



## questions for Plume Team from DOE

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06/04/2010 04:40 PM

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Plume Analysis Team,

I was in a meeting today with about twenty researchers at DOE who are working on the FRTG's estimate of oil leak rate. Most are doing analysis of the reservoir, but a few are doing CFD of the oil leak jets.

They had a few questions for the Plume Team:

1. Is there a drill or pipe inside the end of the riser ?
2. Is there a drill or pipe inside the riser where they cut it off near the BOP for the Top Hat?
3. What's the best number we have for the amount of gas dissolved in the oil ?

One another note, several very experienced CFD modelers have modeled the riser end jet using the CFD code Fluent with some NETL modifications for multiphase flow. They did a full multiphase flow simulation with an oil and gas mixture. The first CFD simulation assumed a total flow rate of 19,000 bpd. The jet did not penetrate much at all, nothing like we're seeing in the BP videos. In fact, some water started to flow backwards into the riser at the top of the riser outlet. They're doing a simulation now with 100,000 bpd, but it's taking a couple days to finish.

Have a nice weekend,  
Frank