# QUESTION AND ANSWER
(PARAPHRASED)

**Question:** Eric Hartwig (Naval Research Laboratory):

When do you need data and what type of information do you need in real time for hydrate production and seafloor control?

**Answers:**

William Maurer: When wells are drilled.

Steve Holditch: We are measuring properties continuously in the well bore as drilling is progressing, however we have not determined what combination of data (real time) is pertinent to hydrate characterization.

Eddie Cousins: Real time definition of the seafloor surface area is important to drilling locations and anchoring systems.

Emrys Jones: Any data we can get and any way we can get it.

**Question:** Carolyn Ruppel ( Georgia Tech)

Will industry go after the hydrate resource or will they go after the trapped gas and use the hydrate as a pushing vehicle?

**Answers:**

Steve Holditch: It depends upon the situation. Can we (industry) produce the free gas? We need to be able to characterize the reservoir we are dealing with so industry can optimize the product.

Emrys Jones: What will make money!

**Question:** Amos Nur (Stanford University)

Given the relatively low permeability of the sediment in which the hydrate is trapped and the sands are usually very fine grained, can this be a killer issue for hydrate production?

**Answers:**

Eddie Cousins: Not sure where most hydrates are formed, also the reservoir characterization are not fully known. There is concern from our geotechnical people as to how they may extract hydrates from this matrix. The dynamic flow of this resource is an unknown.

Steve Holditch: Every aspect of this problem is going to have to be modeled. This is why I (we) need to study the empirical aspects of hydrates.