

SEISMO-ELECTRIC (SE) RESOURCE IMAGING TECHNOLOGY (RIT) UPDATE

Black Ridge Mining NL (ASX: BRD) ("BRD" or the "Company") is pleased to announce that Baraka Energy and Resources Ltd (Baraka) is considering utilizing BRD's advanced Seismo-Electric (SE) Resource Imaging Technology (RIT) in order to better define the hydrocarbon presence within prospects and leads in its EP 127 permit in the Northern Territory.

Baraka in its Quarterly Activities and Cash Flow Report period ending 30 June 2016 stated:

Risk Reduction Strategy / The use of Advanced Technology

Baraka is considering a Resource Imaging Technology (RIT) survey utilizing advanced Seismo-Electric (SE) technology, which has just been introduced to Australia in order to better define the hydrocarbon presence within prospects and leads.

The Company is in discussions regarding a trial survey around existing wells, prospects and leads. A full-scale study across EP 127 will be implemented based on initial results in order to better define the distribution of hydrocarbons prior to a relinquishment decision later in the year.

This new and innovative technology has the ability to identify hydrocarbons in the subsurface without the need to drill an exploration well, therefore significantly reducing the uncertainty of a prospect pre-drill and enhancing the chance of success. The technology is based on the seismoelectric effect, which is influenced, by both the quality of the reservoir and the characteristic of the fluid within that reservoir, it can therefore help determine the quality of the reservoir and movability of fluids within that reservoir.

The ability to identify the presence of hydrocarbons in the subsurface and to be able to rank the prospects within the permit in terms of reservoir quality and movability of fluids is a great advantage in an area with sparse seismic coverage and allows for better direction of exploration money.

Resource Imaging Technology Background

Hydrocarbon exploration is expensive with the chance of successful commercial discoveries low due to inherent uncertainties related to the traditional exploration and interpretation methods. These methods are used to indirectly characterise if all the necessary elements exist in the subsurface for hydrocarbons to be trapped.

The imaging technology licensed by Black Ridge Mining NL (BRD) is designed to directly detect the presence of hydrocarbons trapped in the subsurface, significantly reducing the uncertainty of discovery and allowing for better direction of exploration money.

BRD's exclusively licensed technology represents major advances over the original seismoelectric technology and represents the next generation of oil and gas exploration equipment of this type.

About Baraka Energy and Resources Ltd

Baraka is an Australian ASX listed company (ASX:BKP) focused on identifying, exploring and developing Energy and Resource assets within Australia and globally.

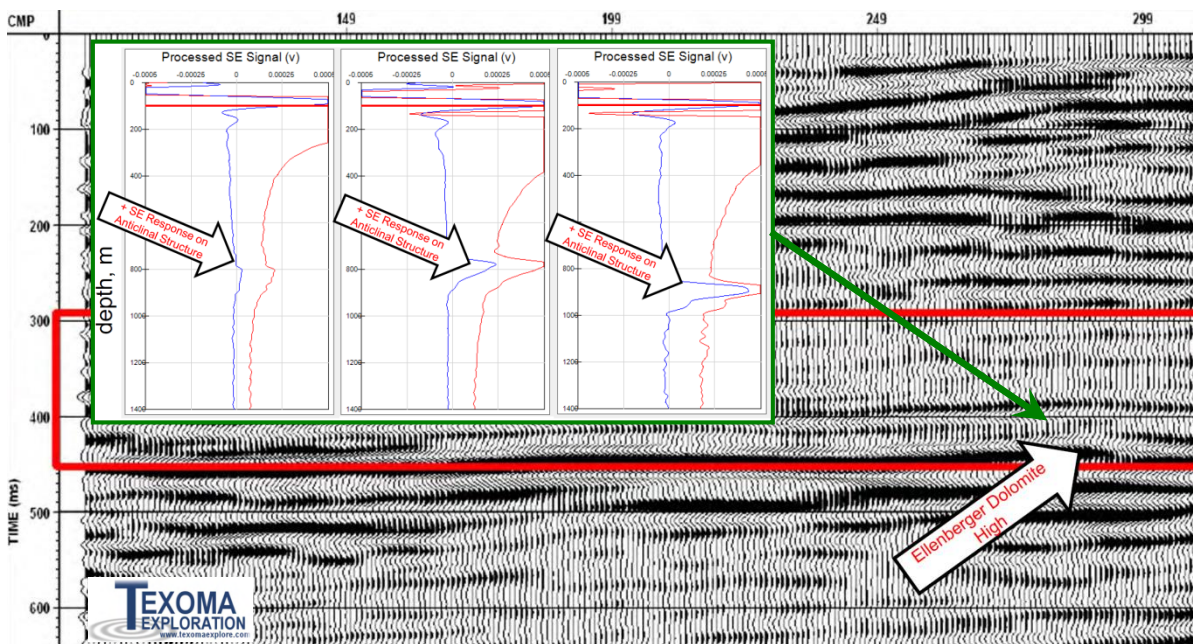
Baraka's current oil interest, EP 127, is located in what is considered the most prospective part of the southern Georgina Basin in the Northern Territory, Baraka has 100% working interest in the permit.

Seismo-Electric Response Analogue to Baraka Prospects

The figure below is from a play in the US targeting Ellenberger dolomite traps/reservoirs. It should be noted that the Ellenberger is a new pay zone being targeted in a large old oil field that has a long production history. The seismic line shown in the figure suggests depths comparable to that where similar reservoirs can be expected in Baraka's EP127 permit within the southern Georgina Basin. The example below indicates that good quality reservoir can be distinguished from a tight reservoir that will not flow by the Seismo-Electric (SE) technology.

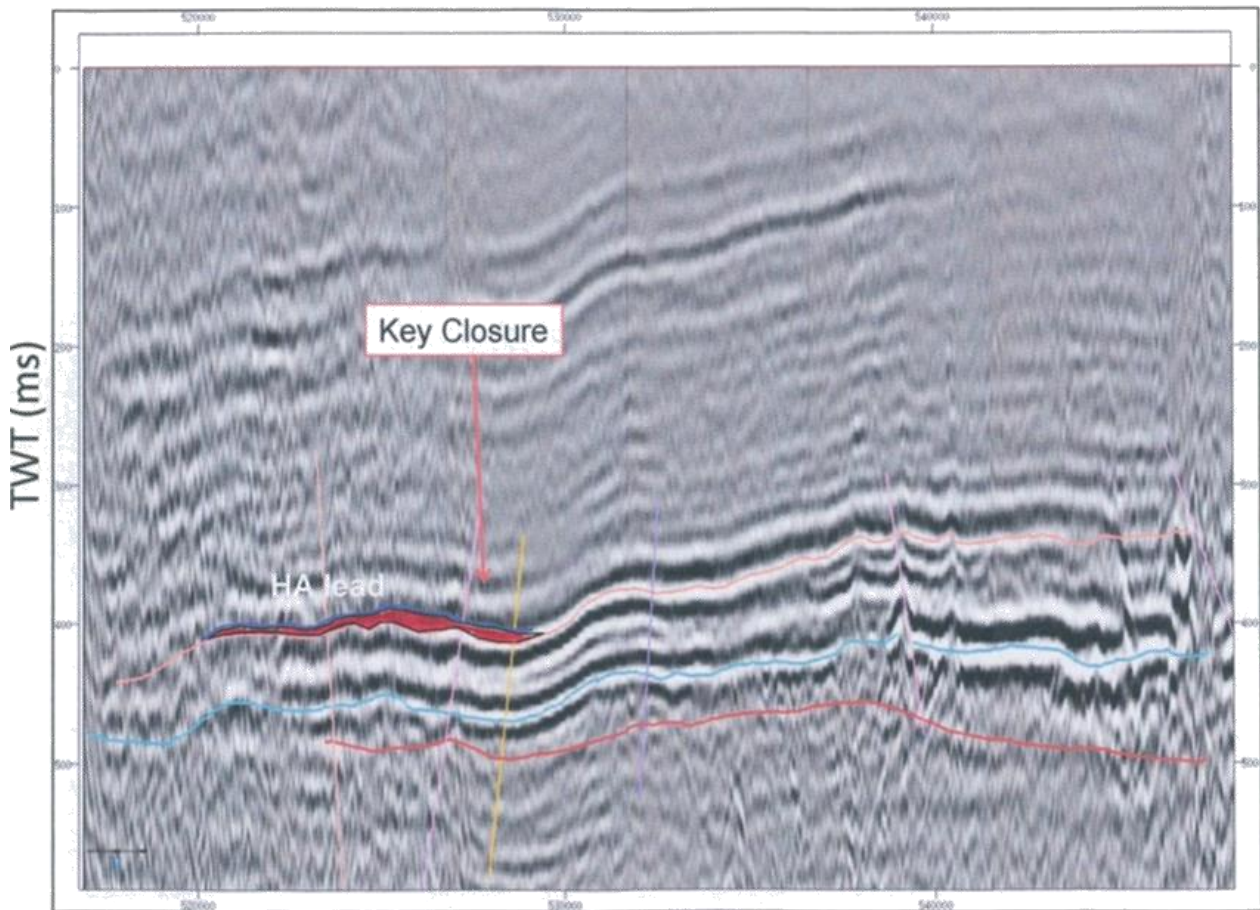
The seismic line in the figure below shows the subtle structures being targeted. The positive SE response (insert) associated with this trap corresponded to the most fractured Ellenberger (dolomitic) zone seen in the lease, out of 11 wells recently drilled, with great secondary porosity and an oil column present in the upper 60 feet of the dolomite.

On an adjacent lease SE technology has been used to identify higher fractured zones within the Ellenberger. In this case, two wells have been drilled on the same structural high. The first well had a good SE response, initial production came in at 100 BOPD. The second offset well drilled on the same structural high, had no SE response and the formation was tight with no current production.



The figure below is a seismic line from EP 127 showing one of the prospects within the permit. The predicted dolomitic reservoir zone is highlighted in red. Visually it is at a similar depth to the Ellenberger example above. However, positively, the prospect within EP 127 is more pronounced and has a greater association to structure.

Flow rates in the vicinity of EP 127 have ranged from 300 BOPD (Randall-1) to 500 BOPD (Ross-1) from dolomitic limestones from wells believed to have been drilled outside of trap closure and therefore water wet. These flows are encouraging for prospects that are associated with structural or structural/stratigraphic traps where hydrocarbons have a higher probability of being trapped.



Prospects as described in EP 127 are ideal candidates for testing and risk reduction via BRD's advanced Seismo-Electric (SE) Resource Imaging Technology (RIT), which could result in a significant re-ranking of a client's portfolio.

Resource Imaging Technology Background

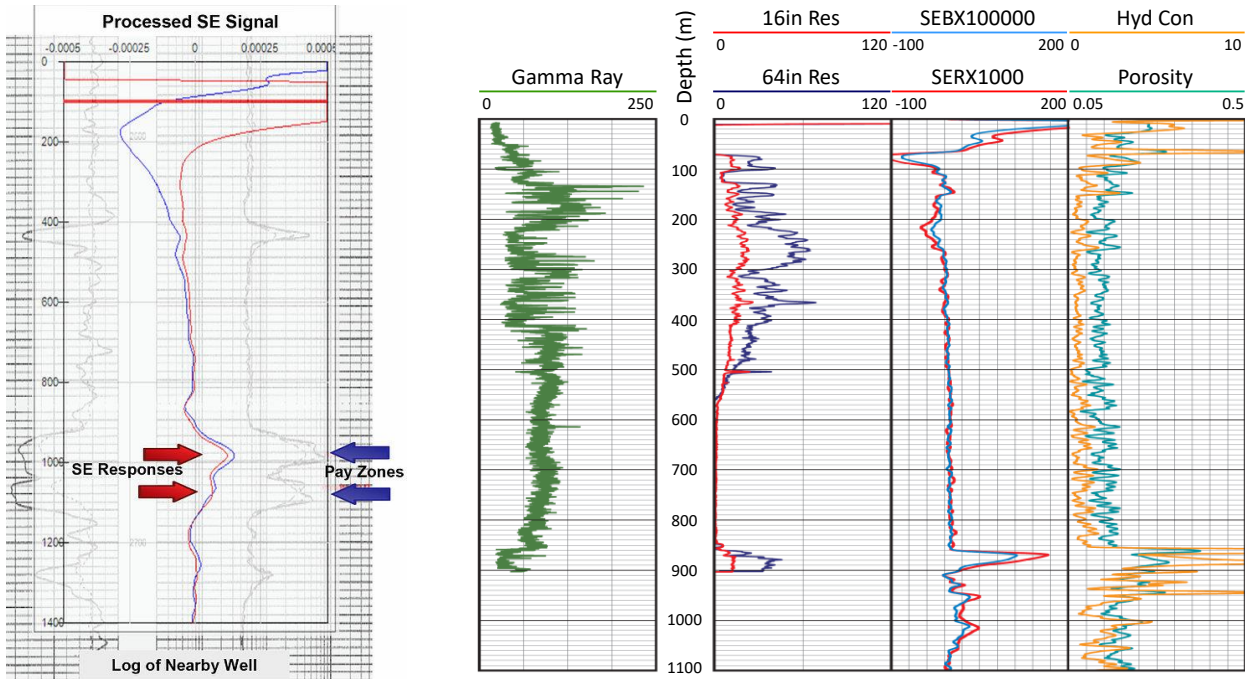
Hydrocarbon exploration is expensive with the chance of successful commercial discoveries low due to inherent uncertainties related to the traditional exploration and interpretation methods. These methods are used to indirectly characterise whether all the necessary elements exist in the subsurface for hydrocarbons to be trapped.

The imaging technology deployed by BRD is designed to directly detect the presence of hydrocarbons trapped in the subsurface, significantly reducing the uncertainty of discovery and allowing for better direction of exploration money.

BRD's exclusively licensed technology represents major advances over the original seismoelectric technology and represents the next generation of oil and gas exploration equipment of this type.

Further details of the theory behind the technology and the patented design improvements can be found in the Company's latest Investor Presentation.

The image on the left below is an example from the gulf coast of the US where the Seismo-Electric (SE) response profile from the technology is shown against the electric log response (acquired after drilling) from a nearby hydrocarbon bearing well. The pay zones in the sandstone reservoir are clearly seen on the SE response. It can be seen that this surface based geophysical technology is providing profiles which are imaging the same hydrocarbons seen on the wellbore electric logs, without the need to drill a well.



The image on the right above is an example of a recent trial conducted at a deep aquifer monitoring borehole (provided by the Western Australia Department of Water). Oil and gas (and ground water) industry standard Gamma Ray and Resistivity wireline logs, acquired after drilling a wellbore, are shown on the two left columns. The resource imaging technology results are shown on the two right-hand columns and contain the Seismo-Electric (SE) profile as well as the Hydraulic Conductivity (Hyd Con) and Porosity profiles produced by the technology.

These profiles are attained using the Company's Resource Imaging Technology, which is a surface geophysical technology, that is, these profiles are created without drilling a well providing a virtual drilling log response.

It can be seen from the comparison that the technology is correlating well with resistive fluids (fresh water, oil or gas) contained in the sandstone reservoirs. Not only can these profiles be correlated with existing logs from well bores but they also provide additional geological information in the form of hydraulic conductivity and derived porosity.

In other tests onshore Western Australia the technology has shown the ability to accurately image faults which are critical in the understanding of the subsurface, prior to drilling a well.

For further information:

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