

**18 April 2023**

**Resource estimates for three sub-salt exploration wells targeting helium,  
hydrogen and natural gas**

Central Petroleum Limited (**ASX:CTP**) (“**Central**” or “**Company**”) provides resource estimates for the three well sub-salt exploration program scheduled to commence drilling later this year / early 2024, targeting helium, naturally-occurring hydrogen and natural gas.

**Key points**

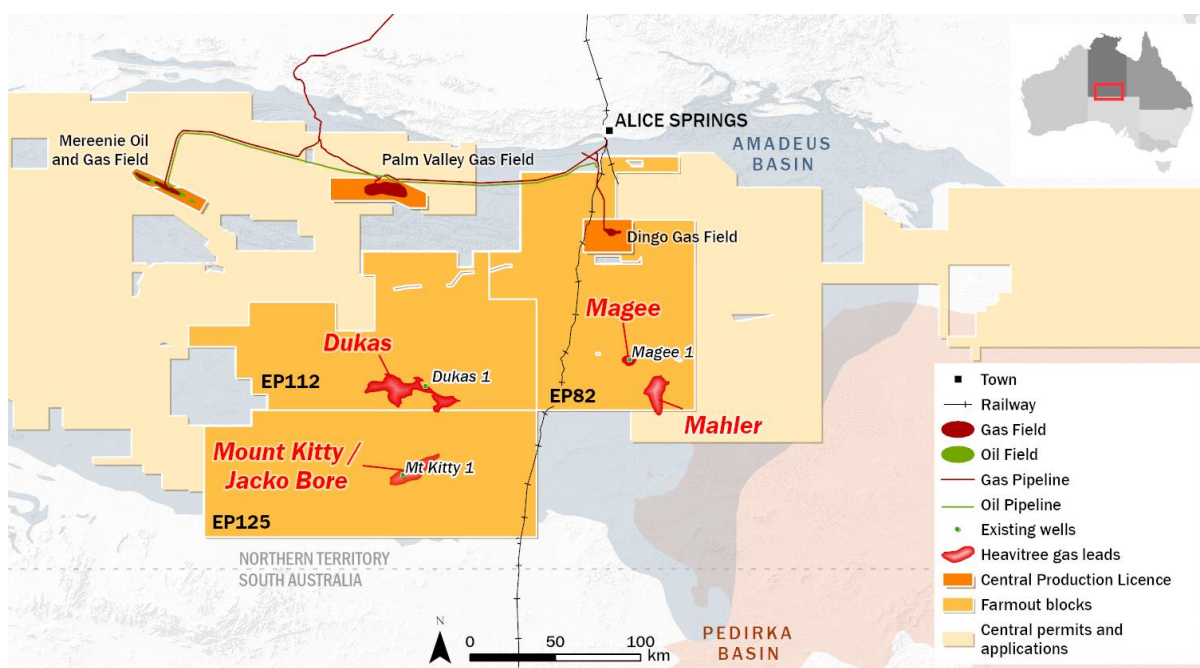
- Central’s share of gas resources across the three prospects are estimated to be in the order of:
  - 44.8 billion cubic feet (bcf) of helium, including a prospective resource of 40.5 bcf<sup>1</sup> at Dukas and Mahler (best estimate) and a 2C contingent resource of 4.3 bcf at Jacko Bore (Mt Kitty);
  - 56.7 bcf of naturally-occurring hydrogen including a prospective resource of 51.4 bcf<sup>1</sup> at Dukas and Mahler (best estimate) and a 2C contingent resource of 5.3 bcf at Jacko Bore (Mt Kitty); and
  - 272 bcf of natural gas, including a prospective resource of 262.6 bcf<sup>1</sup> at Dukas and Mahler (best estimate) and a 2C contingent resource of 9.4 bcf at Jacko Bore (Mt.Kitty).

Note 1: Best estimate, net to Central. **Cautionary statement:** The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a 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 hydrocarbons. This best estimate may be a very optimistic estimate due to the portfolio effects of arithmetical summation.

Refer to the Appendix for further information about the contingent and prospective resources.

- The exploration program will be operated by Santos, with Central being carried (i.e. funded) by Peak Helium for two of the new sub-salt exploration wells: one at Jacko Bore (Mt Kitty) (EP 125) (funded to a cap for Central’s share of \$4.8m) and the other at the nearby Mahler prospect (EP 82) (funded to a cap for Central’s share of \$5.8m).

“With completion of the Peak farmout, we now look forward to the most significant exploration drilling program ever undertaken by Central in the Amadeus Basin, including the opportunity to test a discovery at Mt Kitty that previously registered 9% helium, and penetration of sub-salt formations for the first time at Dukas and Mahler. Given the size of the prospective and contingent resources at each of these prospects, success could be transformative for Central, both in scale and potential to diversify into helium and hydrogen”, said Leon Devaney, Central’s Managing Director/CEO.



Details of the proposed wells and estimates of the resources to be targeted by each well are set out below:

**Jacko Bore 2 (EP125)**

*(Central 24%; Peak Helium 56%; Santos 20%)*

The Jacko Bore 2 exploration well will target helium, naturally-occurring hydrogen and natural gas in the fractured basement by re-entering the existing Mt Kitty-1 (Jacko Bore-1) well and drilling a deviated/horizontal sidetrack to test up to 500m of the fractured basement reservoir at a depth of approximately 2,000m. The vertical Mt Kitty-1 exploration well flowed at up to 530,000 scfd, including 11.5% hydrogen and 9% helium.

Central estimates that its share of 2C contingent gas resources at Jacko Bore is 4.3 bcf of helium, 5.3 bcf of hydrogen and 9.4 bcf of natural gas:

Jacko Bore contingent resource <sup>1</sup>	1C bcf	2C bcf	3C bcf
Helium	1.0	4.3	16.6
Hydrogen	1.2	5.3	20.6
Hydrocarbons	2.2	9.4	35.0

**Note 1:** Net to Central. Refer to Appendix for further information about the estimated contingent resources.

The Jacko Bore-2 well is expected to be drilled in late 2023 / early 2024, with up to \$4.8 million of Central’s costs to be carried by Peak Helium.

**Mahler (EP82)**

*(Central 29%; Peak Helium 51%; Santos 20%)*

The Mahler exploration well will target helium, naturally-occurring hydrogen and natural gas in the fractured basement and Heavitree formation at depths up to 2,000m. The well is planned to be drilled approximately 20km to the southeast of the Magee-1 exploration well which flowed gas, including 6.2% helium.

Central estimates that its share of prospective gas resources at Mahler could be in the order of 0.6 bcf of helium, 0.6 bcf of hydrogen and 2.9 bcf of natural gas (best estimate):

Mahler prospective resource <sup>1</sup>	Low estimate bcf	Best estimate bcf	Mean bcf	High estimate bcf
Helium	0.1	0.6	1.3	3.2
Hydrogen	0.1	0.6	1.3	3.2
Hydrocarbons	0.3	2.9	6.4	15.7

**Note 1:** Net to Central. **Cautionary statement:** the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a 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 hydrocarbons. Refer to the Appendix for further information about the prospective resources.

The Mahler well is expected to be drilled immediately after the Jacko Bore-2 well in late 2023 / early 2024. Peak Helium will carry the first \$5.8 million of Central's costs.

**Dukas 2 (EP112)**

*(Central 35%; Peak Helium 35%; Santos 30%)*

The Dukas-2 well is planned to follow the Dukas-1 exploration well which was drilled in 2019 and suspended after encountering hydrocarbon-bearing gas from an overpressured zone close to the primary target at a depth of 3,704m. Traces of helium and hydrogen were detected in mud gases associated with the overpressured zone. The Dukas-2 well will target the same tight sandstone in the Heavitree formation below the salt seal with a higher-capacity rig in early 2024.

Central estimates that its share of prospective gas resources at Dukas could be in the order of 39.9 bcf of helium, 50.8 bcf of hydrogen and 259.7 bcf of natural gas (best estimate):

Dukas prospective resource <sup>1</sup>	Low estimate bcf	Best estimate bcf	Mean bcf	High estimate bcf
Helium	6.0	39.9	69.7	165.2
Hydrogen	7.4	50.8	88.6	211.4
Hydrocarbons	45.2	259.7	428.8	986.7

**Note 1:** Net to Central. **Cautionary statement:** the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a 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 hydrocarbons. Refer to the Appendix for further information about the prospective resources.

## **APPENDIX: Resources Estimates**

### Contingent Resources

The contingent resources for Jacko Bore were estimated as at 17 April 2023 using a probabilistic method and are within the sub-class of Development Unclassified. The key contingencies that prevent the contingent resources from being classified as reserves at this time are: further appraisal to confirm well deliverability; marketing terms; development of infrastructure; and commitment to develop the resources.

The estimates of contingent resources are not contingent on any technology that is currently under development.

The existence of a significant quantity of potentially moveable hydrocarbons at Jacko Bore is confirmed by regional data, seismic data and well data which demonstrate the target reservoir is present over the mapped structure. This data confirms the gas bearing interval is at least 150m in gross thickness and the structure has an areal extent of at least 28 km<sup>2</sup> and up to 502 km<sup>2</sup>. The discovery well demonstrated the presence of moveable gas volumes which comprise natural gas, helium, hydrogen and other inerts.

### Prospective Resources

The volumes of prospective resources included in this announcement represent the unrisks recoverable volumes derived from Monte Carlo probabilistic volumetric analysis for each prospect as at 17 April 2023.

Inputs required for these analyses have been derived from offset wells and fields relevant to each play and field. Recovery factors used have been derived from analogous field production data.

*Cautionary statement:* the estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both a 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 hydrocarbons.

### Qualified petroleum reserves and resources evaluator statement

The information contained in this report regarding the prospective and contingent resources is based on, and fairly represents, information and supporting documentation prepared under the supervision of Mr Kevan Quammie who is a full-time employee of Central Petroleum Limited holding the position of Exploration & Development Manager. Mr Quammie holds an M.Sc. Petroleum and Natural Gas Engineering from the Pennsylvania State University, is a member in good standing of the Society of Petroleum Engineers, is qualified in accordance with ASX listing rule 5.41 and has consented to the inclusion of this information in the form and context in which it appears.

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This ASX announcement was approved and authorised for release by Leon Devaney, Managing Director and Chief Executive Officer.

**About Central Petroleum**

Central Petroleum Limited (Central) is an established ASX-listed Australian oil and gas producer (ASX: CTP) with exploration and appraisal permits in the Northern Territory (NT) and Queensland. Central has grown to become the largest onshore gas Operator in the NT, supplying residential and industrial customers in the NT and wider Australian east coast market.

Central is seeking to become a major domestic energy supplier, in addition to helium and naturally occurring hydrogen, with exploration, appraisal and development plans across 180,000 km<sup>2</sup> of tenements in Queensland and the NT, including some of Australia's largest known onshore conventional gas prospects in the Amadeus Basin and prospective CSG resources in the Surat Basin.

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