On Friday night, I returned from four days in Houston, where my team of scientists and I have been monitoring the progress of the "top kill" effort and helping to design the strategies for moving forward.

We have been getting the data at the same time as BP engineers, and conducting our own independent analysis of the data so that we can verify the conclusions that BP is making at every step.

More than 350 personnel from our national laboratories have been contributing to this effort. For example, we have helped with high quality 2D side-scan sonar surveys that the industry experts have said are of the highest quality. That imaging is crucial in helping understand what is happening inside the well and how the tools are interacting with the formation.

This is an incredibly complicated technical and engineering challenge – we are attempting something that has never been done before in the Gulf.

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- [Top Kill 1 May 29th] Pumped 13,300 bbls. 16.4 ppm: 52 bhp.
- Top Kill 1 May 31st: Pumped 9,000 bbls. 16 ppm: 29 bhp.
- Top Kill 2 May 29th: Pumped 9,800 bbls. 16 ppm: 29 bhp.
- These efforts did not kill the well.
- It appears that we are not able to force mud into all of the flow paths areas that are allowing oil and gas to come up. There is also a chance that the separator does not have enough capacity. If we continue trying to force mud down, we risk damaging these further.
- So it is time to move onto the next option, which is to put a cap on top of the BOP to contain the spill and pump it to the surface.