

ASX / MEDIA RELEASE: 29 MAY 2023

## HYTERRA ACQUIRES OPERATED LEASES ON NEMAHA RIDGE

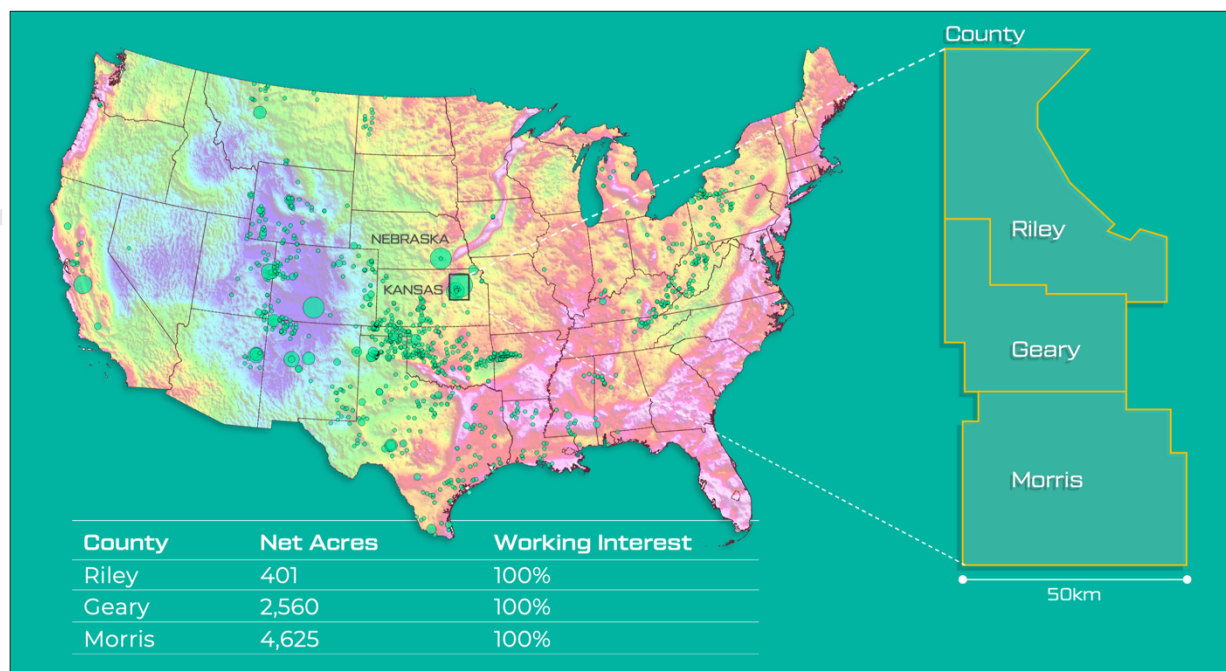
HyTerra Ltd (ASX: HYT) (**HyTerra** or the **Company**) is pleased to announce that in addition to its non-operated interest at Project Geneva, Nebraska with Natural Hydrogen Energy LLC, HyTerra is building a portfolio of 100% owned and operated leases in a region supported by natural hydrogen occurrences on the Nemaha Ridge in Kansas, USA.

### HIGHLIGHTS

- HYT Operating LLC, a wholly owned subsidiary of HyTerra, has secured a 100% working interest in over 7,500 acres of lease holdings on the Nemaha Ridge in Kansas, USA
- The Nemaha Ridge is a prospective area for natural hydrogen with a history of at least 10 natural hydrogen occurrences (up to 92% H<sub>2</sub>)<sup>1</sup> within proximity to industries, infrastructure, and end-users
- Focussed exploration program in 2023 to rapidly mature a portfolio of prospects includes:
  - Geophysical survey
  - Independent resource assessment
  - Well design and permitting

The Company has acquired a 100% working interest in lease holdings spanning 7,586 acres on the Nemaha Ridge in Riley, Geary, and Morris counties. The Nemaha Ridge leases, owned by HyTerra's wholly owned subsidiary HYT Operating LLC, grant the Company exclusive exploration and exploitation rights for minerals, oil, gases, and notably hydrogen and helium, without any mandatory work commitments. HyTerra is committed to further expanding its lease holdings throughout 2023.

The Nemaha Ridge leases contain several well sites with published hydrogen occurrences, based on gas analysis recovered from the wellbores. Two of the most significant occurrences are the Scott-1 (up to 56% H<sub>2</sub>) drilled to 677m in 1982 and Sue Duroche-2 (up to 92% H<sub>2</sub>) drilled to 424m in 2008.



**Figure 1:** HyTerra's holds 7,586 acres across Riley, Geary & Morris Counties, in north-eastern Kansas. Basemap includes gravity anomaly data and the distribution of recorded hydrogen occurrences in the USA with a larger circle representing higher H<sub>2</sub> %

<sup>1</sup> **Source:** J. Guélard and others (2017) *Natural H<sub>2</sub> in Kansas: Deep or shallow origin?*  
R.M. Coveney and others (1987) *Serpentinization and the origin of hydrogen gas in Kansas*

## Geological Model

HyTerra has taken a data-driven approach to understanding the key elements of the natural hydrogen prospectivity on the Nemaha Ridge, developing a geological model for natural hydrogen exploration. This model is calibrated by extensive well log, geochemical and geophysical data and underpins the Company's leasing strategy.

The prospective area contains a unique combination of both ancient and currently active geological processes that contribute to the natural hydrogen system. The Nemaha Ridge is a geographically extensive structural feature defined by seismic and well data extending across much of eastern Kansas and Nebraska.

Hydrogen originates from iron-rich rocks within the Mid-Continent Rift, located on the western flank of the Nemaha Ridge. Potential reservoirs in the Nemaha Ridge area include Precambrian basement rocks of around 1.2 billion years, as well as overlying sediments ranging from 500 to 300 million years old. Faulting on the flanks of the rift provide pathways for hydrogen charge to migrate from the Mid-Continent Rift up to the Nemaha Ridge, where multiple hydrogen occurrences are located.

## Exploration Activities Program

HyTerra has developed a focussed exploration program for the Nemaha Ridge leases, to begin immediately with the primary aim of maturing a portfolio of prospects to permitted well sites in 2023. At Project Geneva, Nebraska, the Company is working with its joint development partner and operator, Natural Hydrogen Energy LLC on progressing the ongoing well testing and future activities.

To support the execution of this program, the Company intends to undertake a placement of up to A\$2.5 million (Placement). Funds raised will be equally applied to Nemaha Ridge and Project Geneva, ensuring both projects have sufficient financial backing for their advancement over the next 12 months. If the Company does not have adequate placement capacity under Listing Rules 7.1 and 7.1A to complete a placement, it will be noted in the final terms of the offer that the issue of part or all of the shares under a placement will be subject to shareholder approval.

Nemaha Ridge, Kansas	\$	Project Geneva, Nebraska	\$
Land and leasing	500,000	Well testing	500,000
Geophysical survey	200,000	Geophysical survey	100,000
Interpretation, analysis & engineering	250,000	Seismic	300,000
Well engineering & permitting	50,000	Data Review	100,000
Contingency	250,000	Contingency	250,000
<b>Total</b>	<b>\$1,250,000</b>	<b>Total</b>	<b>\$1,250,000</b>

**This ASX announcement has been authorised for release by the Board of Directors**

**For further information please review the accompanying [Investor Presentation](#) or contact:**

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## ABOUT HYTERRA LTD

The first ASX listed company with a focus on pioneering the exploration and production of natural hydrogen. HyTerra has an earn-in interest in a Joint Development with Natural Hydrogen Energy LLC which includes the world's first wildcat well targeting natural hydrogen in Nebraska, USA. HyTerra also holds 100% owned and operated leases on the Nemaha Ridge, Kansas, USA.