

Helium Concentrations from Natural Gas Analysis Tests in Alberta

AGS Digital Data Release 2020-0033



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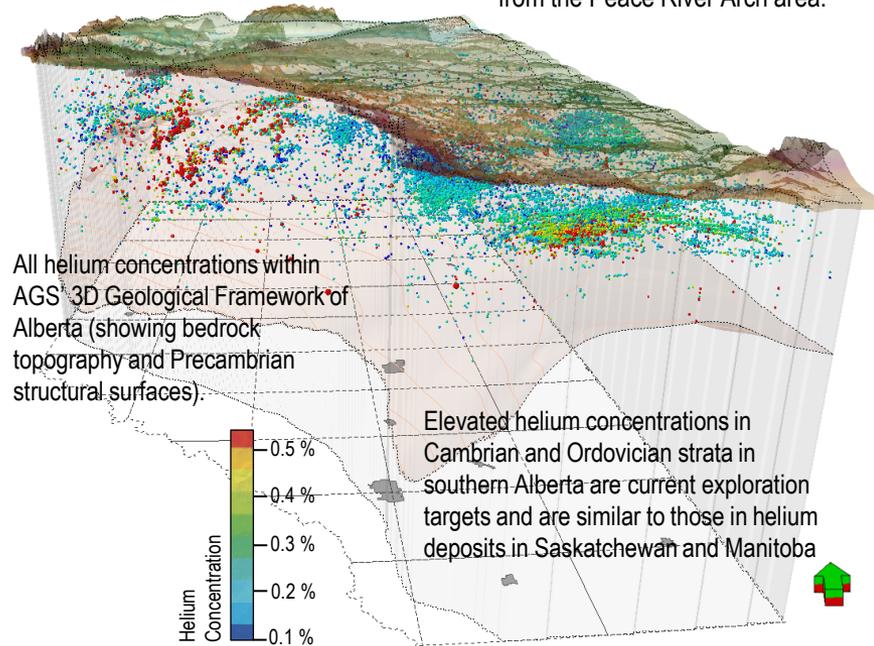
What is helium?

Helium is a colourless, tasteless, and odourless noble gas. It is the second-most abundant element in the universe but only makes up a very small part of the earth atmosphere.

Key Points from AGS Digital Data Release 2020-0033

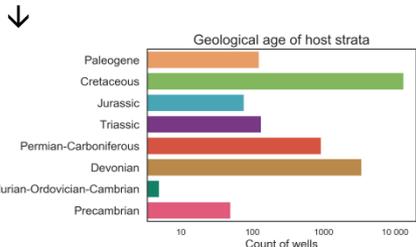
- 22 168 gas analysis samples from 17 703 unique wells have helium concentrations of at least 0.1%
- 3801 samples from 3170 wells are at least 0.3% helium, which is a threshold for what may be economic

Most of the samples are from Cretaceous strata in southern Alberta or Devonian strata from the Peace River Arch area.



This dataset is available for download at <https://ags.aer.ca/publication/dig-2020-0033>

Allocation of helium data within this data set by geological interval



Helium is found throughout the Western Canada Sedimentary Basin

- Paleogene
- Cretaceous
- Jurassic
- Triassic
- Permian-Carboniferous
- Devonian
- Silurian-Ordovician-Cambrian
- Precambrian



Helium has a wide-range of technological uses and medical applications

Interest in helium sources has increased significantly both on a world-wide basis and locally within Alberta mainly due to increased use of helium in different industries and the depletion of the U.S. reserves of helium in storage in the mid-continental U.S. This digital data release contains helium concentration data from natural gas analysis results in Alberta, submitted to the Alberta Energy Regulator by industry.