10 November 2025

ASX Announcement

Drilling Commences at Ramsay 3

Highlights:

- **The Company's 2025 / 26 drilling and well testing campaign has now commenced with the spudding of the Ramsay 3 exploration well.**
- **The 2025 / 26 work program is designed to:**
  - **delineate and confirm the presence and scale of Natural Hydrogen and Helium across other parts of the exploration lease (PEL687), based on 2D seismic and the successful findings at Ramsay 1 and 2 wells;**
  - **provide optimal conditions for well testing and extracting Natural Hydrogen and Helium to surface;**
  - **mature the Ramsay Project via further appraisal in preparation for potential commercial development decisions; and**
  - **assist with the development of a blueprint for future exploration and appraisal initiatives across the Company's wider portfolio.**

The Directors of Gold Hydrogen Limited (**Gold Hydrogen**, ASX: **GHY**, the **Company**) are pleased to advise that the Company's 2025 drilling campaign is underway with the spudding of the Ramsay 3 well at approximately 10:00am South Australian time this morning.

As outlined in its previous ASX release of 14 October 2025, the Company is planning to drill two or three wells as part of this campaign to appraise specific target zones within identified structures, chosen with reference to the results of the maiden drilling and testing campaign, as well as the interpretations leading from the 2D seismic survey conducted in the second half of 2024.

The primary objectives for the 2025 drilling program are to:

1. delineate and confirm the presence of Natural Hydrogen and Helium beyond the successful Natural Hydrogen and Helium gas shows at the Company's Ramsay 1 and 2 wells;
2. provide optimal conditions for well testing and extracting Natural Hydrogen and Helium to surface;
3. mature the Ramsay Project via further appraisal in preparation for potential commercial development decisions; and
4. assist with the development of a blueprint for future exploration and appraisal initiatives across the Company's wider portfolio.

Subject to the results of the Ramsay 3 drilling, a further one or two wells are planned for this drilling campaign. These will be in relatively close proximity to Ramsay 1, 2 and 3 with a view toward establishing a pilot project in this area, subject to results.

Figure 1: Aerial drone shot of the drill rig at the Ramsay 3 site

The well design for the 2025 / 26 campaign includes a larger diameter well bore with 7" casing to enable greater flexibility for well testing. The data expected to be gathered from the drilling and testing of the wells in the Company's 2025 / 26 program will inform potential future pilot project area(s) and design(s), with the aim of demonstrating the commercial production potential of both Natural Hydrogen and Helium from the Ramsay Project.

The Company will inform the market of any material developments during the drilling campaign.

General Commentary

First Key Step on the Journey to Future Commercialisation

Gold Hydrogen is of the view that the Ramsay Project contains significant prospective resources of both Natural Hydrogen and Helium, with large scale potential that the Company is aiming to commercialise over time.

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There is very little data available for dedicated Hydrogen wells anywhere in the world due to the lack of analogue wells. Accordingly, there is inherent uncertainty with regard to the expected outcomes of the Company's planned activities.

To the Company's knowledge, the only Natural Hydrogen field currently in production is located in Mali, West Africa, where Natural Hydrogen production is used to power the small town of Bourakebougou. It has been reported that the Natural Hydrogen wells in Mali do not have any decline in production and are continually regenerating and producing at the same rate.[1]

Helium is extremely valuable and indicatively, longer-term bulk pricing is expected to be up to USD450 per Mcf (thousand cubic feet).[2]

Natural Hydrogen has a high energy content, and extracting it even in small quantities may prove commercial for localised applications. Furthermore, given that Helium was also found within both the Ramsay 1 and Ramsay 2 wells, being able to extract and process both gases in small quantities may provide potential short-term commercial and / or proof of concept opportunities to help progress the Ramsay Project.

Important Risk Commentary

It is important to note that there remain both geological and potential development risks associated with the Ramsay Project and the Company's commercial and business objectives. These risks relate to the presence, recovery and potential volumes of both Hydrogen and Helium, but also due to the location of the resource within agricultural areas and the proximity to National Parks on both Yorke Peninsula and Kangaroo Island, requiring significant landholder and community engagement. The worldwide, Federal and South Australian Government and industry efforts to secure Hydrogen as an alternative energy source provides confidence that any technical and social concerns may be overcome.

About Gold Hydrogen

Gold Hydrogen is focused on the discovery and development of world class Natural Hydrogen and Helium gases in a potentially extensive province in South Australia. This region had its Natural Hydrogen and Helium potential confirmed by the Company via its maiden 2023 / 24 drilling and well testing campaigns.

The domestic and global demand for Hydrogen and Helium, combined with new exploration techniques and experienced personnel, provides Gold Hydrogen with an extraordinary opportunity to define and ultimately develop a new Natural Hydrogen and Helium gas province.

[1] "Natural Hydrogen: a new source of carbon free and renewable energy that can compete with hydrocarbons", First Break Volume 40, October 2022 (available via www.goldhydrogen.com.au/technical-articles/)
[2] February 2024, www.noblehelium.com.au , quoting Kornbluth Consulting.

The combined permit area of the Gold Hydrogen group is now in excess of 75,000km^2. Gold Hydrogen holds one granted exploration license (the Ramsay Project - PEL 687) and one application area, whilst its two 100% owned subsidiary companies (White Hydrogen Australia and Byrock Resources) hold an additional seven (7) applications for Natural Hydrogen and Helium exploration within South Australia. Gold Hydrogen is also the preferred applicant for four (4) gas storage exploration licenses applications (GSELA) covering an area of approximately 8,000km^2 within the Yorke Peninsula portion of PEL 687 in South Australia.

The group's permit areas are characterised by low population densities, cooperative stakeholders and aspects of the natural environment suited to the exploration and development of a future Natural Hydrogen and Helium gas province. Gold Hydrogen places considerable importance on close liaison with landholders, traditional owners and all other stakeholders, and this approach has led to the grant of its key tenement PEL 687 in South Australia. The Company intends to continue to invest in these efforts.

Further Information

Further information on the Gold Hydrogen group, its projects, and its Board and Management can be found on the Company's website (www.goldhydrogen.com.au). Gold Hydrogen also has accounts on LinkedIn and Twitter (@GHY_ASX), and copies of market releases will be emailed to all interested parties who register via investorhub.goldhydrogen.com.au/auth/signup.

This announcement has been authorised for release by the Managing Director.

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Forward Looking Statement / Future Performance

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