

Central Petroleum Limited

Helium & Hydrogen

Prospective opportunities

November 2021

Some of Central Petroleum's assets within the Amadeus basin are highly prospective for helium and hydrogen, and we are actively assessing opportunities to commercialise these valuable resources in addition to our conventional oil and gas opportunities.

Helium

Helium is the second lightest and second most abundant element in the Universe.

Helium has many useful applications, including use as a cooling agent for Magnetic Resonance Imaging (MRI) technology, super conducting magnets, satellite instrumentation, leak detection, car airbags, welding aluminium, and mixed with oxygen for deep sea diving.

The market has become tighter as demand outstrips supply, with demand predicted to increase by 4-6% per year driven by electronics manufacturing in Asia. The price of bulk liquid helium has increased by 250% in the last decade.

Concentrations of 0.5% helium can be considered as commercially viable, and 1% helium concentration is regarded as high by global comparisons. Some of Central Petroleum's exploration wells have registered concentrations between 6 - 11%.

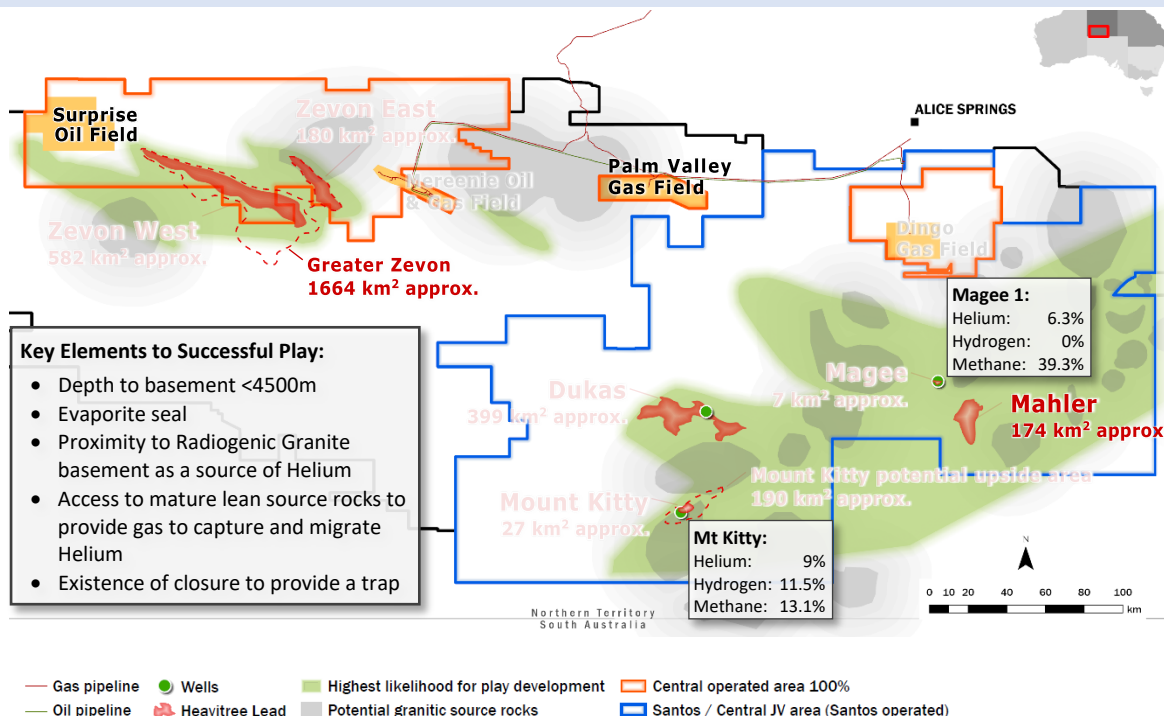
Hydrogen

Hydrogen is a major source of energy, including for transportation.

In addition to an energy source for transportation, hydrogen has many beneficial applications. These include chemical feedstock alternative for plastics, space heating, agriculture for the manufacturing of ammonia, and energy storage (ammonia), among other uses.

Hydrogen is a potential complement to and longer-term replacement for natural gas as an energy source. No Carbon (or CO₂) is produced when hydrogen is burnt, with only water vapour emitted.

The Amadeus Basin is highly prospective for hydrogen, with significant concentrations detected at Mt Kitty (see below).



The Amadeus Basin is highly prospective for helium and hydrogen due to a combination of geologic conditions which collect helium, and geological 'seals', which prevent evaporation. These conditions immediately overlay the fractured basement and the 'Heavitree Formation', both of which act as potential reservoirs.