

15th May 2025

**ASX RELEASE** 

# **Nemaha Project Operational update**

- Based on encouraging results to date, a re-entry into the Sue Duroche 3
  exploration well is currently underway, two weeks after reaching total depth.
- A work-over rig is now onsite to convert the exploration well into a monitoring well within the coming days. Following this workover, long term surface pressure and gas monitoring data will be acquired over the coming months.
- Monitoring of this data is critical to both planning and executing an extended well test, following the completion of the drilling of the back-to-back wells.
- Analyses of mud gas samples from elevated helium zones observed in the mud gas logs within the Pre-Cambrian basement are expected back from Isotech Laboratories Inc. by early next week.
- Murfin Rig 116 rig is being mobilised to Blythe 13-20 well site and is on track to spud the well around May 20<sup>th</sup>.
- Seismic acquisition program has completed on time, on budget, with no HSE incidents. The seismic was acquired in a new greenfields hydrogen and helium area within the Nemaha Project to support future drilling targets.

HyTerra Limited (ASX: HYT) (HyTerra or the Company) has two firm wells in the drilling sequence which began in April 2025 at the Nemaha Project in Kansas, USA. This marks the first steps for the Company in executing a comprehensive 12-month exploration work program designed to unlock the potential of natural (white) hydrogen in Kansas through its 100% owned and operating subsidiary HYT Operating LLC. This exploration program funding is sourced from the recent investment in the Company by Fortescue Future Industries Technologies Pty Ltd.

### Sue Duroche 3 update

The Sue Duroche 3 well was drilled to a total depth (TD) of 3,453ft MDkb (1,052m) on time, on budget, with no HSE incidents. The well reached TD on May 1<sup>st</sup>, 2025. The mud gas log recorded hydrogen gas readings at different intervals when drilling, indicating the presence of a hydrogen play in this area. As previously announced by the Company (6<sup>th</sup> May ASX Release), mud gas



samples from an independent laboratory verified hydrogen concentrations of up to 96.1%<sup>1</sup>. Additionally, while drilling deeper into the Pre-Cambrian basement section, elevated helium readings were also visible on the real time mud gas log data. Analyses of mudgas samples from deeper in the well (including helium) are awaiting final confirmation from Isotech Laboratories Inc. The Company will release the mud log results for the well once these are known. Results are expected by early next week. Continuing petrophysical analysis by expert consultants shows zones with matrix porosity, dolomitization, and fractures.

Based on mud logs readings and samples received to date, combined with petrophysical analysis, the Company has decided to accelerate the re-entry of the Sue Duroche 3 exploration well (moving to 'Monitor' in *Figure 1* below). The work-over rig (Hurricane Services Rig 735 see in *Figure 2*) has mobilised to site and will commence the re-entry and conversion work this week to allow long term surface pressure and gas monitoring to support planning of potential flow testing.

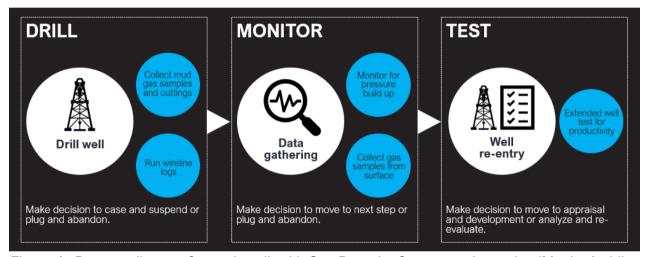


Figure 1: Process diagram for each well, with Sue Duroche 3 now accelerated to 'Monitor' while Blythe 13-20 is entering 'Drill.'

Unlike conventional hydrocarbons there is not yet a clear methodology for testing hydrogen wells. Therefore, the Company plans on an intermediate 'monitoring' stage to allow data to be gathered to enable an informed decision to execute a testing programme. It is expected that the monitoring stage could take several weeks or months but it is required to ensure the best possible well test is performed. The decision to execute an extended well test decision will be made after the back-two-back wells are finished. Ultimately, extended well testing would be used to evaluate the productivity, volume, and reservoir characteristics, and ultimately commerciality of any well ("Test" phase in Figure 1).

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<sup>&</sup>lt;sup>1</sup> Samples are air corrected. Air correction is required for mud gas samples to account for contamination due to being collected at surface. The air-correction methodology was endorsed by Isotech Laboratories Inc. in Champaign, Illinois.





Figure 2: Hurricane Services Rig 735 (a subsidiary of Murfin Drilling) to re-enter Sue Duroche 3.

## Blythe 13-20 update

Murfin Rig 116 is currently being mobilised to Blythe 13-20 location in Morris County and, when the crew return from their break, the Company expects to spud on or before May 20<sup>th</sup>. Drilling is expected to take approximately 3-4 weeks as the planned total depth (TD) is projected to be deeper into the basement than Sue Duroche 3. Blythe 13-20 is located approximately 1380m due east of the historic Scott-1 well (1982) which reported hydrogen concentrations of up to 56%<sup>2</sup>. Very little data for the Scott-1 well is preserved in the Kansas open file well data repository so the intent of this well is to determine which geological unit is most prospective in this location. If drilling results are encouraging, the Company will progress towards monitoring of pressure and gas composition of the well, similar to Sue Duroche 3.

## **Seismic Acquisition Completed**

The Company's seismic acquisition program has been completed by Paragon Geophysical on time, on budget, with no HSE incidents. Data will be processed and interpreted along with the recently acquired airborne survey data, to generate prospects in a new greenfield area for the next drilling program, currently planned for the second half of 2025.

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<sup>&</sup>lt;sup>2</sup> Guelard, J., Beaumont, V., Rouchon, V., Guyot, F., Pillot, D., Jezequel, D., et al., 2017. Natural H2 in Kansas: deep or shallow origin? Geochem. Geophys. Geosyst. 18, 1841-1865. H2 + He % reflects occurrences of published gas analyses recovered from the wellbore. Uncertainty remains on historic well operations, sampling techniques, and analyses. The values are considered up to a % of H2 or He.





Figure 3: Paragon Geophysical Vibroseis trucks on location within survey area.

Benjamin Mee, Executive Director says "We are writing the playbook now on how to drill hydrogen wells and gather the right information to test them. Unlike conventional hydrocarbons there is not yet a clear methodology for testing hydrogen wells. It is great to get going on gathering dynamic information in a cost-effective way by converting a drilled exploration well to a monitoring well within 2 weeks of TD. This intermediate 'monitoring' stage is crucial to both plan and decide on any future well tests. It really helps to have great local relationships and being surrounded by oil and gas services that are a phone call away. Further, we are about to drill another well in a different geological play which will keep accelerating our understanding of these hydrogen and helium systems. A lot is going on, but happy to say we are meeting all our milestones to ensure safe, multiple 'shots on goal."

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

#### For more information:

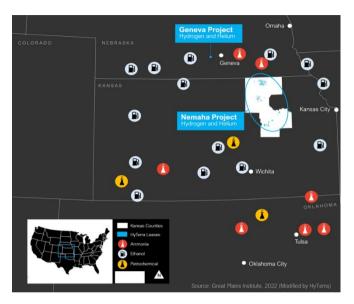
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# HyTerra. A World of Opportunity.

**Exploring for natural hydrogen and helium resources near major industrial hubs.** HyTerra was the first company to list on the ASX with a focus on white hydrogen, which is generated naturally by the Earth. White hydrogen potentially has much lower production costs and carbon emissions than man-made hydrogen.

Our Nemaha Project in Kansas, USA, holds 100% owned and operated leases across the emerging Nemaha Ridge natural hydrogen and helium play fairway. Our Geneva Project in Nebraska, USA, is a 16% earn-in interest in a Joint Development with Natural Hydrogen Energy LLC targeting natural hydrogen and helium. Both projects could be connected via existing transport infrastructure to multiple nearby off-takers, including ammonia manufacturers, and petrochemical plants.



For more information please see the latest corporate presentation: www.hyterra.com

# **Important Risk Commentary:**

It is important to note that there remains both geological and potential development risks with these projects and the Company's commercial and business objectives. This is an emerging frontier with the potential to unlock significant low-carbon hydrogen gas supplies but with equally significant risk and uncertainty. Key risks include the presence, concentrations, recovery, and commercial potential of both hydrogen and helium gases. For more information on risks please refer to the ASX release 'Entitlement Issue Prospectus' on April 8th, 2024: <a href="https://wcsecure.weblink.com.au/pdf/HYT/02793318.pdf">https://wcsecure.weblink.com.au/pdf/HYT/02793318.pdf</a>.

#### **Forward Looking Statements:**

This release may contain forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like "anticipate", "believe", "intend", "estimate", "expect", "may", "plan", "project", "will", "should", "seek" and similar words or expressions containing same. These forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this release and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. These include, but are not limited to, risks or uncertainties associated with the discovery and development subsurface gas reserves, cash flows and liquidity, business and financial strategy, budget, projections and operating results, gas prices, amount, nature and timing of capital expenditures, including future development costs, availability and terms of capital and general economic and business conditions. Given these uncertainties, no one should place undue reliance on any forward-looking statements attributable to HyTerra, or any of its affiliates or persons acting on its behalf. Although every effort has been made to ensure this release sets forth a fair and accurate view, we do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Nothing contained in this announcement, nor any information made available to you is, or and shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of HyTerra.