

Seatube Highlight: Deep-Sea Gas Hydrates

[1]

Submitted by Lincoln Hood Wed, 2013-06-26 00:00

Gas hydrates are ice-like solids composed of natural gas (mainly methane), which can be found in marine environments. To form, gas hydrates require low temperatures and/or high pressures.

Gas hydrates have been found to occur off the shore of Vancouver Island where they form hilly mounds and outcrops that have been observed with video cameras in Barkley Canyon and Clayoquot Slope, from Remotely Operated Vehicles (ROVs) and the world's first Internet operated deep-sea crawler, Wally.



Ross Chapman
[2]

Gas hydrates are important to research because they are a potential energy source and because of the role methane plays in our atmosphere. Methane is many times more efficient at trapping heat than carbon dioxide; a future mass release of this methane into the atmosphere could accelerate climate change. The release of methane from the gas hydrates has been observed but scientists want to know how much is being released, what happens when it mixes into the ocean water and how much of this methane is likely to enter the atmosphere. To answer these questions, scientists are using Wally the Crawler to monitor the changes occurring in some of the Barkley Canyon gas hydrates.

To view some of the gas hydrates have a look at Ocean Networks Canada's Seatube and search for "hydrate" or check the tree under "Location-Barkley Canyon-Hydrate_Wally." As well if you would like more information about gas hydrate related experiments and other research on Ocean Networks Canada, see the NEPTUNE Canada report [An Invitation to Science](#) [3]

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