

<http://www.cbc.ca/technology/story/2008/02/27/nwt-methane.html>

Scientists tapping Arctic Ocean methane as potential cleaner energy source

Last Updated: Wednesday, February 27, 2008 | 11:20 AM ET
CBC News

An international team of scientists is preparing to drill into a remote island on the edge of the Arctic Ocean, hoping to tap into a huge field of frozen methane — a potentially cleaner source of energy, they say.

The researchers, working under the banner of the Aurora Research Institute in Inuvik, N.W.T., plan to conduct 10 days of tests next month on Richards Island and the west side of Mallik Bay.

The drill site itself, where a service rig is being set up, is about 65 kilometres west of Tuktoyaktuk and 130 kilometres north of Inuvik.

About a kilometre underneath that rig is 113.3 billion cubic metres of methane, frozen in an ice-like state under about 600 metres of permafrost.

The scientists, who have been studying the Mallik methane field for the last 10 years, say they hope to extract some of that methane in gaseous form, which could be a relatively clean energy source.

"Gas hydrates are stable only under conditions of cold temperature and relatively high pressure," Scott Dallimore, a scientist with Natural Resources Canada who is leading the Mallik project, told CBC News in an interview.

"So by lowering the pressure, the gas hydrates become unstable and they change phase, from solid to gaseous phase."

The team did get gas to flow during a short test last year, but too much sediment entered the well. That will be put under control in next month's tests, project manager Doug Ashford said.

"We're using a lot of conventional oil-field, gas production technologies in kind of an unconventional manner here," he said.

"We're here to prove the concept of gas hydrate production, and we want to take the risk out of it by not doing too much experimentation with new production technologies."

The research project is being funded by the Japanese and Canadian governments. Dallimore said that while Japan has high hopes for gas hydrates as a relatively cleaner form of energy, other countries like China, India and Korea have also started exploring for methane.

"We're very much in the early days of realizing the energy potential of gas hydrates," Dallimore said. "This is the first time it's been done in the world."