

**2 December 2025**

**ASX Announcement**

## **Ramsay Project Operational Update**

# **Ramsay 3 Drilling Successfully Completed - World Class Elevated Levels of Natural Hydrogen Confirmed at up to 97% Purity**

### **Highlights:**

- Following the strategic investment from Toyota Motor Corporation, Mitsubishi Gas Chemical and ENEOS Xplora, the Ramsay Project 2025 drilling campaign continues with the completion of Ramsay 3 and the mobilisation of the rig to Ramsay 4.
- Ramsay 3 spudded on Monday 10<sup>th</sup> of November 2025 and reached total depth of 884.2m on 27<sup>th</sup> November 2025. Production casing was run to total depth on 29<sup>th</sup> November 2025, and the rig was released from Ramsay 3 on 30<sup>th</sup> November 2025.
- Several zones of elevated levels of Natural Hydrogen and Helium were detected and evaluated by the SLB DQ1000 gas detection system across multiple intervals within the Parara and Kulpara formations and in the Hiltaba Granite.
- World class elevated levels of Natural Hydrogen purity of up to 97% (air corrected) have been confirmed by initial analysis of samples taken from the Parara Formation. Further laboratory analysis of samples taken is ongoing.
- Baker Hughes wireline log interpretation, including nuclear magnetic resonance, acoustic imaging and resistivity imaging, supports intervals with favourable porosity, natural fracturing and fluid mobility characteristics consistent with the Company's Natural Hydrogen model.
- Gas responses in Ramsay 3 correlate with key intervals in Ramsay 2, confirming continuity of these zones up-dip across ~2.3 km, significantly strengthening the geological model for a laterally persistent Natural Hydrogen and Helium system.
- Results of the formation evaluation program will continue to be analysed including third party lab analysis of Natural Hydrogen and Helium for samples collected. This will drive the scope for the Completions and Well Testing Program for the project, planned for Q1 2026, where long lead items have already been ordered.
- The rig is now shifting and rigging up to drill Ramsay 4, located 500m north of Ramsay 2.
- Further updates will be provided following completion of the Ramsay 4 drilling.



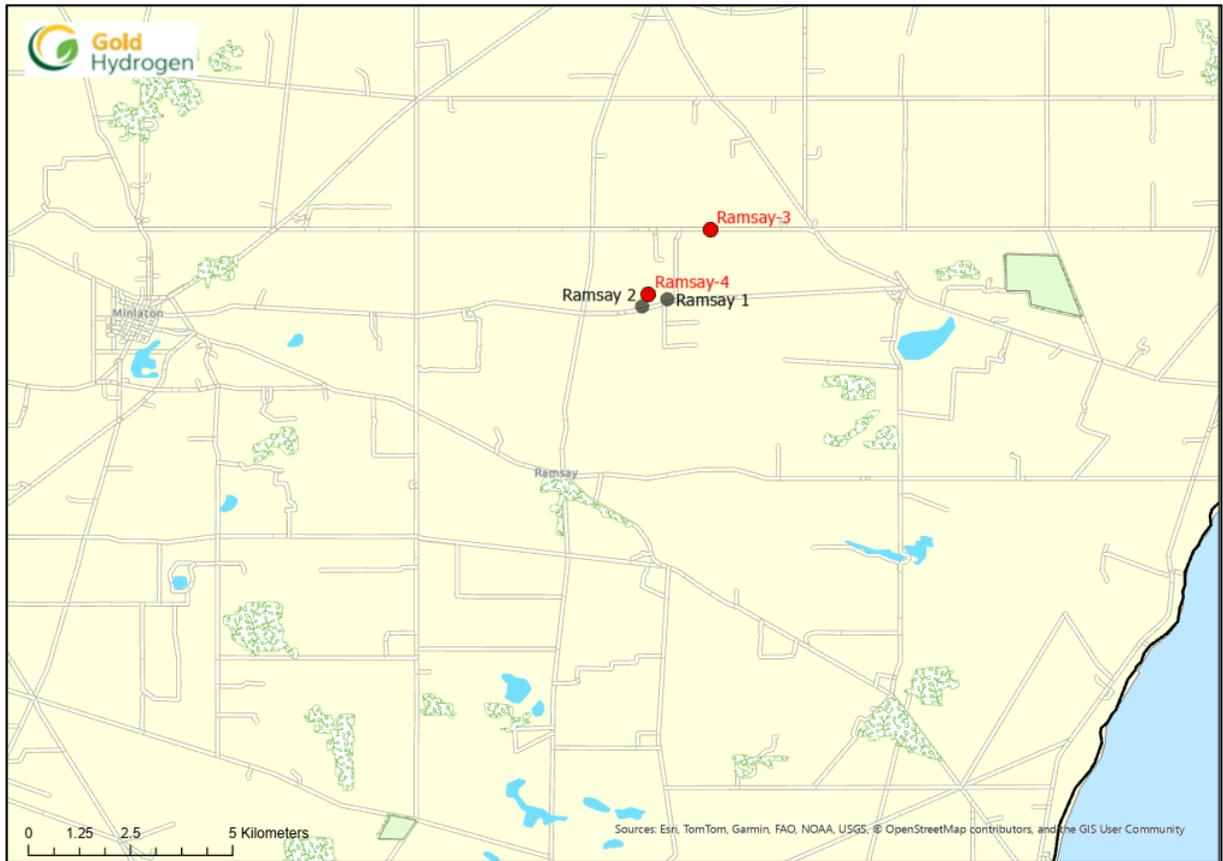
Gold Hydrogen Managing Director, Neil McDonald said: *“The Ramsay 3 well has demonstrated the continuation of the promising Natural Hydrogen and helium play from Ramsay 2 to Ramsay 3, a distance of 2,300m. Although it is at an early stage of analysis, to confirm world class levels of Natural Hydrogen purity at up to 97% (air corrected) and confirming multiple zones where Natural Hydrogen and Helium has been intersected is extremely promising. Ramsay 3 appears to be similar to that of the successful Ramsay 2 well, and this well will now be completed for a future extended well test. Ramsay 4 will now be drilled to further appraise the world-leading Ramsay project, and an extensive formation evaluation program is planned.”*

The Directors of Gold Hydrogen Limited (**Gold Hydrogen**, ASX: **GHY**, the **Company**) are pleased to provide an operational update as follows:

Ramsay 3 has now reached total depth of 884.2m and a complete set of wireline logs has been acquired and production casing run. The wireline logs have identified several anomalous gas zones (ie. elevated levels) utilizing the SLB DQ1000 gas detection tool, and detailed petrophysical analysis by Baker Hughes of the full suite of wireline logs including Nuclear Magnetic Resonance (NMR), acoustic and resistivity imaging logs. Stacked gas zones have been identified through several prospective formations including the Parara, Kulpara and Hiltaba Granite.

Preliminary results and Baker Hughes wireline log interpretation indicate continuity of Natural Hydrogen gas zones found in Ramsay 2 up-dip to Ramsay 3 over a distance of 2.3km. Air-corrected Natural Hydrogen purities of up to 97% have been obtained from sampled intervals in the Parara Formation. Samples collected throughout the drilling of Ramsay-3 continue to be tested/analysed and several have been sent to laboratories for independent noble gas analysis. The rig will now move to the Ramsay 4 drill site, located 500m from Ramsay 2 to further appraise the Ramsay Project’s resource potential.

Production casing has been run to the bottom of the Ramsay-3 well with a fiber optic line attached which will enable temperature and acoustic measurements to be taken across the depth of the well. These measurements will assist in understanding the reservoir performance. The 7” casing well installation will enable installation of an Electronic Submersible Pump (ESP), perforating elevated gas zones and production testing with a temporary surface production facility, which will also have a gas compressor integrated. The Completions and Well Test Program is scheduled to take place early in 2026 following the completion of the drilling campaign, and the scope will be finalized once formation evaluation datasets have been integrated from the wells. The Completions and Well Test Program will be a test of the Natural Hydrogen and Helium flow potential of several prospective formations, which will be assisted by additional data provided by the fiber optics and bottom hole gauges.



**Image 1: Ramsay Project Wellsite location Map**



**Image 2: Ramsay-3 wellsite during drilling**



**Image 3: Running production casing in Ramsay 3. Note the fiber optic cable attached to the outside of the casing for data collection.**

**Table 1 – Listing Rule 5.30 Information (Preliminary)**

<b>Name:</b>	<b>Ramsay 3</b>
<b>Location (UTM zone 53 GDA2020)</b>	
<b>X</b>	749096 mE
<b>Y</b>	6151186 mN
<b>Permit</b>	<b>PEL 687</b>
<b>Entity holders(s)</b>	<b>Gold Hydrogen 100%</b>
<b>Resources</b>	<b>Hydrogen, Helium</b>
<b>Formation</b>	<b>Parara, Kulpara, Winulta and Hiltaba basement</b>
<b>Gross thickness and net pay thickness</b>	<b>85m gross</b>
<b>Geological rock type</b>	<b>Limestones, Dolomites, Dolomitic Sandstones and fractured Granites</b>
<b>Depth of the zones tested</b>	<b>148-870m</b>
<b>Type of test and duration</b>	<b>Calibrated mud gas log data and Isotubes</b>
<b>Phase recovered</b>	<b>Gas</b>
<b>Other types of recovery</b>	<b>N/A</b>
<b>Flow rates, choke size, volumes recovered</b>	<b>N/A</b>
<b>Fracture stimulation</b>	<b>N/A</b>
<b>Material non hydrocarbons</b>	<b>Hydrogen, Helium, Nitrogen, CO2</b>

***Insufficient information is presently available to determine net pay thickness.***

#### **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 hydrogen, 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 gas in a potentially extensive natural hydrogen province in South Australia. This region has only recently had its natural hydrogen potential identified by the Company. The domestic and global demand for hydrogen, combined with new natural hydrogen exploration techniques and experienced personnel, provides Gold Hydrogen with an extraordinary opportunity to define and ultimately develop a new natural hydrogen gas province.

The combined natural hydrogen permit area of the Gold Hydrogen group is approximately 75,332km<sup>2</sup>. Gold Hydrogen holds one granted petroleum exploration license (the Ramsay Project - PEL 687) and its two 100% owned subsidiary companies (White Hydrogen Australia and Byrock Resources) hold an additional seven (7) applications for natural hydrogen exploration within South Australia.

The Company's Prospective Resource Statement for Natural Hydrogen is attached as **Table 2**.

Gold Hydrogen is also the preferred applicant for four (4) gas storage exploration licenses applications (GSELA) covering an area of 8,107km<sup>2</sup> within the Yorke Peninsula portion of PEL 687 in South Australia. These storage licence applications are in addition to the granted exploration licence and application licences.

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 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](http://www.goldhydrogen.com.au)) together with a copy of the Company's Replacement Prospectus of 29 November 2022.

Gold Hydrogen also has accounts on LinkedIn and Twitter ([@GHY ASX](https://twitter.com/GHY_ASX)), and copies of market releases will be emailed to all interested parties who register via [info@goldhydrogen.com.au](mailto:info@goldhydrogen.com.au)

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

On behalf of the Board  
Karl Schlobohm  
Company Secretary



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**QPRRE Statement**

The Prospective Resource Statement in this announcement is based on, and fairly represents, information and supporting documentation prepared by independent consultants “Teof Rodrigues & Associates” with an effective date of 30 September 2021, and which forms part of the Company’s Replacement Prospectus dated 29 November 2022. The Prospective Resource Statement, together with all relevant notes, also appears in the Company’s ASX release of 13 January 2023.

The Prospective Resource Statement has been included in this announcement under the approval of Mr Billy Hadi Subrata, Chief Engineer for Gold Hydrogen, who is a Qualified Petroleum Reserves and Resources Evaluator. Mr Hadi Subrata confirms that, as at the date of this announcement, there is no change to information or additional information, since the effective date of 30 September 2021, that would materially change the estimates of prospective resources quoted.

**Forward Looking Statement / Future Performance**

This announcement may contain certain forward-looking statements and opinion Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. 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 Gold Hydrogen Limited.

**Table 2 – Prospective Resource Statement for Natural Hydrogen**

Gold Hydrogen's Ramsay Project: Prospective Resources* of Hydrogen in '000 Tonnes – 30 Sept 2021										
PEL	Prospects	SPE PRMS Sub-class	1U Low Estimate	2U Best Estimate	Mean	3U High Estimate		Pg	Pd	Pc
PEL 687	All Prospects and Leads		207	1,313	4,187	8,820		22%	48%	10%
<b>Yorke Peninsula</b>										
PEL 687	Ramsay FB	Prospect	124	931	2,712	6,989		22%	50%	11%
PEL 687	Ramsay Lst	Prospect	10	70	191	492		26%	50%	13%
PEL 687	Maitland	Lead	7	26	40	92		17%	35%	6%
<b>Kangaroo Island</b>										
PEL 687	Navigator	Lead	34	152	280	678		19%	40%	8%
PEL 687	Kanmantoo	Prospect	32	134	237	569		25%	40%	10%

**\*This estimate of Natural Hydrogen Prospective Resources must be read in conjunction with the notes in the Company's ASX release of 13 January 2023.**

It should be noted that the estimated quantities of Natural Hydrogen that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable Natural Hydrogen.