



14 October 2025

ASX Announcement

Project and Corporate Update

Highlights:

- **Following the provision of funding from the \$14.5m strategic investment made by Toyota Motor Corporation, Mitsubishi Gas Chemical Inc and ENEOS Xplora Inc, the Company's 2025 / 26 drilling and well testing campaign is due to commence with the Ramsay 3 exploration well scheduled for spudding on or around 6 November 2025.**
- **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 Company has bolstered its management team via the appointment of a number of key team Members ahead of launching the 2025 / 26 drilling and well testing campaign, including Simon Talbot as Chief Commercial Officer.**
- **A number of potential commercial development pathways are in the process of being identified, with studies and conceptual design work to follow on from the 2025 / 26 drilling and testing program. Some of these initiatives leverage the industry knowledge and experience of the Company's strategic investors.**
- **Fluid inclusion studies have commenced on the group's application permits. The results will be combined with available seismic data to assist with the delineation of areas of interest and future drill targets across the portfolio.**

The Directors of Gold Hydrogen Limited (**Gold Hydrogen**, ASX: **GHY**, the **Company**) are pleased to provide the following update on the Company's planned project activities and corporate developments.

Project Related Activity Update

Ramsay Project – 2025 Exploration Drilling Program

Following Gold Hydrogen's successful drilling campaign in late 2023, the Company will continue its exploration activities with drilling to commence at the Ramsay 3 exploration well in early November 2025. For this upcoming program, the Company is planning to drill two or three wells 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.

A significant amount of data was gathered during the previous drilling and testing program which concluded in mid-2024, and a detailed review and analysis of that data has now been concluded. That work, combined with the 2D seismic survey interpretation, has resulted in the plan for the Company's 2025 / 26 drilling and well testing program which will commence with the Ramsay 3 well to be drilled up-dip and approximately 2km from the Ramsay 1 well, on a geological structural high in the area.

The Ramsay 1 and 2 exploration wells were drilled to confirm the presence of Natural Hydrogen, and the location of those wells was deliberately selected adjacent to the historic Ramsay Oil Bore 1 drilled in 1931 which had Hydrogen shows recorded. Based on the results of the 2023 / 24 campaign, the 2D seismic survey analysis and other information, the Company considers the Ramsay 3 well location to be more optimal, and up-dip from the previous wells.

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.

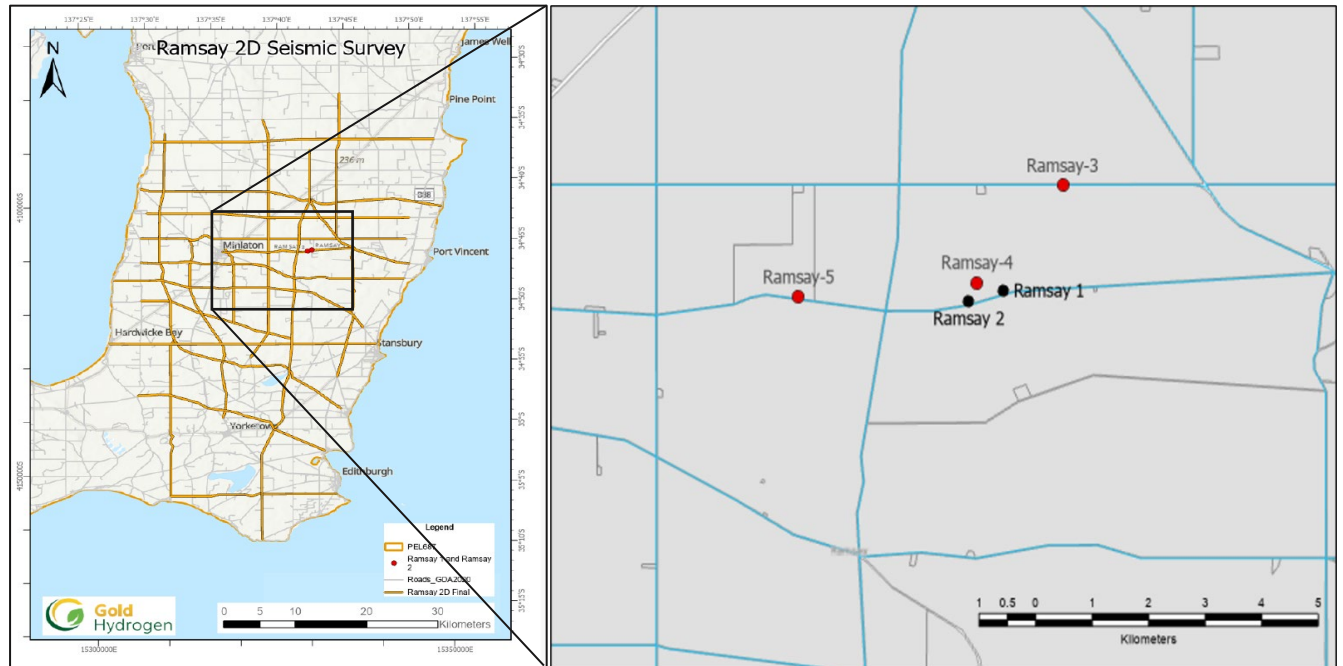


Figure 1: Map showing Ramsay well locations (existing and planned) relative to 2D seismic lines

The Ramsay 1 and 2 exploration wells were designed with small diameter well bores and a 4 ½” casing to keep costs as low as practical whilst still being able to run logging tools to gather data, and to specifically verify the presence of Natural Hydrogen adjacent to the historic 1931 Ramsay Oil Bore location. In the Company’s 2023 drilling campaign, not only was the presence of Natural Hydrogen confirmed (at air-corrected purity levels up to 95.8%¹), the presence of Helium was also confirmed (at air-corrected purity levels up to 36.9%²), as well as elevated levels of Helium-3³, significantly adding to the potential commercialisation options for the Ramsay Project.

Following the positive drilling results from drilling the Ramsay 1 and 2 wells, the Company carried out well testing activities to gain knowledge of the reservoir characteristics. Much data was gathered and the findings from the tests has also contributed to the well design for this 2025 / 26 program. A key impact on the testing of the Ramsay 1 and 2 wells was the limited ability to dewater the wells due to the restricted approvals and testing timelines.

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.

¹ Refer ASX release of 27 May 2024 for full details. Technical table also appended.

² Refer ASX release of 17 October 2024 for full details. Technical table also appended.

³ Refer ASX release of 30 October 2024 for full details. Technical table also appended.

Ramsay Project – 2026 Exploration Well Testing Campaign

The Company intends to test Ramsay 3, and potentially Ramsay 4 and 5, during 2026. The detailed planning for well testing is underway, and will be refined based on the results from drilling. The well testing program is currently scheduled to commence in Q1 2026. The objective of the well testing includes the movement of both Natural Hydrogen and Helium to surface under conditions designed to support conceptual designs and studies for one or more pilot projects to demonstrate potential project viability for both Natural Hydrogen and Helium production, and to gather further data from the sampling of fluid and gas during the testing operations.

Ramsay Project – Potential 2026 Resource Delineation Drilling and Regional Targets

The 2D seismic survey carried out in 2024 revealed several regional Natural Hydrogen and Helium prospects within PEL 687, some of which will be tested with future dedicated exploration wells. The selection and timing of these regional exploration wells may be undertaken in conjunction with planned further appraisal / delineation drilling activities. The anticipated timing for this workstream is mid to late 2026.

Ramsay Project – Green Methanol Feasibility Study

Gold Hydrogen is actively assessing a number of potential commercial opportunities for a successful development of the Ramsay Project, including green ammonia and green methanol, as well as pure Natural Hydrogen and Helium gas options. Green methanol is a key fuel choice for decarbonising shipping and aviation because it is liquid at room temperature, making it easier to store and transport than gaseous Hydrogen, and its use in existing or easily converted engines results in significant lifecycle CO₂ emission reductions. Major shipping companies are currently ordering methanol-ready ships, and investing in green methanol production to meet net-zero targets.

The Yorke Peninsula is very well placed to be a global green methanol production hub with abundant waste agricultural biomass (biogenic carbon) and renewable energy sources. Critical to the production of green methanol is cost-competitive Hydrogen, which the Company is striving to bring to commercialisation via its Ramsay Natural Hydrogen and Helium Project.

The production of green methanol made using Natural Hydrogen is expected to have commercially competitive advantages over green methanol produced via electrolysis-derived (ie. man-made) Hydrogen, based on the evidence available from the Bourakebougou Natural Hydrogen Field in Mali. Gold Hydrogen's Ramsay Project has a significant prospective resource of Natural Hydrogen (refer Table 5 appended) which it is aiming to advance via the technical programs outlined above.

An initial analysis of the biogenic carbon sources in and around the Yorke Peninsula indicate a readily available supply of up to 1.5 million wtpa (wet tonnes per annum) of compliant biomass⁴. Furthermore, long-term renewable energy pricing (solar / wind / BESS (battery energy storage systems)) indicates that a project on the Yorke Peninsula can be supplied at economic rates via the electricity network⁵. Port infrastructure and capacity is also available on the Yorke Peninsula (eg. Port Giles, Ardrossan) for importing and exporting activities.

⁴ South Australian Crop and Pasture Report 2024-25, January 2025.

⁵ Australian Energy Market Operator, 2024 ELI Report, June 2024 (Appendix 5 – South Australia).

Gold Hydrogen plans to assess all of these factors in detail and complete a Feasibility Assessment of the green methanol opportunity, and has appointed Mr Simon Talbot to help spearhead this initiative (refer below). Based on the results of the Feasibility Assessment, a pilot plant will be considered and costed for initial production.

Current Green Methanol pricing is USD850-1,050 per tonne⁶, and is already in use within the international shipping industry.

The Company will provide more detailed updates on this initiative once the Feasibility Assessment commences.

Regional Application Areas – Preliminary Studies

The Company continues to progress several of its application areas towards granted status via the ongoing advancement of Native Title related matters. In addition, the Company continues with its desktop analysis of the publicly available South Australian Resource Information Gateway (SARIG) datasets, as well as a range of historical information, to compile a preliminary subsurface data suite.

The focus of this activity is on transposing the learnings to date from the Ramsay Project to identify Natural Hydrogen exploration focus areas within its regional application portfolio in South Australia.

Initial technical areas where learnings from the Ramsay Project are being applied include:

- Analysis of the regional tectonic and geological settings;
- Petrophysical, stratigraphic and basement studies;
- Impact of fracture zones and structural boundaries;
- Seal and trap potential within different geological domains;
- Analysis of the potential for radiolytic and / or iron-bearing alteration sources in the basement suites;
- Analysis of historic core samples for potential Natural Hydrogen and Helium within fluid inclusions (refer below);
- Preliminary interpretation of the GA seismic line data (refer below).

Historic Core Samples and Study of Fluid Inclusions

Gold Hydrogen geologists have recently made several visits to the South Australian Drill Core Library to review and gather samples from historic third-party drill cores from within several of the group's regional application areas for testing and analysis. The aim of the testing of these core samples will be to detect any Natural Hydrogen and Helium in paleo-fluid inclusions, similar to the previous campaign undertaken by the Company for PEL 687 in 2023. The findings will help to identify promising areas within the application areas for gas generation and migration in order to guide further geological studies and future on-ground exploration efforts.

⁶ **Methanol Institute:** Methanol Institute (2024). "Economic Value of Methanol for Shipping under FuelEU Maritime and EU ETS." Analysis by Dr. Jeroen Dierickx.

The results for the core sample analysis for the PELA 688 application area are expected in the next weeks, followed by a number of the White Hydrogen Australia application areas, and then PELA 792.

The results of the fluid inclusion studies will be combined with an analysis of the Geoscience Australia seismic data available (refer below) to assist with the delineation of areas of interest and future drill targets across the application area portfolio.

Formal on-groundwork programs will commence on each application area as they are granted.

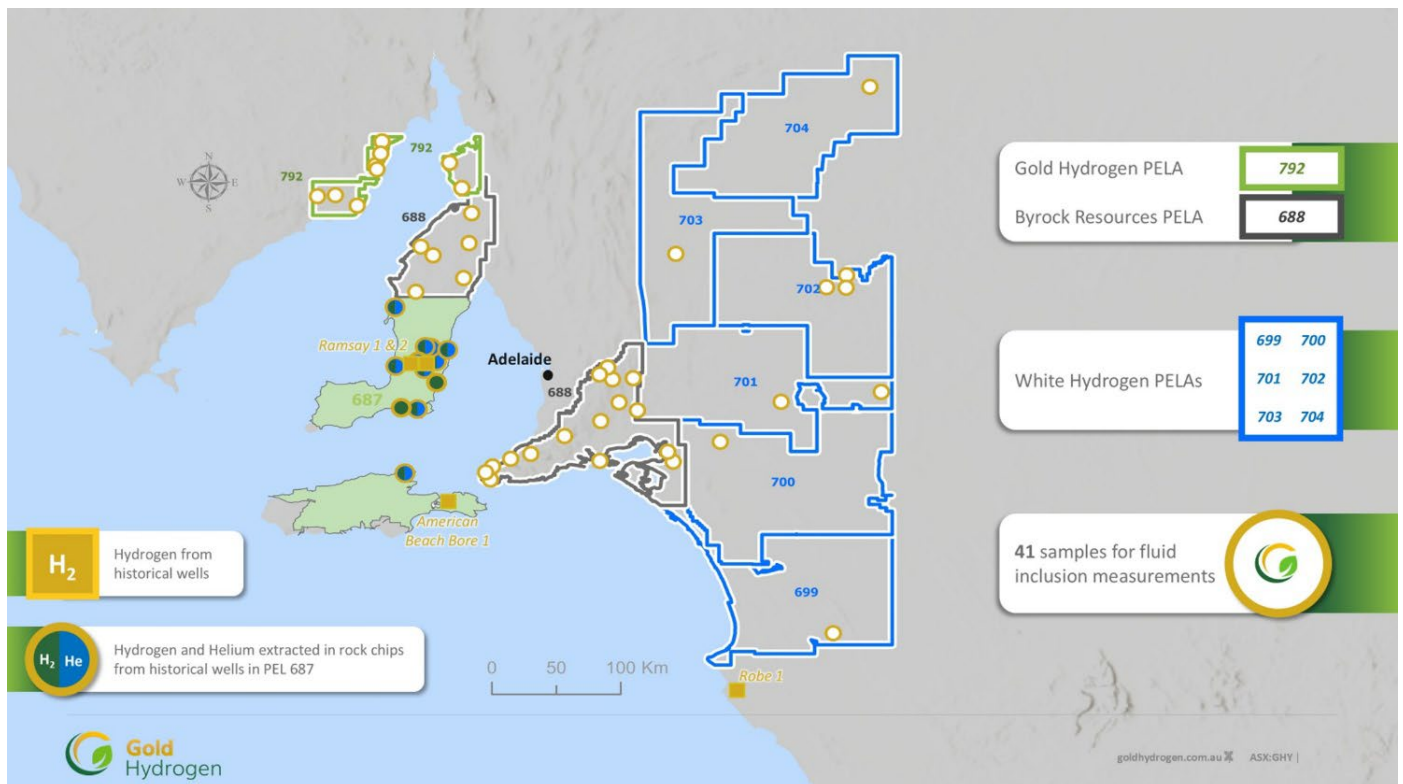


Figure 2: Map showing the fluid inclusion study points across the group's application areas.

Geoscience Australia Seismic Line

Geoscience Australia released the data associated with a regional seismic line acquired in 2022 along public roads which transverses part of the Gold Hydrogen group's application footprint (specifically PELA's 792, 703 and 702), as outlined in **Figure 3** and **Figure 4** below.

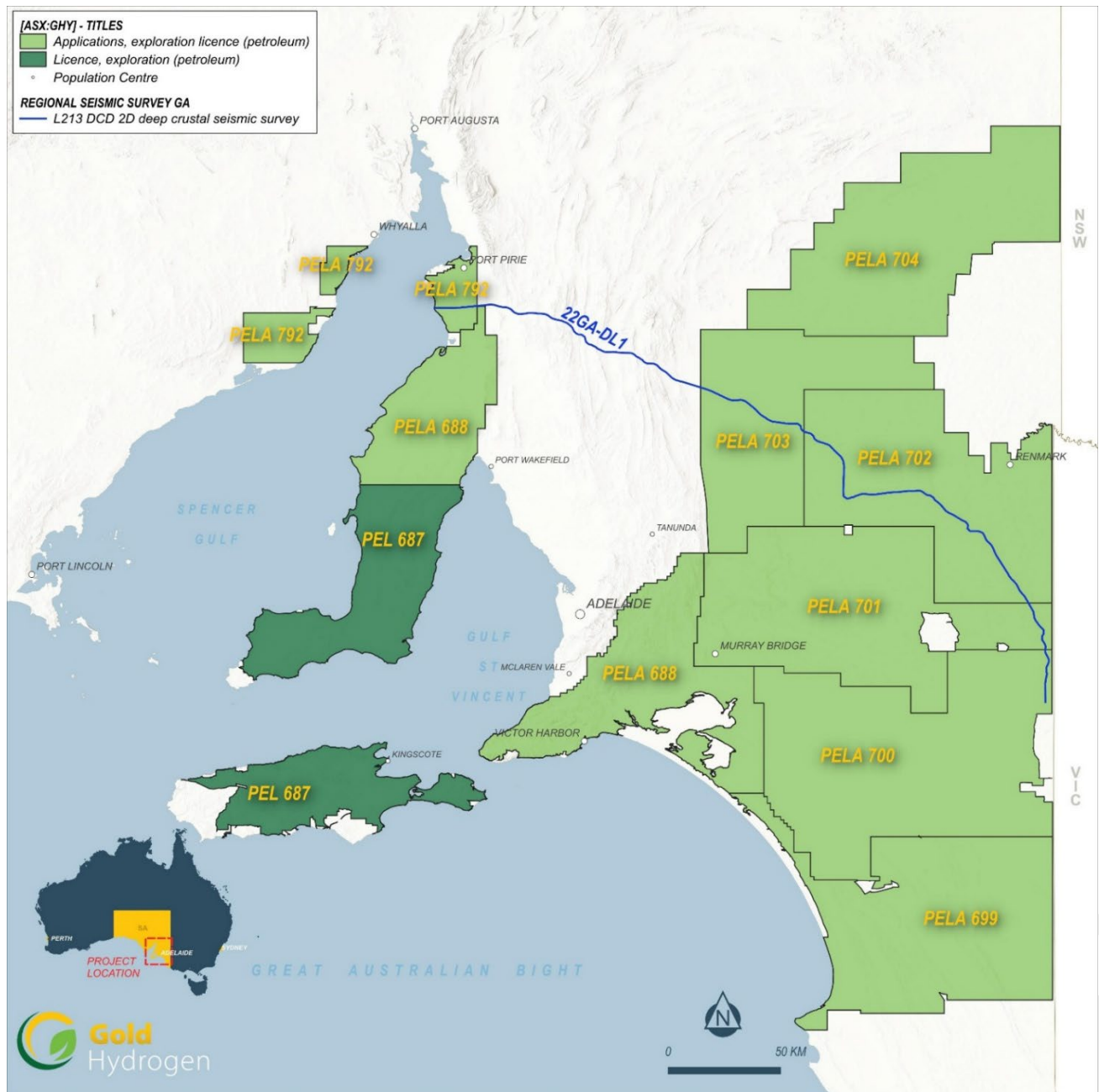


Figure 3: Map showing the GA seismic line transversing a number of the group's application areas.

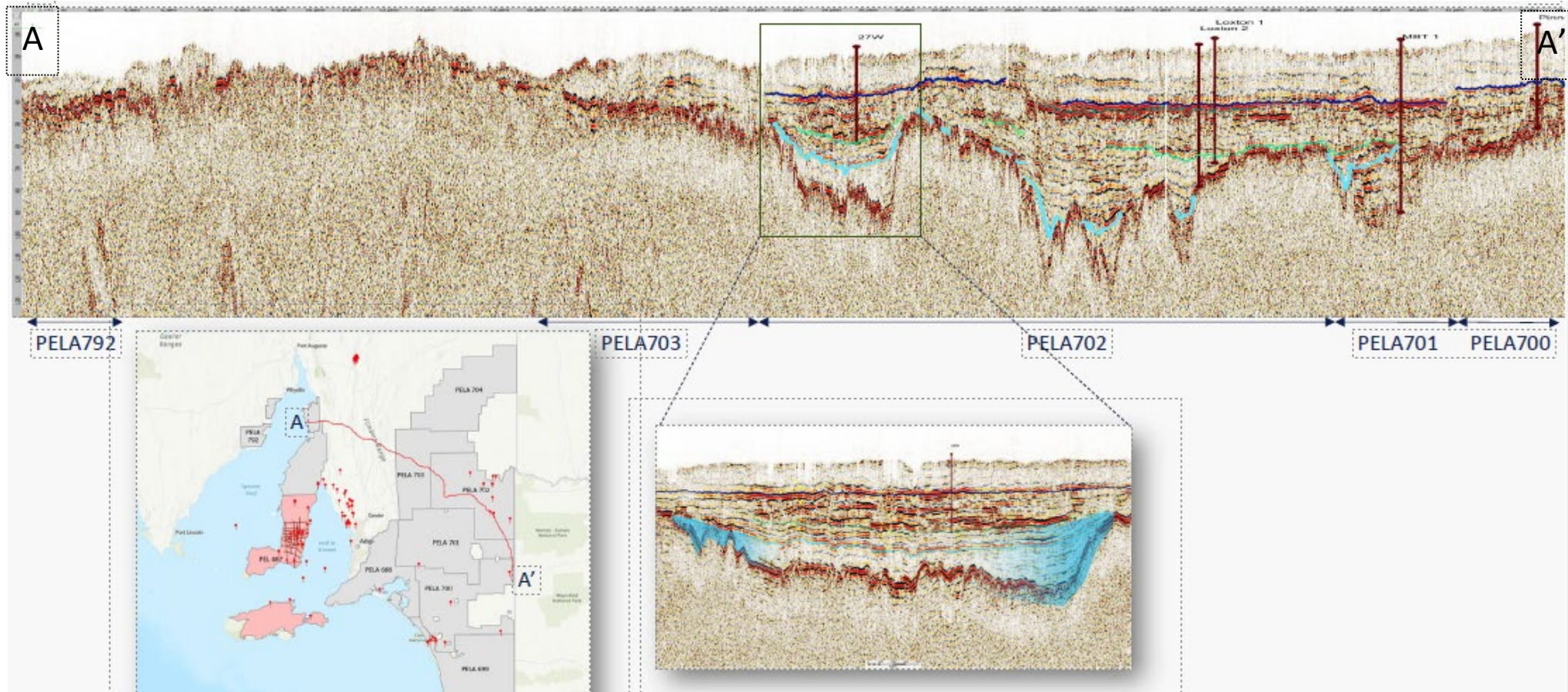


Figure 4: Cross Section of the Geoscience Australia Seismic Line Traversing Part of the Group's Application Areas

Corporate Update

Appointment of Chief Commercial Officer

The Company is pleased to announce the appointment of **Simon Talbot** as Chief Commercial Officer.

Simon will join the Company having just finalised the successful sale of the \$1.9B Green Methanol / Green Hydrogen project at Bell Bay Tasmania. He is a passionate advocate for utilising Australia's sustainable competitive advantages and the enormous potential for Natural Hydrogen and biomass to be combined to make low carbon liquid fuels.

Simon is well known to Japanese and North American investment groups, and has worked for over 25 years across renewables as an Agribusiness Executive for some of Asia Pacific's leading companies including Kraft Foods, Australian Paper, Cadbury, Glencore and Coles Group.

Simon holds a BSc Earth Sciences, MBA UNSW and is a GAICD.

Appointment of Additional Technical Team Members

The Company has bolstered its Natural Hydrogen expertise by appointing geologist **Hugo Beldame** to work with the existing geological and technical team in Brisbane and Perth.

Hugo has previously worked for 2H Resources and French Company 45-8 Energy, where he was involved with various geological work program designs and field execution.

Hugo holds Masters Degrees in Petroleum Geology (France) and Geoscience Exploration (Norway).

In addition, the Company has appointed **Leon Hennessey** under a contract arrangement to act as the Company's General Manager of Operations to oversee the Ramsay Project's 2025 drilling and 2026 well testing campaigns as outlined above.

With broad industry experience working in most major energy markets, Leon has practical hands-on experience throughout the well construction life cycle encompassing project management, engineering, and optimization.

Since 2010, Leon has held various senior management positions for Eastern Hemisphere markets including National Oilwell Varco as Director of Drilling Automation & Optimisation, and ModuSpec as Regional Director. As an upstream consultant focussed on Projects, Drilling and Wells he delivered projects successfully in multiple markets focussed predominantly on unconventional energy particularly with CBM, CSG and Shale plays helping both emerging and established operators optimise field developments, explore new areas, enhance and optimise well construction or understand and mitigate risks through the application of significant lessons learned, solutions, technology and practical know how.

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.

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.⁷

Helium is extremely valuable and indicatively, longer-term bulk pricing is expected to be up to USD450 per Mcf (thousand cubic feet).⁸

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.

⁷ "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/)

⁸ February 2024, www.noblehelium.com.au, quoting Kornbluth Consulting.



The combined permit area of the Gold Hydrogen group is now in excess of 75,000km². 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 8,000km² 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.

On behalf of the Board
Karl Schlobohm
Company Secretary

For Company Enquiries Contact:

Neil McDonald – Managing Director
nmcdonald@goldHydrogen.com.au
+61 7 3521 8038

Karl Schlobohm – Company Secretary / CFO
kschlobohm@goldHydrogen.com.au
+61 7 3521 8038

For Media Enquiries Contact:

Matthew Doman – Crestview Strategy
matthew.doman@crestviewstrategy.com
+61 421 888 858



Prospective Resource Statements

The Prospective Resource Statements for Natural Hydrogen and for Helium have been included in this announcement under the approval of Mr Billy Hadi Subrata, Chief Technical Officer 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 dates, 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 1: Summary of Ramsay 2 - Stage 1 Testing (released in original form on 27 May 2024)

Name:	Ramsay 2	
Location (UTM zone 53 GDA2020)		
X	747,761.61	
Y	6149371.41	
Permit	PEL687	
Entity holders	Gold Hydrogen 100%	
Zones tested	MDT zone, Zone 2 and 3	Zone 4 to 8
Resources	Helium	Hydrogen
Formation	Kulpara Dolomite	Kulpara/Parara Limestone
Gross thickness and net pay thickness	180m Gross	406m Gross
Geological rock type	Dolomite	Limestone
Depth of the zones tested	612m, 642m, 712m, 754m, and 777.5mMD	197m, 289m, 346.5m, 385m, and 531mMD
Type of test	Commingled test on zone 2 and 3 for few hours followed by overnight build up	Pressure test on single zone for few hours followed by overnight build up
Phase recovered	Gas/Water	Gas/Water
Corrected H₂ and He concentration in gas recovered from downhole sample	Up to 17.5% He	Up to 95.8% H ₂
Flow rates, choke size, volumes recovered	TBA in next extended flow test in Q2/Q3 2024	
Fracture stimulation	None	None
Material non hydrocarbons	Nitrogen, Hydrogen	Nitrogen, Helium

Table 2: Ramsay 1 and 2 – Stage 2 well test (released in original form on 2 August 2024 and 17 October 2024)

Name:	Ramsay 1	Ramsay 2
Location (UTM zone 53 GDA2020)		
X	748,208.07	747,761.61
Y	6149545.7	6149371.41
Permit	PEL687	PEL 687
Entity holders	Gold Hydrogen 100%	Gold Hydrogen 100%
Zones tested	Zone 2 and 3	Zone 7 and 8
Resources	Helium	Hydrogen
Formation	Kulpara Dolomite	Parara Limestone
Gross thickness and net pay thickness	180m Gross	406m Gross
Geological rock type	Dolomite	Limestone
Depth of the zones tested	900 mMD	197mMD and 289mMD
Type of test	Commingled pressure test	Commingled pressure test
Phase recovered	Gas/Water	Gas/Water
Corrected H2 and He concentration in gas recovered from downhole sample	36% He	Up to 42% (still increasing)*
Flow rates, choke size, volumes recovered	1 Mscf/day gas constraint by pump capacity and flow intermittently with water; choke size 20/64 inch; volumes recovered 0.55 MScf	0.5 Mscf/day gas constraint by pump capacity with continuous flow with water; choke size 128/64 inch; volumes recovered 1.02 MScf
Fracture stimulation	None	None
Material non hydrocarbons	Nitrogen, Hydrogen	Nitrogen, Helium

Table 3: Summary of Helium-4 (^4He) and Helium-3 (^3He) Results (Oxford University) in Ramsay 2
(released in original form on 30 October 2025)

Name:	Ramsay 2					
Location	UTM zone 53 GDA2020					
X	747,707.85					
Y	6149385.46					
Permit	PEL687					
Entity holders	Gold Hydrogen 100%					
Zones tested	Zone 1_sample 11	Zone 2-3_sample 19	Zone 4_sample 32	Zone 5_sample 46	Zone 6_sample 62	Zone 7_sample 79
Resources	Hydrogen-Helium	Helium	Hydrogen	Hydrogen	Hydrogen	Hydrogen
Formation	Basement	Kulpara Fm	Kulpara Fm	Parara Limestone	Parara Limestone	Parara Limestone
Gross thickness and net pay thickness	>200m Gross	180m Gross	155m Gross	406m Gross	406m Gross	406m Gross
Geological rock type	Basement	Dolomite	Limestone	Limestone	Limestone	Limestone
Depth of the zones tested	1002 mMD	712mMD	530 mMD	384 moms	343 mMD	289 mMD
Type of test	Noble gas abundance and isotopic quantification					
Phase recovered	Gas	Gas	Gas	Gas	Gas	Gas
[^4He], ccSTP/ccSTP $^3\text{He}/^4\text{He}$ R/Ra ^3He ppt	1.44E-07 3.23E-07 0.23 0.05	6.52E-04 9.26E-09 0.0066 6.04	4.21E-08 1.72E-06 1.2306 0.07	5.54E-07 6.84E-08 0.0489 0.04	3.05E-08 1.55E-06 1.11 0.05	1.59E-07 7.57E-07 0.5408 0.12
Flow rates, choke size, volumes recovered	N-A. Laboratory test of discrete samples					
Fracture stimulation	None	None	None	None	None	None
Material non-hydrocarbons	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , CO, CO ₂	N ₂ , H ₂ , He, CO ₂

Table 4: Summary Table of Helium-4 (^4He) and Helium-3 (^3He) results (Oxford University) in Ramsay 1 (released in original form on 30 October 2025)

Name:	Ramsay 1		
Location	UTM zone 53 GDA2020		
X	748,208.07		
Y	6149545.7		
Permit	PEL687		
Entity holders	Gold Hydrogen 100%		
Zones tested	Zone 1_sample 8	Zone 2-3_sample 109451	Zone 2-3_sample 109477
Resources	Hydrogen-Helium	Helium	Helium
Formation	Basement	Kulpara Fm	Kulpara Fm
Gross thickness and net pay thickness	>200m Gross	180m Gross	180m Gross
Geological rock type	Basement	Dolomite	Dolomite
Depth of the zones tested	970 mMD	900 mMD	900 mMD
Type of test	Noble gas abundance and isotopic quantification		
Phase recovered	Gas	Gas	Gas
[^4He], ccSTP/ccSTP $^3\text{He}/^4\text{He}$ R/Ra ^3He ppt	3.42E-04 9.65E-09 0.0069 3.30	5.34E-02 9.31E-09 0.0067 497.39	9.59E-02 9.39E-09 0.0067 900.51
Flow rates, choke size, volumes recovered	N-A. Laboratory test of discrete samples		
Fracture stimulation	None	None	None
Material non-hydrocarbons	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , He, CO ₂	N ₂ , H ₂ , He, CO ₂

Table 5: 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%
Yorke Peninsula										
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%
Kangaroo Island										
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.

Table 6: Prospective Resource Statement for Helium

Gold Hydrogen Prospective Resources* of Helium in Bcf - Ramsay Project (PEL 687 Yorke Peninsula) 21 February 2024											
PEL	Prospects	SPE PRMS Sub-class	Formation	1U Low Estimate	2U Best Estimate	Mean	3U High Estimate		Pg	Pd	Pc
PEL 687	All Prospects		All Formations Total	7	41	96	243		17%	60%	10%
PEL 687	Ramsay Fault Block	Prospect	Kulpara Formation	0.8	3.6	7.0	17.1		29%	60%	17%
			Winulta Formation	0.1	0.6	1.6	4.0		12%	60%	7%
			Fractured Basement	0.7	3.8	6.9	16.7		13%	60%	8%
			Total	2	8	15	38		20%	60%	12%
PEL 687	South of Ramsay Fault Block	Prospect	Kulpara Formation	2.1	12.8	30.5	77.6		23%	60%	14%
			Winulta Formation	0.3	2.4	7.7	19.8		8%	60%	5%
			Fractured Basement Hilbata Suite	1.6	10.3	25.5	65.2		12%	60%	7%
			Fractured Basement Yorke Peninsula Heel	1.4	7.7	17.0	42.7		12%	60%	7%
			Total	5	33	81	205		16%	60%	10%

***This estimate of Helium Prospective Resources must be read in conjunction with the notes in the Company's ASX releases of 21 February 2024 and 30 October 2024.**

It should be noted that the estimated quantities of Helium 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 Helium.