completed at Zealous and Telephone Dam. Background image is gravity**

## Zealous Prospect

At the Zealous Prospect, MLEM surveying was completed along 9 E-W orientated lines, best accommodating the dominantly ~NW-SE geological strike direction (16.1 kms, 170 stations) and matching the HEM survey line directions and surveying coverage. MLEM coverage was extended to the SE to provide coverage over the known Zealous Prospect and associated tin mineralisation.

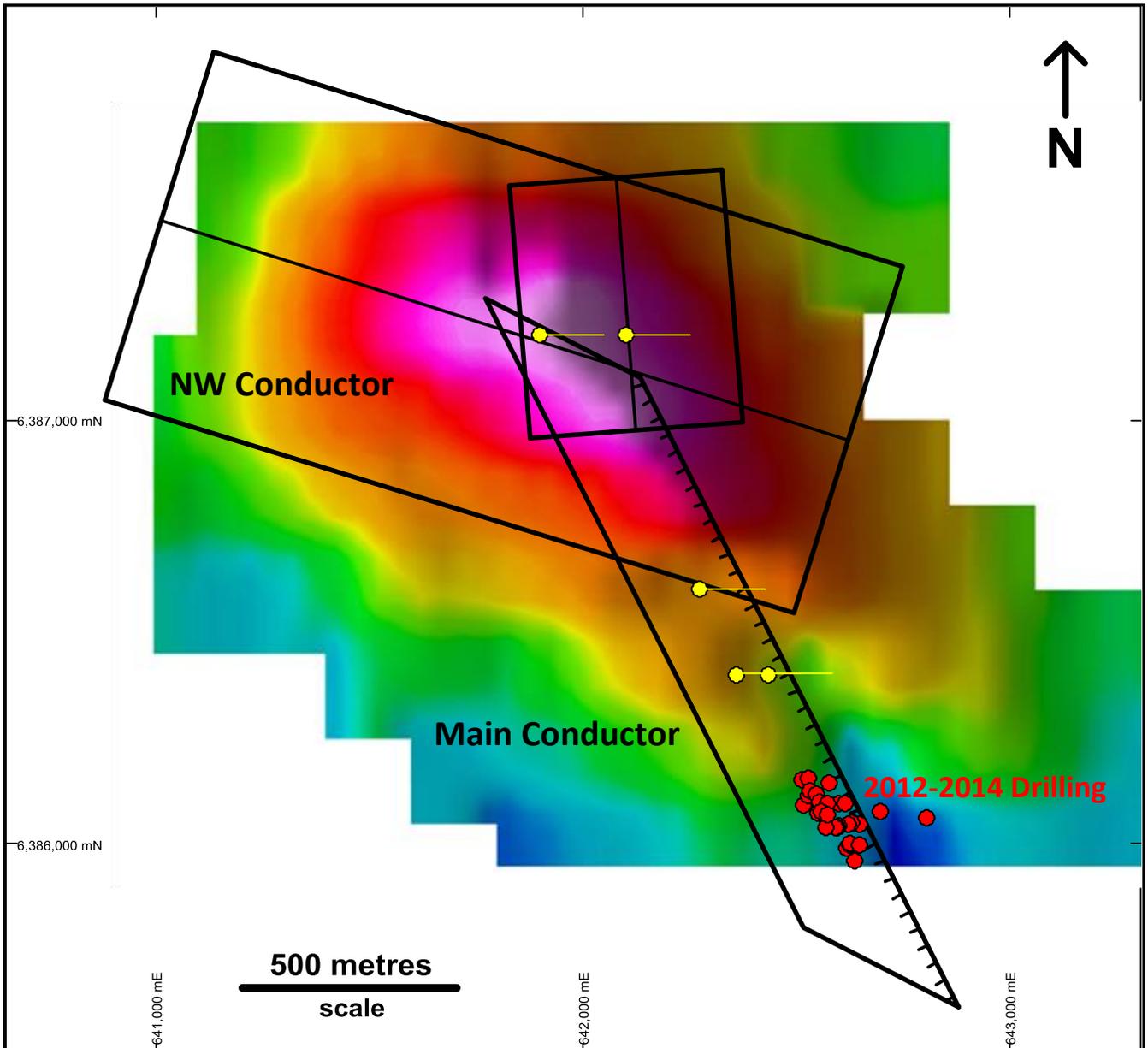
The MLEM survey data acquired at the Zealous Prospect has confirmed the presence of weak bedrock conductors consistent with the HEM anomalism. Two dominant and overlapping bedrock anomalies have been defined by the survey, one closely correlating with the known Zealous Prospect, striking ~NW-SE and steep-dipping, and the second, in the northern area of the survey, with a westerly dip possibly indicating a near-surface fold closure.

Modelling of the two main bedrock anomalies is summarised below and illustrated in Figure 2.

- **Zealous Main Conductor:** a NW-SE striking conductor of large areal size (~1500x1250m), weak-moderate strength (~150-250S), sub-vertical dip and depth to top of ~100-200m; and
- **Zealous NW Conductor:** this conductor is at shallow depth, near flat lying and potentially defines a fold closure. The broader NW conductor is of large areal size (~1500x750m), low conductance (~50-75S), near flat lying and <50m depth to top. Within this broader conductor there is a more localised conductive zone/cell which models in later channels at ~500x500m areal size, low conductance (~75-100S), near flat lying and still at shallow depth (<50m).

It is interpreted that the conductors do potentially have some width/thickness to them and more complex geometry than simply a thin plate model approximation with constant dip; if this is the case then the conductive unit could be intersected above the current modelled position.

Five RC holes, totalling 1,500 metres, are proposed to initially test the two conductors. Three holes are planned to test the Zealous Main Conductor and 2 holes at the Zealous NW Conductor. The location of these holes is illustrated in Figure 2.



**Figure 2–Zealous: Channel 25 MLEM Survey image with modelled conductor plates, historic drilling (red) and planned drilled (yellow)**

Legend-

Black polygons: modelled conductor planes

Yellow dots: planned RC drill holes

Red dots: historic drill holes

## Telephone Dam

At Telephone Dam, MLEM surveying was completed along 14 E-W orientated lines, best accommodating the dominantly ~N-S geological strike direction (23.2 kms, 246 stations) and matching the HEM survey line directions and survey coverage. MLEM coverage was completed over the target corridor and extended to ensure coverage over the known Telephone Dam Prospect and associated Zn, Pb, Ag mineralisation.

The MLEM survey data acquired at Telephone Dam has clearly confirmed the presence of weak bedrock conductors consistent with the HEM anomalism. Two bedrock conductors have been defined with the northern conductor being strongest. Both conductors strike ~N-S, dip moderately to the west, and appear to be fault displaced.

Modelling of the two main bedrock anomalies is summarised below and illustrated in Figure 3.

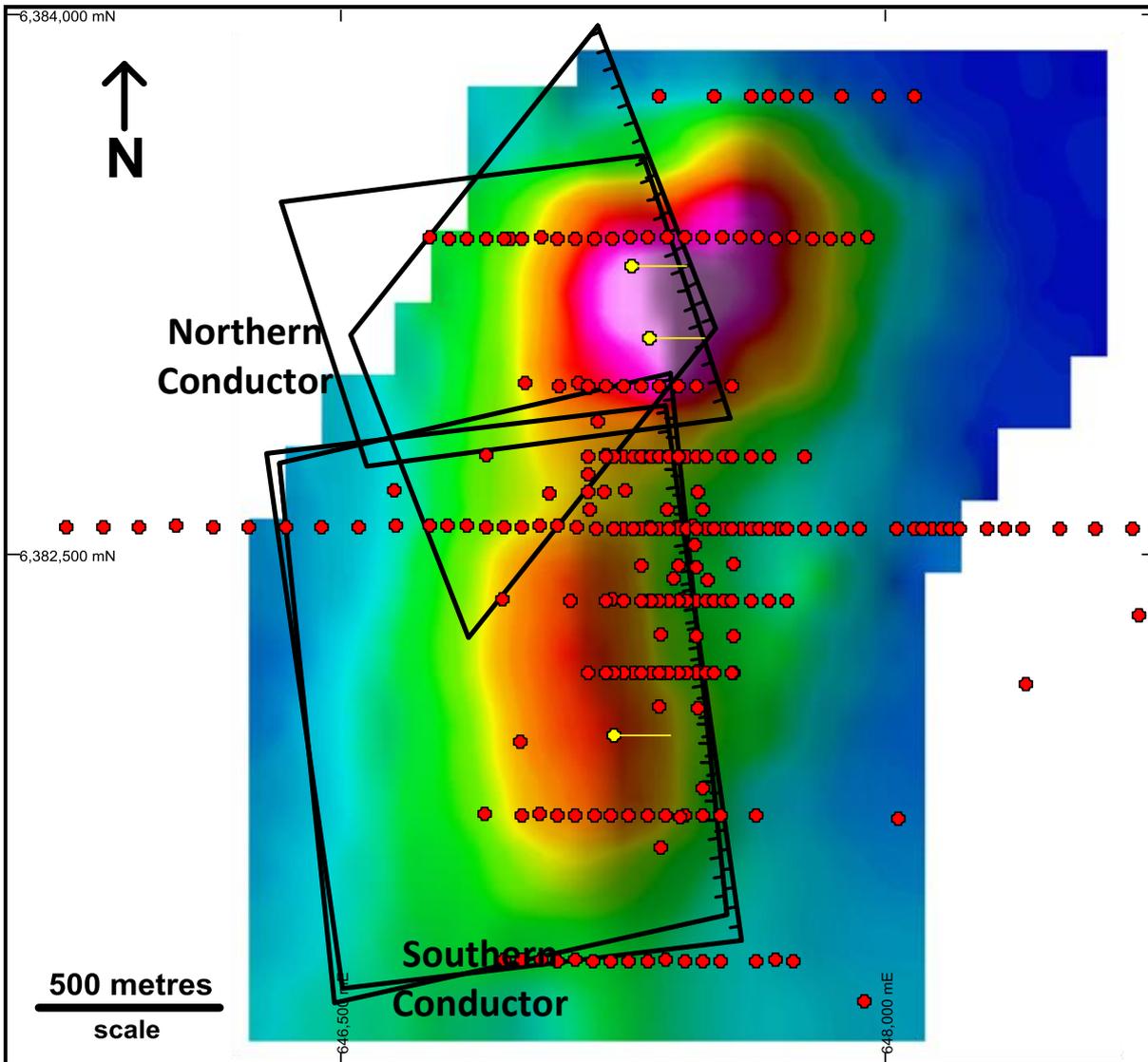
- **Telephone Dam Northern Conductor:** a large conductor with areal dimensions (~1000x1000m), moderate strength (~250-400S), ~25-35deg W/WSW dip and depth to top of ~150m (but likely projects further east toward surface); and
- **Telephone Dam Southern Conductor:** this conductor is also of large areal size (~1500x1000m), low conductance (~75-100S), ~20-30deg W/WSW dip and depth to top of ~25-50m.

It is interpreted that the conductors do potentially have some width/thickness to them and more complex geometry than simply a thin plate model approximation with constant dip; if this is the case then the conductive unit could be intersected above the current modelled position.

Historic drilling has intersected Zn, Pb, Ag mineralisation associated with the northeast corner of the Southern Conductor, however limited drilling in the area of the Northern Conductor has not intersected significant Zn, Pb, and Ag.

Three RC holes, totalling 850 metres, are proposed to initially test the two conductors. Two holes are planned to test the Telephone Dam Northern Conductor and one hole at the Telephone Dam Southern Conductor. The location of these holes is illustrated in Figure 3.

All holes are positioned to intersect the targeted conductor plates at least 250 metres from existing holes that intersect these conductor plates.



**Figure 3–Telephone Dam: Channel 25 MLEM Survey image with modelled conductor plates, historic drilling (red) and planned drilling (yellow)**

Legend-

Black polygons: modelled conductor planes

Yellow dots: planned RC drill holes

Red dots: historic drill holes

**Steve Johnston**  
**Managing Director**

*Alliance Resources Ltd has projects in South Australia, Western Australia and New South Wales for gold and base metals. For further information about Alliance Resources Ltd, please visit [www.allianceresources.com.au](http://www.allianceresources.com.au)*

**Competent Person’s Statement**

The information in this report that relates to the Exploration Results is based on information compiled by Mr Stephen Johnston who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Johnston is a full time employee of Alliance Resources Ltd and 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 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnston consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **JORC Code, 2012 Edition – Table 1 Report: Zealous and Telephone Dam MLEM Surveys**

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

<b>Criteria</b>	<b>Commentary</b>
<i>Sampling techniques</i>	A high powered moving loop electromagnetic (MLEM) survey was completed at the Zealous and Telephone Dam prospects by Gap Geophysics Australia Pty Ltd. The surveys consisted of 23 x 200 metre spaced traverse lines for 39.3 line kms of surveying (416 stations) and 200 x 200m sized loops. All data was acquired with a SMARTem24 instrument combined with a Gap EMTX-200 HP transmitter and a EMIT SMART Fluxgate B-field sensor working at a low base frequency of 1Hz (250ms time base)
<i>Drilling techniques</i>	Not applicable as no drilling was undertaken.
<i>Drill sample recovery</i>	Not applicable as no drilling was undertaken.
<i>Logging</i>	Not applicable as no drilling was undertaken.
<i>Sub-sampling techniques and sample preparation</i>	Not applicable as no drilling was undertaken.
<i>Quality of assay data and laboratory tests</i>	The geophysical equipment used: <ul style="list-style-type: none"> <li>• Survey type: Moving Loop (inloop mode)</li> <li>• Transmitter: Gap EMTX-200</li> <li>• Base Frequency: 1Hz (250msec time base)</li> <li>• 200x200m MLTEM loops</li> <li>• Current: 120 Amps (Single Turn Loop)</li> <li>• Receiver: SMARTem24</li> <li>• Sensor: EMIT SMART Fluxgate B-Field Sensor – ZXY 3D Components</li> <li>• Multiple Readings @ 128 Stacks</li> <li>• Probe Noise Levels: Low average at ~0.025pT/A or ~3pT</li> </ul>
<i>Verification of sampling and assaying</i>	Primary geophysical data was captured electronically in the field and transmitted to Southern Geoscience Consultants on a daily basis. The acquired data was internally validated by Gap Geophysics and checked by Southern Geoscience Consultants. The modelled and interpreted data was completed by Southern Geoscience Consultants and reviewed by Alliance geologists. All quality control and data analysis was carried out using Maxwell EM software.
<i>Location of data points</i>	All data has been collected in GDA94 MGA Zone 53 grid system. Data points were located using a GPS receiver nominally accurate to 5.0m.
<i>Data spacing and distribution</i>	200m x 200m transmitter loops, using a 100m station spacing, with 200m survey line spacing.
<i>Orientation of data in relation to geological structure</i>	The orientation of the geophysical survey was designed to be unbiased with respect to known geology and structures. East-west oriented lines were consistently surveyed to match with a previous helicopter-borne electromagnetic survey.
<i>Sample security</i>	Not applicable as no drilling was undertaken.
<i>Audits or reviews</i>	No audits or reviews of the sampling technique or data have been completed.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

<i>Criteria</i>	<i>Commentary</i>
<i>Mineral tenement and land tenure status</i>	<p>The geophysical surveys described in this report were undertaken on Wilcherry Project tenement EL5590.</p> <p>The tenement is current and in good standing.</p> <p>The Wilcherry Project is being explored in joint venture by Alliance Resources Limited (51%) and Tyranna Resources Limited (49%). Both parties are contributing to the joint venture.</p>
<i>Exploration done by other parties</i>	<p>The Wilcherry Project area has previously been explored by numerous companies since the 1970's including Pan Continental Mining, Asarco, Marumba Minerals, the Shell Company of Australia, WMC, Aberfoyle Resources, Acacia Resources, Western Metals Resources, AngloGold Australasia, Aquila Resources, Trafford Resources, and Ironclad Mining.</p>
<i>Geology</i>	<p>The Wilcherry Project is situated in the southeastern part of the Gawler Craton, which is an ancient crystalline shield comprising Archean to Mesoproterozoic age metasediments, volcanics and granites. The region has undergone multiple events of tectonic deformation, granite intrusion and metamorphism. Regional geological and tectonic synthesis shows the tenement area to be in the Cleve Domain of the Gawler Craton based on its structural, metamorphic and stratigraphic characteristics.</p> <p>The Project area is dominated by metasediments of the Palaeoproterozoic Hutchison Group sediments which unconformably overlie early Palaeoproterozoic Miltalie Gneiss and Achaean granulites and gneisses of the Sleaford Complex. The Hutchison Group consists of metamorphosed clastic marine sediments, iron formations, carbonates and mafic volcanics. Deformation and metamorphism occurred during the Kimban Orogeny (1850-1700 Ma) and was accompanied by the syntectonic intrusion of the Moody Suite granites. The result is a northwest trending igneous - metamorphic complex of metasedimentary rocks, amphibolite, schist, gneiss and granite.</p> <p>Palaeoproterozoic units are overlain by the younger Gawler Range Volcanics and are intruded by the contemporaneous Hiltaba Suite Granites. The Hiltaba Suite/Gawler Range magmatic event (1595-1575 Ma) represents a major Mesoproterozoic tectonic/tectonothermal event which affected much of the Gawler Craton; it is this event which is believed to have been responsible for widespread gold, uranium and base metal mineralisation.</p> <p>Widespread surficial cover obscures much of the bedrock whilst weathering has produced a regolith of kaolinised saprolite to an average depth of between 40 - 100m.</p>
<i>Drill hole Information</i>	<p>The survey areas are illustrated in Figure 1. Results are presented in Figures 2 and 3 for the Zealous and Telephone Dam prospects respectively.</p>
<i>Data aggregation methods</i>	<p>Not applicable as no drilling or geochemical sampling was undertaken.</p>
<i>Relationship between mineralisation widths and intercept lengths</i>	<p>Not applicable as no drilling or geochemical sampling was undertaken.</p>
<i>Diagrams</i>	<p>See Figures 1 to 3 of this report.</p>
<i>Balanced reporting</i>	<p>Results are presented for the Zealous and Telephone Dam prospects.</p>
<i>Other substantive exploration data</i>	<p>Refer to the body of this announcement.</p>
<i>Further work</i>	<p>RC drilling is planned to test the source of the conductors discussed in this report.</p>