



ACN 100 796 754

ASX Announcement

ASX Code: RVR

24 March 2015

Red River identifies zinc targets at Thalanga Potential for multiple mineralised horizons

Highlights

- **Multiple untested chargeable bodies detected using high powered deep seeking dipole-dipole induced polarisation survey (IP) at Thalanga**
- **Untested chargeable bodies located stratigraphically above and below known Thalanga horizon**
- **New targets highlight potential for multiple mineralised horizons at Thalanga**
- **Systematic drill testing of priority targets both at Thalanga and other project areas to commence in May 2015**

Zinc developer Red River Resources Limited (Red River or the Company) is pleased to announce that a further ten induced polarisation (IP) lines, for 29.5 line kilometres, have been completed at its Thalanga Project, located approximately 65km West of Charters Towers in North Queensland.

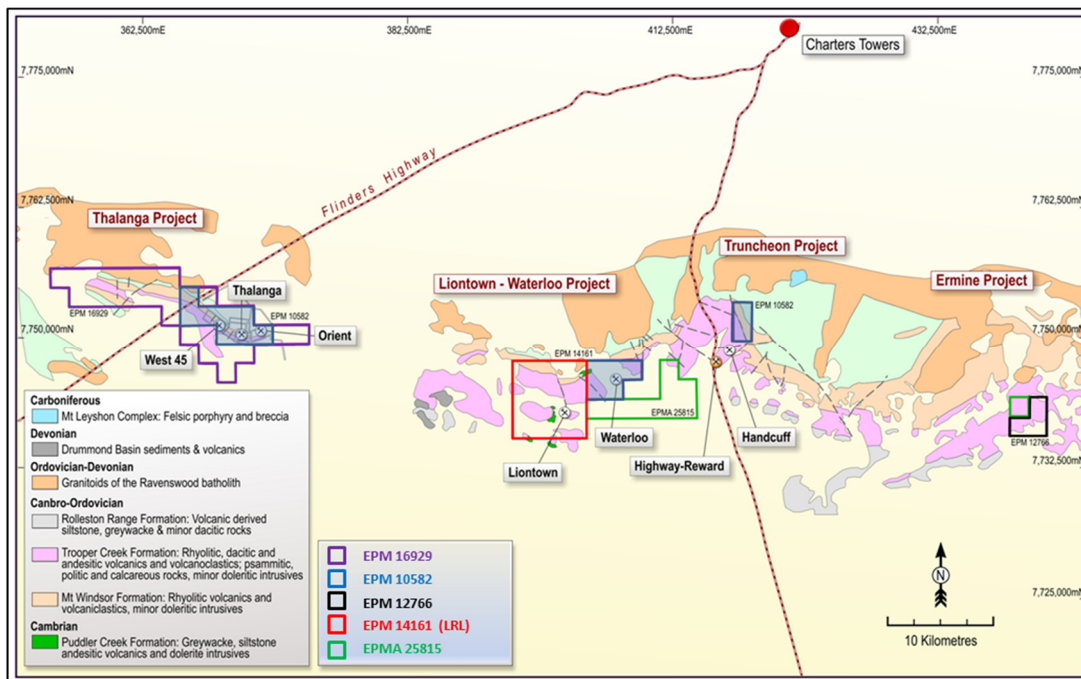
The survey follows Red River's review of historic exploration data which identified potential for multiple volcanic hosted massive sulphide (VHMS) deposits to occur in poorly explored areas of the project area. The completion of the IP survey at Thalanga marks the beginning of an exciting phase for Red River with drill testing of multiple targets expected to commence in May 2015.

The recently completed IP survey at Thalanga consisted of both orientation and exploration IP lines. Orientation IP lines were completed over the West 45, Far West and Orient resources. The IP responses have using a high powered IP system has detected the mineralisation at depth. Importantly, the system has mapped the Orient resource, which had been difficult to map previously due to it being blanketed by over 100m of a highly conductive cover sequence.

Exploration IP lines have detected multiple untested chargeable and conductive bodies within the project area. Historical exploration at Thalanga has focused on the stratigraphic position of the Thalanga mineralisation, referred to as the Thalanga Horizon. The results of the recent IP survey have identified potential for other mineralised horizons with targets detected in both the hanging wall sequence and footwall sequence of the Thalanga Horizon, highlighting the potential for a large "stacked" VHMS system at Thalanga or structurally controlled repetition of the Thalanga Horizon via faulting and or folding.

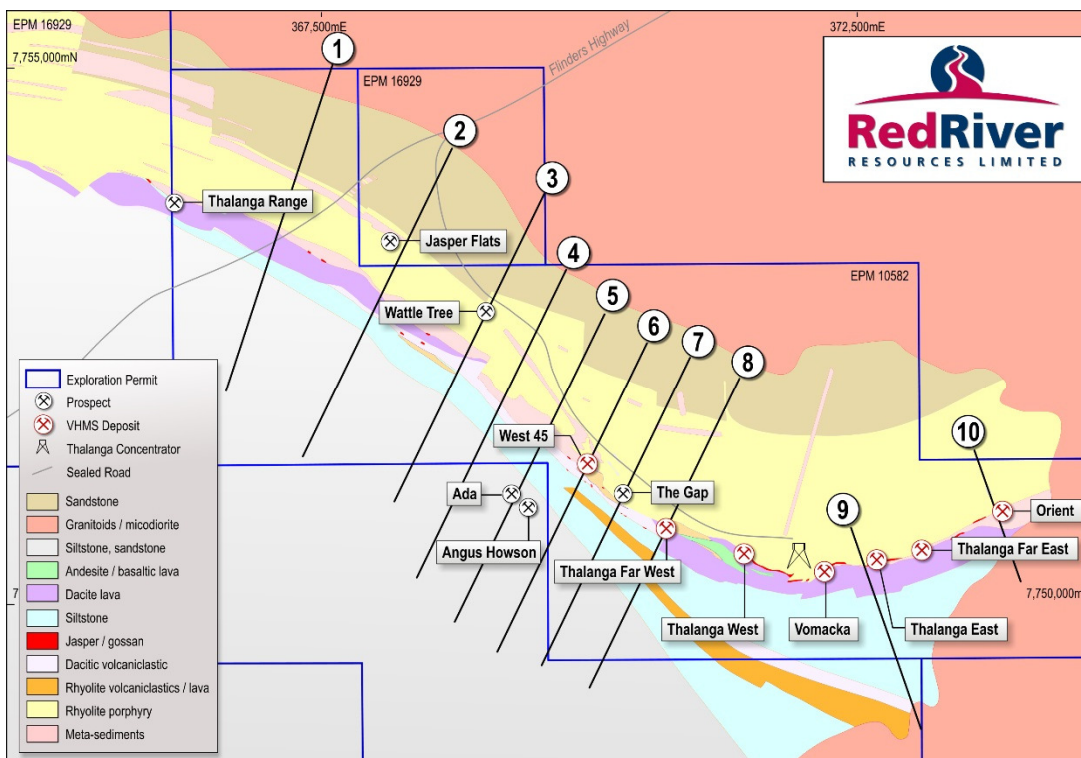
The IP survey is part of the Company's exploration strategy at Thalanga with the objective of identifying additional resources to extend the mine life of the Operation. As previously announced, the Company is working towards restarting production at Thalanga by end of calendar year 2015.

Figure 1 Project Location



The dipole-dipole IP survey was carried out by Search Exploration Services Pty Ltd (Search) using a high powered, deep seeking 50KVa transmitter and a 32 channel receiver, and the geophysical data was processed by David McInnes, a consultant geophysicist, who has more than 20 years' experience in geophysical processing, modelling and interpretation.

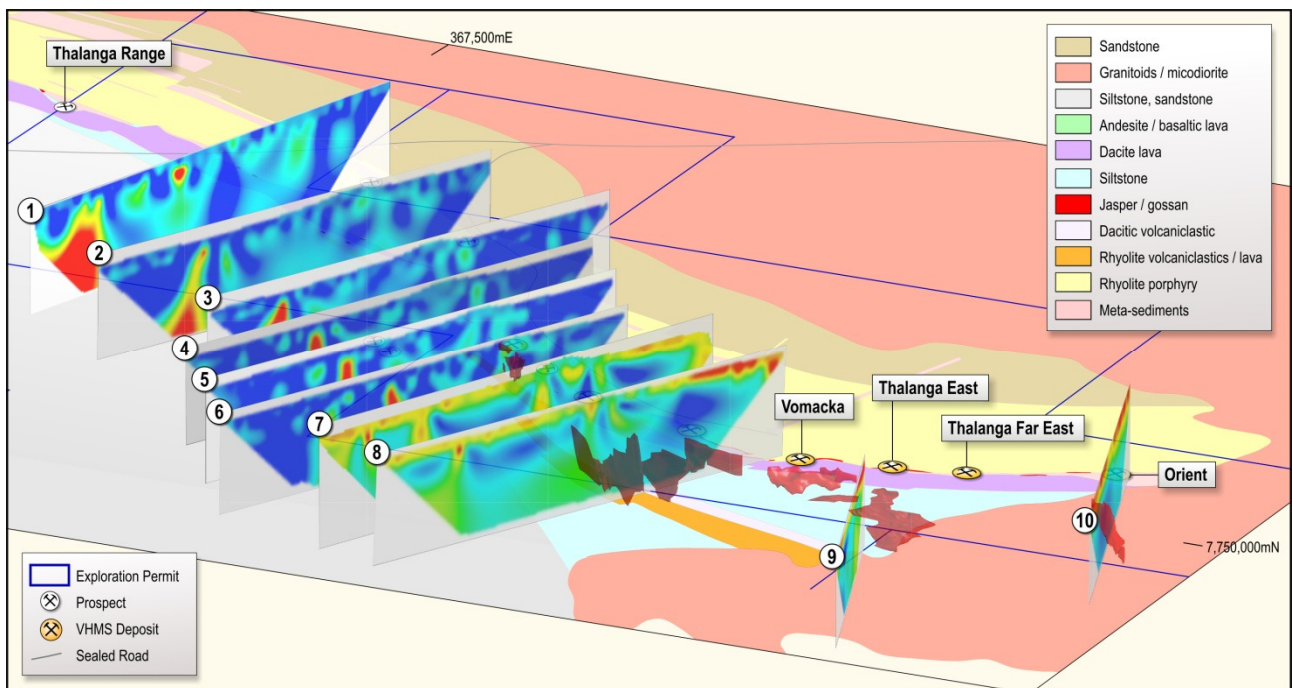
Figure 2 Plan of IP Survey



Results of IP Survey

Over the period January 2015 to March 2015, Red River completed a further ten induced polarisation (IP) lines, for a total of 29.5 line kilometres at its Thalanga Project, located approximately 65km West of Charters Towers in North Queensland. The survey follows Red River's review of historic exploration data which identified potential for multiple volcanic hosted massive sulphide (VHMS) deposits to occur in poorly explored areas of the project.

Figure 3 Oblique view of Modelled IP Sections



Induced Polarisation is an electrical geophysical technique that requires direct injection of current into the ground through electrodes. The information recorded is translated into an Apparent Resistivity and a Chargeability component.

- **Apparent Resistivity** – This component maps the electrical flow of the current injected into the ground. The current preferentially flows through the ground in areas of relatively lower resistivity. These areas are normally associated with faults, shales, and rocks with more water, clay component and/or sulphide mineralisation. Areas of high resistivity are associated with geology that has a high level of silicification (commonly associated with mineralisation).
- **Chargeability** – This component reflects the ability of the ground to store electrical charge (capacitance): Areas of elevated sulphides are more effective at storing electric charge. The magnitude of the observed chargeability data increases when recording over areas of elevated sulphides. The level of chargeability is dependent on many aspects (grain size, porosity, resistivity etc.) so the comparison of chargeability amplitudes across projects is not generally recommended.

Figure 4 IP Survey Highlights

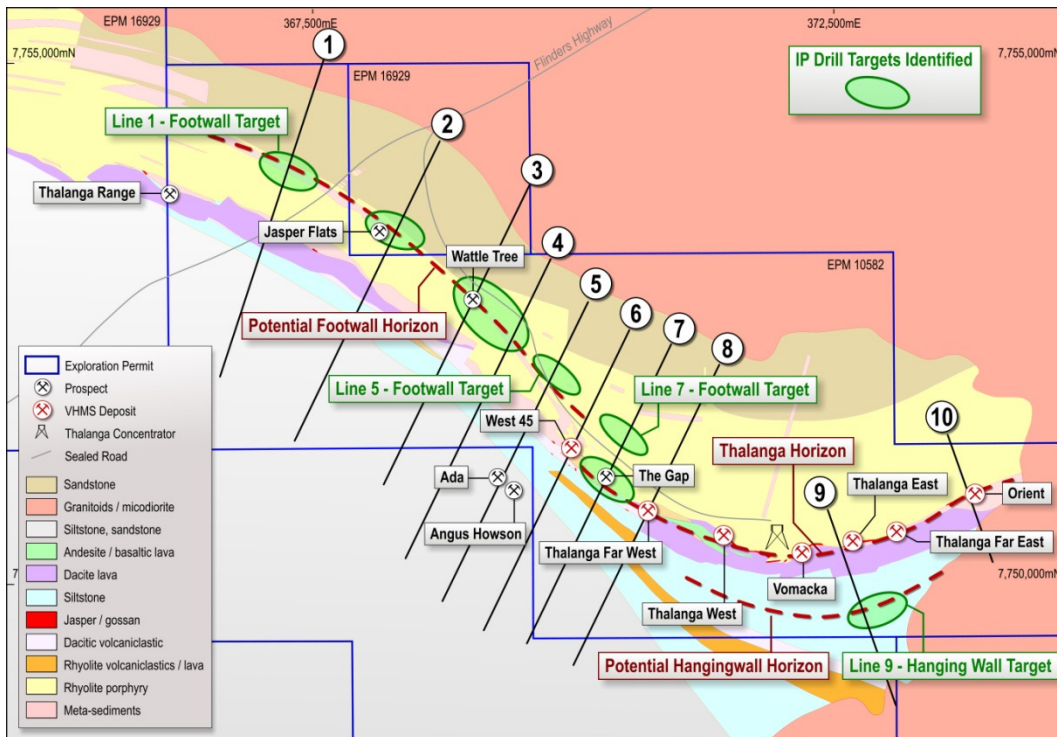


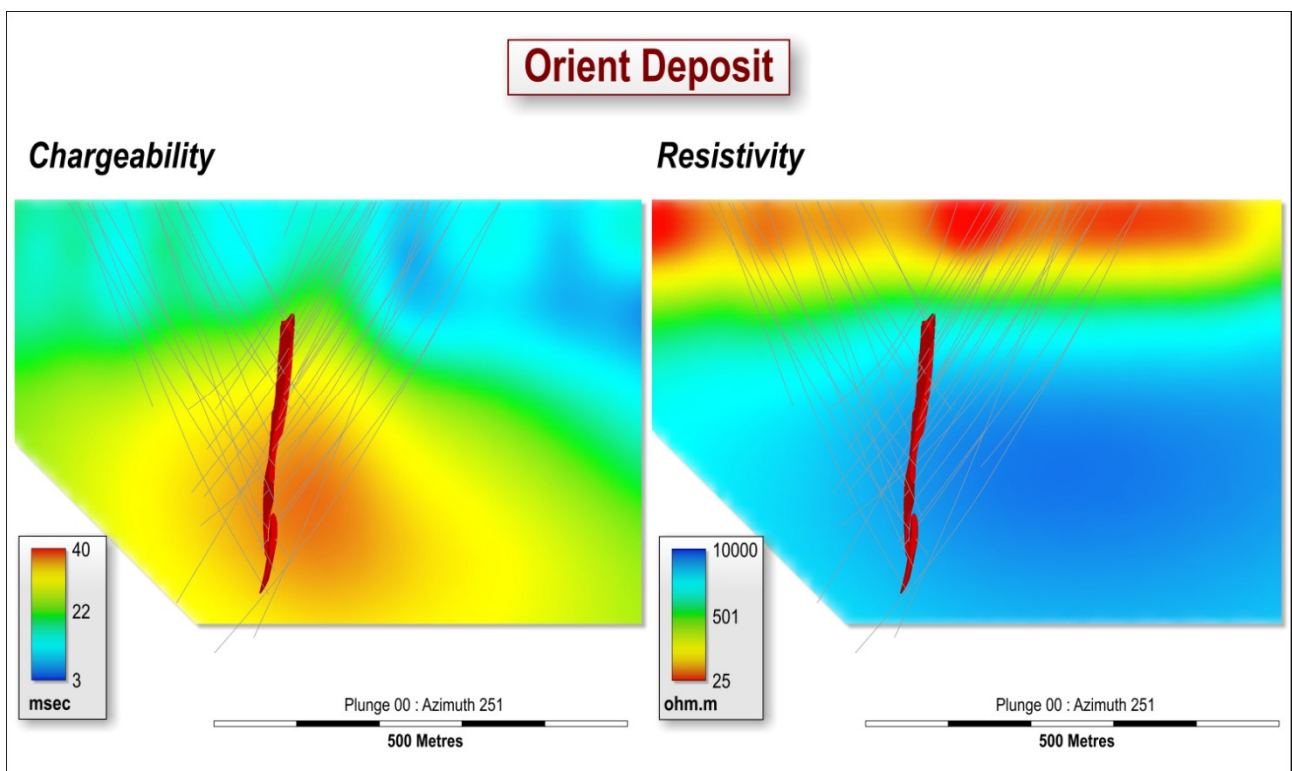
Table 1 Objectives and Outcomes of IP Survey

Line	Objective	Key Outcome
1	Test response of a historic IP anomaly	Identified the presence of an untested IP anomaly with significant depth extent
2	Test response of a historic IP anomaly at Jasper Flats	Identified the presence of an untested IP anomaly with significant depth extent at Jasper Flats
3	Test response of a historic IP anomaly at Wattle Tree	Identified the presence of an untested IP anomaly with significant depth extent at Wattle Tree
4	Exploration	Identified an easterly extension to the historic IP anomaly at the Wattle Tree prospect
5	Exploration	Identified a westerly extension to previously unknown IP anomaly identified north of and within the footwall sequence to the West 45 deposit
6	Test the response of known mineralisation at West 45	Successfully identified the known mineralisation at West 45
7	Exploration	Identified a previously unknown IP anomaly at depth below historical drilling in the Gap area and a previously unknown IP anomaly within the footwall sequence of the Gap area
8	Test the response of known mineralisation at Far West	Successfully identified the known mineralisation at Far West
9	Exploration	Identified a previously unknown IP anomaly ~700m south of and within the hanging wall sequence of Thalanga
10	Test the response of known mineralisation at Orient	Successfully identified the known mineralisation at Orient

Responses of Known Mineralisation

The IP response of known mineralisation within the Lontown-Waterloo project area was determined during the 1st phase of the IP survey (ASX Release dated 6 February 2015). Known mineralisation within the Thalanga project area is generally hosted within rock units which display greater silicification and therefore are more resistive than those areas surveyed at Lontown-Waterloo. As such, orientation IP lines were also completed over known mineralisation at Thalanga, successfully confirming the effectiveness of the IP system to identify mineralisation in this more resistive geological terrain.

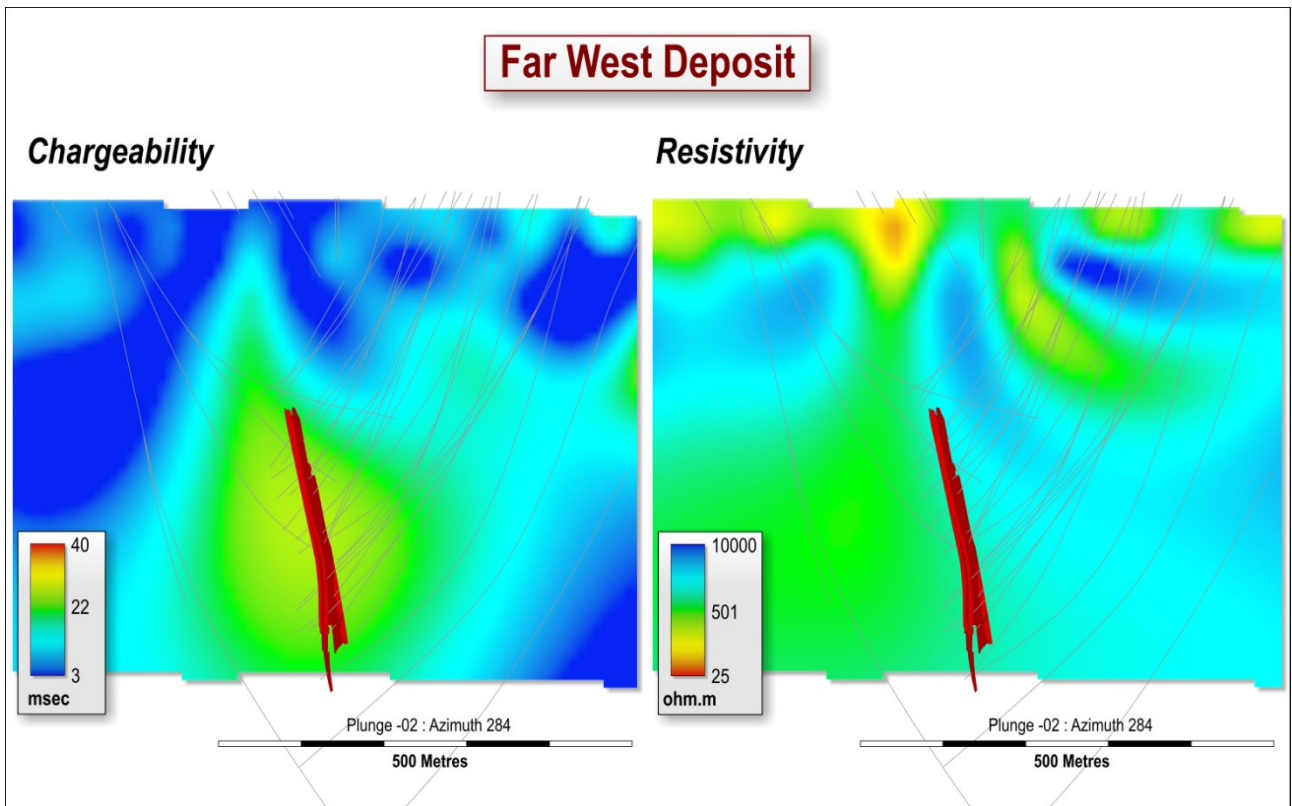
Figure 5 Orient Deposit



The Orient Deposit is situated under approximately 100m of the highly conductive Campaspe cover sequence and a further 50m of bedrock, providing a significant test case for the High Powered IP system employed. The IP line over the Orient was undertaken using two separate dipole configurations, 100m dipole spacing and a 200m dipole spacings in order to determine the best configuration for future surveys in areas of very deep cover sequences.

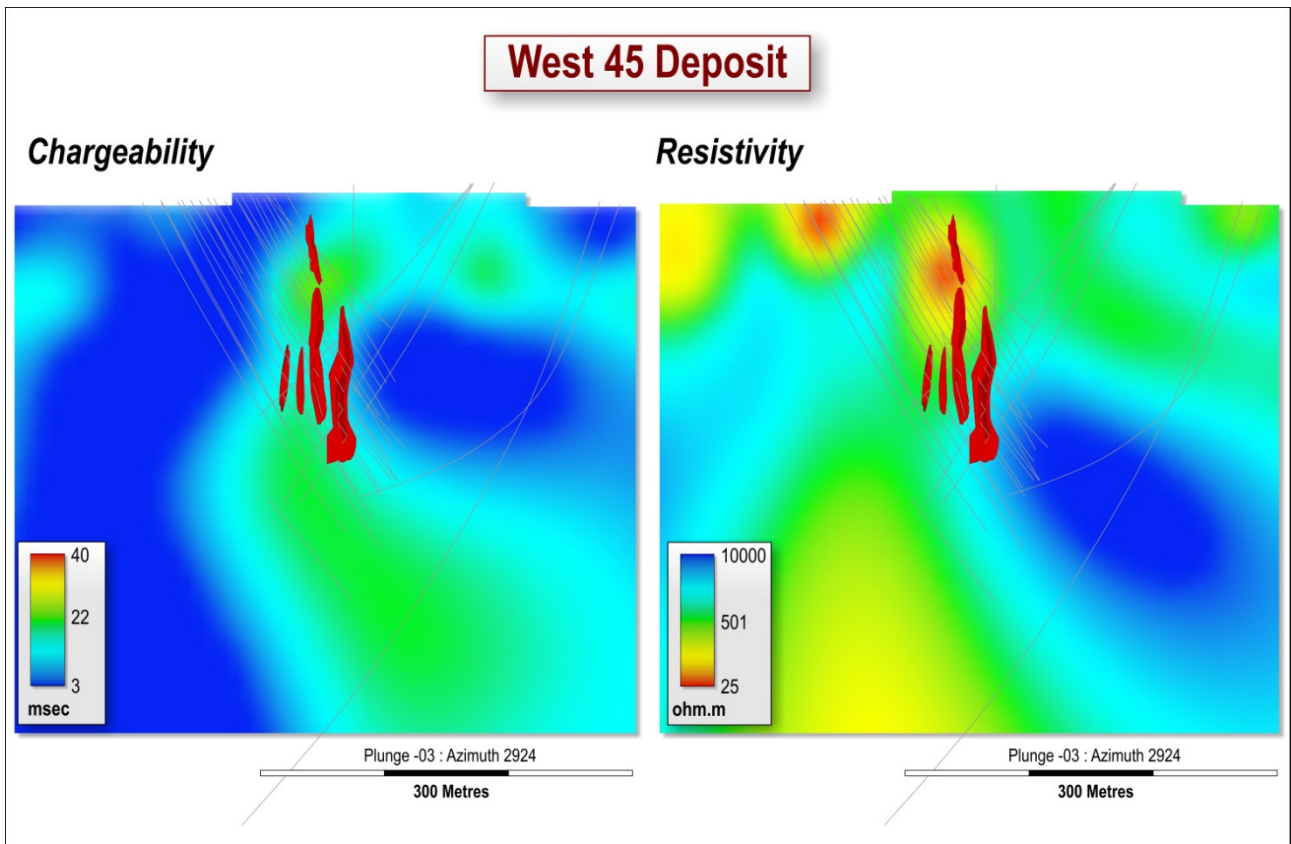
The 100m dipole spacing detected the Orient mineralisation, however the 200m dipole spacings better resolved the location of the mineralisation. The image above displays the modelled chargeability and resistivity sections resulting from the 200m dipole spaced survey. As the images illustrate, the system successfully mapped the Orient mineralisation as a relatively discreet zone of moderate to strong chargeability within a resistive host rock. The significant depth of the highly conductive Campaspe cover sequence blanketing the deposit is evident in the resistivity image.

Figure 6 Far West Deposit



The up-dip extent of Far West deposit is currently determined to be situated approximately 250m below the surface in an area of only shallow conductive Campaspe cover sequence. The Far West mineralisation produced a response consisting of a relatively discrete zone of chargeability in a similar orientation to the known mineralisation, adjacent to a broad zone moderate conductivity (low resistivity).

Figure 7 West 45 Deposit

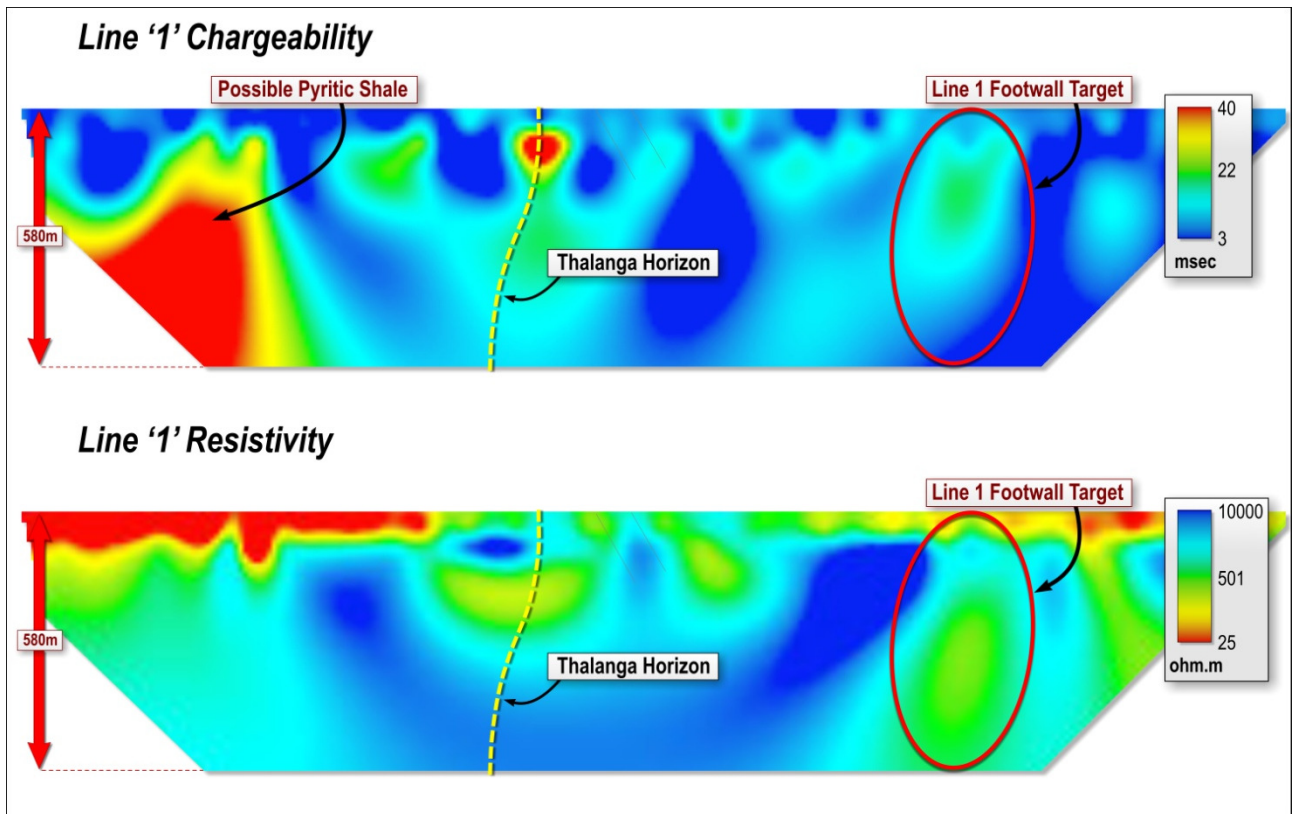


The up dip extent of the West 45 deposit is approximately 50m below surface. The bedrock geology at West 45 outcrops and as such has no overlying cover sequence. The West 45 deposit produced a similar chargeability response to the Far West mineralisation, consisting of a discrete, steep zone of moderate chargeability, while the upper extents of the West 45 mineralisation produced a discrete moderate to strong zone of conductivity, likely representing an oxidation trough associated with preferential weathering of the sulphide rich lithologies near surface.

Line 1 Chargeability and Resistivity Response

Line 1 tested an historic IP chargeability anomaly identified by Pancontinental Resources Pty Ltd in a 1996 Gradient Array IP Survey.

Figure 8 Line 1 Chargeability and Resistivity Sections



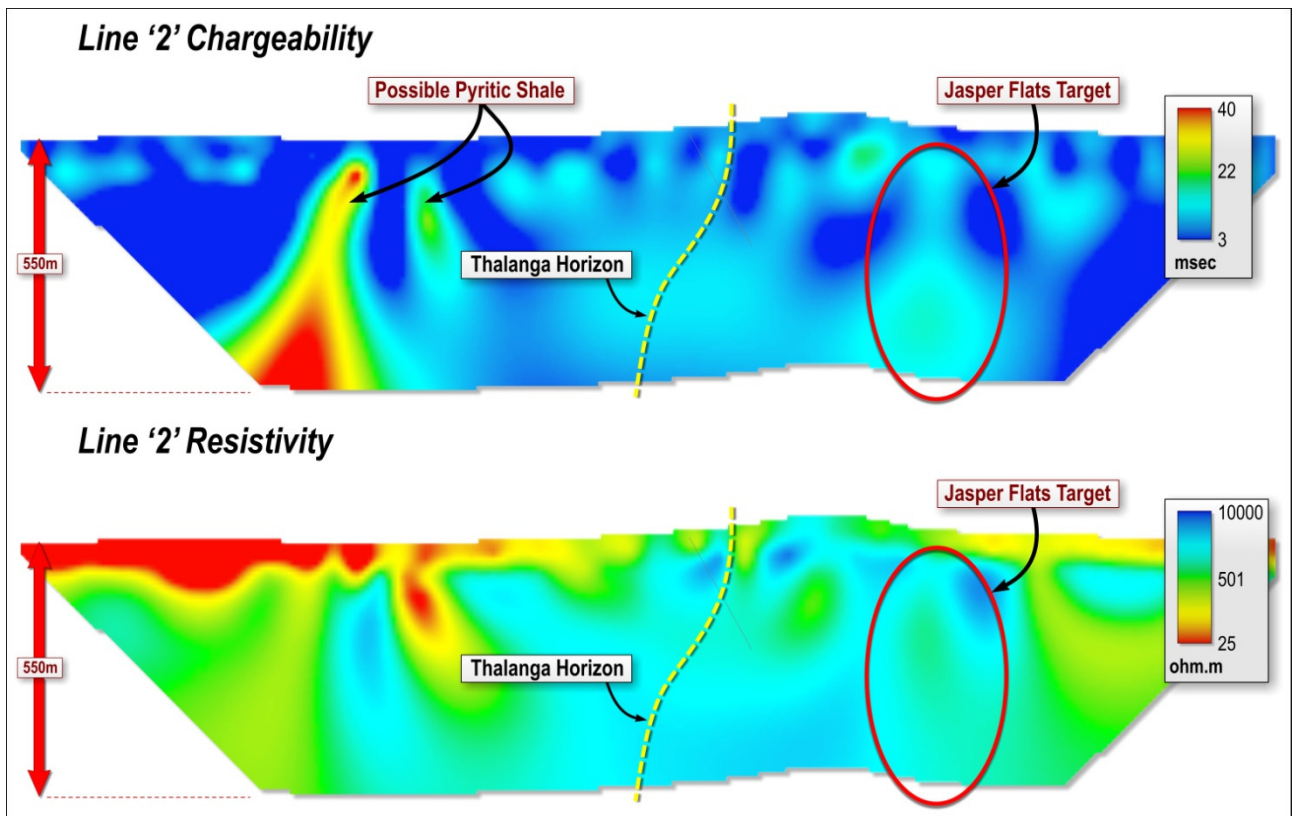
The recent IP survey detected a steep zone of moderate chargeability coincident with a zone of moderate conductivity located under shallow cover (circled). The target displays considerable depth extent, is interpreted to be located proximal to the favoured Quartz Eye Volcaniclastic unit (host to the Thalanga deposits). This target remains untested and has produced a response akin to known mineralisation at Thalanga and as such presents as a priority drill target.

The large zone of chargeability and coincident conductivity in the far south of the line likely represents stratigraphic pyritic shales.

Line 2 Chargeability and Resistivity Response

Line 2 was designed to test the response of another historic Gradient Array IP anomaly at the “Jasper Flats” prospect.

Figure 9 Line 2 Chargeability and Resistivity Sections



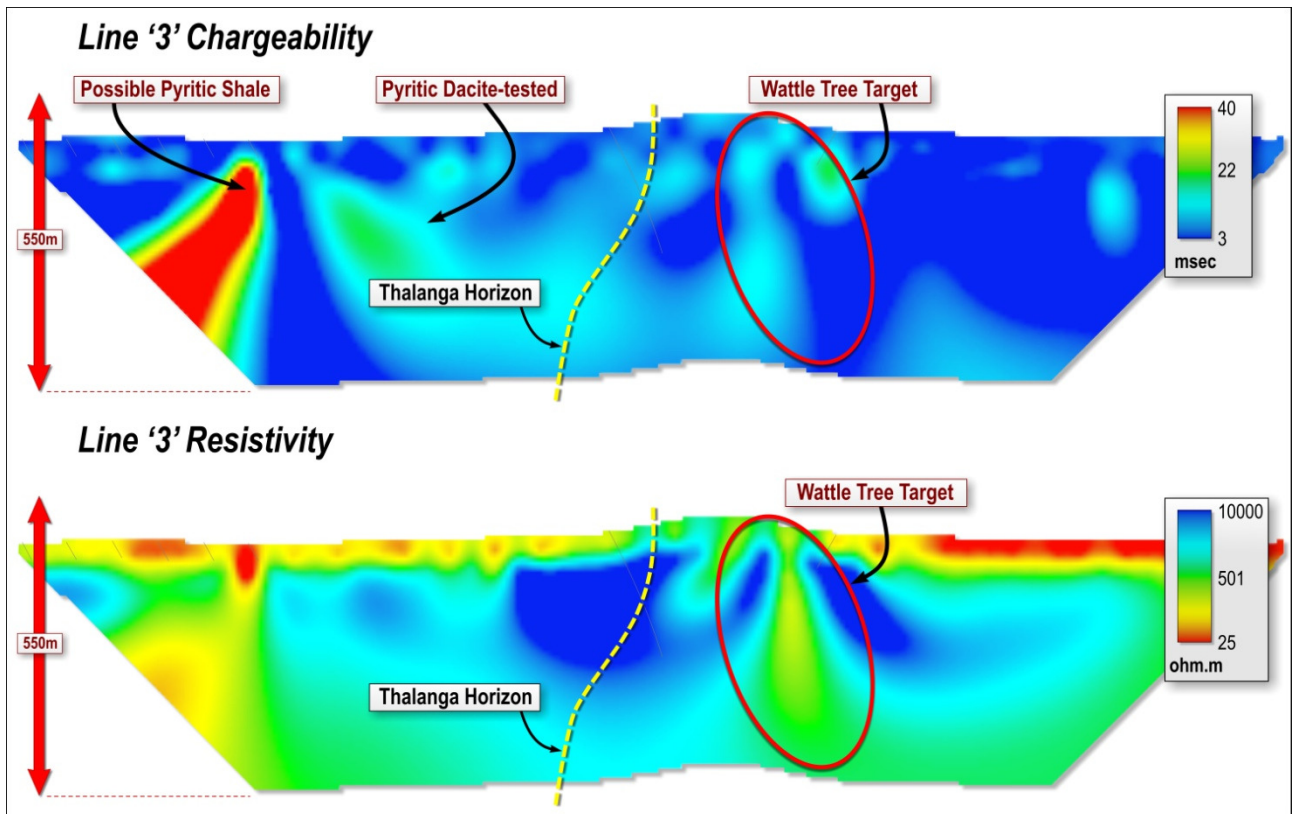
The results of the IP survey produced broad zone of moderate chargeability and weak to moderate conductivity coincident with the Jasper Flats prospect (circled). Both chargeability and conductivity suggest a steep zone with considerable depth extent. The Jasper Flats target also remains untested and has produced a response akin to known mineralisation and is coincident with the favourable Quartz Eye volcaniclastic unit mapped at surface and as such presents as a priority drill target.

As in Line 1, the large zone of chargeability and coincident conductivity, in the far south of the line, likely represents stratigraphic pyritic shales.

Line 3 Chargeability and Resistivity Response

Line 3 was designed to test the response of a further historic Gradient Array IP anomaly at the “Wattle Tree” prospect.

Figure 10 Line 3 Chargeability and Resistivity Sections



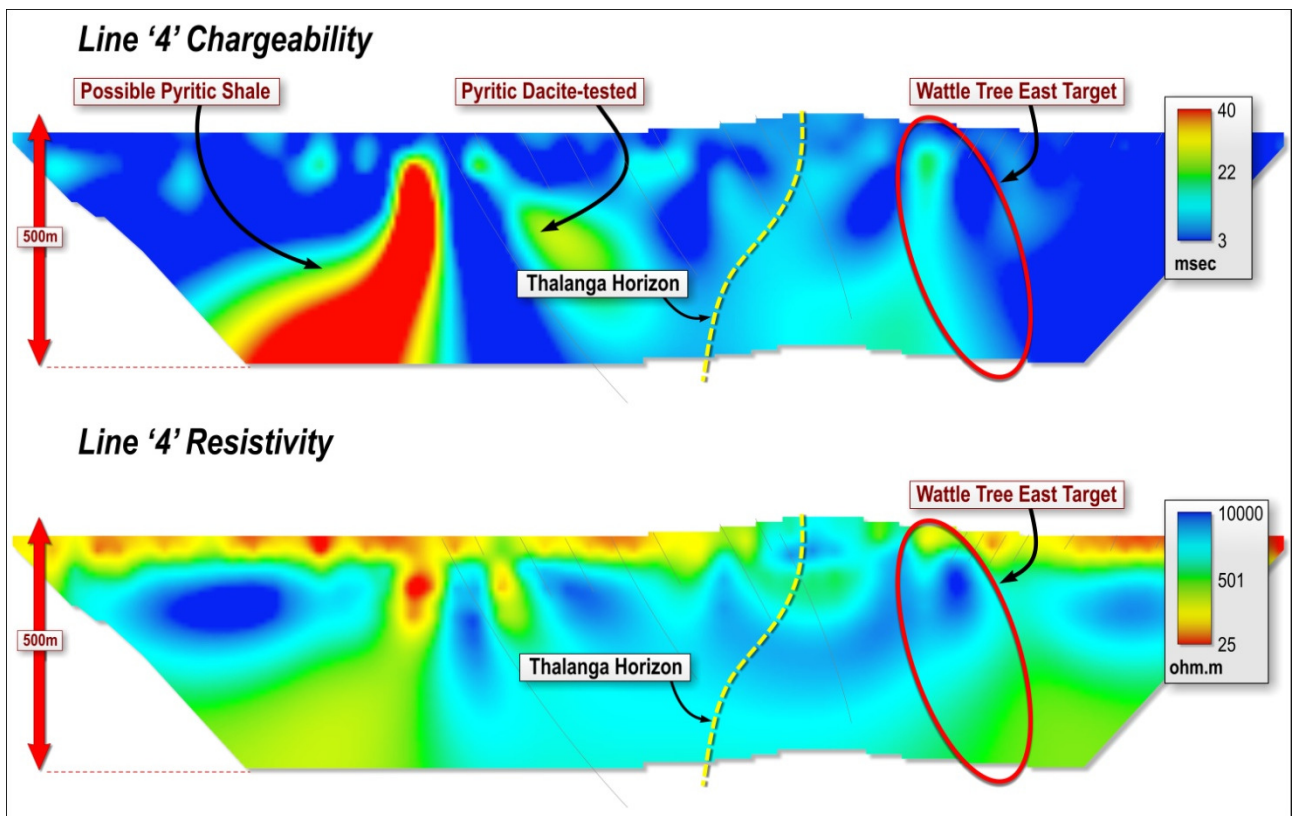
The results of the IP survey produced a small shallow zone of moderate chargeability within a large steep zone of strong conductivity with significant depth extent (circled). The IP anomaly is coincident with the favourable Quartz Eye volcanoclastic unit at surface and anomalous historic base metal geochemistry, remains untested by drilling and therefore also presents as a priority drill target.

In the central portion of the line a broad zone of moderate chargeability within a resistive zone likely represents a pyritic dacite logged in the historic drilling approximately 500m east of this section. The large broad zone of strong chargeability coincident with a zone of strong conductivity in the south is again, likely represents the stratigraphic pyritic shales evident on other IP lines.

Line 4 Chargeability and Resistivity Response

Line 4 was designed as an exploration line and was located 500m to the SE along strike from the Wattle Tree prospect.

Figure 11 Line 4 Chargeability and Resistivity Sections



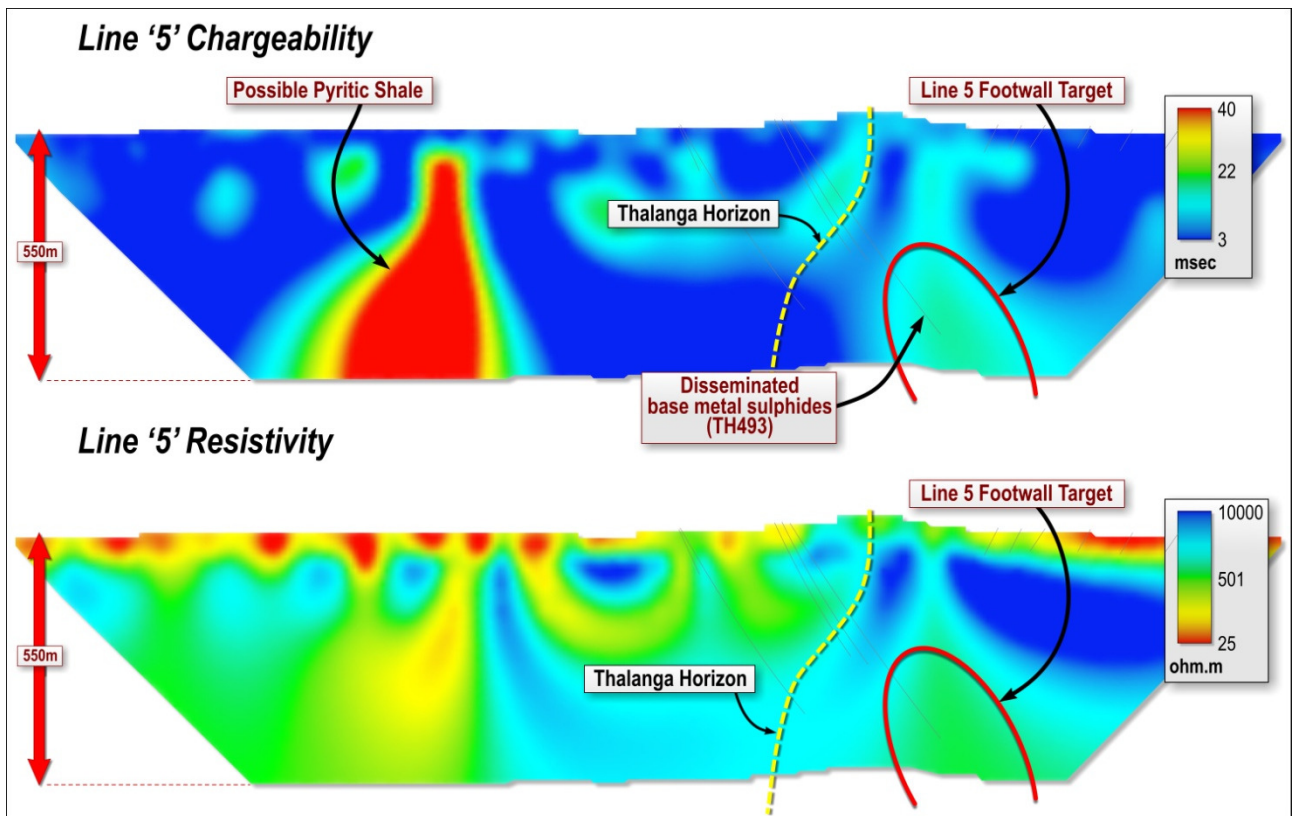
Encouragingly, an IP response was detected on line 4 in the same stratigraphic position as and along strike to the Wattle Tree prospect. The response consists of a steep discrete zone of moderate chargeability coincident at depth with a broad zone of conductivity and potentially reflects an easterly strike extension to the conceptual mineralisation at Wattle Tree. Both the Wattle Tree prospect and this newly identified eastern extension remain untested by drilling.

In the central portion of the line broad zone of moderate chargeability within a resistive zone likely represents a pyritic dacite logged in the historic drilling on this section. The large broad zone of strong chargeability coincident with a zone of strong conductivity in the south is likely to represent the stratigraphic pyritic shales evident on other IP lines.

Line 5 Chargeability and Resistivity Response

Line 5 was designed as an exploration line approximately 500m NW of the West 45 deposit. Historical drilling on this section has intersected anomalous base metal geochemistry at depth.

Figure 12 Line 5 Chargeability and Resistivity Sections

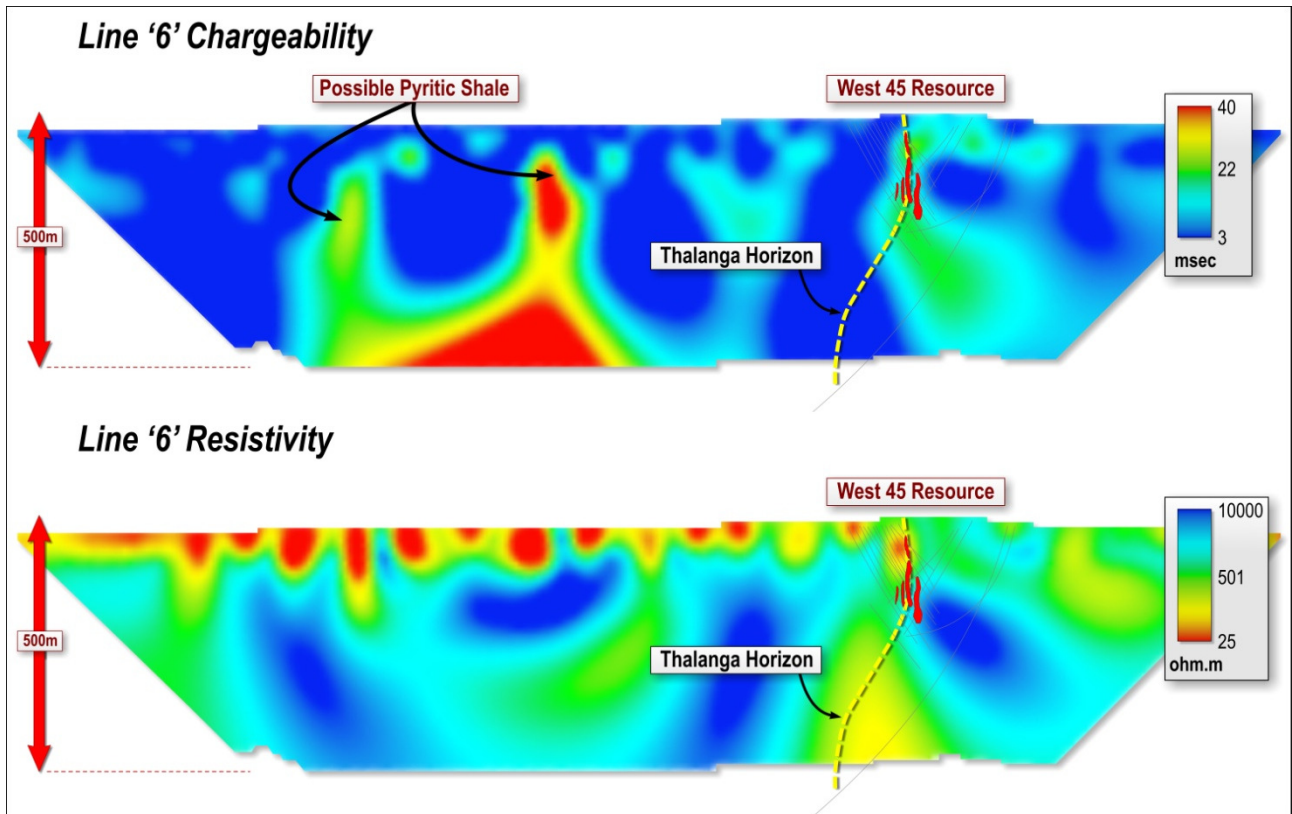


The IP response from Line 5 has identified a large broad area of moderate chargeability coincident with a zone of moderate conductivity within the interpreted footwall sequence. The strength of the IP anomaly appears to be increasing at depth. Historical drill hole TH493 has tested the up-dip extent of this anomaly and intersected disseminated base metal sulphides. The results of the IP survey suggest increased mineralisation may be present at depth below TH493. Broad zones of strong chargeability and coincident conductivity in the southern portion of the line are likely to represent the interpreted stratigraphic pyritic shales previously discussed.

Line 6 Chargeability and Resistivity Response

Line 6 was designed to test the response of known mineralisation at the West 45 deposit. The West 45 deposit produced a discrete, steep zone of moderate chargeability while the upper extents of the West 45 mineralisation produced a discrete moderate to strong zone of conductivity, likely representing an oxidation trough associated with preferential weathering of the sulphide rich lithologies near surface.

Figure 13 Line 6 Chargeability and Resistivity Sections

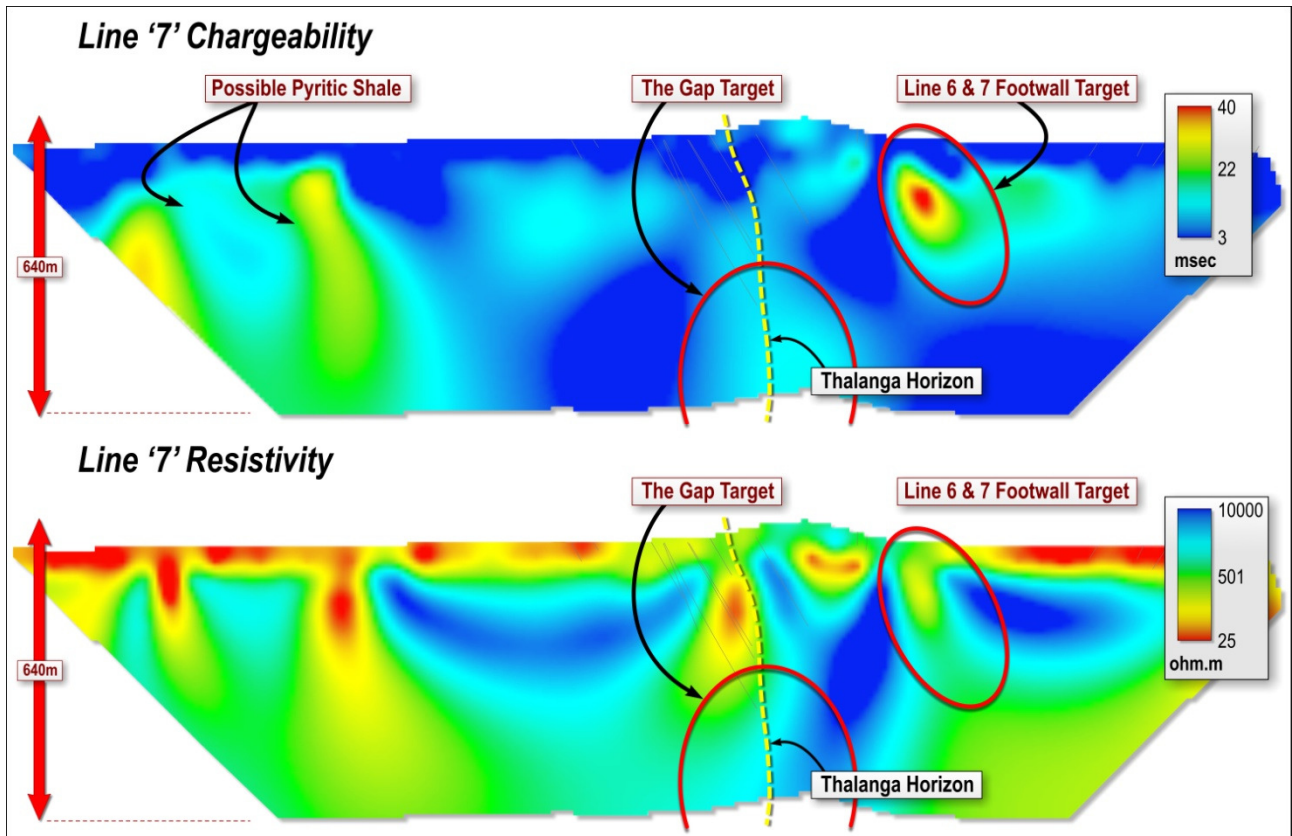


The complicated shallow resistivity responses in the south of the line are associated with known sub-vertical quartz bearing structures orientated sub-parallel to the survey line. Once again, the broad zones of coincident moderate to strong chargeability and conductivity in the south are currently interpreted to represent stratigraphic pyritic shales.

Line 7 Chargeability and Resistivity Response

Line 7 was designed to explore the area between the Far West mineralisation and the West 45 mineralisation. Interestingly a zone of chargeability was identified at depth below the bulk of historical drilling, coincident with a discrete steep zone of moderate conductivity, suggesting potential for the Far West mineralisation to continue, down plunge into the Gap area.

Figure 14 Line 7 Chargeability and Resistivity Sections

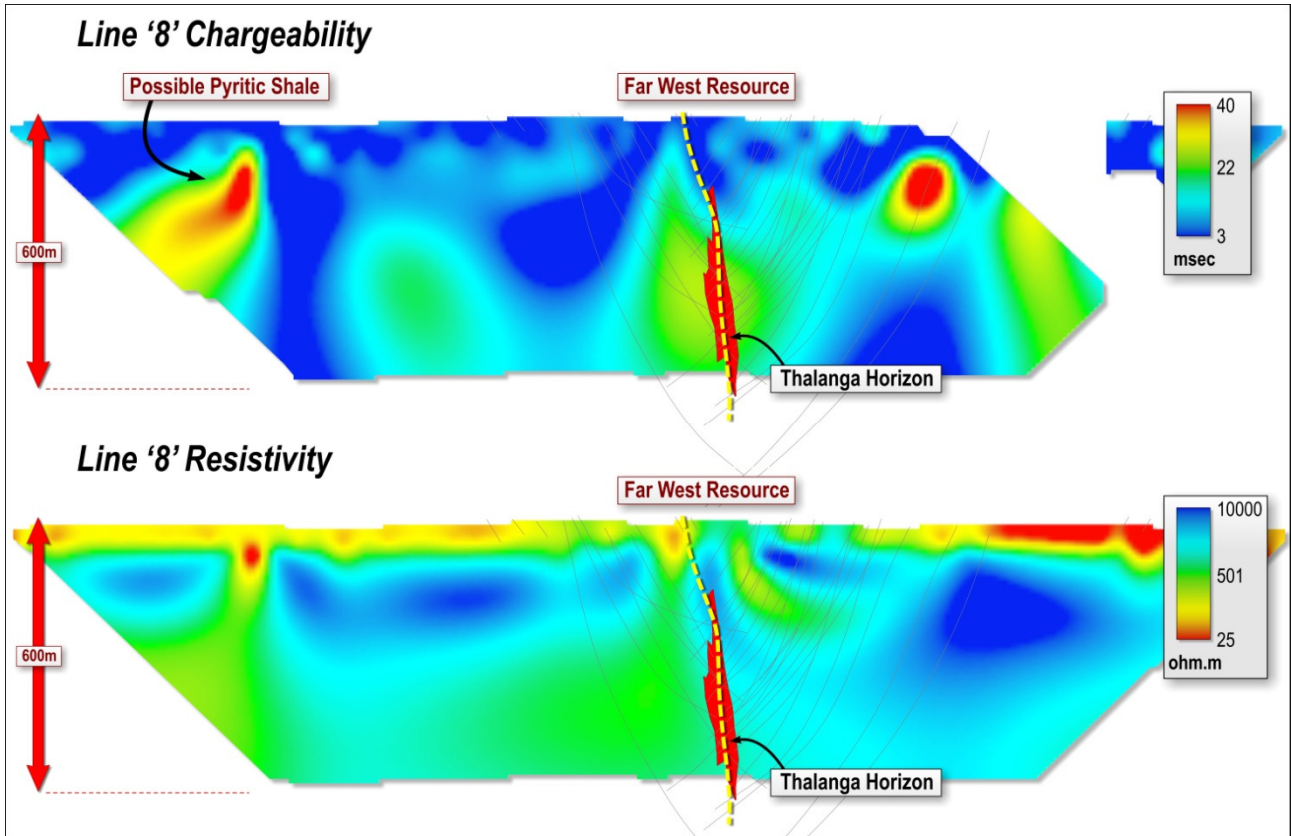


Another zone of moderate to strong chargeability coincident with moderate conductivity is observable in the northern portion of the line within the interpreted footwall position. This position is poorly tested and presents as a priority drill target for pending drill campaigns. Once again, the broad zones of coincident moderate to strong chargeability and conductivity in the south are currently interpreted to represent stratigraphic pyritic shales.

Line 8 Chargeability and Resistivity Response

Line 8 was designed to test the response of known mineralisation at the Far West deposit.

Figure 15 Line 8 Chargeability and Resistivity Sections

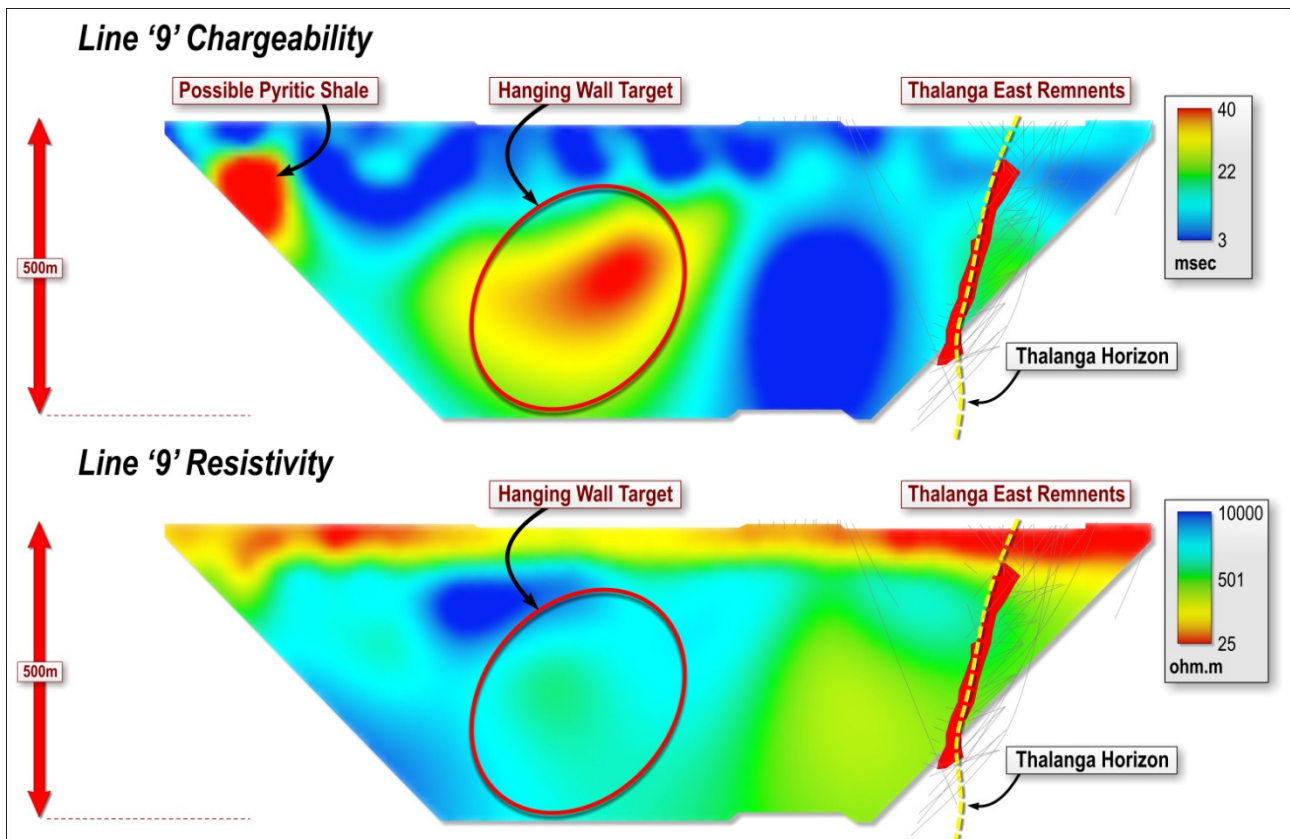


The up-dip extent of Far West deposit is currently determined to be situated approximately 250m below the surface in an area of only shallow conductive Campaspe cover sequence. The Far West mineralisation produced a response consisting of a relatively discrete zone of chargeability in a similar orientation to the known mineralisation, adjacent to a broad zone moderate conductivity. The IP anomaly is open and improving at depth highlighting the potential for down dip and down plunge extensions to the current Far West resource. Once again, the broad zones of coincident moderate to strong chargeability and conductivity in the south are currently interpreted to represent stratigraphic pyritic shales.

Line 9 Chargeability and Resistivity Response

Line 9 was designed to test the response of known mineralisation at the Thalanga East remnants and a historical geochemical anomaly within the Thalanga Hangingwall.

Figure 16 Line 9 Chargeability and Resistivity Sections



The IP line was limited in its northern extents by mine infrastructure but successfully detected the Thalanga East remnants on the northern edge of the model. The Thalanga East Remnants present as a zone of moderate chargeability within zone of weak to moderate conductivity. The IP line also identified a large zone of strong chargeability with a central core of moderate conductivity under approximately 10-20m of cover in the centre of the line. The location of this IP anomaly is coincident with the historical geochemical anomaly at surface.

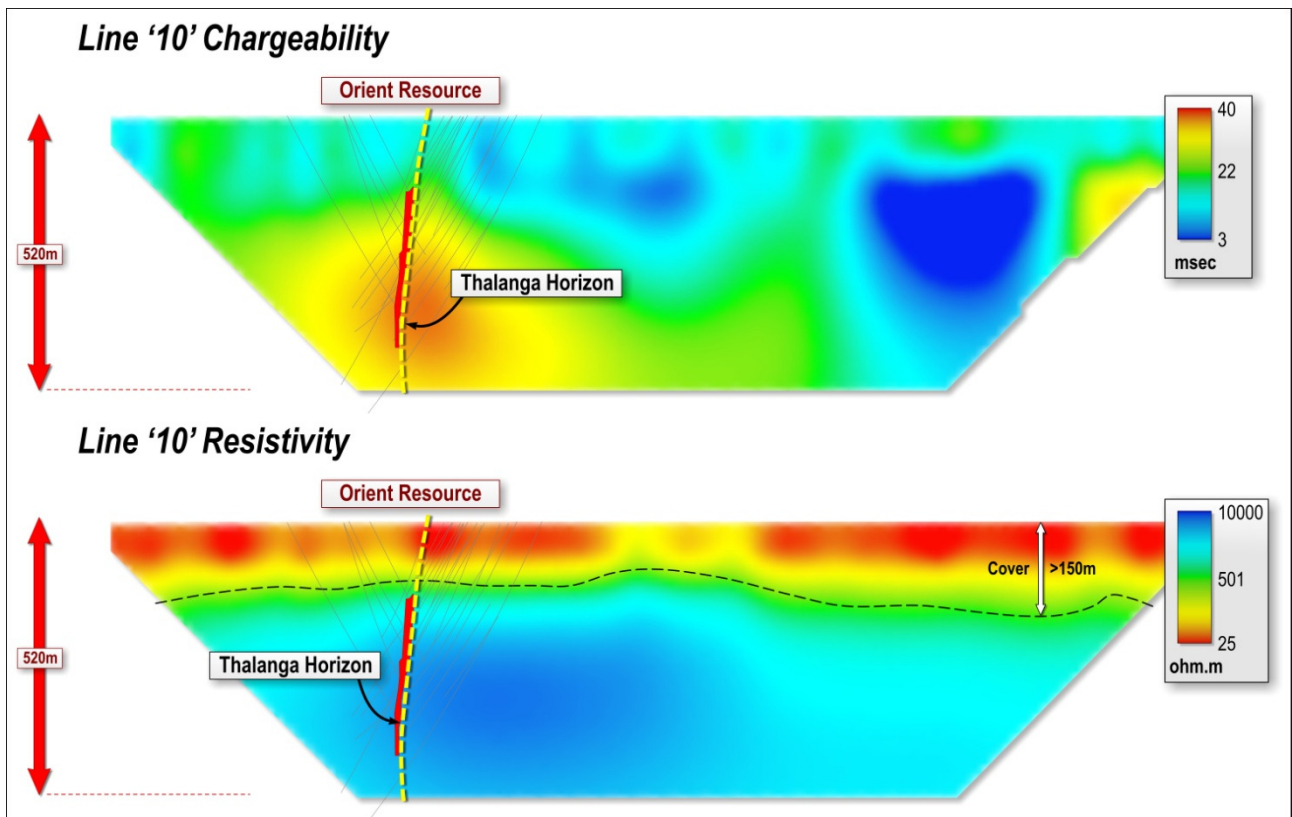
While the current geological interpretation identifies this area as sediments of the Trooper Creek formation, review of shallow sparse bedrock drilling in this area has identified favourable strongly sericite-pyrite altered volcanoclastic lithologies have been logged including Rhyolite and Quartz Eye Volcanoclastic (the host to the Thalanga deposits). The survey results suggest that this target is blind but has a considerable depth extent resulting in Red River regarding this anomaly as a high priority drill target.

Once again, the smaller southern most anomaly evident in the model section likely represents a stratigraphic pyritic shale and as such is not a priority drill target.

Line 10 Chargeability and Resistivity Response

Line 10 was designed to test the known response of the Orient deposit. The Orient deposit is situated under approximately 100m of the highly conductive Campaspe cover sequence and a further 50m of bedrock, providing a significant test case for the High Powered IP system employed.

Figure 17 Line 10 Chargeability and Resistivity Sections



The IP line over the Orient was undertaken using two separate dipole configurations, 100m dipole spacing and a 200m dipole spacings in order to trial the best configuration for future surveys in areas of very deep cover sequences.

The 100m dipole spacing detected the Orient mineralisation however the 200m dipole spacings resolved the location of the mineralisation more accurately. The image above displays the modelled chargeability and resistivity sections resulting from the 200m dipole spaced survey. As the images illustrate the system mapped the Orient mineralisation as a relatively discreet zone of moderate to strong chargeability within a resistive host rock. The significant depth of the highly conductive Campaspe cover sequence blanketing the deposit is evident in the resistivity image.

Forward Program

The completion of the IP survey at Thalanga marks the beginning of an exciting phase for Red River. Red River are currently finalising negotiations with land owners, native title groups and drilling contractors and expect systematic drill testing of priority targets both at Thalanga and other project areas to commence in May 2015.

On behalf of the board



Donald Garner

Managing Director

Red River Resources Limited

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COMPETENT PERSON STATEMENT

Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Mr. Tav Bates who is a member of the Australasian Institute of Mining and Metallurgy, and a full time employee of Terra Search Pty. Ltd., and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Bates consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

APPENDIX A – JORC 2012 EDITION TABLE 1

THALANGA INDUCED POLARISATION (IP) SURVEY

The following information follows the requirements of the JORC 2012 Table 1 Section 1 and 2 and as applicable for ASX release related to the results of the IP Survey conducted at the Thalanga Project

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	This report relates to the results of ten induced polarisation (IP) surveys conducted between February and March 2015. Surveys were conducted by Search Exploration Services Pty Ltd (job number RRR-02) and supervised by Red River and Montana GIS Pty Ltd personnel. The surveys targeted known mineralisation, interpreted mineralised lenses and areas of no known mineralisation at the Company's Thalanga Project. Induced polarization (IP) is a geophysical imaging technique used to identify subsurface materials, such as ore. The method is similar to electrical resistivity tomography, in that an electric current is induced into the subsurface through two electrodes, and voltage is monitored through two other electrodes.
Drilling techniques	The ASX release does not report exploration drilling
Drill sample recovery	The ASX release does not report exploration drilling
Logging	The ASX release does not report exploration drilling
Sub-sampling techniques and sample separation	The survey consisted of ten separate lines (refer to Figure 2). The technical equipment used in the survey was: Configuration: Transmitter (Tx) Dipole (200m) – Receiver (Rx) Dipole (100m) Station Interval: 100 & 200m Number of receiver dipoles: 32 ("n" levels) Base frequency: 0.125 Hertz Duty Cycle: 50% Receiver: Search Exploration Full Time Series Unit SSIP32 Chargeability Integration: 590msec to 1450msec Transmitter: Search Exploration WB50 – 50 KVa Sensor: Porous Pots
Quality of assay data and laboratory tests	Acquired IP data is of high quality – QAQC conducted by David McInnes of Montana GIS, Geophysics Consultant.

Verification of sampling and assaying	N/A
Location of data points	Refer to Figure 2.
Data spacing and distribution	200m Dipole Spacing and 3.2 kilometre survey lines
Orientation in relation to geological structure	Survey lines designed perpendicular to strike of stratigraphy
Sample security	Raw data emailed to consultant geophysicist daily
Audits or reviews	N/A