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6 October 2026

ASX Announcement

Ramsay 3 Advances Gold Hydrogen's Helium Commercialisation Pathway

Interim Update: Phase 1 of the 180m thick Kulpara Dolomite Thick Helium Reservoir Completed – Phase 2 Testing of Shallower Helium Zone to Commence

HIGHLIGHTS

- **Phase 1 flow test of the lower Helium bearing Kulpara Dolomite Reservoir at Ramsay 3 successfully completed.**
- **Exceptional Productivity Index of approximately 40 bbl/day/psi has allowed this lower reservoir interval to provide up to 13,000bbl/day of fluids and gas to surface, highlighting the strong permeability and deliverability characteristics of the Kulpara Dolomite reservoir.**
- **Phase 2 is underway with the ESP repositioned in the shallower section of the Kulpara Dolomite, with higher flow rates up to 20,000bbl/day expected to further evaluate the 180m thick world-class Helium reservoir which will include deliverability, gas composition and flow rates.**
- **Upon completion of Phase 2 testing, data and interpreted results will be integrated into the Company's geological model for Contingent Resource assessment, and integrated flow testing results will be released to the market at the completion of Phase 1 and Phase 2 for the Helium test program.**
- **Natural Hydrogen testing to follow, providing further opportunity to demonstrate the potential of Gold Hydrogen's dual-commodity Ramsay Project.**

Gold Hydrogen Managing Director, Neil McDonald, said:

"Ramsay 3 represents a significant advancement in our strategy to unlock the commercial potential of both the Ramsay Helium and Natural Hydrogen Projects.

We are particularly encouraged by the interim results of Phase 1 which have highlighted strong deliverability of Helium at Ramsay 3, including the previously announced Productivity Index of approximately 40 barrels per day per psi. The completion of Phase 1 operations have generated a substantial dataset that will materially enhance our understanding of this important reservoir.

We are now progressing to Phase 2 testing, repositioning the high-capacity ESP shallower in the reservoir to further investigate Helium reservoir deliverability, gas composition and flow rates. Importantly, Ramsay 3 is our

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larger-diameter scale-up well, providing an opportunity to evaluate the Kulpara Dolomite under enhanced testing conditions.

Our previous results from Ramsay 1 and Ramsay 2 have demonstrated sustained air-corrected Helium concentrations of approximately 19% and 20%, respectively, and confirmed the continuity of the Helium-bearing Kulpara Dolomite. Ramsay 3 is the next important step in advancing our understanding of the reservoir and assessing its commercial potential.

With Phase 2 testing now approaching, followed by Natural Hydrogen testing at Ramsay 3, we believe this is an exciting period for Gold Hydrogen as we continue to advance the Ramsay Project towards potential development."



Ramsay 3 Wellsite during Phase 1 Helium Flow Testing

Ramsay 3 – Phase 1 Testing Completed – Phase 2 Testing to Commence
An Important Step Towards Commercial Helium Development

Further to the Company's announcement of 14 September 2026, Gold Hydrogen Limited (ASX: GHY or the Company) is pleased to advise that Phase 1 of the Helium flow testing program at its Ramsay 3 well, within the Ramsay Project (PEL 687), Yorke Peninsula, South Australia, has been successfully completed.

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Ramsay 3 represents an important advancement in the Company's appraisal strategy, utilising a larger-diameter well design to provide enhanced testing capabilities and further evaluate the productive potential of the Helium-bearing Kulpara Dolomite.

The completion of Phase 1 testing marks another important milestone in the Company's systematic evaluation of the Ramsay Helium Project.

Over the flow test period a significant volume of operational and reservoir performance data was collected and is in the process of being evaluated.

This follows the previously reported Productivity Index of approximately 40 bbl/day/psi, an important indicator of strong reservoir deliverability and permeability.

The combination of the larger-diameter Ramsay 3 well, high-capacity pumping equipment and extended flow testing provides an important opportunity to better understand the reservoir's response under different operating conditions.

Gas and water samples collected during Phase 1 are currently undergoing internal analysis.

Phase 2 – Further Evaluating the Commercial Potential for Helium

The Company is now progressing to Phase 2 of the Helium testing program, with the 20,000 bbl/day capacity Electrical Submersible Pump (ESP) being repositioned shallower within the 180m thick Kulpara Helium reservoir.

Phase 2 is designed to further evaluate the reservoir through a stepped-rate flow testing program, with particular focus on:

- Establishing additional reservoir deliverability data.
- Evaluating gas composition and Helium concentrations.
- Determining flow rates under different operating conditions.
- Assessing the reservoir's dynamic pressure and flow characteristics.

The objective is to build a more comprehensive understanding of the reservoir's productive capabilities and provide important technical information to support the Company's ongoing commercial evaluation of the Ramsay Helium Project.

The Company will integrate the results from both testing phases before releasing a comprehensive update to the market.

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Building on the Ramsay 1 and Ramsay 2 Flow Testing Success

The Ramsay 3 testing program builds on the Company's previously reported results from Ramsay 1 and Ramsay 2.

Those results have included:

- Ramsay 1: Sustained air-corrected Helium concentrations of approximately 19%, with successful flow to surface, separation and purification trials using Quantum Technology purification equipment.
- Ramsay 2: Sustained air-corrected Helium concentrations of approximately 20%, successfully flowed to surface and separated.
- Reservoir continuity: Dynamic testing at Ramsay 2 provided confirmation of the continuity of the Helium-bearing Kulpara Dolomite across the Ramsay Project, approximately 500 metres from Ramsay 1.

All technical tables are appended.

Together, these results provide an increasingly substantial technical foundation for the Company's evaluation of the potential Ramsay Helium Project including the assessment of Contingent Resources.

Ramsay 3 now provides the opportunity to extend this work through a larger-diameter well and an expanded testing program, further advancing the Company's assessment of the reservoir's commercial development potential.

Natural Hydrogen – Flow Testing Preparations Underway

Following completion of the Helium testing program, the Company intends to undertake testing of the Natural Hydrogen-bearing zones at Ramsay 3.

This will enable Gold Hydrogen to continue evaluating the potential of both Helium and Natural Hydrogen within the same scale-up well.

The Company's Ramsay Project is being developed around the opportunity to establish a dual-commodity resource, with the potential to generate value from both Helium and Natural Hydrogen. The completion of the Ramsay 3 testing program will therefore represent another important step in advancing the Company's broader development strategy.

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. Exploratory flow testing of the Kulpara Dolomite interval may not result in a flow of Helium to surface. The data acquired during Phase 1 are preliminary, remain under review and interpretation. There is no certainty that the Ramsay 3 testing program will achieve the expected outcomes, that Contingent Resources will be able to be booked, that an accelerated FEED or a Ramsay development will proceed, or that commercial viability can be established.

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Further Information

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

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

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Table 1 – Ramsay 3 Helium Flow Test Program – Phase 1 (results under review)

Name of well:	Ramsay 3
Location (UTM zone 53 GDA202	UTM zone 53 GDA2020: X 749096 mE / Y 6151186 mN
Permit	PEL 687
Entity's working interest	Gold Hydrogen 100%
Resources	Helium
Formation	Test 1: Kulpara Dolomite (primary Helium target zone)
Gross thickness and net pa thickness	180m gross primary target zone for flow testing. Perforation interval 105m in Kulpara dolomite. Insufficient information is presently available to determine net pa thickness.
Geological rock type	Kulpara Dolomite
Depth of the zones tested	Perforated intervals between 500m to 800m depth
Type of test and duration	Zonal Electrical Submersible Pump (ESP) flow test across the Kulpa Dolomite. Phase 1 (ESP set at approximately 730m): 10 September 202 to 30 September 2026, including wellbore clean-up. Phase 2: commence.
Phase recovered	Gas, water
Corrected He concentration in g recovered during flow test (Other recovery and proportions	Insufficient information is presently available to determi representative concentrations for the gross reservoir interval for th Kulpara Dolomite Reservoir flow testing program
Flow rates, choke size, volum recovered	Gross fluid rate of up to 13,000 bbl/day, with more than 25,000 bbl fluid recovered during Phase 1 - Insufficient information is present available to determine final flow rates across the gross reservoir interv and until completion of Phase 2 flow testing
Fracture stimulation	N/A
Material non hydrocarbons	Hydrogen, Helium, Nitrogen, CO2, H2S

Information compiled by Billy Hadi-Subrata, Gold Hydrogen's Chief Technical Officer.

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Table 2 – Ramsay 1 2026 Flow Test Information *(Originally Published 5/08/2026)*

ASX Listing Rule 5.30	Ramsay 1 – 2026 Flow Test
(a) Name and type of well	Ramsay 1 – vertical exploration well, flow tested with electric submersible pump
(b) Location, permit or lease	PEL 687, Yorke Peninsula, South Australia. UTM zone 53 GDA2020: 748,208.07 / Y 6,149,545.7
(c) Entity's working interest	Gold Hydrogen Limited 100%
(d) Net pay thickness (conventional)	Insufficient information is presently available to determine net pa thickness. 180m gross pay thickness in Kulpara Dolomite (Helium zone)
(e) Geological rock type	Parara Limestone, Kulpara Dolomite, Granite basement
(f) Depth of zones tested	212m to 1,005m
(g) Type and duration of test(s)	Production flow test using a 2,000 bbl/day electrical submersible pum commenced 25 July 2026, total duration 7 days including 5 days stabilised flow
(h) Hydrocarbon phases recovered	Not applicable – no hydrocarbons recovered. Gas stream compris predominantly Helium, nitrogen and natural hydrogen.
(i) Other recovery and proportions	Formation water produced at rates between 500 - 2,000 bbl/day; G dissolved in water. An in-situ gas–water ratio of approximately 3 scf/bbl calculated from the downhole bailer samples collected during the Ramsa 1 2024 flow test. Gas-water ratios of up to 6.4 scf/bbl were also measure from surface samples during 2024 flow testing
(j) Choke size, flow rates and volumes	Gross fluid rate of up to 2,000 bbl/day (constrained by ESP rated capacit not reservoir deliverability); raw gas rate of approximately up to 6 Mscf/day; Helium rate of approximately 1.14 Mscf/day; choke size 14/6 inch; cumulative volumes recovered 3808 bbl. Derived Productivity Inde of approximately 20 bbl/day/psi at approximately 100 psi drawdown. PI up to 34 bbl/day/psi were also calculated
(k) Fracture stimulation	None
(l) Material non-hydrocarbon gases	Helium (air-corrected concentration of up to 30%, stabilised at 19% Hydrogen, Nitrogen, CO2
(m) Other material information	The well is completed with 4-inch slotted liner and the test w constrained by installed pump capacity. Field measurements a preliminary and subject to independent laboratory confirmatio Modelled flow rates at 20,000 bbl/day are set out in Note 1 and have n been demonstrated by flow testing.

Information compiled by Billy Hadi-Subrata, Gold Hydrogen's Chief Technical Officer.

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Table 3 – Sample Analysis Table for Ramsay 2 2026 Flow Test *(Originally Published 25/08/2026)*

Name of well:	Ramsay 2
Location (UTM zone 53 GDA2020)	UTM zone 53 GDA2020: X 747,761.61 / Y 6,149,371.41
Permit	PEL 687
Entity's working interest	Gold Hydrogen 100%
Resources	Helium
Formation	Test 1: Kulpara Dolomite (primary Helium target zone, and ESP pum depth), Parara Limestone. Test 2: Hiltaba Basement (Primary Heliu zone and ESP pump depth), Kulpara Dolomite, Parara Limestone
Gross thickness and net pa thickness	180m gross primary target zone for flow testing. Perforation interval 24m in Kulpara dolomite. 200 m gross thickness in Hiltaba Basement. Perforation interval of 6 into basement fracture network Insufficient information is presently available to determine net pa thickness.
Geological rock type	Kulpara Dolomite, Limestone, Hiltaba Granitic Basement
Depth of the zones tested	Perforated intervals between 219m to 1050m depth
Type of test and duration	Zonal Electrical Submersible Pump (ESP) flow tests across both th Kulpara Dolomite and Hiltaba Basement intervals (with well ope above), commenced 12 August 2026, completed 23 August 2026. Test ESP at 800m depth closer to Kulpara formation, whereas Test 2, ESP 1002m depth in the basement
Phase recovered	Gas, water
Corrected He concentration in g recovered during flow test **(Other recovery and proportions)**	20% He (air-corrected) from the gross 180m Kulpara Dolomite interva without purification 19% He (air corrected) from 200m Hiltaba basement interval, witho purification
Flow rates, choke size, volum recovered	Gross fluid rate of up to 2,300 bbl/day (constrained by ESP rate capacity); choke size 13/64 inch; cumulative volumes recovered on Te 1 - 1983 bbl; cumulative volumes recovered on Test 2 – 2702.9 bb Insufficient information is presently available to determine final flo rates
Fracture stimulation	N/A
Material non hydrocarbons	Hydrogen, Helium, Nitrogen, CO2

Information compiled by Billy Hadi-Subrata, Gold Hydrogen's Chief Technical Officer.