

## Kangan Gold Project – The Pilbara Strategy

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**24 October 2017, Pioneer Resources Limited (“Pioneer” or the “Company” (ASX: PIO))** is pleased to update the market with additional information about its 100%-held Kangan Project (E45/4948, E47/3318-1 and E47/3321-1), located in the western Pilbara region of Western Australia.

Interest in the Pilbara region for gold has recently surged as explorers test the hypothesis proposed by Dr Quinton Hennigh<sup>1</sup> of Novo Resources Group, that:

- Some of Earth’s earliest land masses (cratons), including Kaapvaal (Southern Africa), Dharwar, Singhbhum and Bastar (Indian subcontinent), and Pilbara (Australia) existed as a single continent, referred to as Ur by some authors including Hennigh;
- The remnants of the Ur continent have contributed approximately 1.85, 0.35 and 0.1 billion oz gold production, respectively, or about 39% of historic global gold production, estimated to be about 5.9 billion oz [World Gold Council, 2014]. About 75% of this gold has come from the Witwatersrand Basin;
- The hypothesis contends that huge quantities of gold were scavenged out of seawater by microbial mats starting at around 3.0-2.9 billion years before present (Ga), initiating a crustal gold depositional event. If this method of gold deposition extended throughout the proposed continent, the Pilbara region is under-represented as far as gold production is concerned.

Lithified sediments within the 3.0-2.9 Ga age (being the age of the Witwatersrand Supergroup in southern Africa, and **the age-equivalent De Grey Group in the Pilbara**)<sup>2</sup> are currently the targeted rock units receiving exploration interest in the Pilbara, and rocks of this age are mapped within Pioneer’s Kangan Project (Refer to GSWA 1:100,000 Satirist sheet.)

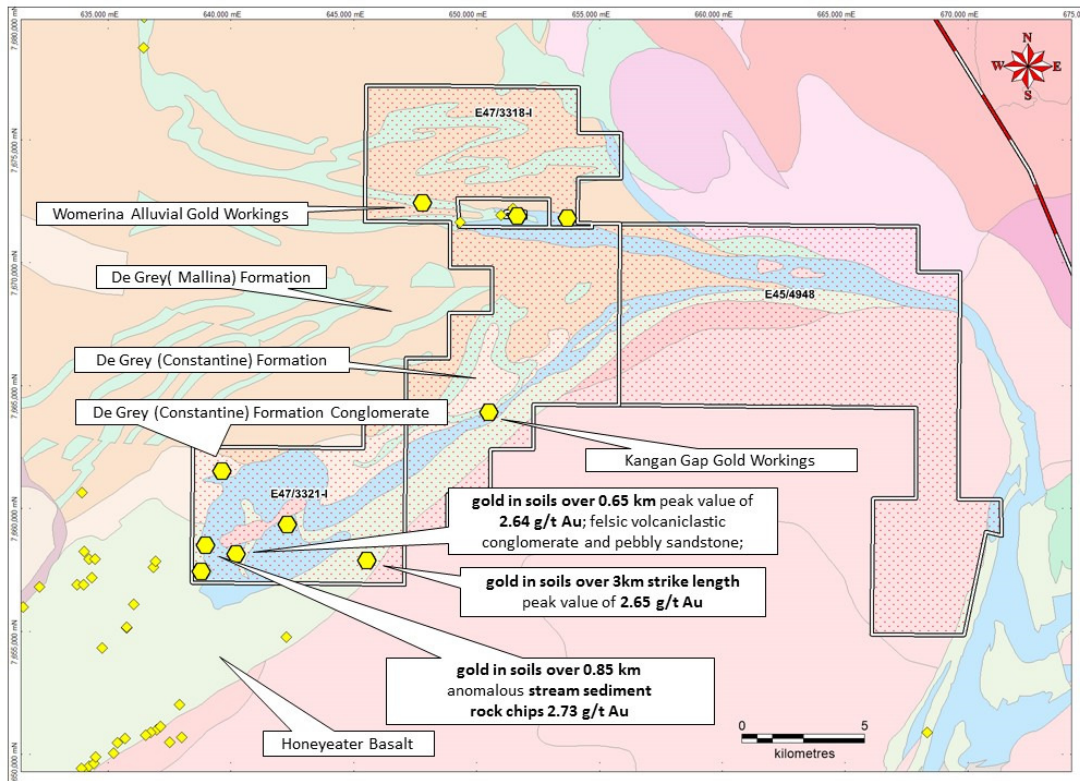
### **Kangan Project and the West Pilbara Sediment-hosted Gold Model: Gold Targets and Gold Nuggets**

The tenements held by Pioneer are adjacent to the areas held by Novo Resources Group; and De Grey Mining Limited in joint venture with Kirkland Lake Group.

On 6 October 2017 the Company announced that the Kangan Project had records from earlier explorers indicating wide-spread gold anomalism within the project’s south western and northern tenement areas (Refer to Figure 1 overleaf) including:

- **Rock chips up to 2,730ppb (2.73 g/t) Au;**
- anomalous stream sediment geochemistry values up to 254ppb Au, and
- two (2) widespread soil geochemistry anomalies with **peak values of 2,640ppb (2.64 g/t) Au** and **2,654ppb (2.65 g/t) Au** respectively;

The Kangan Project also covers parts of the Womerina Gold Mine alluvial field. Reports from the late 1980s through to 2010 record exploration and mining activities including a medium scale alluvial and elluvial gold recovery operation treating gravels derived from the De Grey (Mallina) Formation and Millindinna Intrusion sequence.



**Figure 1.** The Kangan Project is 80 km immediately south of Port Hedland; (tenements overlaying 1:500,000 GSWA geological map.) showing the 3.0-2.9 Ga age **De Grey Group** (being the age of the Witwatersrand Supergroup in southern Africa). Yellow diamonds are recorded gold workings.

The figure also shows Pioneer’s initial gold targets based on data and records of past explorers including the mine operator of the Womerina Alluvial Gold Mine, which is partly within Pioneer’s tenements.



**Photograph 1:** Gold nuggets recovered from the Womerina Alluvial Gold Mine in December 1988. (refer A 26936).

## **OUTLOOK**

### **Prospecting**

Pioneer has engaged with 4 groups of prospectors who plan to metal detect over gold targets, logging and mapping locations of discoveries.

Company contractors are also scheduled for on-site fieldwork again later this year, to conduct further reconnaissance mapping, sampling and prospecting within the Kangan tenements. One of the aims of the work will be to establish the host rock/s for in-situ gold mineralisation.



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### **About Pioneer Resources Limited**

The Company's strategy is to actively explore for key, global demand-driven commodities in highly prospective geological domains, in areas with low geopolitical risk and with established infrastructure.

The Company's portfolio includes high quality alkali metal (Li, Cs, Ta) assets in Canada and WA, plus strategically located gold, nickel and cobalt projects in mining regions of Western Australia.

The Company remains committed to bringing its 100% owned Sinclair Zone Caesium Project into production in the first half of 2018. Pioneer will release updates in due course on the next phase of drilling, and progress towards development of the Sinclair project including, in due course, the grant of the mining lease, and the off take contract for the high value pollucite product. This development will be undertaken in conjunction with an initial work programme on the gold-in-conglomerate potential of the Kangan project in the Pilbara region.

### **Glossary**

For descriptions of any technical terms that are not described within the report, the reader is directed to various internet sources such as Wikipedia ([www.wikipedia.org](http://www.wikipedia.org)) or Mindat ([www.mindat.org](http://www.mindat.org))

### **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. Mr Crook is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and has sufficient experience which is relevant to the exploration processes undertaken to qualify as a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.*

*Mr Crook gives consent to the inclusion of the matters presented in the announcement in the form and context in which they appear.*

## References

### WAMEX

<b>A No.:</b>	79608
<b>Title:</b>	Yandeyarra Project, Annual Report for the period 27/07/2007 to 26/07/2008, E47/1710.
<b>Operator(s):</b>	PRIMARY RESOURCES LTD
<b>A No.:</b>	81531
<b>Title:</b>	Yandeyarra Project, Annual Report for period 1 January 2008 to 31 December 2008
<b>Operator(s):</b>	CHALICE GOLD MINES LIMITED
<b>A No.:</b>	26936
<b>Title:</b>	Womerina Alluvial Gold Mine Progress report
<b>Operator, Author:</b>	Lateritic Minerals Joint Venture. S. B. Sadler, March 1989

Note 1. **The Continent of Ur and the Beginning of the Crustal Gold Cycle**—Hennigh, Q.T., IGC35, September 1, 2016

Note 2. NI 43-101 Technical Resource Report **Beatons Creek Gold Project Pilbara Region, Australia** August 31, 2015; Prepared By Arnand van Heerden, QP (SACNASP and MAusIMM). (Lithological column with comparative ages see p34.)

Kangan: Company announcement to ASX dated 6 October 2017.

### Caution Regarding Forward Looking Information

*This document contains certain statements that may be deemed "forward-looking statements." All statements in this announcement, other than statements of historical facts, that address future market developments, government actions and events, are forward-looking statements.*

*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 generally on the Company's beliefs, opinions and estimates as of the dates the forward looking statements that 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.*

*Although Pioneer believes the outcomes expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in forward-looking statements. Factors that could cause actual results to differ materially from those in forward-looking statements include new rare earth applications, the development of economic rare earth substitutes and general economic, market or business conditions.*

*While, Pioneer has made every reasonable effort to ensure the veracity of the information presented they cannot expressly guarantee the accuracy and reliability of the estimates, forecasts and conclusions contained herein. Accordingly, the statements in the presentation should be used for general guidance only*