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# **Exploration Update: ACRA Gold Project**

- Project-Wide Target Generation for Gold Completed, Supplementary Tenement Pegged and Follow-up Soil Geochemistry Commences;
- New Insights into the Kalpini South Gold Deposit; Structural Controls Clarified, and Further Drilling Proposed.

Pioneer Resources Limited ("**Company**" or "**Pioneer**") (ASX: PIO) is pleased to provide investors with a summary of recent work for its 100% held Acra Gold Project, located 60km northeast of Kalgoorlie, WA.

The Acra Gold Project is one of the Company's three key exploration assets. The other two are the Fairwater Nickel Project in the Albany Fraser Orogen; and the Blair Nickel Mine near Kambalda. All are within Western Australia. In addition, the Company maintains a pipeline of assets, including the Dingo Dam VMS Prospect and the new Fleming Grove Nickel Prospect, which are periodically benchmarked against the key assets.

#### **ACRA PROJECT ADVANCES**

### Target Generation: Aeromagnetic data interpretation provides ranked targets.

During 2013 the Department of Mines and Petroleum (WA) flew an aeromagnetic survey over a large area of the Eastern Goldfields of Western Australia, including over the Company's Acra Project. With flight lines at 100m line spacing, this is a great improvement on the previously available data.

The Company engaged Dr David Isles (Southern Geoscience Consultants) to interpret an area of 2,200 square kilometres, including the Acra Gold Project, using the new aeromagnetic data (Dr Isles has over 25 years' experience locally and internationally, specialising in the interpretation of aeromagnetic data). Geophysical, geological and structural information, including field mapping undertaken by Dr Brett Davis (Orefind, 2012) was integrated to produce map of gold targets. Using a 'weights of evidence' approach 14 targets were prioritised including 3 ranked 7 out of 10 (refer "High Priority Target Zones" shown on Figure 1).

Pioneer has commenced reviewing existing data and advancing the 14 targets. For example, since receiving Isles' report, a 1,045 sample soil geochemistry program is in progress at the High Priority Target Zones extending from the Iron Prince to the Matrix Prospects. Samples have been collected and analyses are awaited.

In addition, the Company pegged a new, 30 graticule, exploration licence to secure other priority targets west of the Acra Project as a direct result of the findings of the study. This increased the Acra Gold Project area to 393km². Within the new tenement, open file records have highlighted 4 targets for immediate advancement and soil geochemistry programs are being prepared.

Pioneer's Managing Director, David Crook, said that the attraction of the Acra Gold Project is the presence of a series of parallel zones with gold in drilling, historic gold workings and nugget patches, tied together by coherent anomalous gold-in-soil geochemistry, over a north-south distance of 50 kilometres.

"Dr Isles has taken this large gold Project and broken it down into specific targets, ranking these in a systematic fashion, thereby enabling the Company to plan a progressive exploration strategy going forward." He said.

# 2. R and D Project: The use of 3D Spectral Mapping helps clarify structural controls for gold mineralisation at Kalpini South.

Pioneer, in conjunction with Dr Nigel Brand (Geochemical Services), has been studying the application of the commercially-available, hand-held ASD TerraSpec-4 mineral analyser ("ASD") to drill hole logging in the field.

By collecting spectral data for a sample with the ASD instrument it is possible to map and characterize minerals associated with alteration zones, regolith and lithologies. The distribution of these minerals provides information for the reconstruction of the thermal, geochemical and weathering environment that has contributed to a mineralizing event. This is intended to be used as a deposit-scale vectoring tool for gold, initially at the Acra Project (and has recognized applicability in VMS systems, so will be used at the Dingo Dam VMS Prospect).

The Company believes that by integrating spectral data, pXRF chemical data, gold analyses and field observations, the Company's geologists will be provided with a much improved geological model, when compared with visual observations alone.

The interpretation (refer to Figure 2) shows overburden and the regolith, with supergene gold deposited at a redox front within the regolith, and a distinct step within the felsic geological unit, interpreted as a fault (labelled "Kalpini South Fault Zone") along which the primary gold mineralisation and quartz veining has been deposited.

The envisioned system will provide quantitative interpretations of rock units and alteration systems 'overnight', meaning that Pioneer's geologists can pro-actively respond to drilling events while the drilling rig is still on site.

"By providing our geologists with an objective geological and geochemical model, updated daily, better decision-making when implementing drilling programs in the field will be made." Mr Crook said.

The integration of ASD data, pXRF chemistry, laboratory gold and field observations at the Kalpini South Prospect has provided greater clarity for the gold potential of Kalpini South Deposit. The summary diagram (Figure 2) shows three immediate high priority target areas which will be scheduled for drilling during the second half of 2015.

# **OUTLOOK FOR THE ACRA PROJECT**

Pioneer will progressively evaluate the targets identified by Dr Isles in a sequence reflecting the priority attributed each target. The ongoing work programs will include:

- Field crews completing definitive-scale soil geochemistry programs at Kalpini West, Mayday North, Iron King and other identified areas;
- Interpretation of results for completed soil programs will determine the extent of RC drilling programs committed to. Presently, RC drill programs have been prepared for Kalpini South, gold workings at the Matrix, and the Carmelia Prospect, but more are expected to be identified;
- Proof of concept-phase aircore drilling over new geochemical targets, and in areas where alluvial channels preclude the use of soil geochemistry;
- Improvements to data handling when integrating ASD, pXRF chemistry, laboratory and field observations. Current study areas include the Jubilee East and Carmelia Hill Prospects.

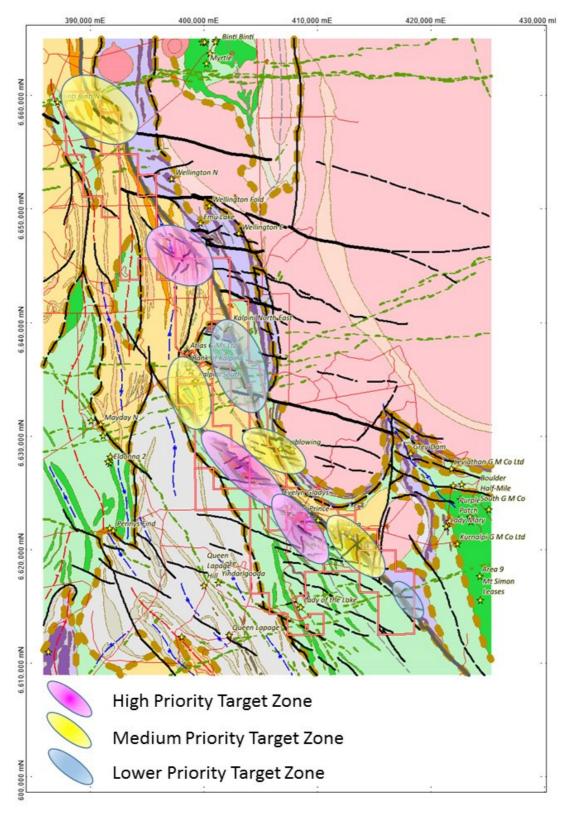
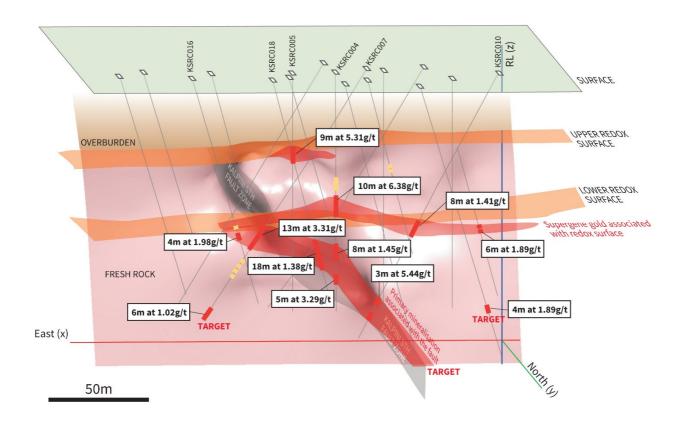


Figure 1: Solid Geological Map with ranked target zones shown. (Isles 2015).



**Figure 2:** An oblique section showing an interpretation of the Kalpini South Gold Deposit based on the integration of the ASD, pXRF chemistry, laboratory gold analyses and field observations. The data generated allows the interpreter to recognise different rock types through the presence of different platy minerals, and mineral alteration patterns, particularly in weathered rock where this is difficult by eye. See Note 1 below.

**Managing Director** 

**Pioneer Resources Limited** 

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Note 1. (Acra) Refer to the Company's announcements dated 16 April 2014, 22 October 2014, and Quarterly Activities Report ending 31 December 2013, 31 January 2014.

The Company it is not aware of any new information or data that materially affects the information included in this Presentation

#### **Competent Person**

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr David Crook. Mr Crook is a full time employee of Pioneer Resources Limited and a member of The Australasian Institute of Mining and Metallurgy (member 105893) and the Australian Institute of Geoscientists (member 6034). Mr Crook has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2004 and 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Crook consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

# **Caution Regarding Forward Looking Information**

This document may contain forward looking statements concerning the projects owned by the Company. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the Company's beliefs, opinions and estimates of the Company as of the dates the forward looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.

#### **Glossary:**

"Aircore" is a blade drilling technique which returns relatively uncontaminated samples through a central annulus inside the drill pipes. It is used to test the regolith (near surface unconsolidated and weathered rock) as an alternative to RAB drilling when conditions are wet, sandy or holes need to go deeper than practical by RAB.

"RC" means reverse circulation, a drilling technique that is used to return uncontaminated pulverised rock samples through a central tube inside the drill pipes. RC samples can be used in industry-standard Mineral Resource estimates.

Elements: "Au" means gold, "Cu" copper, "Ni" nickel, "Ag" silver, "Pb" lead, "Zn" zinc, "Pt" platinum, "Pd" palladium.

"pXRF" means portable x-ray fluorescence. Pioneer owns an Olympus portable XRF analyser which is an analytical tool providing semi-quantitative analyses for a range of elements for use by its geoscientists 'in the field'.