



Groundwater and gas development in the NT

Groundwater is important to everyone in the Northern Territory. It is needed for community drinking water, for industries like farming and tourism, as well as for the gas industry.

Groundwater in the Beetaloo Sub-basin

Before more gas industry activities take place in the Northern Territory, it is important to learn more about the groundwater in the region. CSIRO scientists have been studying the Cambrian Limestone Aquifer in the Beetaloo Sub-basin. The water is stored in and moves through rock called limestone that was formed 541 to 485 million years ago. The Beetaloo Sub-basin, an area of about 30,000 square kilometres south-east of Katherine, is rich in naturally occurring shale gas.

Samples and tests

CSIRO researchers tested a sample of 25 water bores to find out how much water was flowing in them and where that water came from underground. They also measured the type and amount of chemicals naturally in it, including methane gas, other hydrocarbons, salts, metals and radionuclides.

What they found

The scientists looked at some chemicals (known as environmental tracers) to find out how old the water is, how quickly it recharges from the surface and where it flows underground. They will build computer models of the water flow to learn more. The tests showed that the water is good enough for agriculture and cattle. Some bore water was good enough for people to drink under the Australian drinking water guidelines, except for three of the 25 bores, which had higher natural concentrations of radionuclides than allowed for drinking water.