Gold Hydrogen

Committed to Developing Naturally Occurring Hydrogen and Helium in Australia

Neil McDonald – Managing Director

The Gold Standard in Green Energy

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Prospective Resource Statements

The Prospective Resource Statements for Natural Hydrogen and for Helium have been included in presentation 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 are no changes to information or additional information, since the effective dates, that would materially change the estimates of prospective resources quoted.

QPRRE Statement – Natural Hydrogen

The Prospective Resource Statement for Natural Hydrogen in this presentation 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 announcement 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 30 October 2024, and which was announced by the Company on those dates together with the accompanying assumptions and notes.

Gold Hydrogen – Corporate Snapshot

Board of Directors

- **Alexander Downer** – Non-Executive Chair
- **Katherine Barnet** – Non-Executive Director
- **Neil McDonald** – Managing Director
- **Roger Cressey** – Executive Director

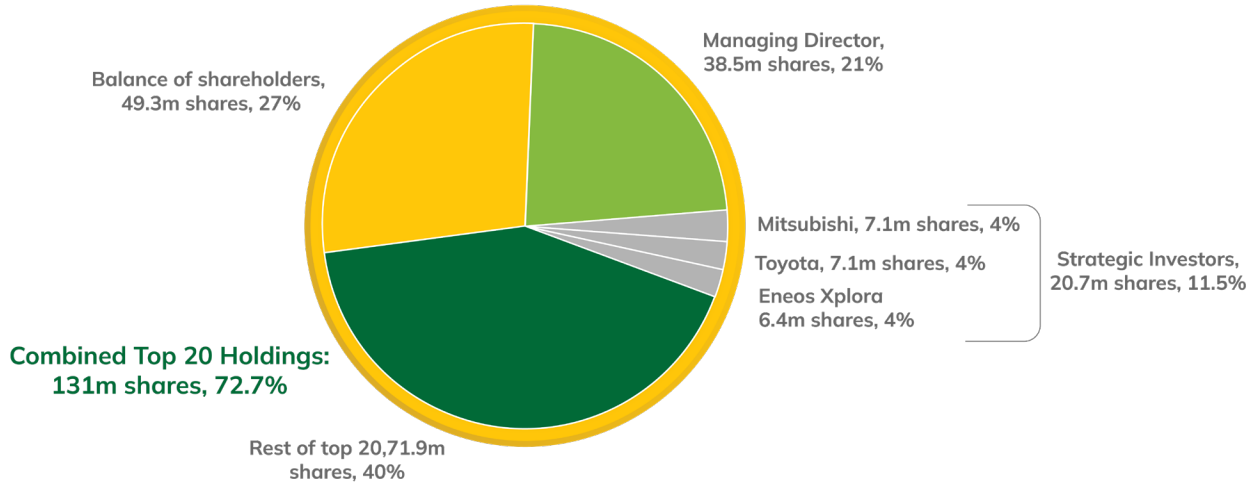
Tenure

- 1 granted Petroleum Licence – PEL 687 Ramsay Project
- 8 Petroleum Licence Application Areas
- 1 granted Mineral Exploration Licence
- 4 Storage Licence Applications – PEL 687 Ramsay Project

Market Cap – $100 million

Cash on Hand – $22.5 million

Shares on Issue – 180.5 million



TOYOTA

ENEOS Xplora

MITSUBISHI GAS CHEMICAL

Executive Summary – Natural Hydrogen and Helium

Title over certified Prospective Resources

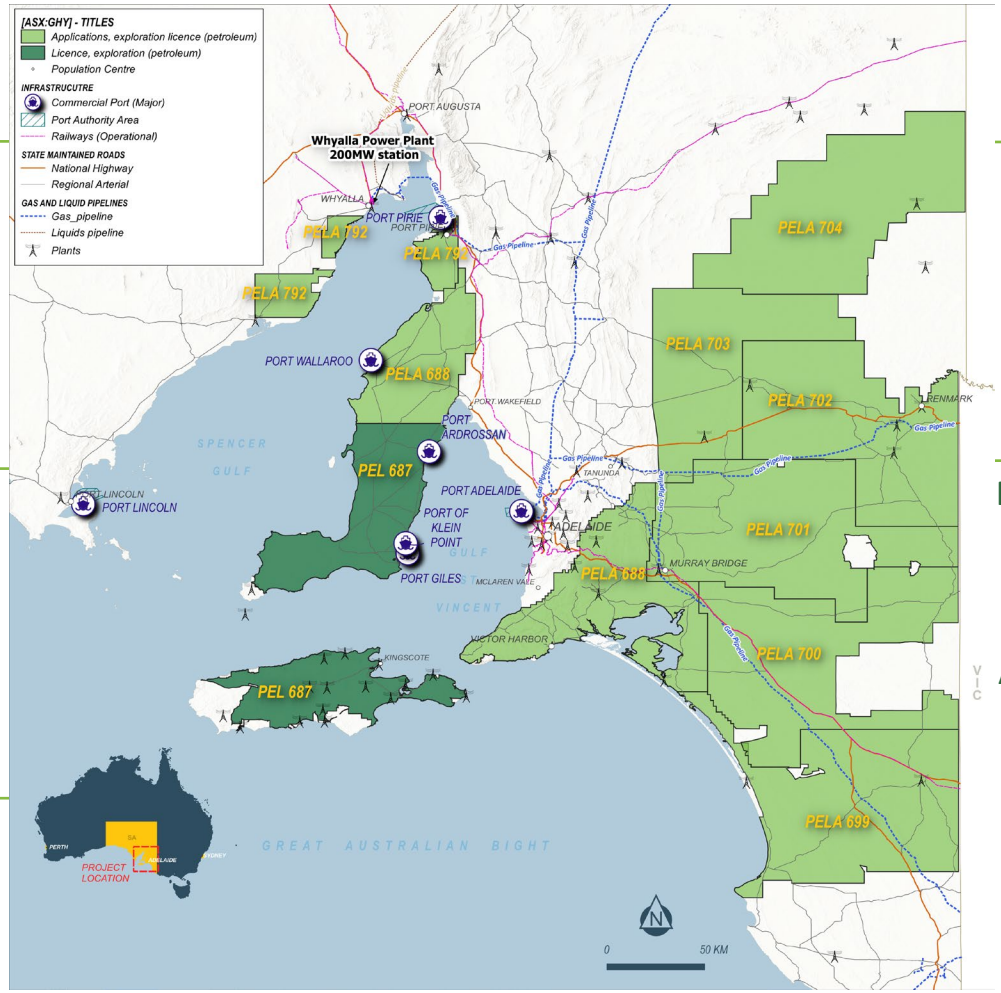
1.3 billion kg of natural Hydrogen[1]
41 Bcf of Helium[1]
(with a mean of 96 Bcf)

Ramsay Project 100% owned

7,820 km²
plus a further **69,472km²** under exclusive application

High purity gas sample levels[2]

95.8% Hydrogen
Up to 36.9% Helium
Helium-3 detected in samples



Engagements to date with leading global experts and contractors

CSIRO, Schlumberger, Total Seismic, Xcalibur, Savanna Energy Services, Terrex Seismic, SGS

Commercial and environmental competitive advantages

Natural hydrogen provides **cost and emission advantages** over other production sources

A number of global gas projects are **commercial with much lower concentration** of helium
(<1% helium as a by-product)

1. Prospective Resources are based on un-risked Best Estimate. Refer Appendix for full details.
2. Laboratory gas sample analyses - air (and nitrogen) corrected. Refer ASX releases of 27 May 2024, 2 August 2024 and 17 & 30 October 2024. Technical Tables appended.

Overview

Gold Hydrogen drilled 2 exploration wells in 2023 and tested them in 2024 to confirm the historic 1931 Ramsay Oil Bore drill location and the historic high-purity occurrence of Natural Hydrogen.

In mid 2024, an extensive 2D seismic program was undertaken, confirming multiple further drill targets in more optimal locations than the 1931 and 2023 drill holes.

These two exploration wells (Ramsay 1 & 2) confirmed world-leading purities of both Natural Hydrogen and Helium, via narrow-gauge exploration wells, which were not designed to be appraisal or production wells.

Following extensive due diligence, site visits and negotiations, Toyota Motor Corporation, Mitsubishi Gas Chemical Inc and ENEOS Xplora Inc invested $14.5m into Gold Hydrogen in July 2025 towards the upcoming 2025 drilling program of 2 to 3 wells in more optimal locations. The program has been planned with enhanced well design engineering to facilitate a more realistic appraisal of the commercial potential of the Ramsay field.

The permitted testing period allowed for Ramsay 1 & 2 enabled the Company to confirm that Natural Hydrogen and Helium could be brought to surface.

Based on the knowledge and results achieved to date, and working with its strategic Japanese investors, Gold Hydrogen is analysing potential commercial opportunities for both Natural Hydrogen and Helium.

Industry Overview

Gold Hydrogen

Types of Hydrogen Production

Naturally occurring Hydrogen offers significant cost and / or carbon advantages relative to other Hydrogen production (manufacturing) processes

Gold Hydrogen is exploring for 'gold' or 'white' (natural) Hydrogen

Today, ~95% of all hydrogen produced is from natural gas

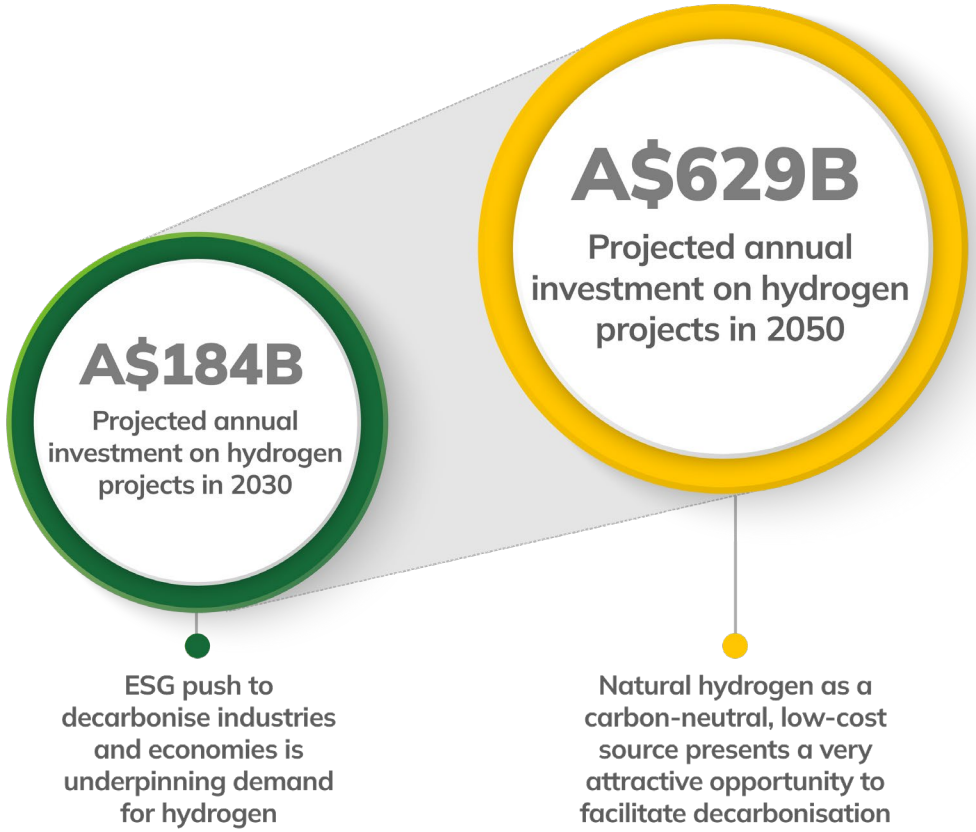
	Gold / White (natural)	Grey	Black/Brown	Blue	Green
Energy source	Natural hydrogen	Natural gas	Coal	Natural gas / coal	Renewables / biomass
Environmental impact	Low	High	Very High	Low	Low
No thermal process	✓	✗	✗	✗	✗
Production cost (A$/kg)[1,2]	$1.00	$5.60	$6.20-$6.40	$10.20-$10.30	P: $6.40-$25.50 A: $4.70-$23.20
Cost comparable to existing power generation[3]	✓	✗	✗	✗	✗

Source: Frost and Sullivan, Sep-2022 (Refer Gold Hydrogen Replacement Prospectus dated 29 November 2022)

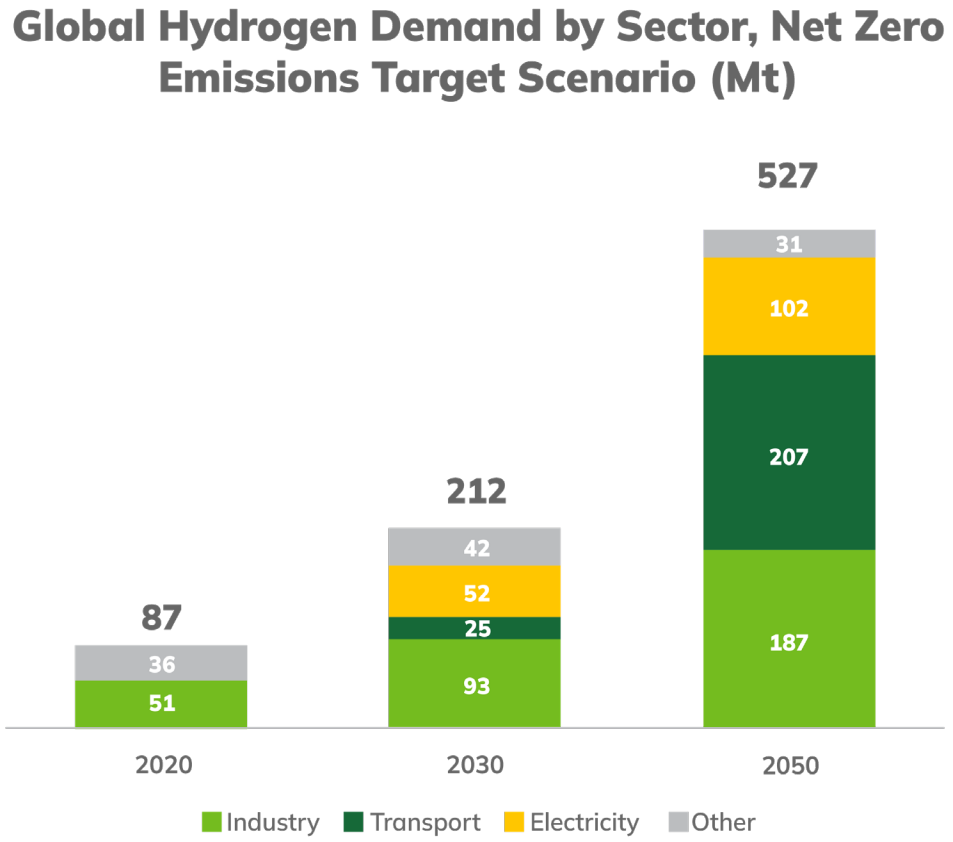
1. Source: Christophe Rigollet1, Alain Prinzhofer2,3, Natural Hydrogen: A New Source of Carbon-Free and Renewable Energy That Can Compete With Hydrocarbons, First Break, Volume 40, Issue 10, Oct 2022, p. 78 – 84 DOI: https://doi.org/10.3997/1365-2397.fb2022087; "The Bourakébougou field, in Mali, represents the first natural hydrogen deposit studied both scientifically and industrially. It gives us information on its renewability, on the natural flows involved and therefore on its sustainable exploitation. It is possible to estimate that the cost of operating hydrogen would be less than $1/kg, which is significantly cheaper than any manufactured hydrogen, whether green, grey, or blue. Equivalent work is in progress in other continents, in order to be able to compare our knowledge of this Malian field with other fields in the world, which will make it possible to better ensure the industrial and societal interest of R&D for this new field."
2. P = Polymer electrolyte membrane electrolysis. A = Alkaline Electrolysis. Gold Hydrogen cost is an estimate
3. For industrial buyers, a hydrogen offtake price of €3 ($4.50) per kg would be required to incentivise hydrogen production over power generation

Global Hydrogen Forecast

Substantial investment laying the foundation for Hydrogen use

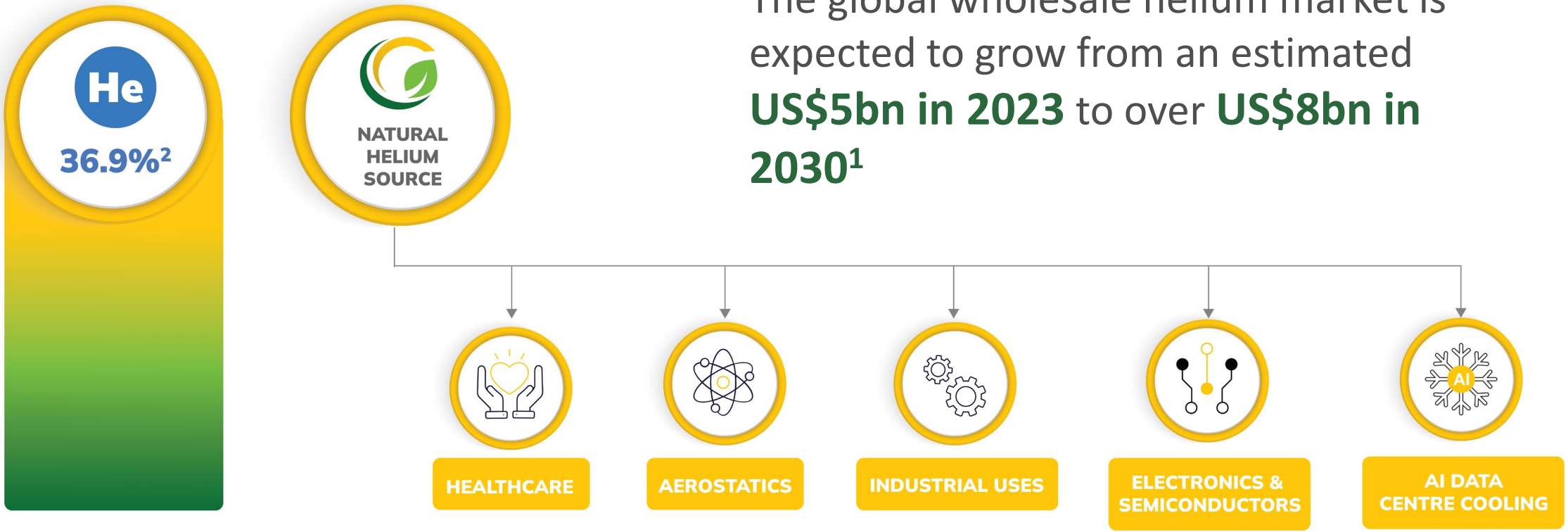


Source: Frost & Sullivan Report - Page 29 of Gold Hydrogen Prospectus.



Source: International Energy Agency, Oct-2021 (Other includes buildings, agriculture and refineries).

Key Drivers for Helium



The global wholesale helium market is expected to grow from an estimated **US$5bn in 2023** to over **US$8bn in 2030**[1]

There are commercial global gas projects with significant lower helium concentrations (>1%)

Indicatively pricing is currently approximately **USD400-500 per Mcf** (thousand cubic feet)

(Source: Kornbluth Helium Consulting)

1. Source: USGS, 2023: https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-helium.pdf
2. Air-corrected laboratory analyses for Helium purities. Refer ASX releases of 2 August 2024 and 17 October 2024. Technical Tables appended.

Technical Results and Findings

Gold Hydrogen

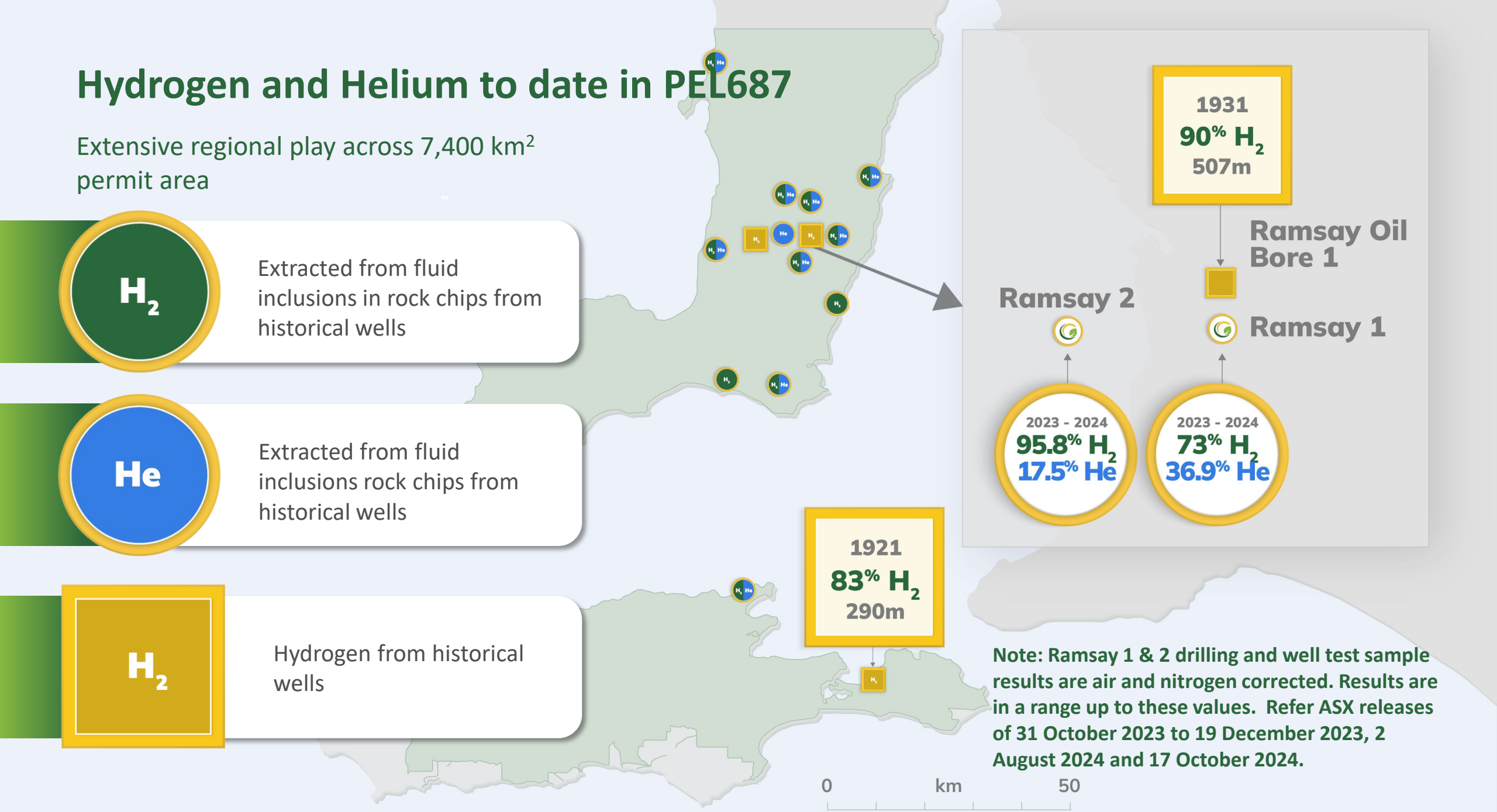
Hydrogen and Helium to date in PEL687

Extensive regional play across 7,400 km^2 permit area

H_2 Extracted from fluid inclusions in rock chips from historical wells

He Extracted from fluid inclusions rock chips from historical wells

H_2 Hydrogen from historical wells



Note: Ramsay 1 & 2 drilling and well test sample results are air and nitrogen corrected. Results are in a range up to these values. Refer ASX releases of 31 October 2023 to 19 December 2023, 2 August 2024 and 17 October 2024.

Key Technical Results and Findings to Date

- 2024 drilling and well testing **confirmed the presence of a Natural Hydrogen and Helium system** adjacent to the historic (1931 Ramsay Oil Bore) site at Ramsay.
- **World-class purities** of Natural Hydrogen and Helium measured during GHY drilling and testing:
  - 95.8% Natural Hydrogen[1]
  - 36.9% Helium[1]
- During exploration well testing, both Natural Hydrogen and Helium **concentrations increased over time** as formation water was pumped from the wells *(see slides 14 and 15).*

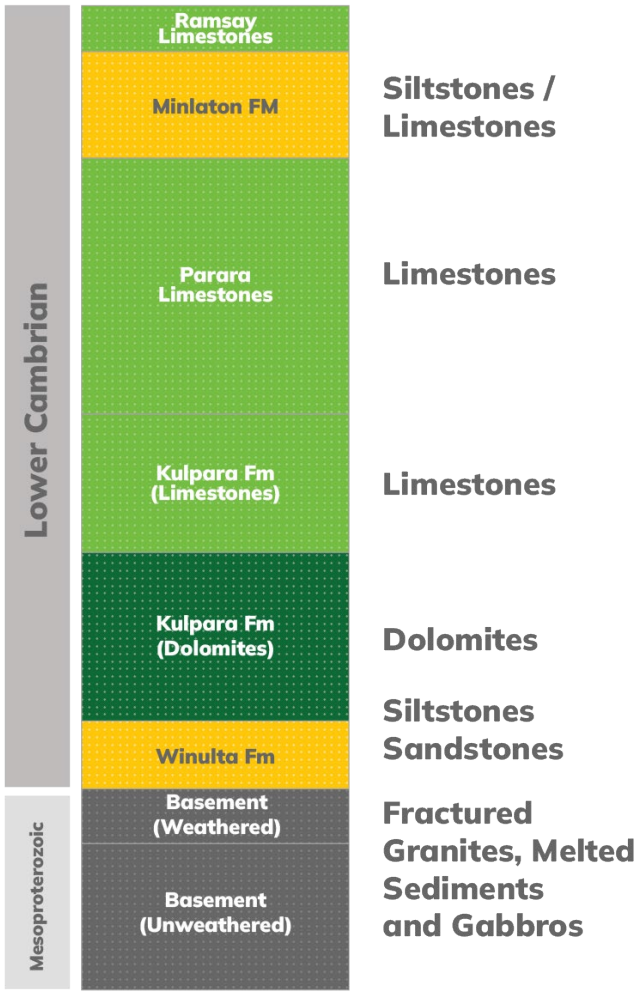
- **Helium-3 identified** at Ramsay via noble gas analysis conducted at Oxford University[1].
- Aeromag (aerial gravity and magnetics) and 2D seismic surveys have helped to delineate basement architecture and structural lineaments across the Yorke Peninsula which have formed the basis for identifying **new drilling and testing locations.**
- Fluid inclusion studies (conducted by CSIRO) identified the existence of Natural Hydrogen and Helium in **numerous places across the Yorke Peninsula.**
- Prospective resource estimates established by third-party consultants for both Natural Hydrogen and Helium within PEL 687 (Yorke Peninsula).

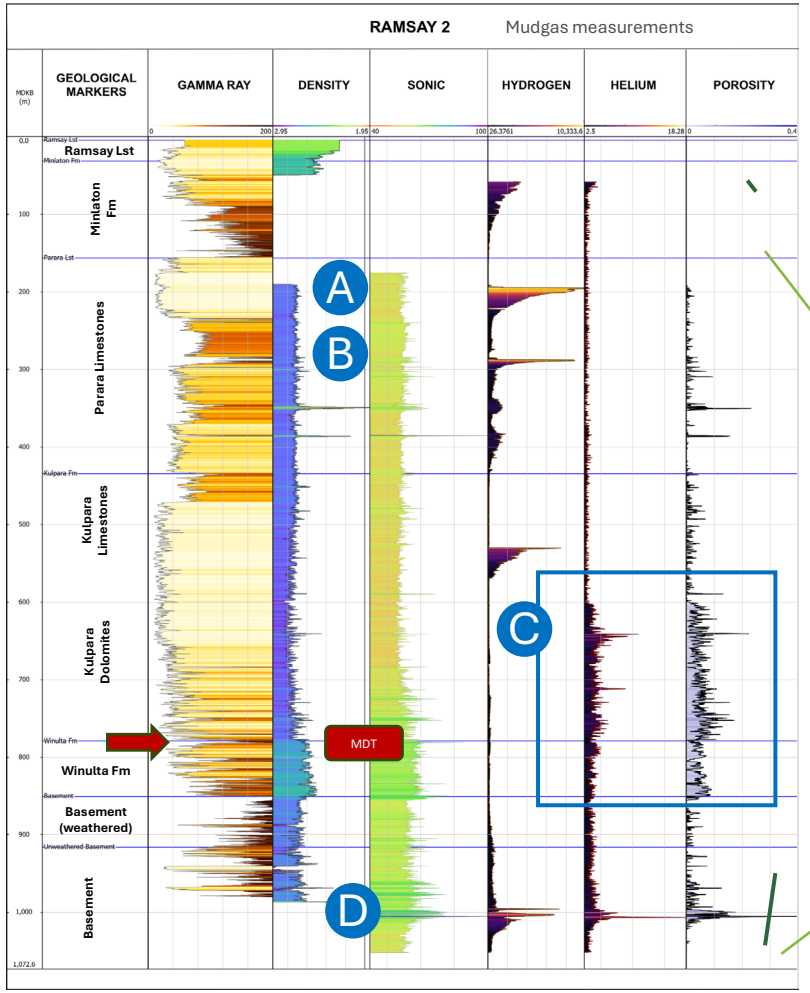
1. Laboratory gas sample analyses - air (and nitrogen) corrected.
   Refer ASX releases of 27 May 2024, 2 August 2024 and 17 & 30 October 2024. Technical Tables appended.

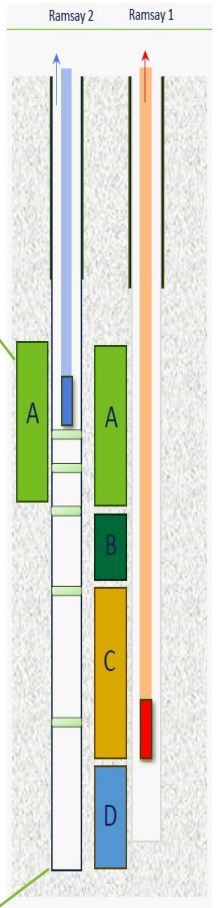
Ramsay 1 & 2 – Drilling Objectives

Target Zones & Resources (Hydrogen / Helium)

- 4 main target zones identified from drilling and testing Ramsay 1 and 2.
- Hydrogen shows in basement (D) and shallow zones (A and B).
- Helium in dolomite zone (C) and basement (D).



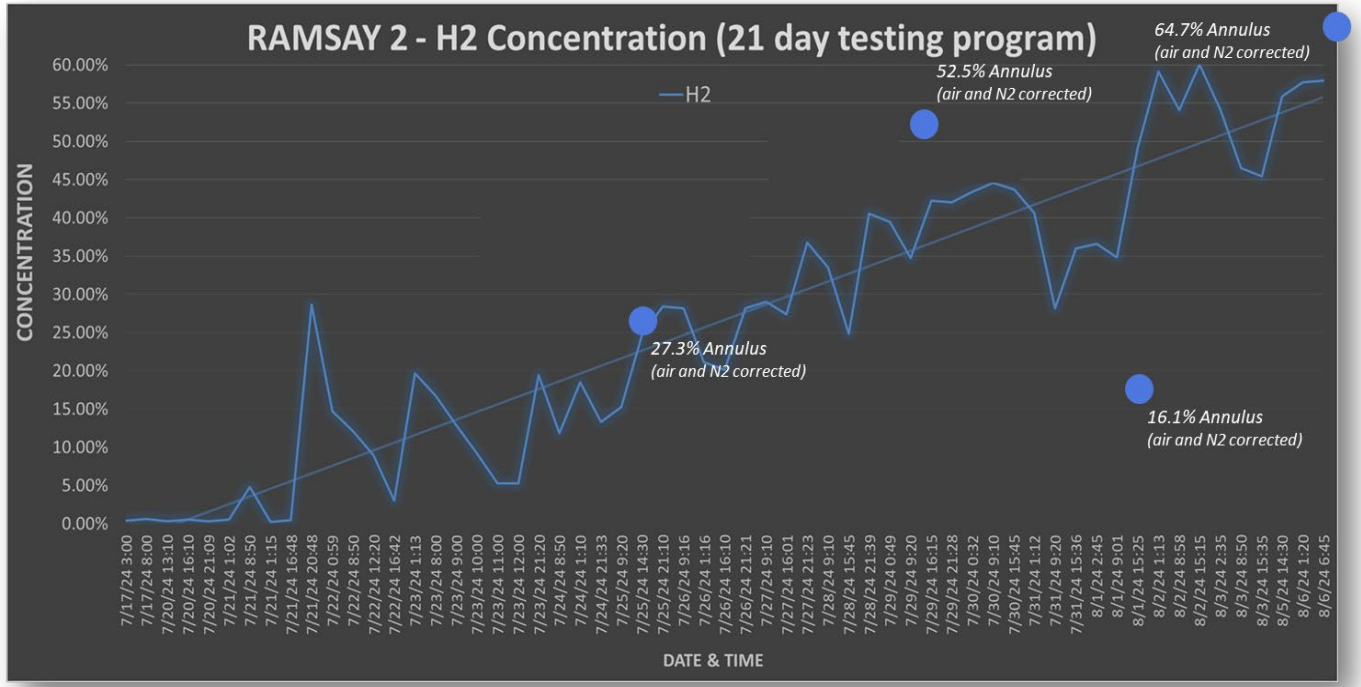




Stage 2 Well Testing
Ramsay 2 Hydrogen Concentrations Over Time

Stage 2 well testing of **Ramsay 2** exploration well at depths 200m to 350m[1]

- Narrow exploration well.
- Testing process and timeframe limited by Govt approvals.
- H2 concentrations increased over time as the well was dewatered, with gas to surface.
- Successful testing and data collection from exploration well achieved.
- 2025 / 26 program designed to optimise testing timeframes and potential outcomes (larger well bores and pump sizes to optimise gas recovery).

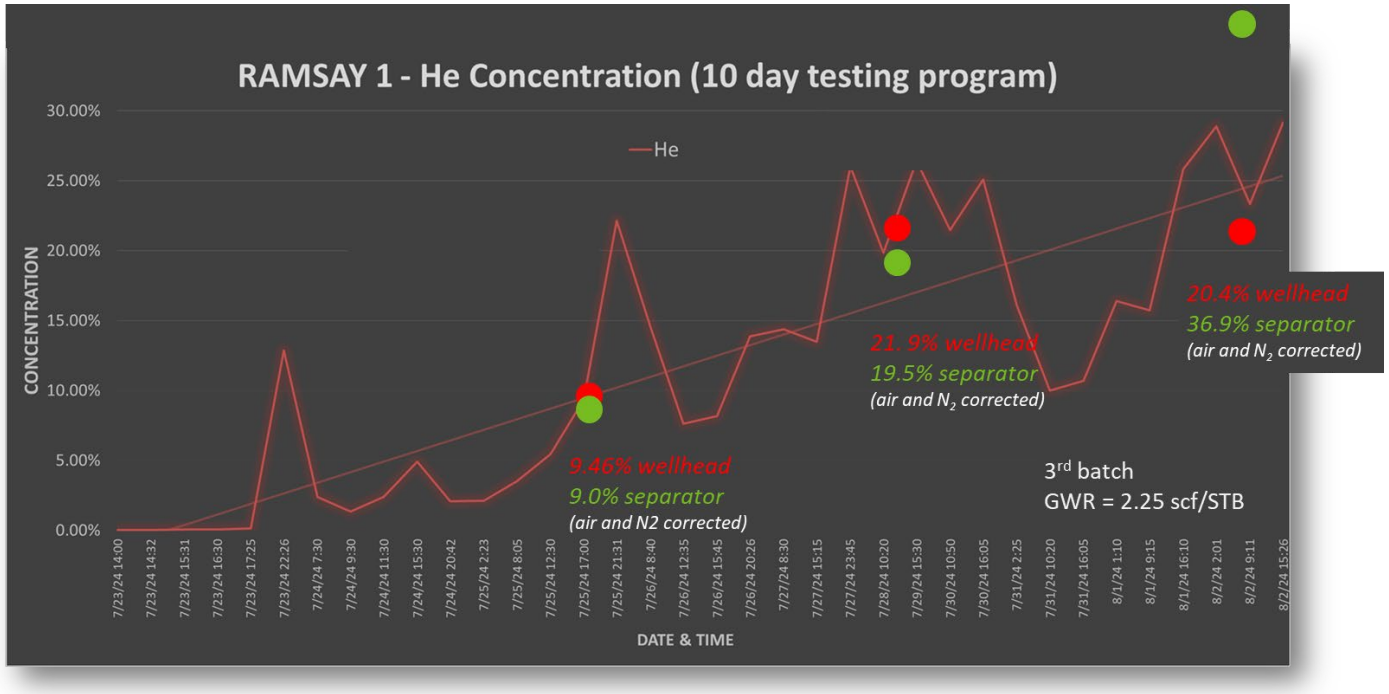


1. Graph extrapolated from ASX release of 2 August 2024. Technical Table appended.
Note: gas samples from the annulus at the wellhead. Concentrations are corrected for air and nitrogen.

Stage 2 Well Testing
Ramsay 1 Helium Concentrations Over Time

Stage 2 well testing of the **Ramsay 1** exploration well

- Narrow exploration well.
- Testing process and timeframe limited by Govt approvals.
- Helium concentrations increased over time as the well was dewatered, with gas to surface.
- World-leading purity of Helium (36.9%[1]) established, providing encouragement that the Ramsay field could potentially support a commercial development for Helium.
- 2025 / 26 program designed to optimise testing timeframes and potential outcomes (larger well bores and pump sizes to optimise gas recovery).

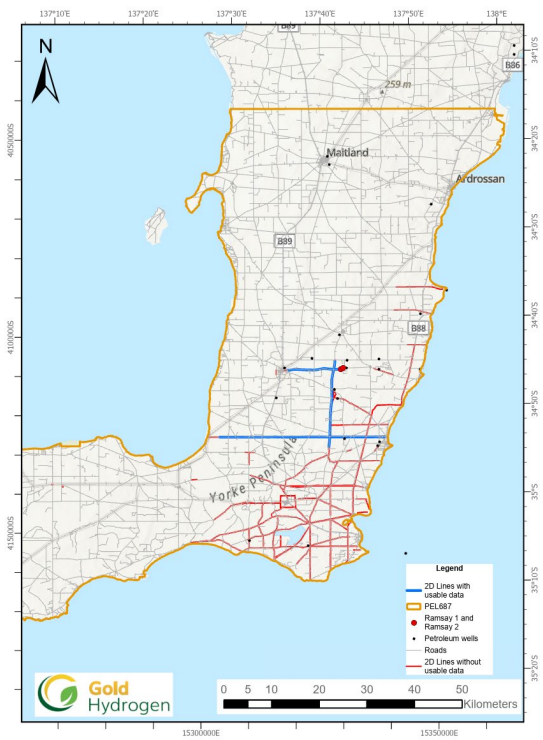


1. Laboratory gas sample analyses - air (and nitrogen) corrected. Refer ASX releases of 17 October 2024. Technical Tables appended.
2. Graph reference: ASX release release of 17 October 2024. Technical Table appended. Results measured at the gas separator; air and nitrogen corrected.

Ramsay 2D Seismic Program

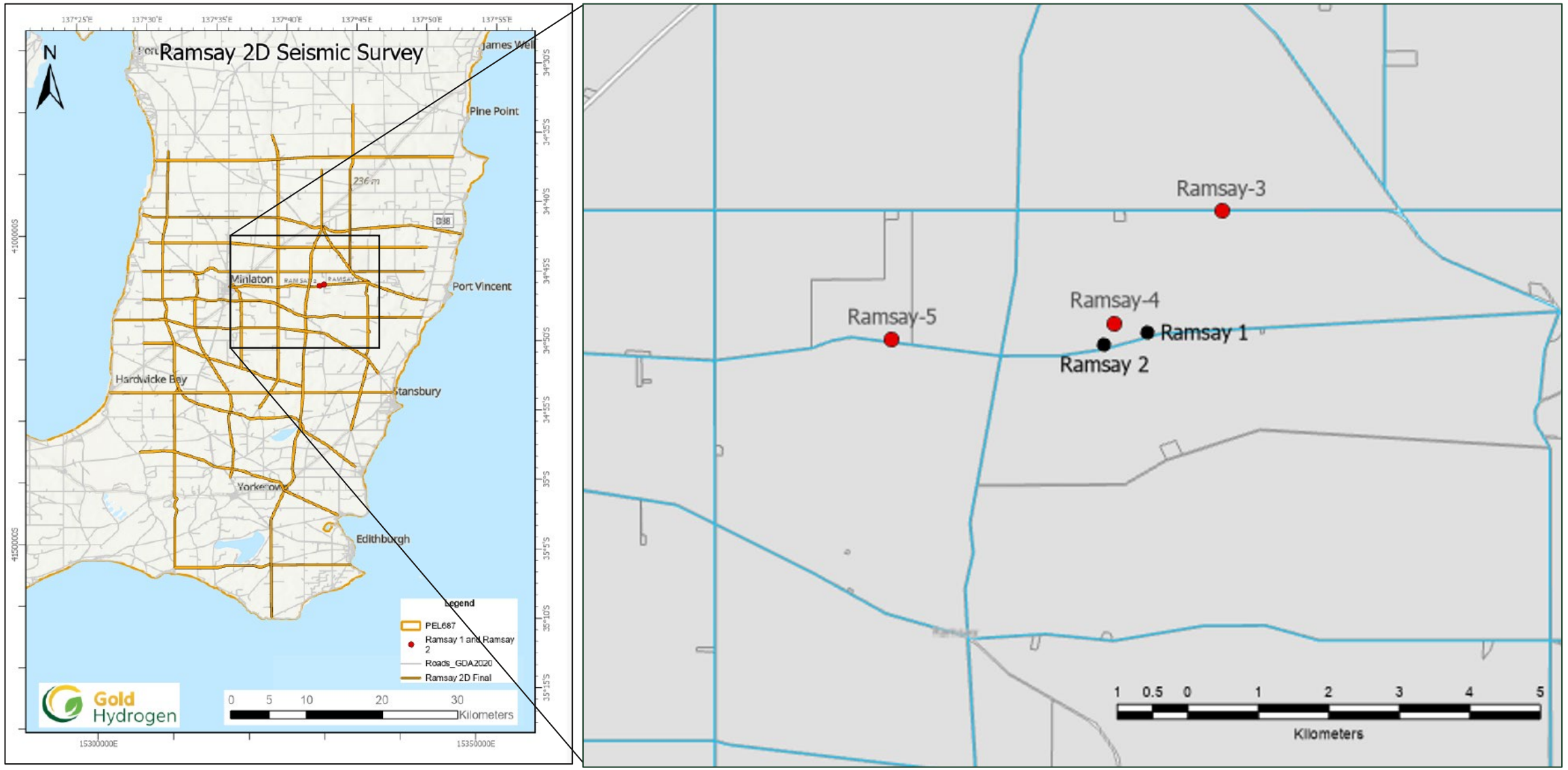
Regional 2D seismic survey acquired June - July 2024

- Historic seismic data over the Yorke Peninsula PEL 687 was extremely limited.
- The Company's 2024 seismic data acquisition allowed fresh interpretation of the geological setting for PEL 687.
- 2025 well locations selected with reference to the 2024 seismic data in more optimal locations, including up-dip from Ramsay 1 & 2.
- Ramsay 3 sited approximately 80m up-dip from Ramsay 2, with the seismic profile cross referenced to offset well data.



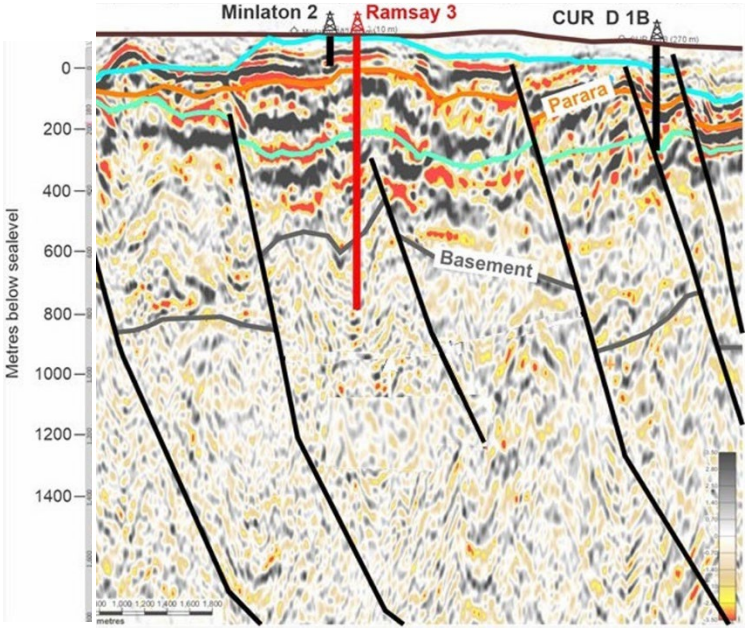
Ramsay 2DSS was acquired in June - July 2024 and consists of 575km of modern 2D data covering the Ramsay project area and the potential exploration opportunities.

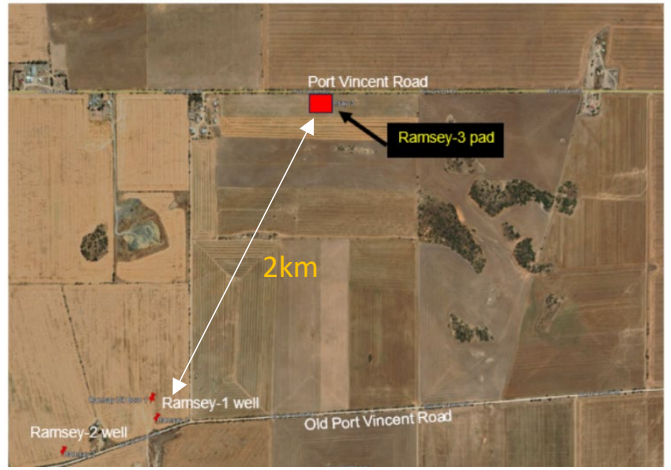
Ramsay 2D Seismic Survey & Next Well Locations



Next Wells Summary

- ~20 days per well.
- TD 900m (in basement).
- Interpreted to be up-dip from Ramsay 1 & 2.
- Specialist H2/He mud-gas sampling.
- DQ 1000 mass spectrometer for real-time formation and fluid analysis.
- Wireline logging program.
- DST on selected intervals.
- Testing program in detailed planning, procurement and approvals phase.





What Have We Learned?

Gold Hydrogen

Key Lessons from Work Undertaken to Date

Ramsay 1 and 2, located nearby the 1931 Ramsay Oil Bore 1 well, confirmed the presence of Natural Hydrogen, as well as Helium plus Helium-3 detected at elevated levels, but **more optimal well locations exist** based on subsequent new seismic data.

Water in sealing units overlying hydrogen bearing reservoirs contribute to retaining Natural Hydrogen at elevated pressures.

Multiple prospective stacked reservoirs are present with variable fluid and reservoir properties including Helium rich fluids in the highly permeable Kulpara dolomite reservoir.

The size of the well bore matters for the Ramsay resource - Well testing outcomes can be optimised with larger well bores.

Seismic data and other **subsurface workstreams are key to appraising the Ramsay resource** base through maturing an understanding on stratigraphy and structural setting.

Next Objectives

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Next Objectives

Mature the Ramsay Project with further appraisal in preparation for commercial development decisions:

- Prove the existence of Natural Hydrogen and Helium resources away from the Ramsay-1 and Ramsay-2 well sites; and
- Successfully extract compositions of Natural Hydrogen and Helium to surface across the Ramsay Project area.

Optimise well testing parameters to maximise reservoir deliverability and provide guidance for potential future commercial developments.

Progress commercial use cases of Natural Hydrogen and Helium, including feasibility studies and conceptual designs for potential pilot projects.

Partner with appropriate technology and / or industry specialists to develop specific downstream project opportunities.

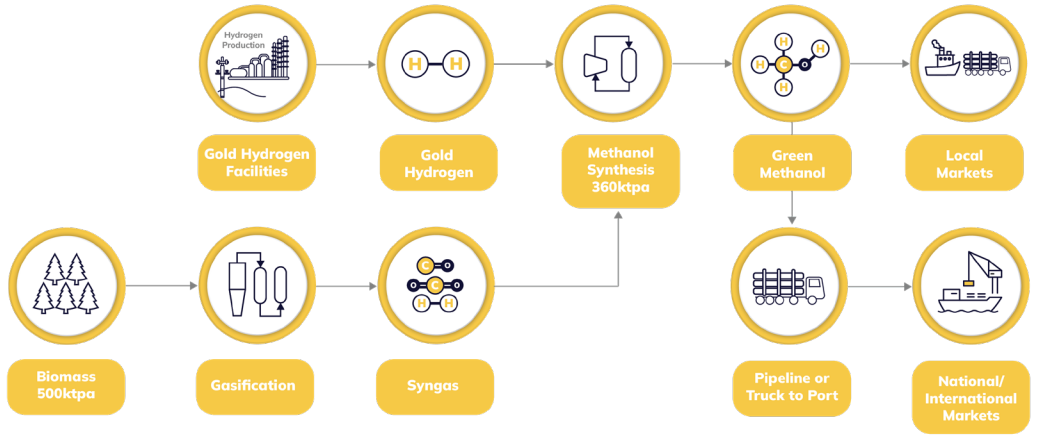
Maximise data and operational learning opportunities for deployment in future exploration and drilling campaigns.

Develop blueprint for exploration and appraisal across our wider portfolio.

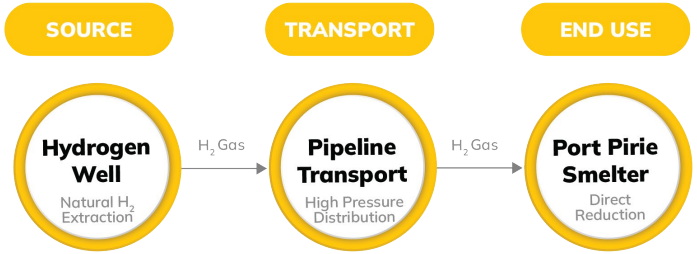
Analysis is Being Completed for the Following Hydrogen Use Cases

01 - Hydrogen to Energy (e.g. Jenbacher)

02 - Hydrogen to Green Bio Methanol



03 - Hydrogen to Natural Gas Pipeline



Activities Planned to Meet Objectives

Gold Hydrogen

Activities Planned to Meet Objectives

Ramsay 3 and subsequent wells to be drilled “up-dip” of the original Ramsay 1 & 2 locations.

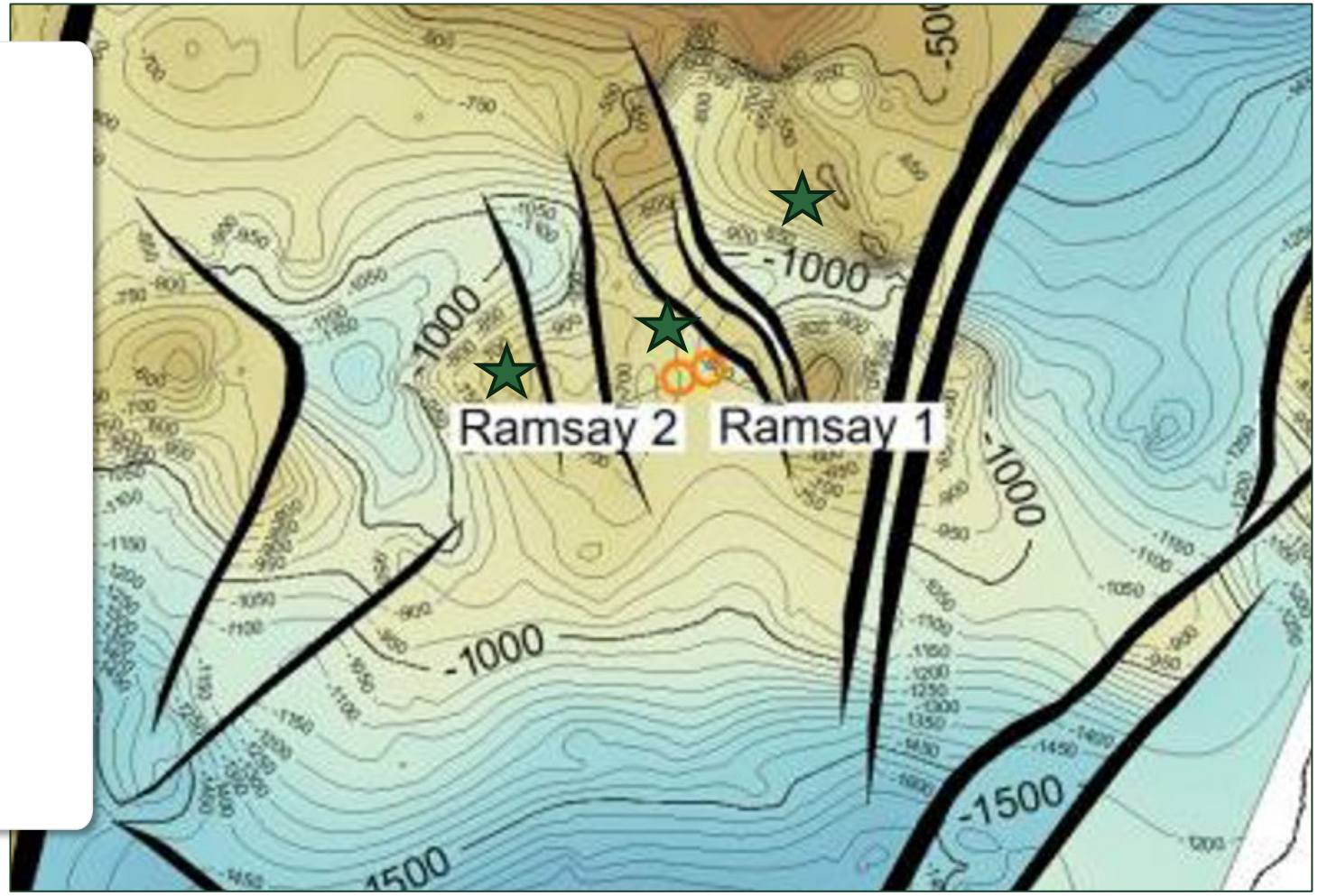
Multiple well locations identified and are drill ready to allow optionality based on initial results.

2025-26 wells specifically designed to focus on Natural Hydrogen and Helium bearing zones from Ramsay 1 & 2.

Well bore size increased to provide flexibility for well testing scope.

2025 / 26 Ramsay Drilling Campaign

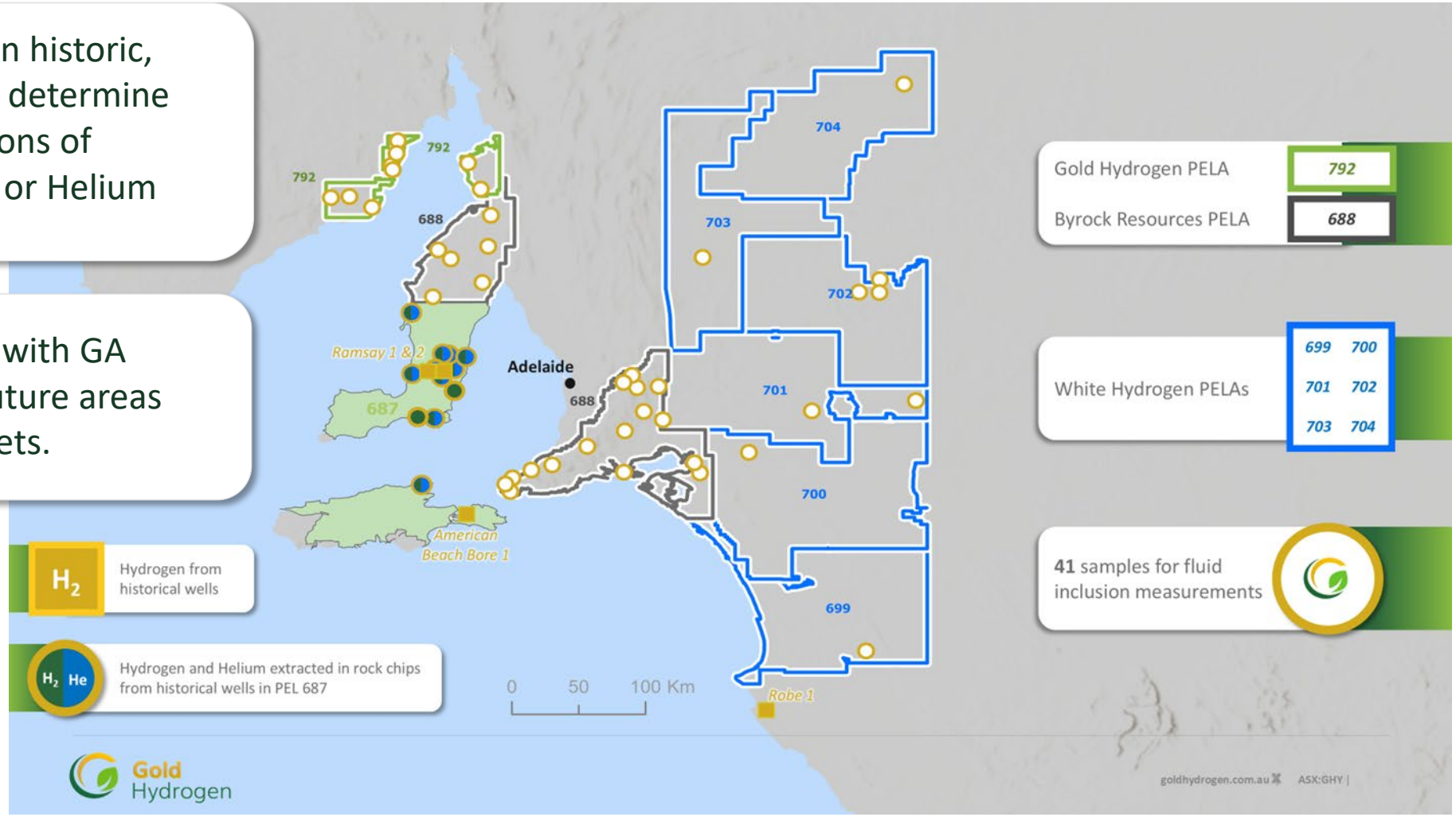
- 2 firm + 1 contingent (2+1) drilling campaign.
- Multiple well locations high-graded.
- Ramsay – 3 to be drilled first and subsequent locations will be subject to initial
drilling results.
- Vertical wells (<20 days each).
- Specialist Natural Hydrogen and Helium formation evaluation programs plan.



Regional Application Areas
Fluid Inclusion Sample Locations

Testing of samples within historic, third-party drill cores to determine the existence and locations of Natural Hydrogen and / or Helium occurrences.

Results to be combined with GA seismic data to locate future areas of interest and drill targets.



Regional Application Areas – GA Seismic Line

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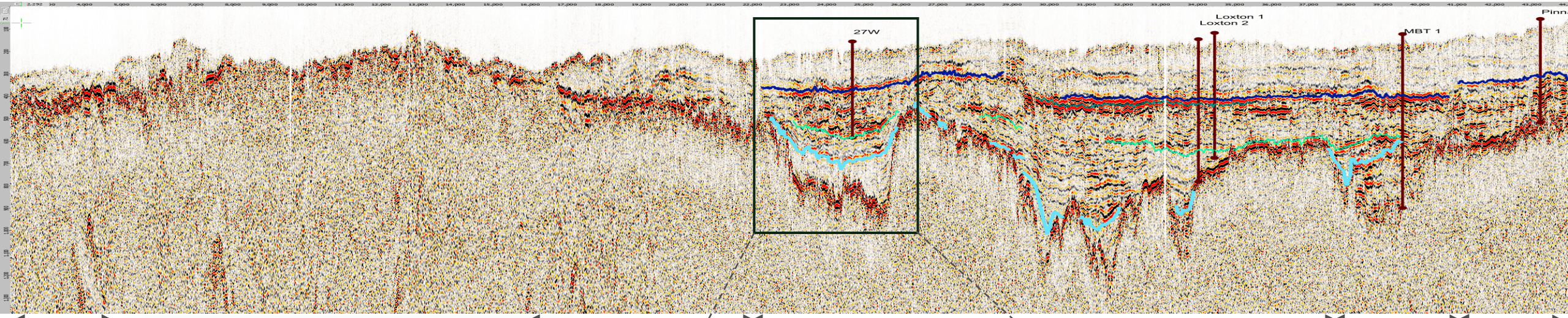
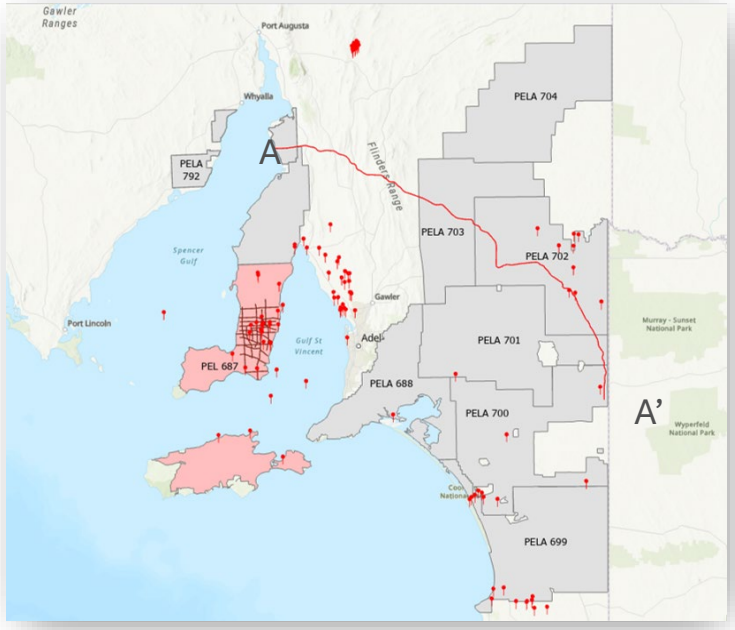
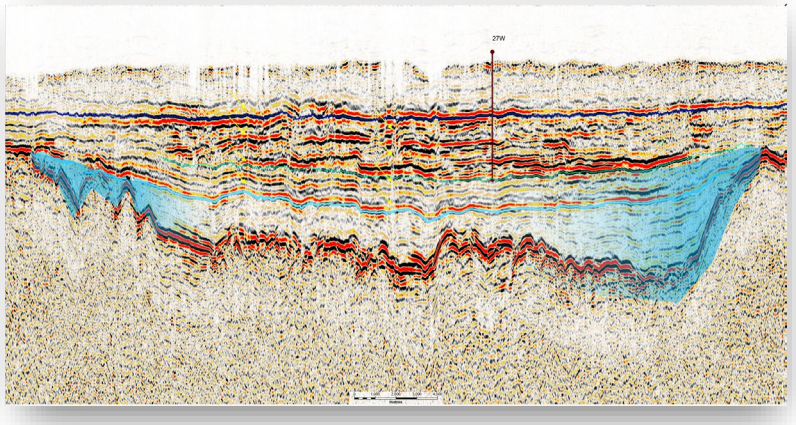


PELA703 PELA702 PELA701 PELA700

PELA792





Regional Seismic line acquired by GA in 2022 (22GA-DL-1 DMOStack)

Interpretation of GA seismic line across application areas enabling identification of drill targets.

Recap/Summary

The data and results collected by Gold Hydrogen from the Ramsay 1 & 2 wells confirmed that Natural Hydrogen existed at the Ramsay Project at high-purity levels of up to 95.8%[1] together with world-leading purities of Helium of up to 36.9%[1], with Helium-3 detected at elevated levels.

Gold Hydrogen selected Toyota Motor Corporation, Mitsubishi Gas Chemical Inc and ENEOS Xplora Inc to become strategic investors in the Company. These parties invested to help fund the next drilling and well testing campaign, which is designed to facilitate gas optimization to surface. A number of potential downstream technical and commercial opportunities are also being discussed.

Despite Ramsay 1 & 2 only being narrow exploration wells, drilled adjacent to the historical 1931 Ramsay Oil Bore, the testing results - including recovering gas to surface - led to enormous international interest.

The Company's 2025 / 26 program is designed to move the Ramsay Project towards commercial development opportunities, including potential pilot projects for Natural Hydrogen (fuel cells to energy and also green methanol), plus a potential pilot project for Helium.

[1] *Results are air (and nitrogen) corrected.*

Key Team Members

Gold Hydrogen

Key Management

Neil McDonald
Founder & Managing Director

Neil McDonald, with over 20 years of experience in the energy and minerals sectors across Australia, has worked on major exploration projects from greenfield to early development. He is a graduate of the Australian Institute of Company Directors.

Peter Bubendorfer
Chief Geologist

Peter has extensive experience in exploration within the oil & gas industry across Australia, specifically regarding natural gas and CSG, these being gases which correlate well with the Company's Hydrogen and Helium gases. He has specific experience in the identification of gas-related leads and plays, the establishment and running of exploration programs, seismic interpretation, dataset analysis, governmental liaison and reporting, and all aspects of geological project assessment and fieldwork.

Frank Glass
Chief Exploration Adviser

Frank Glass is a respected geologist with over 30 years of experience in oil, gas, and natural hydrogen exploration, including a decade with Shell. He holds a Master's in Structural Geology from the University of Amsterdam and memberships in the Petroleum Exploration Society of Australia and the European Association of Geoscientists and Engineers.

Julien Bourdet
Geological Advisor

Julien Bourdet is a geological advisor to Gold Hydrogen. He worked for 16 years at CSIRO conducting research aiming at evaluating geological fluid and diagenesis and delivered petrological and fluid inclusion consulting. He has extensive contributions in the field of oil and gas exploration and development and on the natural hydrogen systems. He earned his PhD at the University of Lorraine in France.

Hugo Beldame
Exploration Geologist

Hugo is an exploration geologist who 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. He holds Masters Degrees in Petroleum Geology (France) and Geoscience Exploration (Norway).

Key Management

Billy Hadi Subrata
Chief Technical Officer

Billy Hadi Subrata is an experienced petroleum and reservoir engineer with 20 years expertise in exploration, development, and energy transition. He has significant skills in reservoir simulation, field appraisal, reserves estimation, and project management, and has been a key figure at Gold Hydrogen since its inception in 2021. Billy is a Qualified Petroleum Reserves and Resources Evaluator and a member of SPE and Engineers Australia.

Leon Hennessey
GM - Operations

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

Simon Talbot
Chief Commercial Officer

Simon joined the Company after finalising 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.

Board of Directors

Neil McDonald
Founder & Managing Director

Neil McDonald, with over 20 years of experience in the energy and minerals sectors across Australia, has worked on major exploration projects from greenfield to early development. He is a graduate of the Australian Institute of Company Directors.

Alexander Downer
Independent
Non-Executive Chair

Alexander Downer, a prominent Australian politician and diplomat, has held top roles including Leader of the Liberal Party and Minister for Foreign Affairs. Before politics, he was an executive director at the Australian Chamber of Commerce. He currently serves on boards like Hakluyt & Company and Yellow Cake Plc, and writes for the AFR, holding the Companion of the Order of Australia title.

Katherine Barnet
Independent
Non-Executive Director

Katherine Barnet, a Chartered Accountant with 25+ years of experience, is a partner at Olvera Advisors in Sydney. She specializes in financial transactions, sustainable growth, and value optimization, with recent work in renewable energy, retail, property, and construction. She is a Fellow of CAANZ and ARITA and a member of the Australian Institute of Company Directors.

Roger Cressey
Executive Director
Commercial Operations

Roger Cressey has over 35 years of experience in the resource industry, mainly in gas exploration and production. He has held CEO, COO, and other executive roles in Australia (Queensland and NT), PNG, Indonesia, and Uganda. Roger excels in managing multi-disciplinary teams, strategy development, and stakeholder engagement.

Karl Schobohm
Company Secretary & CFO

Karl Schlobohm, a Chartered Accountant and Fellow of the Governance Institute of Australia, has over 30 years of experience across various industries. He is a Non-Executive Director of the Australian Shareholders Association and has held multiple executive roles with listed companies on the ASX, LSE, AIM, and TSX in the natural resources sector.

Appendix – Further Information

Gold Hydrogen

Gold Hydrogen Prospective Resources (Using PRMS guidelines)

Certified Prospective Hydrogen Resources, existing discoveries and drill ready hydrogen prospects (calculated volume not determined)

Unrisked Prospective Hydrogen Resources, PEL 687			
SPE-PRMS Sub-Class Category	**Low Estimate (kTonnes)**	**Best Estimate (kTonnes)**	**High Estimate (kTonnes)**
Prospect	165	1135	8050
Lead	42	178	770
Total	**207**	**1313**	**8820**

Certified Prospective Helium Resources, Ramsay Field (PEL 687 Yorke Peninsula)

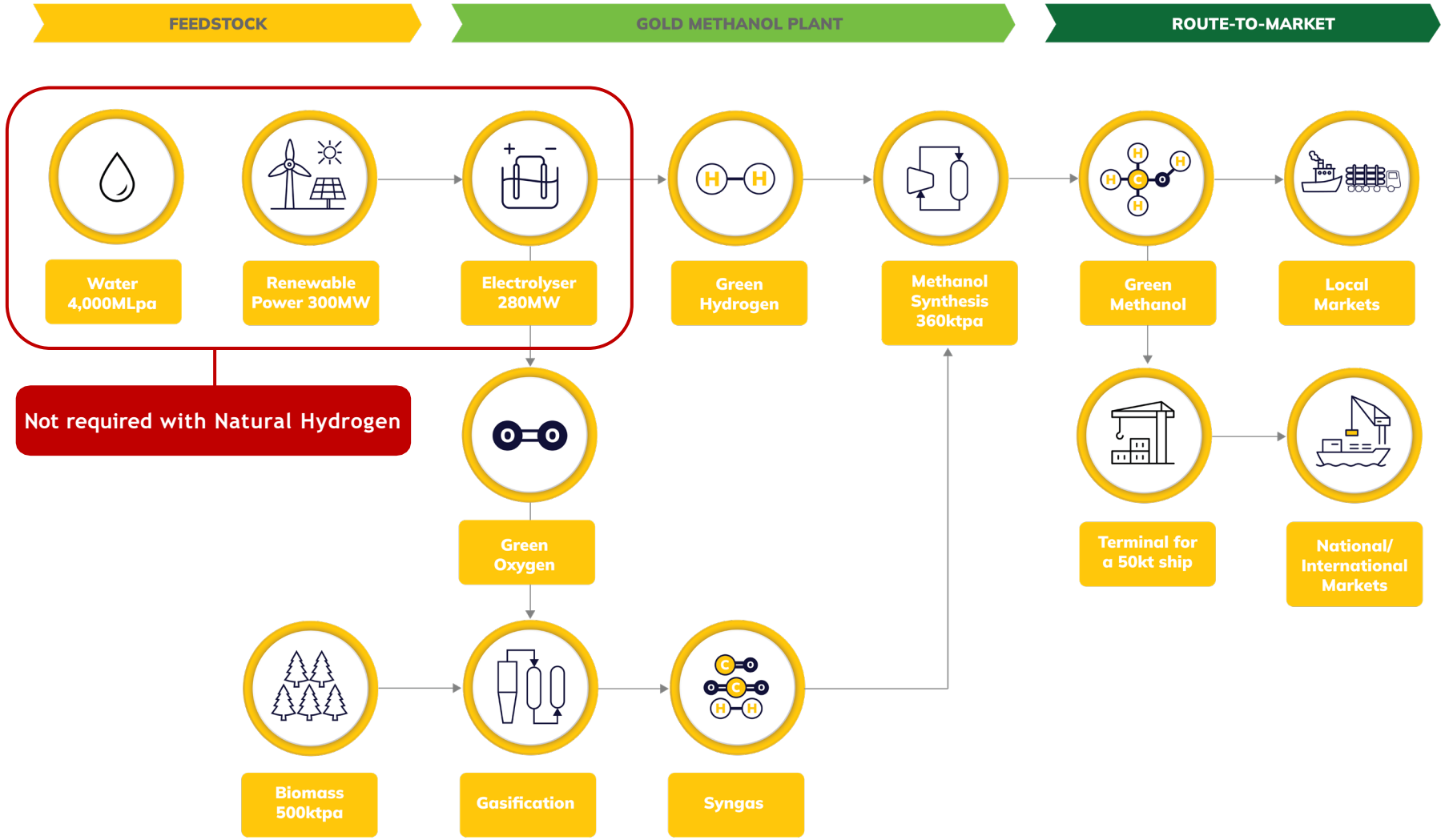
Unrisked Prospective Helium Resources, PEL 687			
SPE-PRMS Sub-Class Category	**Low Estimate (Bscf)**	**Best Estimate (Bscf)**	**High Estimate (Bscf)**
Prospect Ramsay Fault Block	2	8	38
Prospect South of Ramsay Fault Block	5	33	205
Total	**7**	**41**	**243**

See ASX releases of 13 January 2023 (Hydrogen) and 21 February 2024 and 30 October 2024 (Helium) for full details and notes

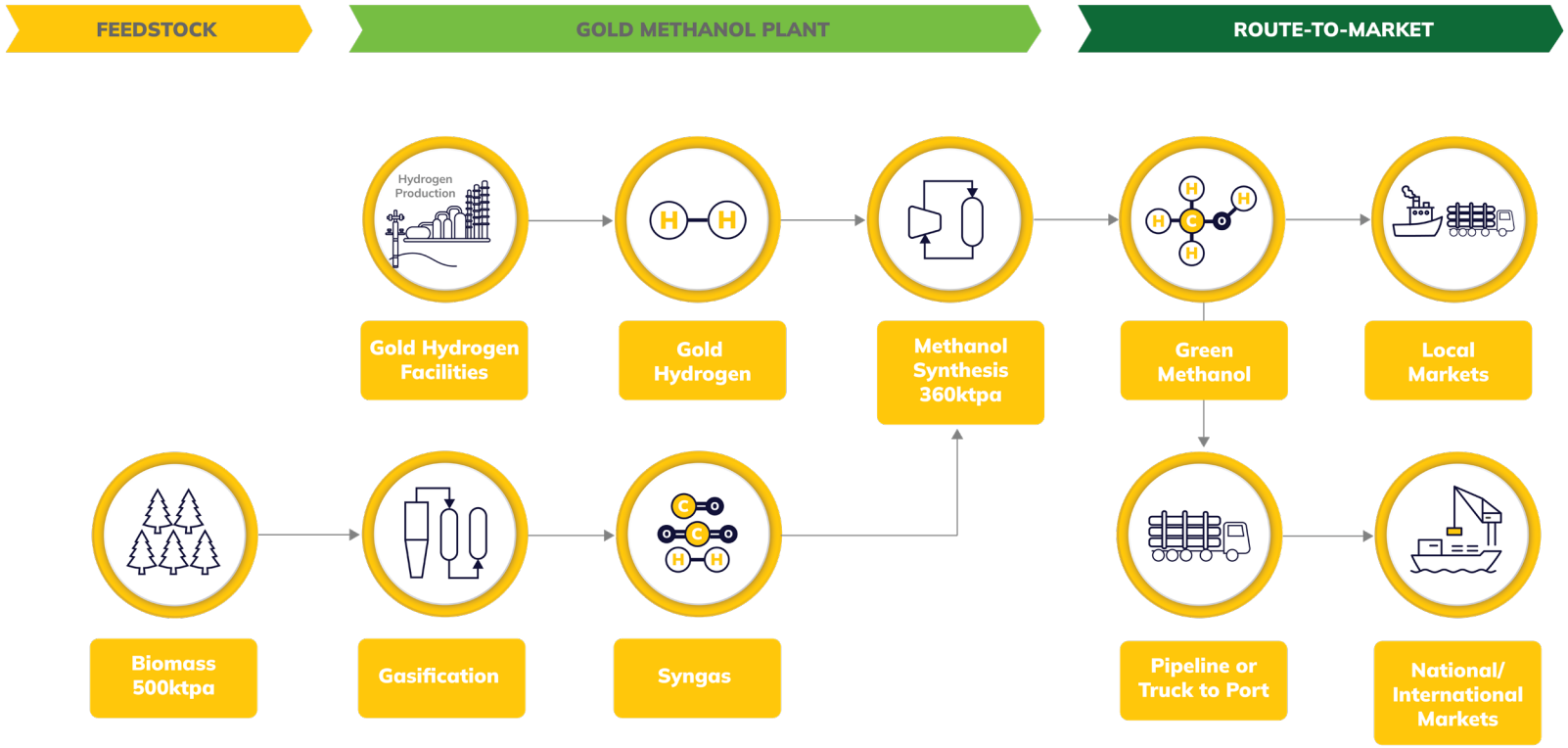
NOTE - All estimates are unrisked and aggregated arithmetically by category, hence caution that the aggregate low estimate maybe a conservative estimate and the aggregate high estimate maybe very optimistic estimate due to the portfolio effects of arithmetic summation. The estimated quantities of hydrogen and / or helium that may potentially be recovered by the application of future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery (Pg), risk of development (Pd) and risk of commercialization (Pc). Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially recoverable hydrogen and / or helium.

Ramsay Project Milestones

Traditional Green Methanol Opportunity
Conceptual Design



Traditional Green Methanol Opportunity Conceptual Design



Helium 3 - Overview

- **Helium-3** detected by independent international laboratory testing of Ramsay Project helium samples.
- The isotopic analysis results from samples tested suggest up to 3.47ppb Helium-3 within a 36.9% Helium sample.
- Helium-3 is extremely rare and valuable, with current prices of approx USD18.7 million per kg.
- Nuclear fusion and quantum computing are emerging future markets for Helium-3.
- A single 1 GW fusion plant could require up to 100 kg of Helium-3 annually, representing a potential market worth $1.4 billion per 1 GW fusion plant.
- Extracting and separating Helium-3 from Helium-4 as part of a natural gas project could be a viable alternative to Lunar-based mining for Helium-3.
- Refer ASX release of **30 October 2024** for full details and further reading about Helium-3.

Technical Tables – ASX Listing Rule 5.30

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% 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: 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

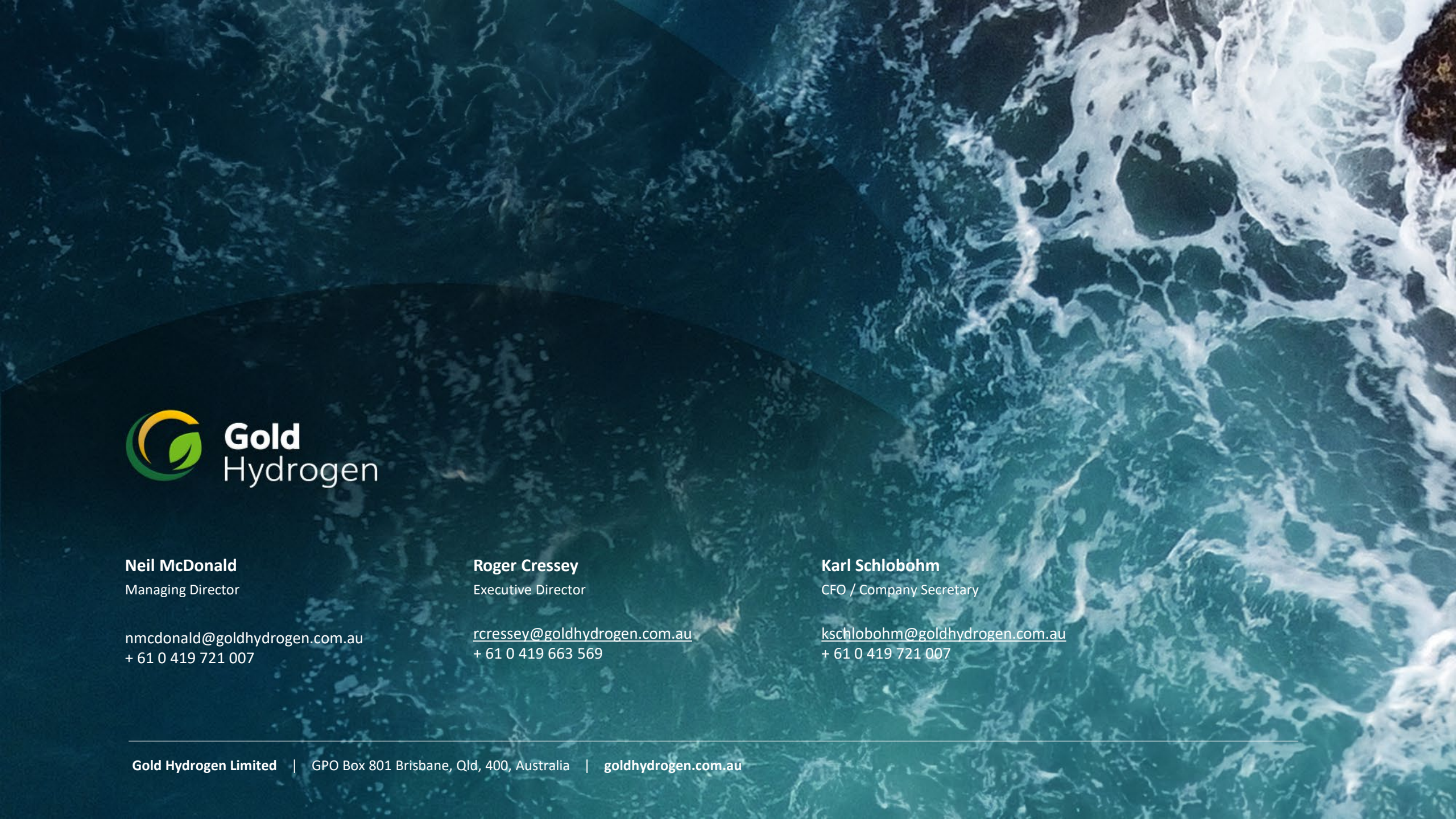
Technical Tables – ASX Listing Rule 5.30

Table 3: Summary of Helium-4 (^{4}He) and Helium-3 (^{3}He) 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
[^{4}He], ccSTP/ccSTP ^{3}He/^{4}He R/Ra ^{3}He 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 (^{4}He) and Helium-3 (^{3}He) 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
[^{4}He], ccSTP/ccSTP ^{3}He/^{4}He R/Ra ^{3}He 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



Gold Hydrogen

Neil McDonald
Managing Director

nmcdonald@goldhydrogen.com.au
+ 61 0 419 721 007

Roger Cressey
Executive Director

rcressey@goldhydrogen.com.au
+ 61 0 419 663 569

Karl Schlobohm
CFO / Company Secretary

kschlobohm@goldhydrogen.com.au
+ 61 0 419 721 007