

Methane Hydrate Production from Alaskan Permafrost

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Natural gas hydrates beneath the permafrost have been encountered as a nuisance by the oil and gas industry for years. Numerous drilling problems, including kicks and uncontrolled gas releases, have been documented in arctic regions by engineers working in Russia, Canada and the U.S. Information has been generated in laboratory studies pertaining to the extent, volume, chemistry and phase behavior of gas hydrates. The scientists that have studied hydrate potential agree that the potential is great -- on the North Slope of Alaska alone, it has been estimated at 590 TCF. However, little information has been obtained on physical samples taken from actual rock containing hydrates.

This project is in the first year of a three-year endeavor being sponsored by Maurer Technology, Noble Drilling, and Anadarko Petroleum, in partnership with the DOE. The purpose of the project is to build on previous & ongoing R&D in the area of onshore hydrate deposition. Plans are to identify, quantify and predict production potential for hydrates located on the North Slope of Alaska. Plans to design and implement a program to safely and economically drill, core and produce gas from arctic hydrates. The current work scope is to drill and core up to 3 wells on Anadarko leases in FY 2003 during the winter drilling season. We are also going to utilize an on-site core analysis laboratory to determine some of the physical characteristics of the hydrates and surrounding rock. We hope to tie together geology, geophysics, logs, and drilling and production data to allow reservoir models to be calibrated. Ultimately, the goal is to form an objective technical and economic evaluation of reservoir potential of Alaska hydrates.

The Anadarko team is headed by Dr. Keith Millheim, Manager - Operations, Technology & Planning.

Quarterly progress reports will be posted on the maurertechnology.com web site beginning April 1, 2002.