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31 May 2018

Highlands Natural Resources plc ('Highlands' or 'the Company')
Exploration of Nitrogen Reserves for DT Ultravert Applications

Highlands, the London-listed natural resources company, is pleased to announce that it has leased 800 acres in Kansas over a terrain that the Company believes may contain abundant low-cost nitrogen gas reserves. The Company intends to commence drilling operations at the location within the next two weeks. If successful in proving the nitrogen resource, Highlands has the opportunity to become a low-cost nitrogen producer and, most importantly, would secure nitrogen supplies for the Company's proprietary DT Ultravert technology. The discovery could also position Highlands to be a nitrogen supplier across a range of industries.

DT Ultravert Implications

As recently reported, Highlands has completed its second deployment of DT Ultravert, which was conducted in the Permian Basin shale oil field. The Company received US\$194,750 from the independent well operator for the deployment of the technology, which amounted to approximately 50% of the total cost of the DT Ultravert treatment. The deployment of DT Ultravert was successful and, significantly, the exercise demonstrates that independent upstream operators are willing and able to pay for DT Ultravert. However, the Directors are aware that the profitable and large-scale commercialization of DT Ultravert may depend on improving its cost efficiency.

Nitrogen represents one of the single largest cost components in a DT Ultravert deployment, as the process pumps significant quantities of liquified and/or gaseous Nitrogen into wellbores. Consequently, any cost reductions that can be secured represent an obvious opportunity to improve the economics of DT Ultravert.

Prospect Detail and Development Plan

Highlands' nitrogen target in Kansas has been secured following extensive prospecting and geologic research undertaken by the Company's technical staff. Whilst the next step is exploratory drilling with the consequent uncertainty that entails, the opportunity in Kansas has been very cost effective and, as explained below, the upsides are considerable.

Highlands will drill a vertical well to a depth of approximately 3,150 feet, perforate multiple zones and, if successful, hopes to achieve sustained large quantities of long-term nitrogen flow rates from the first well. Based on the project modelling carried out by the Company's technical staff, one well could potentially supply much of DT Ultravert's nitrogen needs. In addition to flow rate, nitrogen purity is another important

factor and, based on the prospect's geologic model, Highlands believes it is possible to achieve a highly profitable level of purity. To put the project into context, if successful, Highlands could potentially supply nitrogen for both its own DT Ultravert operations as well as third party uses.

Some of the more commonly known industrial uses of Nitrogen are:

1. Production of Nitric Acid (HNO₃) and Ammonia (NH₃) for commercial fertilizer production
2. Manufacturing complex electronics such as integrated circuits, transistors and diodes as it is an integral part of precision cutting and oxidation prevention
3. Various medical-pharmacological applications with Nitrous Oxide being a medical and dental anaesthetic
4. Food preservation - it prevents the oxidation of food items inside the packages, and enables industrial scale packaging and protection of food items
5. Stainless steel production - its inert qualities can prevent the oxidation of steel
6. Production of explosives such as Nitro-glycerine.

Highlands has established itself as a bonded operator in Kansas, expects to commence drilling operations within two weeks and will notify the market upon spud of the well. The total drilling and completion operation is then expected to take approximately one week at a total cost of around US\$250,000. Following the conclusion of drilling operations, Highlands will test the well and update the market with flow rates, nitrogen purity and other reservoir characterization data.

Noting the low costs of Highlands' drilling programme, it is possible that the project, if successful, could establish the Company as a low-cost producer of nitrogen. At present, the gas is traditionally produced through two industrial methods, both of which can be high cost:

1. Air Separation Units (ASU), typically constructed by major industrial gas companies, supply the majority of global Nitrogen. Capital costs for ASU's are substantial in addition to long-term operating costs and high-power consumption.
2. Membrane Nitrogen generators, often modular or mobile, represent a comparatively minor share of total Nitrogen supply. Operating costs for membrane generators remain high and purity of nitrogen can vary great from system to system.

Robert Price, Highlands' Chairman and CEO, said: "We have been delighted by the early success of DT Ultravert and interest within the oil and gas industry for the solutions that it brings remains high. It therefore makes sense for us to find methods to reduce the cost of application – not only does this make the technology more attractive but it provides us with the benefit of higher margins. Our prospect in Kansas is at an early stage but it is nevertheless an exciting opportunity for Highlands. For relatively low cost, we

can investigate the possibility of producing not only enough nitrogen for our own needs but also potentially even becoming a supplier in our own right, thereby creating another revenue stream for the Company.”

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Notes to Editors

Highlands (LSE: HNR.L) is a London-listed natural resources company with a portfolio of high-potential oil, gas and helium assets and technologies. The Company’s core projects include:

- East Denver Niobrara: a horizontal oil and gas project targeting the Niobrara shale formation in a well-studied area of the Denver Julesburg Basin. The Company has two wells drilled and producing cash flow and is now fully funded for at least six additional wells, to be delivered in the short term. It has a 7.5% carried interest in existing and future wells.
- DT Ultravert: a re-fracking and parent well protection technology with four patents allowed and additional patents pending in the United States and internationally. Highlands is advancing commercial conversations with a range of oil and gas operators and service providers to commercialize DT Ultravert technology.
- Helios Two: a 220,000+ acre helium and natural gas prospect in SE Montana with drilling and assessment operations ongoing.