Quarterly Activities Report for the Period Ended 30 September 2024

GOLD HYDROGEN LTD (ASX:GHY)

Shares on Issue
159.7 million

Market Capitalisation
A$120m (at A$0.75 per share)

Directors
Rt Hon Alexander Downer (Chair)
Neil McDonald (Managing Director)
Roger Cressey (Executive Director)
Katherine Barnet (Non-Executive Director)

Company Secretary / CFO
Karl Schlobohm

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HIGHLIGHTS FOR THE SEPTEMBER QUARTER

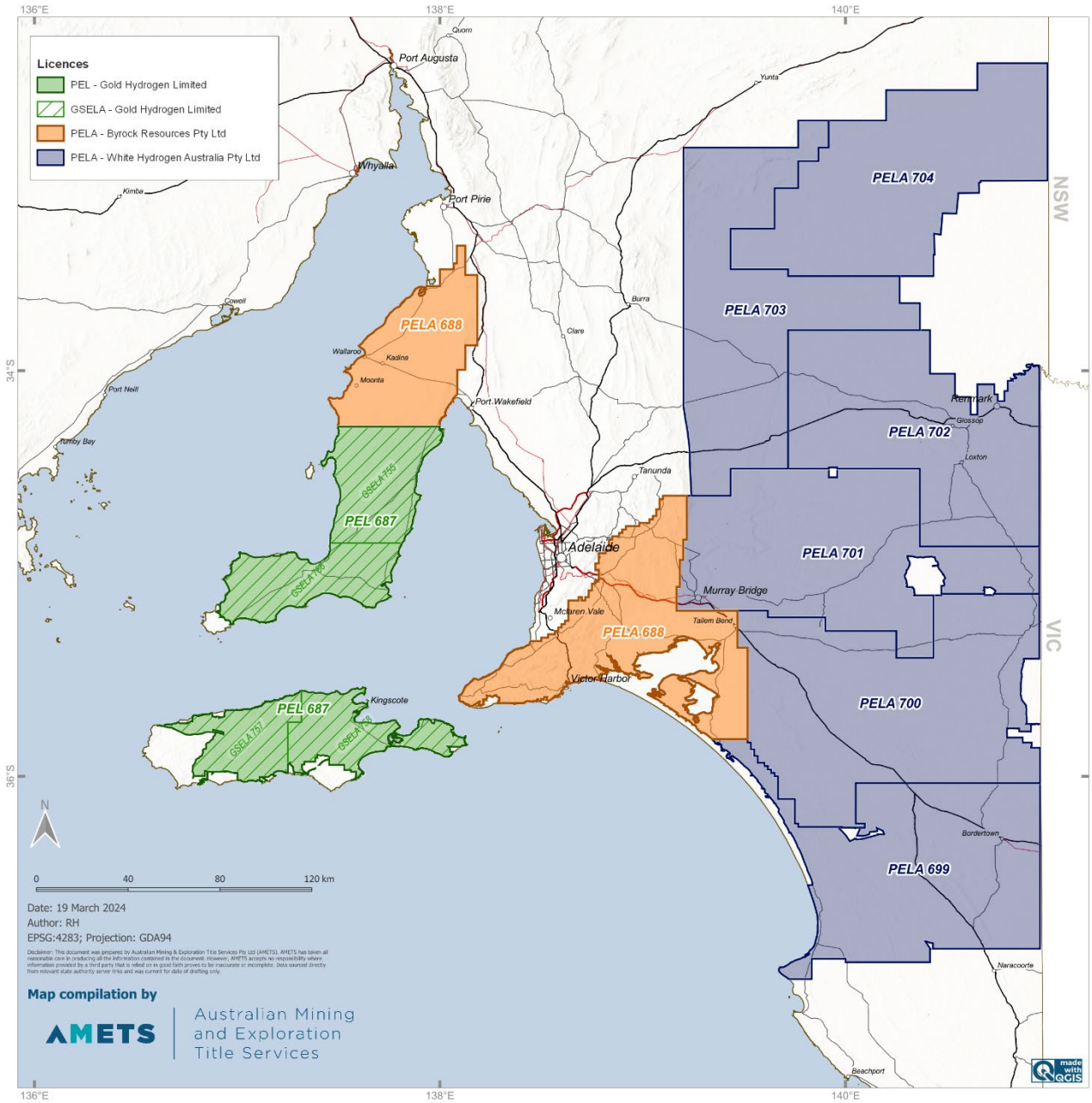
- **Stage 2 well testing resulted in Hydrogen and Helium concentrations being successfully measured at surface. The Company understands that this has not been achieved before, and would be an international first for a non-petroleum system.**
- **Helium purities of up to 36.9% (air corrected) measured during the Company's Stage 2 well testing program.**
- **CSIRO reporting and data confirms the highest Helium purities ever sampled in groundwater in Australia by the CSIRO noble gas laboratory, ranging from air-corrected purity levels of 20% to 25% (50,000 times the concentration in the atmosphere).**
- **Drill analysis identified potential 180m thick and extremely high-purity Kulpara Dolomite zone which featured positive Helium shows in the Stage 1 exploration well testing of Ramsay 2.**
- **Well testing demonstrated promising and increasing purities of both Natural Hydrogen and Helium being measured at surface as the Ramsay 1 and 2 wells were dewatered (refer Figures 2 and 3).**
- **The data acquisition phase of the Ramsay 2D seismic program was completed during the Quarter, with initial analytical results showing the data to be suitable for assisting in the process of selecting future well locations on a regional basis for the Company's 2025 drilling program.**
- **There is current and historical evidence that confirms the presence of both Natural Hydrogen and Helium in numerous locations across PEL 687 (refer Figure 6).**

EXPLORATION AND TECHNICAL ACTIVITIES

General Background

Gold Hydrogen is focused on the discovery and development of Natural Hydrogen and Helium gases in a potentially extensive and world class Natural Hydrogen and Helium province in South Australia. 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. Further to this, Helium is extremely rare and expensive, there is limited world-wide production, and no production of Helium in Australia at present. Gold Hydrogen is well placed to potentially prosper from this opportunity.

Figure 1 – Gold Hydrogen PEL 687 and PELA's located in South Australia



The combined permit and application area of the Gold Hydrogen group which is prospective for Natural Hydrogen and Helium is approximately 75,332km^2. Gold Hydrogen holds one granted petroleum exploration license (PEL 687) as well as one new application area (PELA 792), and its two 100% owned subsidiary companies (White Hydrogen Australia and Byrock Resources) hold an additional seven (7) application areas within South Australia (**refer Figure 1**).

Gold Hydrogen is also the preferred applicant for four (4) gas storage exploration license applications (GSELA) covering an additional 8,107km^2 within the renewable energy zone of PEL 687 within the Yorke Peninsula region of South Australia. A summary of the status of the group's petroleum and storage licence tenure at the end of the Quarter is outlined in **Appendix A**.

Exploration Well Testing Summary – Ramsay 1 & 2 Exploration Wells

Stage 2 exploration well testing results indicated increasing levels for purities of both Natural Hydrogen and Helium measured by equipment at surface. As depicted in **Figure 2** for Natural Hydrogen from the Ramsay 2 well, the shallow Hydrogen zone showed an increasing trend for daily recorded levels of Natural Hydrogen (corrected for air contamination) at surface. As previously reported, the Company measured Natural Hydrogen of purities up to 95.8%[1] across seven (7) zones within Ramsay 2, with the highest recorded at 531m depth.

Testing on Ramsay 1 commenced seven (7) days after Ramsay 2, with the Company focussing on the Helium zone deeper in the formation. As reported by the Company after the end of the Quarter, the recorded Helium concentrations measured during the Stage 2 well testing of Ramsay 1 showed a consistent increase, and did not appear to have reached a stable maximum value at the end of the testing period (refer **Figure 3**).

The Company had previously reported that it had recorded a concentration of Helium of up to 17.5%[1], in the MDT sample taken at 778m during the drilling of Ramsay 2. During the Stage 1 well testing program, the Company obtained two (2) pressurised gas samples with Helium concentrations of 12.6%[1] at 642m, and 17.9%[1] at 712m, and during the Stage 2 well testing program, Ramsay 1 recorded gas to surface at the separator of purities up to 36.9%[1] on an air and nitrogen corrected basis (refer **Figure 3** and **Tables 1 and 2** below for full details). The recorded Helium concentrations showed a consistent increase during the Stage 2 flow testing period of Ramsay 1, and did not appear to have reached a stable maximum value at the end of the testing period.

These Helium concentrations are currently believed to be the highest found in the world in a non-petroleum system. By comparison, a recent discovery reported by Pulsar Helium found a Helium concentration of 13.8% (prior to any possible air-correction) from its Jetstream 1 well in Minnesota, USA[2].

As previously reported, the Company has sent a number of gas samples from the well testing program to established local and international third-party laboratories in Australia, London and Paris for the purposes of obtaining compositional and isotopic analyses. The last of these results and analyses are expected to be finalised shortly.

[1] All Natural Hydrogen and Helium sample results have been corrected for air contamination
[2] https://www.startribune.com/Helium-gas-drilling-iron-range-minnesota-pulsar-edelgas-duluth-metals/600351052/

Figure 2 – Ramsay 2 Testing 200 to 350m Shallow Hydrogen Zone 7 & 8 – Hydrogen concentrations increasing as testing continues as measured from the annulus (corrected for air and Nitrogen contamination).

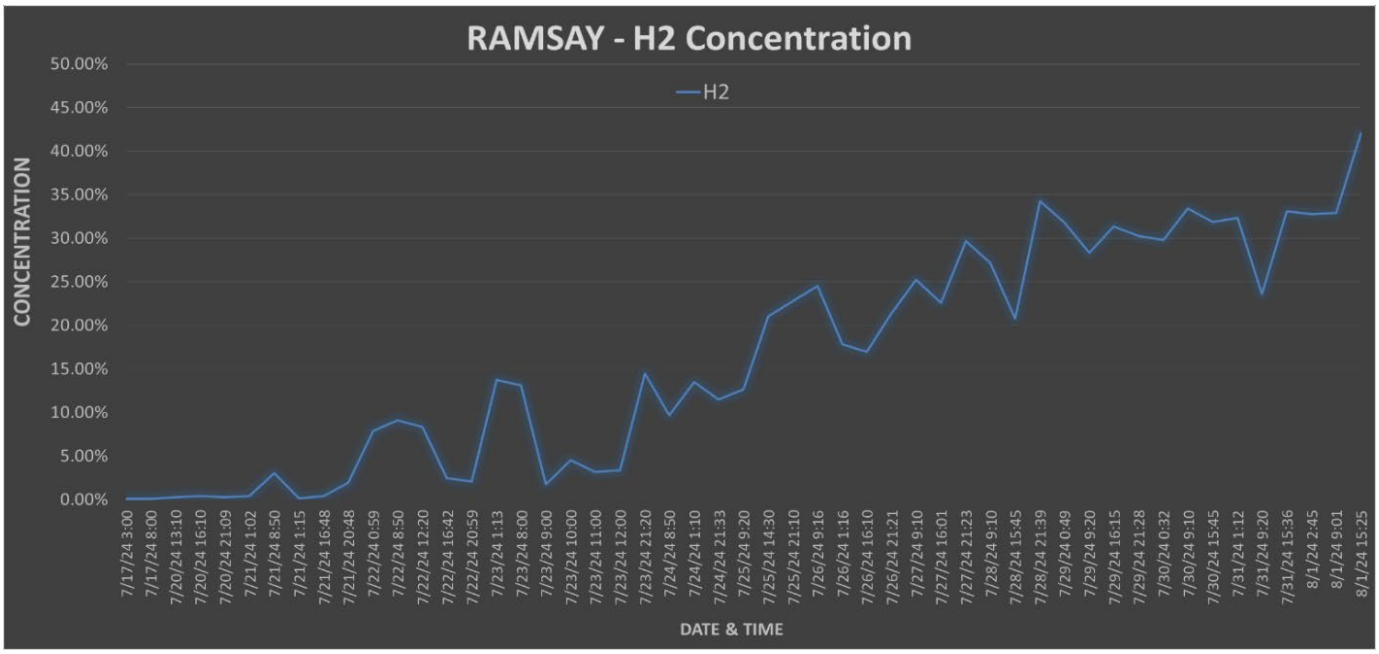


Figure 3 - Ramsay 1 He concentrations (air and nitrogen corrected) measured during the testing of the open Helium zone. The concentrations consistently increase over the testing period, with wellhead sample laboratory analysis confirming the separator measurement.

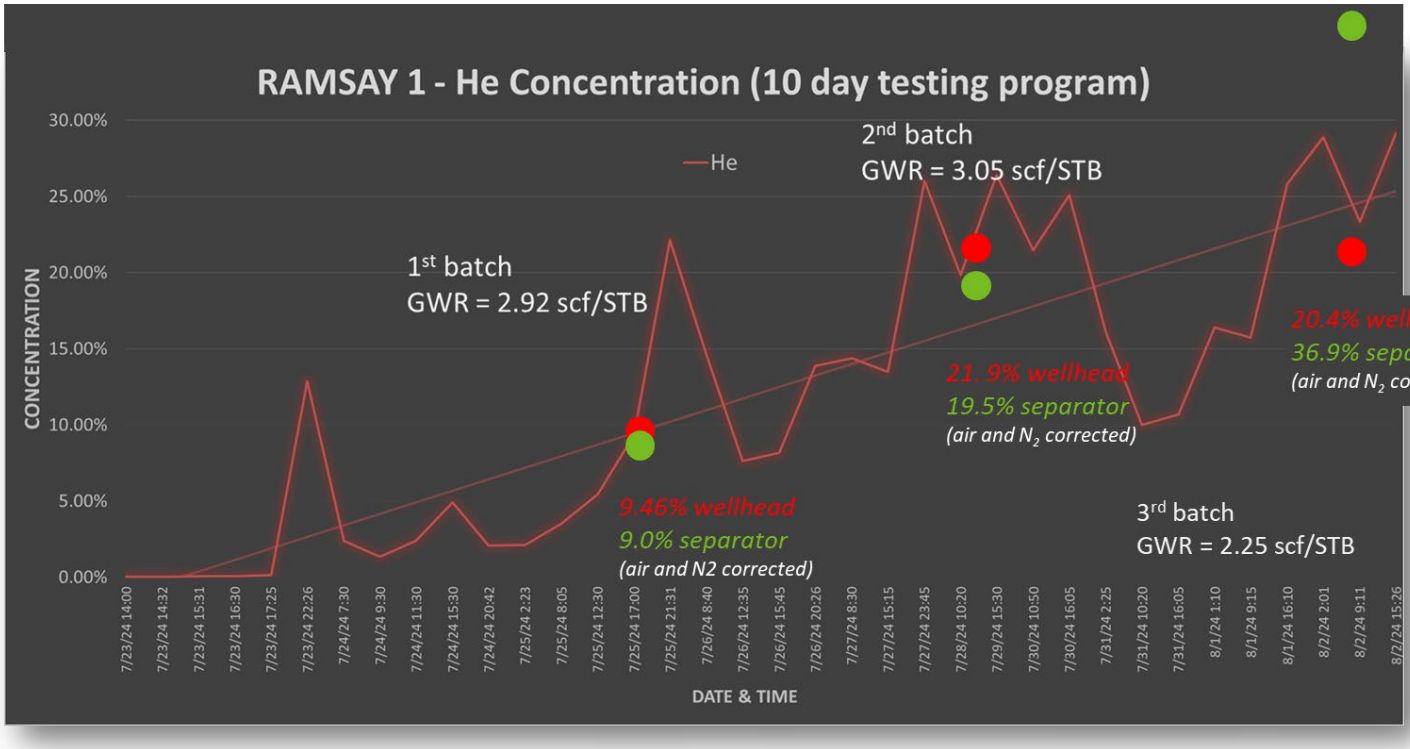


Figure 4 – Exploration Well Testing Equipment on Site at Ramsay 2

2D Seismic Survey

During the Quarter, the acquisition of seismic data by Terrex was completed over approximately 575 kilometres of public roads across the Yorke Peninsula (refer **Figure 5**). Analysis and interpretation of the survey data commenced during the Quarter and is currently ongoing.

The results of the 2D seismic survey - when combined with the Company's other data sets such as the airborne survey data, soil-gas survey data, historical offset well data, and the Ramsay 1 & 2 drill log data and flow test data - will assist the Company in planning future well locations and well designs.

The main objectives of the acquisition and analysis of a modern regional seismic program are to assist in the delineation of the current Ramsay Natural Hydrogen and Helium project, identify potential additional Natural Hydrogen and Helium accumulation(s), to support the identification of future drilling targets and to assist in the transition of prospective resources to contingent resources of discovered accumulations.

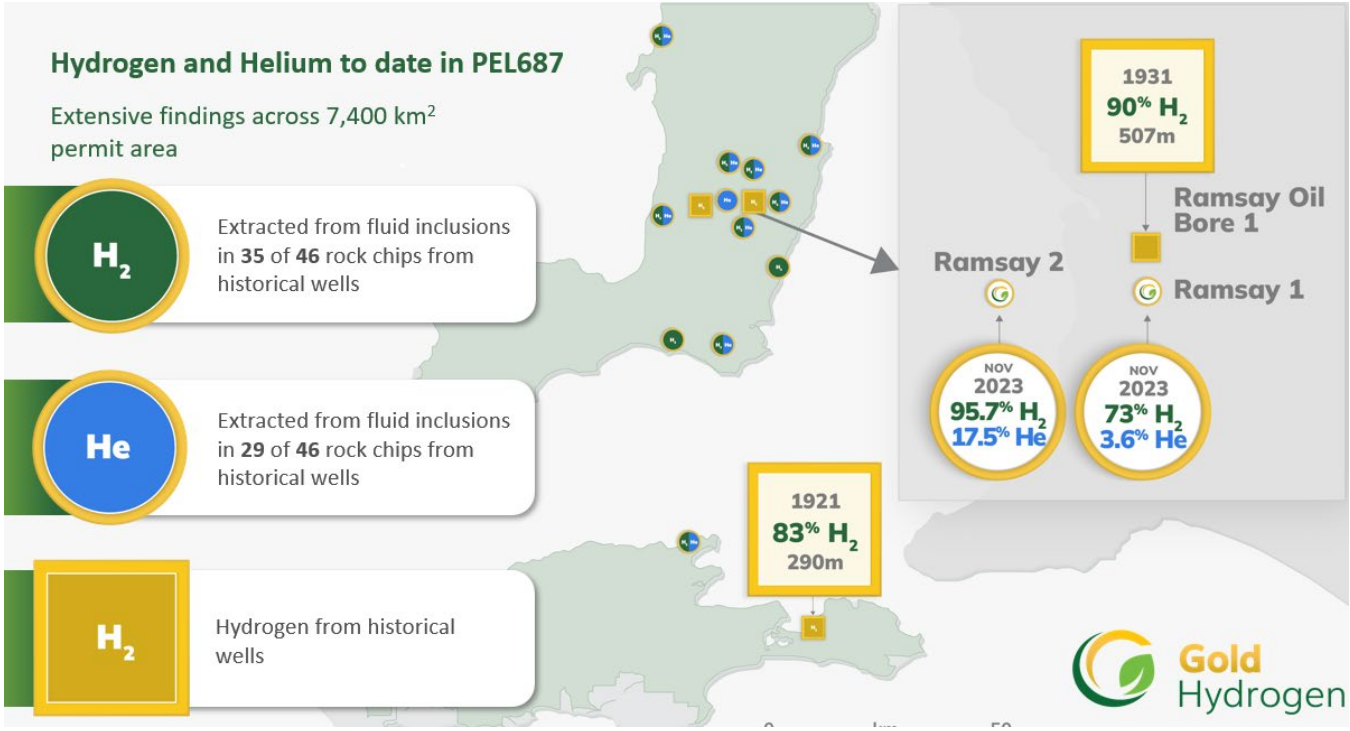
Figure 5 – Map of Seismic Survey Data Acquired

Regional Data Aggregation

As previously reported, a source / reservoir and seal rock characterisation study was undertaken in 2023 on legacy well samples and available historical drill core material from across the Yorke Peninsula. Using historical rock samples, representative of the basement material in the Ramsay Project, a series of laboratory tests using imaging and geomechanics test were conducted to identify key geological parameters for rock strengths, hydrogen generation, hydrogen storage, and reservoir characteristics for hydrogen and / or gases.

Properties of the rock samples were analysed, and found that porosity (storage capacity for gases) and permeability (ability for gases to flow), coupled with microfractures present in both Cambrian limestone and granite basement, provided a favourable setting for Natural Hydrogen and / or Helium production. The results of this study, when combined with the results from the 1931 Ramsay Oil Bore and the Company's own Ramsay 1 and 2 wells, provide encouragement for the existence of a favourable regional setting for both Natural Hydrogen and Helium, as outlined below in **Figure 6.**

Figure 6 - Data points for Natural Hydrogen and Helium encountered on the Yorke Peninsula



Future Activities

Based on the integration of the drilling and testing results with the newly acquired Ramsay 2D data, Gold Hydrogen is in the process of planning a new drilling and data acquisition campaign to delineate the Ramsay Natural Hydrogen and Helium accumulation.

This will involve a number of wells, specifically targeting the different pay zones within the identified structure and using a modified well design to enable testing of the different zones with zonal specific testing configurations. The data from these wells will constrain the pilot project area and design, with the aim of demonstrating the commercial production potential of both Natural Hydrogen and Helium from the Ramsay Project.

In parallel, an extensive 3D seismic survey is being considered over the Ramsay Project area, to illuminate the stratigraphic and structural subsurface complexities, in order to facilitate detailed resource assessments and to optimise drilling locations for future exploration and appraisal wells.

The Ramsay 2D regional seismic data has revealed several Natural Hydrogen and Helium prospects, some of which will be tested with dedicated exploration wells. Selection and timing of these wells will be done in conjunction with the delineation drilling activities, in order to take advantage of the presence of the drilling rig and experienced crew.

Groundbreaking Exploration Testing for Both Natural Hydrogen and Helium

The Ramsay Project well testing program was the first dedicated Natural Hydrogen and Helium well test operation conducted in Australia, and to the Company's knowledge, it is likely one of only a few in the world.

The Company considers this to represent the initial steps of an exciting journey, which is not dissimilar to that undertaken by various world-renowned and ultimately successful oil and gas projects, such as the early days in the CSG and shale industries. For those particular resources, the exploration and completion techniques were developed and optimised over time, improving project economics and ultimately leading to major projects being developed. The Company anticipates a similar path forward for its Natural Hydrogen and Helium prospective resources, although the timeframe may be quicker as drilling and completions technologies developed for other gas resources may be applicable to its Natural Hydrogen and Helium projects.

First Key Step on the Journey to Future Potential Development

The Company is of the view that the Ramsay Project contains significant prospective resources of both Natural Hydrogen and Helium, with large scale potential that it is aiming to be potentially developed over time.

There is very little data available for dedicated Natural 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 Ramsay 1 and Ramsay 2 exploration well testing program. 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 Bourakébougou. 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.[3]

Helium is extremely valuable and indicatively, longer-term bulk pricing is expected to approximate USD450 per Mcf (thousand cubic feet).[4]

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 Natural Hydrogen and Helium, but also due to the location of the current and potential project sites within agricultural areas and proximal to National Parks on both the 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.

[3] "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/)

[4] February 2024, www.noblehelium.com.au, quoting Konbluth Helium Consulting.

FINANCIAL REPORTING

Exploration expenditures that were capitalised relate to the Company's flagship Ramsay Project (PEL 687) over the Yorke Peninsula / Kangaroo Island.

Exploration Expenditures – Item 1.2(a) of Quarterly Cashflow Report

Nature of Expenditure	Amount
Airborne and seismic surveys and sub-surface studies	$2,199,990
Environmental and permitting costs	$6,205
Native Title, land access and licence fees	$46,372
Drilling and related activities	$3,003,376
Total	**$5,255,944**

Payments to Directors – Item 6.1 of Quarterly Cashflow Report

Payments consisted of fees paid for Executive Director and Non-Executive Director services, pursuant to written agreements and employment contracts, totalling $159,442 for the September 2024 Quarter (although some payments made during the Quarter related to prior periods).

Reporting Against IPO Use of Funds

The Company remains on track with regard to its forecast spending and activities as outlined in its 29 November 2022 Replacement Prospectus. The amount of funds expended on exploration expenditure as originally forecast will be partially offset or supplemented via access to R&D offset funding.

Use of Funds Figures Reported Net of GST	Prospectus 2-year period	FY23 Total	FY24 Total	Sep-24 Quarter	Cumulative Total
Native Title, Land Access and Licence Fees	*$ 1,490,223*	$ 78,702	$ 325,882	*$ 46,372*	$ 450,956
Environmental and Permitting Costs	*$ 690,250*	$ 192,477	$ 457,475	*$ 6,205*	$ 656,157
Airborne and Seismic Surveys and Sub-surface Studies	*$ 2,747,120*	$ 1,678,066	$ 1,239,312	*$ 2,199,990*	$ 5,117,368
Drilling and Related Activities	*$ 10,303,493*	$ 538,164	$ 12,479,068	*$ 3,003,376*	$ 16,020,608
Less R&D Refund Received from Australian Taxation Office	*$ -*	$ -	$ (1,912,083)	*$ -*	$ (1,912,083)
Total Exploration, Field Development and Drilling Related	**$ 15,231,086**	**$ 2,487,409**	**$ 12,589,653**	**$ 5,255,944**	**$ 20,333,006**
Corporate and Administrative Costs	**$ 3,523,500**	**$ 1,384,533**	**$ 2,112,986**	**$ 556,622**	**$ 4,054,141**
IPO Related Costs	**$ 1,351,129**	**$ 1,052,072**	**$ -**	**$ -**	**$ 1,052,072**
Total Use of Funds	**$ 20,105,715**	**$ 4,924,013**	**$ 14,702,640**	**$ 5,812,565**	**$ 25,439,219**

Table 1 - Summary of Ramsay 2, Stage 1 Test Results (ASX release of 27 May 2024)

Name:	**Ramsay 2**	
Location (UTM zone 53 GDA2020)		
X	747,707.86	
Y	6149385.41	
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% H2
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 - Summary of Additional Ramsay 2 Testing Results (ASX release of 2 August 2024)

Name:	**Ramsay 2**		
Location (UTM zone 53 GDA2020)			
X	747,707.86		
Y	6149385.41		
Permit	PEL687		
Entity holders	Gold Hydrogen 100%		
Zones tested	Zone 1	Zone 2 and 3	Zone 7 and 8
Resources	Helium	Helium	Hydrogen
Formation	Granite Basement	Kulpara Dolomite	Parara Limestone
Gross thickness and net pay thickness	>200m Gross	180m Gross	406m Gross
Geological rock type	Granite	Dolomite	Limestone
Depth of the zones tested	1002mMD	712 mMD	197mMD and 289mMD
Type of test	Pressure test	Commingled pressure test	Commingled pressure test
Phase recovered	Gas/Water	Gas/Water	Gas/Water
Corrected H2 and He concentration in gas recovered from downhole sample	20 to 25% He	20 to 25% He	42% H2 (still increasing)*
Flow rates, choke size, volumes recovered	TBA		
Fracture stimulation	None	None	None
Material non-hydrocarbons	Nitrogen, Hydrogen	Nitrogen, Hydrogen	Nitrogen, Helium

**** Refer to Figure 2***

Table 3 – Summary of Helium Results from Ramsay 1, Stage 2 Testing (ASX release of 17 October 2024)

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 2 and 3
Resources	Helium
Formation	Kulpara Dolomite
Gross thickness and net pay thickness	180m Gross
Geological rock type	Dolomite
Depth of the zones tested	900 mMD
Type of test	Commingled pressure test
Phase recovered	Gas/Water
Corrected H2 and He concentration in gas recovered from downhole sample	36.9% He
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
Fracture stimulation	None
Material non-hydrocarbons	Nitrogen, Hydrogen

Table 4 – 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**	**1313**	**4187**	**8820**		**22%**	**48%**	**10%**
Yorke Peninsula										
PEL 687	Ramsay FB	Prospect	124	931	2712	6989		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.**

The Company confirms that it is not aware of any further new information or data that materially affects the estimates of Natural Hydrogen Prospective Resources (as originally estimated on 30 September 2021), and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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 5 – 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 release of 21 February 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.

This report has been authorised for release by the Board.

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QPRRE Statements

The Prospective Resource Statements for Natural Hydrogen and Helium have been included in this report 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 report, there are no changes to information or any additional information, since the effective date of each prospective resource report (refer below), that would materially change the estimates of prospective resources quoted.

QPRRE Statement – Natural Hydrogen

The Prospective Resource Statement for Natural Hydrogen in this report 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.

QPRRE Statement – Helium

The Prospective Resource Statement for Helium in this report is based on, and fairly represents, information and supporting documentation prepared by independent consultants "Teof Rodrigues & Associates" with an effective date of 21 February 2024, and which was announced by the Company on that date together with the accompanying assumptions and notes.

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.

Appendix A

Overview of the Gold Hydrogen Group's PEL, PELAs, GSELAs and EL

Permit	Project Name	Gold Hydrogen Interest	Applicant	Geologic Area & Basin	Size (km²)	Term	Grant Date	Application Date	Expiry Date	Status	Act
PEL 687	Ramsay	100%	Gold Hydrogen Limited	Stansbury Basin & Kanmantoo Trough	7,820	5 years	22/7/21	-	21/07/26	Granted	PGEA 2000
EL 6988	Warooka	100%	Sustainable Minerals Group Pty Ltd	Stansbury Basin & Kanmantoo Trough	542	6 years	10/4/24	-	9/4/30	Granted	MA 1971
PEL(A) 688	Kanmantoo	100%	Byrock Resources Pty Ltd	Stansbury Basin & Kanmantoo Trough	9,962	5 years	-	12/5/21	-	Pending	PGEA 2000
PEL(A) 699	Robe	100%	White Hydrogen Australia Pty Ltd	Padthaway Ridge-Kanmantoo Platform & Otway Basin	9,624	5 years	-	19/7/21	-	Pending	PGEA 2000
PEL(A) 700	Padthaway	100%	White Hydrogen Australia Pty Ltd	Padthaway Ridge-Kanmantoo Platform & Troubridge Basin	9,748	5 years	-	19/7/21	-	Pending	PGEA 2000
PEL(A) 701	Troubridge	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Platform & Troubridge Basin	9,750	5 years	-	19/7/21	-	Pending	PGEA 2000
PEL(A) 702	Renmark	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Platform & Renmark Trough	9,563	5 years	-	19/7/21	-	Pending	PGEA 2000
PEL(A) 703	Boucat	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Platform & Renmark Trough	9,015	5 years	-	3/8/22	-	Pending	PGEA 2000
PEL(A) 704	Baratta	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Platform & Renmark Trough	9,850	5 years	-	19/7/21	-	Pending	PGEA 2000
GSEL(A) 755	Maitland	100%	White Hydrogen Australia Pty Ltd	Stansbury Basin	2,470	5 years	-	28/4/22	-	Pending	PGEA 2000
GSEL(A) 756	Yorketown	100%	White Hydrogen Australia Pty Ltd	Stansbury Basin	2,272	5 years	-	28/4/22	-	Pending	PGEA 2000
GSEL(A) 757	Flinders	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Trough	1,780	5 years	-	28/4/22	-	Pending	PGEA 2000
GSEL(A) 758	Penneshaw	100%	White Hydrogen Australia Pty Ltd	Kanmantoo Trough	1,585	5 years	-	28/4/22	-	Pending	PGEA 2000

Three were no changes to the above table for the current Quarter.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
Gold Hydrogen Limited	
ABN	**Quarter ended ("current quarter")**
74 647 468 899	30 September 2024

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (3 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(5,256)	(5,256)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(318)	(318)
	(e) administration and corporate costs	(239)	(239)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	126	126
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material) – net GST	(126)	(126)
1.9	**Net cash from / (used in) operating activities**	**(5,813)**	**(5,813)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**-**	**-**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**-**	**-**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	15,600	15,600
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(5,813)	(5,813)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**9,787**	**9,787**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	3,911	4,725
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details) - term deposit(s)	5,000	10,000
5.4	Other (provide details) - SA DEM security	845	845
5.4	Other (provide details) - bank guarantee	31	30
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**9,787**	**15,600**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	159
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	**-**	**-**

7.5	**Unused financing facilities available at quarter end**	**-**
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(5,813)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(5,813)
8.4	Cash and cash equivalents at quarter end (item 4.6)	9,787
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	9,787
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	1.684

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: Yes. Q4, 2024 expenditure is not anticipated to be as high as previous quarters whilst the Company plans and pre-orders the componentry for its 2025 drilling and testing programs.

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: In addition to the above, the Company is in the process of finalising its multi-million dollar FY2024 R&D Claim, which is expected to be lodged shortly.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes, as outlined above.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 25 October 2024

Authorised by: Karl Schlobohm, Company Secretary and CFO
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.